

The Concept of Tao and of Yin/Yang: A Study on Origins and Dynamics of the Five Movements

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Abstract

In light of the impact of my previous publications on Chinese Medicine, I have undertaken this special retrospective research focusing on the concepts of Tao, Chi, and the Five Elements. Many colleagues, particularly those in the field of Western Medicine, continue to find it challenging to integrate the concepts of Tao and Chi, especially when considering their relationship to the Five Elements of Oriental Medicine and their equivalence to Euclid's Five Regular Polyhedra or Dimensional Solids. Furthermore, there are additional advanced areas of knowledge, such as their integrative connection with particle physics, emerging self-organizing systems, and nonlinear cyclic symmetry processes, which are distinctly present in ancient Chinese classical texts. I am convinced that a thorough exploration of these topics, coupled with a comparative analysis of ancestral knowledge and contemporary innovative ideas, could facilitate a comprehensive integration of diverse perspectives. This approach aims to synergistically assemble and consolidate the convergence of both cultures in a cohesive presentation.

Keywords

Tao, Chi, Five Elements Theory, Five Regular Polyhedra, Emerging Self, Organization systems, Nonlinear Cyclic Symmetry Processes

1. Introduction

In light of the impact of my previous publications on Chinese Medicine, I have

undertaken this special retrospective research focusing on the concepts of Tao, Chi, and the Five Elements. Many colleagues, particularly those in the field of Western Medicine, continue to find it challenging to integrate the concepts of Tao and Chi, especially when considering their relationship to the Five Elements of Oriental Medicine and their equivalence to Euclid's Five Regular Polyhedra or Dimensional Solids. Furthermore, there are additional advanced areas of knowledge, such as their integrative connection with particle physics, emerging self-organizing systems, and nonlinear cyclic symmetry processes, which are distinctly present in ancient Chinese classical texts.

Among the most widely read books in the history of humanity, following the Bible and Don Quixote, is Euclid's "**Elements**." From Galileo to Leonardo, from Spinoza to Newton, none of them would have even imagined not using these foundational bases for their scientific knowledge. The breakthrough of this work is to consolidate the idea that Chinese Medicine is fundamentally supported by an exact science. Furthermore, there are additional advanced areas of knowledge, such as their integrative connection with particle physics, emerging self-organizing systems, and nonlinear cyclic symmetry processes, which are distinctly present in ancient Chinese classical texts.

Throughout the responses I have yet to write, we will find many—more than mere equivalences—coincidences, much like those that occurred at the inception of both Eastern and Western Medicine, both nourished by the same paradigms.

I am profoundly convinced that a thorough exploration of these topics, coupled with a comparative analysis of ancestral knowledge and contemporary innovative ideas, could facilitate a comprehensive integration of diverse perspectives. This approach aims to synergistically assemble and consolidate the convergence of both cultures in a cohesive presentation.

2. Materials

2.1. Tao and Chaos (Inchauspe, 2021d)

"There is something previous to Heaven and Earth, formless, fundamentally silent; it is the master of all forms, it does not disappear with the season. Tell me, What is it? Do you know it? If you know it, the whole Universe and everything else becomes luminously clear. If you do not, as soon as you face things, you are unable to change them." Tao-Wu-chen (1025-1060) (Cleary, 1998b)

In quite a concise and brief way, we may say that Tao is the origin of everything that exists in the Universe, both known and unknown. The *Tao Te Ching*—another rather "concise" work for: according to Estanislao Julien, its original version consisted only of 5000 ideograms—is, without doubt, the core of the Taoist doctrine. Right from the first chapter, Lao Tse starts weaving his plot on the origins of Existence:

"Dao (Tao) is the most mysterious of mysteries and the (origin) door to every marvelous thing." (Lao Tsé, 2008b).

His initial explanation was not without mystery itself, establishing in just a few

lines its close relationship with the **Vacuum** from the obscure beginnings of the Universe:

*“Even before Heaven and Earth, there already existed an inexpressible being. It is a **vacuum being**, and silent, free. It can be found everywhere and it is inexhaustible. It may be the Mother of the Universe. I do not know its name, I have called it **Tao**”* (Lao Tsé, 2008b).

The passage above sums up the basic idea Lao Tse has: Dao (Tao) is the absolute responsible one for Creation.

Curiously enough, I discovered that **Tao** and **Chaos** are, by chance—at least, in Spanish—homophones. For David Bohm, the term **Cosmos** means “complete order”, whereas **Chaos** is exactly the opposite. Juan Chiesa provided an interesting explanation of **Chaos and its identification with Disorder**. The Argentine philosopher stated this issue in almost homonymous terms, adding to it also the concept of “*confusion*”, even historically “dragging it” to its Biblical entry: “*In the beginning, everything was chaos and confusion...*” (Inchauspe, 2021d).

Right away, Chiesa breaks the term down for us so that we may more fully understand it **con-fusion** which, in fact, means the “*fusion of different elements*”. Thus, there exist more than simply semantic reasons to relate, not merely from *I-Ching*, but from the Biblical *Genesis* as well, the initially intricate conception between the Creation and the **Elements**, as proposed by Chinese Cosmogony.

For Leucippus—tutor to Democritus—**Chaos** is the “*vacuum*” in which Spirit and Matter lay latent. As “*Nature abhors of void spaces*”, Democritus understood such “*vacuum*” not as an “empty space” but as a Peripatetic principle that sheltered the atoms of primordial elements making up the Whole. However, for pre-Socratic philosopher Anaxagoras, **Chaos** was pretty much... “*an amorphous and balanced entity, out of which emerged an ordered Universe...*” (Inchauspe, 2021d).

However, if we focus on the **Vacuum** approach that this inspired **Tao** master left us in his book, the main notion to transmit was that, even though **Wu ji (Void)** could derive in any of the two primary polarities (Yin/Yang), such variation could also be produced in both directions either in alternative or simultaneously (i.e., in a reversible way) in order to end up converging and unifying once again in the **original Wu ji**; a kind of “*Chinese brother*” of Nothingness. That is why Lao Tse also states in the first chapter of the *Tao Te Ching*:

“Nothingness (Wu ji) is the beginning of the Previous Heaven...”; “To always remain in the Nothingness so as to observe the wonders [of Nature]. To always have it so as to observe the return (recycling)”—as in the law governing pendulums, I would add—of millions of objects” (Lao Tsé 2008b).

To sum up, Lao Tse wants to tell us that “*from Nothingness, Tao transforms into something*” (let us check the Theory of the Empty Set), and also that “*... from something it transforms into Nothingness*” (Lao Tsé, 2008b).

The **Chaos theory** emerges out of the impossibility of Classical Physics to predict such (chaotic) phenomena, to determine them through its laws, and to consider that no perfect *Universal Order* can be established but by means of non-

linear mathematical systems (i.e., not rigid and emergent ones), thus adapting to change in order to keep its stability. In this way, such *complex non-linear systems* enable us to explain a certain performance flexibility in both biological and material processes which, following Augusto Pagán León, grants them such property of adaptability by “self-compensation”, in turn always fed by means—of positive feedbacks (Inchauspe, 2021d).

We might agree with Bohm that, if the Universe is the result of a non-linear succession of “*implied and super-implied orders*”, then the Cosmos could be a very complex non-structured program receiving random, spontaneous information and that such “**no correlative**” **interaction** would perhaps be the one that allows its evolution through time. Following Bohm—and in reference to Particle Physics—such phenomenon would lead to the so-called “*Einstein, Podolsky and Rosen paradox*” (Bohm, 2007).

Many of the current ideas about “*emerging self-organization systems*” stated by Steven Johnson, Ilya Prigogine or Paul Davies explain—be it in Physics, Chemistry or Biology—how they can emerge from **Chaos**, guiding it until **Order is reestablished** by means of such dissipating structures. These behave as “*open systems*”, whose capacity for spontaneously reestablishing their balance enables them to transform themselves into “*evolutionary models*” at different levels: e.g. Biochemical ones, Biological or Social ones and even Cosmic ones (Lorimer et al., 2007).

It is known that in human beings, **body systems are also chaotic**: there are no fixed models in them. They manage to *synchronize* when there is an input from certain system signals (video examples). Even if—as Pagán León claims when presenting **Chaos Theory in Neural Therapy**—there may be non-synchronic *initial* behaviors both at physical and thought levels, it would seem these tend to evolve in different ways towards stability. In this way, one can grasp the *relative balance of the internal medium or homeostasis* achieved by body systems, initially starting from a state of *heterostasis*. As I have also maintained for many years, this author expands his explanations on this phenomenon of the origin of the Universe to the analysis of pendular oscillations and the cardiac cycle, to cellular dynamics and their enzymatic behaviors, as well as to other emerging vital systems.

From a philosophical point of view, **Tao** is the Way to that state in which one discovers the **Absolute Truth**. Such spiritual growth in China is expressed by a colloquial phrase, “...to transform into *xianren*”, thus referring to an extraordinary person who has overcome low passions and mean desires for his/her personal profit; one who has reached the illumination of the heart to widely know the “**Way**” towards the hidden Truth. In an interesting article by Xing-Tai Li and Jia Zhao, from the Chinese Universities of Dalian and Jilin, they present an analysis of the following writing by the Yellow Emperor:

“From calmness, indifference, the **vacuum** and the not desiring that true *Qi* emerges... When the will is at rest and desires little, when the heart is at peace and

has no fear... the Whole gets all that it is looking for” (Li & Zhao 2011).

This substance constitutes the Universe, our planet and its main inhabitant as well: mankind and for that reason, *Chinese Traditional Medicine has its base in the understanding of Qi acting on all the vital activities of human beings*, as well as on laws governing the world and Cosmos.

In this way, **Chaos** presents us with a situation made up of a wide range of variables—multiple and complex ones—that allow us to precisely define it as *the most complex of all orders*, whose logic (existing among its crammed motives) almost nobody can ever deduce through simple methods.

As we shall see later, the Chinese wisely knew how to amalgamate Taoist teachings, inspiring them to enunciate their **Five Elements** and their constant and perennial inter-transformations. Such a notion is the one I see reflected in the relationship that Sagan and Schneider deduce, showing such “comings and goings” **from and towards Chaos**, which also imply a perpetual cycle of generation and destruction that enables that which has been created to keep in constant evolution.

2.2. Chi in Chinese Cosmogony (Inchauspe, 2021f)

“The vital force is something that bears an end in itself” (Driesch, 1909, Philosophie des Organischen).

To start to talk about **Chi** (or **Qi**) merely as “vital energy” would be to invite the reader to listen to an almost inaudible mystical whispering. That is why, I find it valuable to start this section with the citation by Joseph Needham as regards **Chi** as the consequence of the **original Vacuum**: Chi as fundament of all that exists and its countless interactions:

*“...the physical Chinese Universe was a perfectly continuous whole. **Chi**, condensed in palpable matter, had no concrete features; however,—individual objects acted and reacted with the rest objects in the world... in the form of **waves** or **vibrations** depending, in the latter, of the rhythmic alternation at all levels of the two fundamental forces, **Yin** and **Yang**. Thus, individual objects had their own **intrinsic rhythms**—and they were integrated... within the general model of global harmony.”* (Needham, 1954).

Made up of characters drawn more than 3500 years ago—in traditional Chinese: 氣—both Lao Zi and Confucius made reference to it and its development with the practice of Chi Kung (or Qi Gong in Cantonese), related to the knowledge of Yin/Yang, to the human meridians and the therapeutical plants, as the basic pillars of Chinese Medicine (Li & Zhao, 2011).

Chi’s intrinsic nature is to “flow”, showing us the notion of manifestation as a harmonious and uninterrupted, continuous vital movement. Should it not be so—e.g., stagnating and “blocking” Acupuncture meridians—it shall leave the individual exposed to deterioration in his/her health. That is why its literal translation states it as a “mood disposition”, providing every living being the quality of “vitality”. Said “vitalism” is not restricted to living beings but extends from the mi-

crocosm (i.e., from our own vital energy) to the macrocosm (**Nature's Chi** and the **universal energy of the infinite space**). This presents us with a sharp difference between a mere “technical” definition of **Chi** as **bioplasmatic electromagnetic energy**—able to be objectively and tested—in the context of moral correction and integrity which, following what Lao Tse and Hoang Ti have described as regards the Way leading to a higher and unique distillation of such energy. Precisely, it was Mencius (Men-Tseu) who also described such energy as the “*support of human morality and excellence*” (Li & Zhao 2011).

In Chapter 4 of Prof. Haixue Kuang's book *Recent Advances in Theories and Practice in Chinese Medicine*, Xi-Tan Li and Jia Zhao distinctly state both **Chi's** history and the **Chinese concept** of it. As explained in said chapter, such basic energy or **Chi conforming the Universe and everything that exists**, is, in our world, the result of the *interaction between Heaven and Earth*. Given its obvious relationship with the **Elements** that generate from it, Qi flows moving at speed along channels and collateral ones already mentioned; such attribute—coming from a **Vacuum** principle or *Absolute Yin*—started to *kinetically* manifest (i.e., in *movement*), determined then as a driving virtue, the *Yang* nature.

3. Methodological Retrospective Analysis

3.1. Vacuum and Tao (Inchauspe, 2021e)

Thus, **Tao** is that which provokes **Wu chi**—understood as “**Vacuum**”, i.e., “*without extreme or determination*”—to become Yin and Yang. In this way, Chinese philosophy acquired a model of antagonistic cosmic forces that represent opposing polarities of an aspect in the same dimension, in the dynamic balance characterizing every natural cycle.

In this way, in China, it was formally instituted that the origin of everything and every being was to find its roots in Dao, as in the **Wu-ji conversion** into Yin and Yang. What preceded this was clearly explained in chapter 51 of *Tao Te Ching*, where Lao Tse states:

“*When Dao is born, natural virtues emerge, objects acquire their form and the natural state is completed*” (Lao Tsé, 2008b).

According to this Taoist vision of the Universe, all that exists—as already stated—originates in Tao and returns to Tao. For Eva Wong, “...the process of **change or inter-transformation** [emphasis is mine] is what puts into motion the coming and going of things; and divination is one way to predict the patterns of change” (Wong, 1997).

As shall be analyzed later in, the **Wu Chi Diagram** is a symbol of the unlimited and undifferentiated quietness preceding the origin, emergence and return of existing things. Following Wong, this is how it appears when “officially published” for the first time in Chapter 28 of *Tao Te Ching*. (Figure 1)

On this specific subject, going by *I-ching* (Yi ying), we may observe that we are also told (Figure 2):

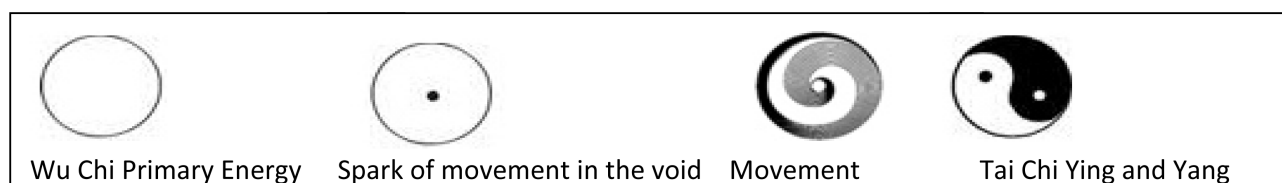


Figure 1. Origin of Tai Chi from Wu Chi (Wong, 1997).

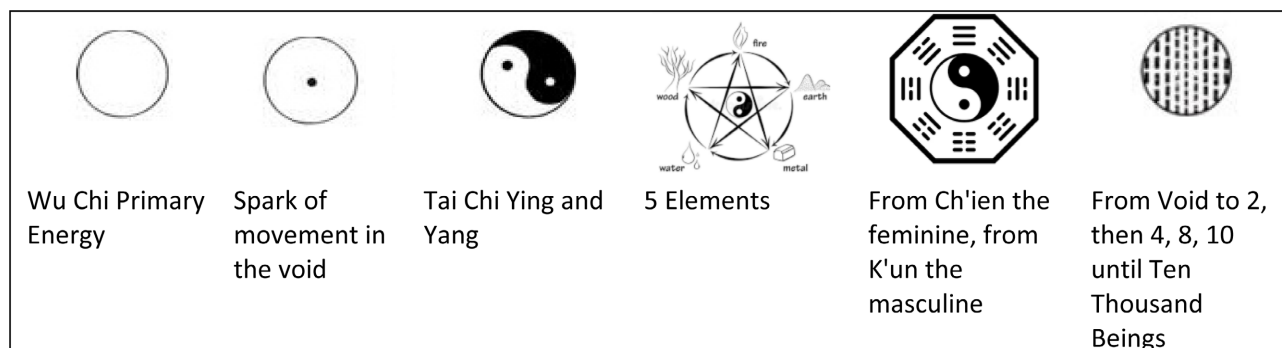


Figure 2. Origin of the Eight Trigrams to the Five Elements (Wong, 1997).

“Consequently, Yi (“change”) has Tai ji (“The Great Last One”) and in this way, it conceives the **two Polarities (Yin/Yang)**. Such Polarities produce **Four phases**; in turn, the four phases originate the Bagwa (the **Eight Trigrams**)...” and from the good or bad luck, the Great Race is created” (Wong, 1997).

It then is duly referred that, according to the Ancient Classics, by means of *Tai ji*’s influence and, starting from *Wu ji*, **two complementary polarities** are created—Yin and Yang—which then become the **Four Phases (Si Xiang)**, from the combination of which there emerged the **64 I-ching hexagrams**, and through them one can trace and interpret the natural cyclical models that occur at each moment in our Universe.

So thoroughly thought was the purpose of said venerable book—made a success through time—that the Way is no mere “*blind path*”. The Treatise includes the possibility of guessing about its future: the mysteries, the surprises and possible omens of contingencies that may take place while going along Tao.

As regards the previously mentioned *I-Ching*, Francois Cheng declared about it:

“A **binary system** that would be ternary, and a ternary system that would be a unitary one (Tao): $2 = 3$; $3 = 1$. That is the driving force, in appearance paradoxical, though constant, of Chinese thought” (Cheng, 2013).

Perhaps back then it was unnecessary to tell too much in order to understand the simple result that the generation of Opposites offers: **to create and recreate; to generate and regenerate: this is the way in which Oriental Medicine reverts disease**. One merely has to **wait for the pause of Vacuum** to know that the cycle shall once again generate and then another time... This new reference to the “**third position**”—which lies in the creating and protagonist presence of the **Vacuum** at the genesis of everything—was pretty well identified by the mystical ge-

nus Li Erh, the real name of the famous Chinese philosopher Lao Zi:

“Due to the fact that the **Intermediate Vacuum** inhabiting the pair Yin/Yang, also inhabits everything; on insufflating breath and life, it keeps them in a (constant) relationship with the **Supreme Vacuum**, allowing them to proceed to the internal transformation that ends up in the Harmonizing Unit” (Lao Tsé, 2008a).

My decades-long insistence on the comparison between the circadian balance proposed by the Law of Yin/Yang through the **analysis of pendulum oscillation**—which we shall consider later on—was not, therefore, merely casual. Wang Zong Hue, in his *The Taijiquan Classics* also interpreted something similar:

*“What is Taiji? It generates starting from Wuji and has a **pivotal function between movement and stillness** [emphasis is mine]. It is the mother of Yin and Yang. When it moves, it divides. When still, it reunifies.”* Wang, Zong-Hue—*The Taijiquan Classics* (Yang & Jwing-Ming, 2003).

Yi Zheng, a Master in Alchemy and Taoism, also left in a similar line, his subscription to his version of the **“pendular” function sense of Wu ji’s diagram**:

*“What is a circle? It is the Absolute from the Book of Changes. When the Absolute starts to move, Ying and Yang are produced. **When movement ends, Im-mobility returns** [...] and Yin is produced; **when immobility ends, movement returns**”* Yi Zheng (Cleary, 2001).

Because, going beyond the oscillation in each period, there exists this *identifiable interval*; the “suspense” we already mentioned between the reciprocal transformation between Yin and Yang. And such “**third position**” between the polarities derives into a more than theoretical concept of the **Primordial vacuum** dividing them and reunifying them in turn (let it be remembered that, for Chinese Medicine, even though energy oscillates between Zang Fu every two hours during the day, four hours are established for Yin and four hours for Yang, following the pendular movement).

This concept is also generically rendered by Eckhart when, in his essay called “*The Ring of Being*” shows us a surprising parallelism with concepts of Chinese Medicine:

*“Vases receive and contain [...] **All that exists and has opposition in itself needs a neutral state to balance and compensate** [...] All that the base receives in itself belongs to its own nature”* (Vega Esquerre, 2011).

In this statement remains implicit the need to define, together with the principles of Yin and Yang, the “**neutral state**” that conceptualizes the **principle of Intermediate Vacuum**.

In this way we may illustrate such **dynamic interaction between Yin, Yang and the “third position” referred to the Vacuum**, as a reality that conciliates such duality—in every pulse, in every beat, in each breath—governing the multifactorial metamorphosis of Yin/Yang (Inchauspe, 2017). For quite experienced Western authors—such as Eric Marié in his *Chinese Medicine Compendium*—there appears this qualitative distinction, which can be applied permanently to the two Opposing aspects which are always present within the same thing, due to the

different interactions among the following complementary principles (Marié, 2007).

- **Interdependence Principle** (*Yin Yang Hu Gen*): even though it may appear to be a competing situation, Yin and Yang are interdependent; that is, the previous condition for one is that it shall give room for the existence of the other. For example, without the Yin, the Yang cannot be conceived and, without the Yang, Yin shall be rendered unable to be transformed.

- **Principle of Opposition or Duality** (*Yin Yang Dui Li*) of every known phenomenon, that in itself contains conflicting natures though—in spite of their being subjected to their natural antagonism—end up complementing one another towards a mutual cyclical balance.

- **Contradiction or Growth/Reduction Principle** (*Yin Yang Xiao Zhang*): the continuous activity of Yin and Yang reveals a permanent change. The dynamic alternation between the two implies the growth of one and the simultaneous and proportional reduction of the other.

- **Subdivision Principle** (*Inter-divisibility and relativity*): a consequence derived from the previous principle shows a dramatic contrast between opposites which results in an extreme or exaggerated condition for such oppositions; as for example, when stating “*Extreme cold produces heat; extreme heat transforms into cold.*”

- **Inter-transformation or Intercompensability Principle** (*Yin Yang Zhuan Hua*): also a consequence of the previous one, it is understood as the capacity of changing the aspect of one same thing into its opposite. It sums up the intrinsic balance between Yin and Yang, which is capable of totally mutating to their opposite extreme. This implies—as the second entry states—the **compensation by complementarity of Opposites**. The loss of such capacity of *oscilanting adaptation* is what shall result in a **state of disease**.

Somehow, all that has previously been exposed patently shows the **Alternation Principle**, in which the extension of the analysis of the previous phase implies understanding that the Universe *is in constant movement*; that is, *nothing remains fixed*. Thus, there exists a reciprocal balance between mutual Generation and Control, which enables the natural regulation of Opposites by means of its Dynamic Balance, emulating yet again a **Pendular Cycle**.

As regards the configuration of the Universe surrounding us, we can appreciate once more—based on the interrelations among the **Five Principles** introduced above—that Ancient Chinese devised them as a theoretical abstraction that links everything that lives through the **Dynamic Balance** that we already mentioned and their continuous mutation: from their mutual generation to its reciprocal control.

Then we shall be able to understand that the ***first movement***—the originating one and generator of the successive **Five Movements**—must have been, as already stated, necessarily of *Yang* nature; and from then onwards, all Creation—from stars and their radiations to the planets and their animate or inanimate content—started to move, then, in an exquisite balance between both celebrated polarities.

At the first level in the development of Life, reactions to **Kinesics** were codified perhaps as the most ancient hereditary programs that had to be taken into account. From then on, **Chi provided cohesion and meaning to every movement**, be it that of planetary orbits, seasonal periods, human energetic circles (such as those established in Acupuncture meridians), neuro-endocrine and vital cycles; as well as those atomic orbitals and sub-atomic ones (Inchauspe, 2017).

Then, under a successful and persistent verification throughout millions of years, Life took advantage of such **Kinesics** in order to support this particular form of learning in order to make its chromosomic memory grow. That is why I claim, together with Shinagawa that *Chi provides patterns of information to everything that was created, in such a way that enables self-perpetuation through time* (Kiang, 1990).

As regards this kind of human energy—according to Chinese Medicine—*congenital Chuen Yang* is received from our parents as from birth and it shall mutate along life progresses in time. Thus, *congenital Jing*—understood as the strength that shall enable humankind its development in life—shall be reinforced with the *acquired Jing*, which shall provide it with the sexual desire to drive it to originate a new being. *Congenital Chi* from our parents shall grow—from our very first breath—adding it to the *acquired Chi* that we shall sustain through our breathing and our diet, the refined products of which are Qi and Xue which keep us alive (Junqing, 2001).

Lastly, *pure congenital Shen* is the **Primordial Essence** that we receive from the moment we are born. It stores in the Kidneys which—as we shall see later, contain not only the reproductive way but also the chromosomic potential of the species—shall couple with the *acquired Shen* or *Shishen*, to which inexorably shall be added the dualistic concepts characteristic of our earthly life: desires, distractions, passions, ambitions, rivalries and contradictions (Junqing, 2001).

By way of final comment to this section, it can be said that humankind is also the result of this interaction between Yin and Yang, as well as among the Five Elements. We should then try to transform ourselves in order to become the **harmony between Heaven and Earth**, rather than in the conflict for changing such powerful energies. That is why, Xing-Tai Li and Jia Zhao claim that each human being depends on the management of this continuous “energetic exchange” in order to reach an adequate growth, development and maintenance of his/her homeostasis (Zi & Jia, 2011).

3.2. Taoist Cosmology: Wu Chi and T'ai Chi (Inchauspe, 2021h)

By means of the trigrams for “Father” and “Mother”—**Ch'ien** and **K'un**—everything in the Universe was created from the **Five Elements**, which resulted from the interaction of complementary *Opposing pairs*—stated by I-Ching.

The Eight Trigrams or Pa K'ua (Inchauspe, 2021i)

If we have a look at the T'ai Chi diagram we may understand how *Yin* and *Yang* interact in each of the manifestations presented and thus understand how the

Eight Trigrams or Pa K'ua are generated.

These are the Conditions of the **Four Norms** to form the Eight Trigrams:

- “That Heaven and Earth are positioned”;
- “That Fire and Water do not coincide”;
- “That Wind and Thunder are weak one to the other”;
- “That the Lake and the Mountain are connected by means of Qi”.

Shaping up the Pa K'ua since its ideograms (Figure 3):

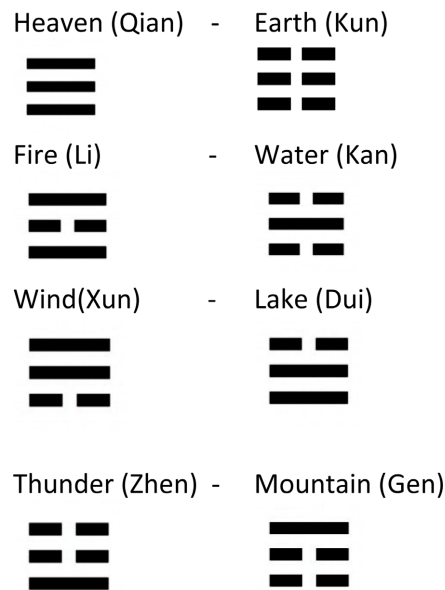


Figure 3. The symbols of the eight trigrams.

Thus, Trigrams trace their course, alternating one Yin and another Yang in their natural sequences.

So, two forms are identified: The **Front Heaven**—which describes *the nature of things*—and the **Back Heaven**—which describes *the nature of transformations* (see Figure 4 and Figure 5). Each of them refers to the “Undifferentiated State” or the “State of Existence” of things, respectively (Wong, 1997).



Figure 4. Pa K'ua: Sequence for “Former (Anterior) Heaven”.



Figure 5. Pa K'ua: Sequence for “Later (Posterior) Heaven”.

By means of the “Father” and “Mother” trigrams—Ch’ien and K’un; Heaven and Earth—everything in the Universe was created from the **Five Elements**—which resulted from the interaction of complementary Opposing pairs stated by I-Ching. Thus, the **Eight Trigrams** and the **Five Elements** are centered following the cardinal points, grouped in turn into **64 Hexagrams**, the positions of which move following the daily, monthly and annual cycles of each season (Inchauspe, 2021i).

Ordered according to the **Eight Directions** possible—plus its center—are described the *Nine Palaces of the Back Cycle* (see **Figure 6**). They represent “*the scheme of the energy moving through the Universe*”.

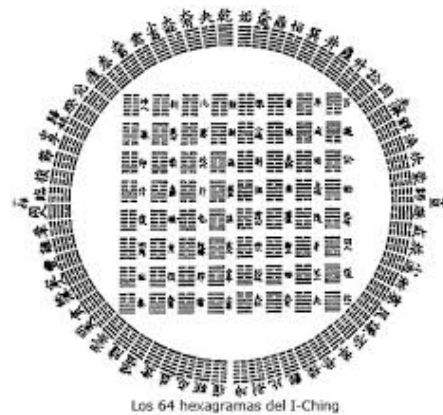


Figure 6. I-Ching hexagrams in a regular and circular setting (Dreamsidhe, 2020).

Each Element is, in this way, related to its complementary one in the **Generative (Cheng)** or in the Destructive or **Inhibitory (Ko)** Cycle. These two cycles established in the Creation are the ones which describe the nature of changes and how humankind can influence the flow of those cycles. In fact, *humans shall not be able to prevent the outcomes deriving from such events, though they shall be better prepared to overcome them conveniently*. As Wong rightly states about such changes:

“They are produced naturally not being (in themselves) either good or bad. Due

to their being constant, **changes cannot be predetermined**; however, if we understand their nature, we shall be able to modify the possibilities by means of our own actions” (Wong, 1997).

Precisely, the **solenoid referred to in the T'ai Chi Tu** exactly shows the course of occurrence of natural phenomena with respect to their Yin or Yang aspects. Being formed of **polarities that in turn contain its opposite within them**, enables the graphic manifestation not only of the inter-transformation among them, but also the complementarity of phenomena inscribed in this image if the chronobiological energetic wave.

In quoted diagram, the **Eight Trigrams** and the **Five Elements** appear centered following the cardinal points, grouped in turn, into 64 hexagrams positions of which move according to daily, monthly and annual cycles of each season. In this way, each **Element** remains related to its complementary one in the **Generative (Cheng) Cycle** or in the **Destructive or Inhibitory (Ko) cycle**. Precisely, those cycles established in the Creation are those describing the nature of changes and how mankind can exert its influence on the occurrence of such **cycles**.

Following the Taoist view of the Universe, all that exists originates in Tao and returns to it. For Eva Wong, the process of **change or inter-transformation** is the one that sets into motion the coming and going of things; divination being one of the forms to predict the future thanks to the guidelines of said “*pendular change*”. Her interpretation can be read in the *Hua Hu Ching* as follows:

“The non-created can create and recreate, and what is not transformed can be transformed and transform again. What is created cannot prevent being itself and what is transformed cannot prevent transforming itself [the emphasis is mine]. This means that there is no time or space without the production or transformation of things in themselves. This is the demonstration of Yin and Yang, metaphorically expressed in the balance of Pan Kou’s axe.” (Ni, 2001).

These guidelines of the process of entering into existence and returning to the Tao’s Vacuum is what the **Wu Chi diagram** expresses; in it, Creation and Dissolution take place permanently and simultaneously. **Wu Chi** diagram, though apparently a symbol guiding the limitless and undifferentiated quietness previous to the origin, also implies “*the accumulation of reserve energy*”. As occurring when, after auscultating the silence in between each beat, the “*in waiting interval*” is a relative pause; this “**Intermediate Vacuum**” (“**the third position**”) preceding an exceptional evolutionary dynamic, inexorably generating a future birth, disappearance and return of all existing things.

According to Riedl, establishing limits in the similarities leads to a clearly artificial or unimaginable result; in his own words:

“The natural object of our perception always encloses such quantity of magnitudes capable of being grabbed that the number of limits competing among themselves becomes inestimable” (Riedl, 1983).

Within the resulting Creation, identification and inclusion of the Opposites in the ambivalence subject-object and the bilaterality of causes—for the West, with

uncertain principles—were not part of how we understood the world but “*rather two half explanations and “...due to their pretentions of truth, two half-truths started to form as basis for two incompatible ideologies* (Riedl, 1983).

That is: while in the West, the *divorce* between the sciences of the spirit and the sciences of the matter had taken place, the Orient remained unscathed, overcoming such pedagogic-cultural utopia, precisely “**oriented**” by millennial certain, eternal principles, solidly indivisible from their roots with their purest reality of our universe.

3.3. Wu Chi, T'ai Chi and the Yin/Yang (Inchauspe, 2021a)

“*Tao does not exist within any time or place but is everywhere and at every moment, now. From the developed perception of the vision of the Whole, the first divisions of the manifestation of the Subtle were called Yin and Yang...*” (Ni, 2001).

Chinese philosophy matured under an essential general concept ruled by two basic essential laws:

- **The Yin/Yang Theory**
- **The Five Elements Theory**

According to Professor Pablo Taubin—founder of the Argentinian Acupuncture Society towards 1955—following this ancient Oriental philosophy:

“[...] *man—energetic compendium of the Universe—is a microcosm subjected to laws of macrocosm which depend on the action of two essential forces, opposing and complementary ones, determining the quality of things and events which, per se, constitute a whole, possess confirmatory properties which, together, become only the bipolar condition of the primary cosmic energy called Qi*” (Inchauspe, 2016).

In fact, Professor Taubin was but providing conceptual basis to the inexorable reciprocal need between this “*Pair of Opposites*” and their most intricate complementarity. Such Contrasts, universally known as **Yin** (“*that which is nebulous*”; “*that which is obscure*”; “*that which is flexible*”) and the **Yang** (“*that which is brilliant*”; “*that which is firm*”; or “*banners flaming under the sun*”) appear for the first time in the “*Great Comment*” of the **I-Ching** and caused a revolution in Chinese thought, especially in the transition between the Tsin and Han dynasties.

Millennia before Fu Hsi stated: “*Each movement generated in the Universe is owed to the **union of Ying and Yang***”. These two basic and fundamental energies shall give rise to the symbols that shall form part of the **Eight Ways** or **Trigrams** which also symbolize the Marvellous Vessels of Chinese Medicine, thus determining the constant sequential alternation of all existing processes in living beings. From this, another famous quotation by Fu Hsi:

“*The secrets and mysteries of existence are to be found in the movement of Trigrams*” (Padilla Corral, 1999).

Maybe here, on suggesting induction to go from the particular to the general is to propose the **semiotic paradigm** in order to solve the “*absurd unknown*” (and

here, the adjective is not used to mean lack of truthfulness or incongruence, but to the “*retroductive*” nature of the issue). The risk remains of overdoing the particular characteristics, overcharging even more the conflict. On this issue, Maturana and Varela express:

“[...] *it is from this process of human interactions that **incompatible divergencies** inevitably emerge: why is that so? How come these are not absorbed naturally? [...] and yet, there is no concern about knowing which is the learning process that produces the **fierce divergency** [my emphasis]*” (Maturana & Varela, 1989).

For this reason, in chapter five of **Su Wen** (“The *Great Treatise on the Yin-Yang Classification of Natural Phenomena*”), the Yellow Emperor presents “...*the Great Scheme of Everything ... the principle of Birth and of Destruction*”, organizing in a hierarchy the immense power resulting from the **interaction between the Energies of Heaven and Earth** and its powerful influence on the health of human beings:

“*Thus, disease is caused by the **inversion of Yin and Yang**... That is why, it is clear that Yang is Heaven and the dark Yin is the Earth; the energy of Earth ascends to become clouds and the energy from Heaven descends to become rain; rain is generated by the energy of the Earth and the clouds are generated by the energy of Heaven... the clear Yang starts through the pores, and the dark Yin flows to the Five Viscera; the clear Yang provides strength to the four limbs; the obscure Yin returns to the Six Entrails... The water is Yin; fire is Yang...*” (Hoang Ti, 2009c).

This interrelation also “*harmonized*”—in Riedl’s terms—the Oriental man with the environment that surrounded him. Let us find a typical example to illustrate such intricate “*sequential integration of valuations*”:

“*The West corresponds to the Dryness of Heaven, corresponds to the Metal on Earth, corresponds to the skin and hair of the human body, corresponds to the lungs in the Viscera, corresponds to white in colors, corresponds to Shang among sounds, corresponds to crying among voices, corresponds to coughing in the changes, corresponds to the nose among openings; corresponds to acrid among flavors, corresponds to sorrow among emotions*”; “*Sorrow is prejudicial to the lungs, and happiness can win over sorrow, Heat is prejudicial to skin and hair, and Cold can win over Heat; acrid is prejudicial to skin and hair, and bitterness can win over acrid*” (Hoang Ti, 2009c).

In their search, the Chinese managed to generate a vast amount of inventions thanks to a positive visualization of relating and integrative coincidences, with a view to being able to associate them to effectively control them. According to Riedl, such reasoning “*makes homogeneous*” the meaning of concepts and their subsequent applications. Historically, this was made clearly evident in Oriental Medicine:

“*If Yin predominates, Yang shall get sick; if Yang predominates, Yin shall get sick. The predominance of Yang shall produce fever (Heat) and the predominance of Yin shall produce Cold... This means that the physical form was damaged First*

and then Energy wad’ (Hoang Ti, 2009c).

Another quote as regards the Chinese Medicine canon shall clarify even more the *intrinsic relationships between Yin and Yang* no longer just within the subject or his/her human relationships but as part of the influence on him/her from their environment; that is: from a cosmic model capable of establishing its vital biology:

“The Yin rules the organs, the Yang the entrails. Ying absorbs the energy from the Heaven. Yang absorbs the energy from the Five Organs. That is why, when everything disperses, one pierces before energy circulation, whereas, when toning up, one follows the flow of energy circulation. This form of piercing enables energy normalization”. (Hoang Ti, 2009b).

3.4. T'ai Chi: The Diagram That Comes from the Vacuum (Inchauspe, 2021j)

“Everything that exists in a place finds it complimentary in the opposite” Fu Hsi

The **T'ai Chi diagram** is widely and globally renowned. No doubt, such universal philosophical concept has had a key influence in the development of balance and harmony not only in Chinese civilization but—as it has already been expressed—on other mystical, religious, political movements, besides Oriental Fine and Martial (Inchauspe, 2021j).

Of varied composition, depending on the place in the Orient we may refer to, in general, the diagram presents a typical style, as presented in classical drawings (Figure 7):



Figure 7. Yin and Yang being born out of Wuchi (PNGWing, 2017).

In its beginnings, the original idea of **Primordial Vacuum** or *Wu Chi* was represented by a *circle* as an initial basis for everything that exists (a curious parallelism with the limitations presented about “*empty set*”). From there, the *Primordial One* manifests with a division within said circle; a separation between Light and Shadow; between up and down; between space and time... in short, springing the conciliatory duality implicit in Yin and Yang, not an everlasting dichotomical consciousness of the Western world, “in tension” between opposing forces.

There exist several different representations of Tao even in China. Nowadays,

we know very little about this famous symbol. The design, originated by **Wei Bo Yang** from the Posterior Han Dynasty (25-221 A.D.) as a “*didactic tool*” to promote the visual learning of the Universal Laws, it is believed to have been finished by **Chen Xi Yi**, an ophthalmologist and renowned Taoist scholar from the Song Dynasty (960-1126 A.D.) (Liao, Lee, & Ng, 1974).

“If we look at the diagram from the left, the predominance is Yang-Yin-Yang, while the right half manifests the opposite (Yin-Yang-Yin). In this way, when one understands how Yin and Yang interact in each of the manifestations presented, we shall understand how the **Eight Trigrams** or **Pa K’ua** originate” (Wong, 1997).

According to Stefan Jaeger, author of the second chapter of the book *Recent Advances in Theory and Practice in Chinese Medicine* entitled: “**A Geomedical Approach to Chinese Medicine: The Origin of the Yin-Yang Symbol**”, it seems this diagram—called *Xiantian Tajjitu*—was created by the ancient Chinese to trace the course of Yang, i.e., of solar light, during daytime, of course. This author considers that such delimitation was made during the seasonal periods between the winter and summer solstices, as shown in **Figure 8** (Jaeger, 2011).

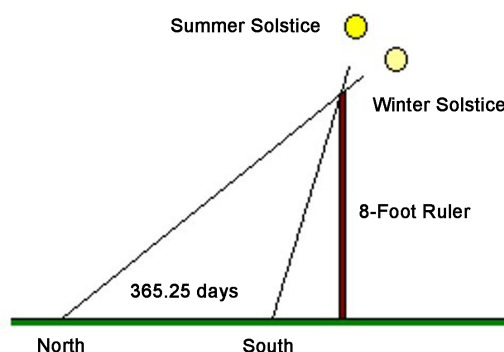


Figure 8. Demarcation of Yang’s annual course (sunlight) (Inchauspe, 2018a).

It is quite possible—according to Jaeger—that the diagram results from visual evidence produced by the changes and rotations of the shadow of a pole exposed to sunlight throughout the year, starting with the white part or Yang at the beginning of the winter solstice, and the dark one or Yin at the onset of the summer solstice. What seems interesting about this difference is that it helps us understand the practical idea of the daily fluctuation of solar energy.

What has previously been stated is closely linked to the current notion of “**circadian cycle**”. The origins of the chrono-biological cycle seem to be destined—as we shall consider later on—to protect DNA replication from ultraviolet radiation, which runs high during daytime, relegating such function to the moments of darkness. In eukaryotic organisms, this would be the form to regulate their circadian rhythms, thus determining sleep or brain activity patterns, as well as hormonal axes and cell regeneration.

Even though Jaeger developed the interesting theory of the “*shadow model*” in **Tai Ji Tu** and speculated on the application of complex formulae to make his designs, there is no to this day—paradoxically—a “clear evidence” on the theoretical

basis of *Yin demarcation*; that is to say, the predominance twilight/shadow. We could say that the wavy part of the semicircle that was missing could have been made straight away “*by exclusion*”; that is, a “*negative image*” of Yang’s course. That notwithstanding, in the first part of his book, Su Wen, in Chapter 9 entitled: “*Of the Six Cycles and the Organic Manifestations*”, Hoang Ti claims that there are **Five Elements** which take turns to rule along the year in order to complete a seasonal strategy, based on the circulation of the Sun and the Moon, with a citation which, I believe, may “*clearly*” help us understand:

“*The Heaven is Yang, the Earth is Yin; the Sun is Yan and the Moon is Yin*” (Hoang Ti, 2009e).

However, it may also have happened that, as in the past it was decided to precisely trace the course of sunlight, they might also—in my opinion—have tried to do exactly the same with the *demarcation of the lunar reflection*, a situation similar to the Yin concept, according to Chinese Medicine (see Figure 9). Such speculation suggests that ancient Chinese may have also designed the Yin part from the moonlight, which they considered to be the feminine aspect of light (let us be reminded that the Chinese Year is determined by lunar phases). In this way, they could have also *defined the line of brightness of the full moons for the opposite period of the year*, that is: from the summer solstice to the winter solstice, or perhaps during the equinox. In any case, this last concept is merely an assumption of mine to somehow “complete”, the tracing of both polarities. No doubt, **T’ai ji tu** is a symbol that continues to the origin situation of Wu Chi, it is the “*Great Last One*” or T’ai Chi.

“*If Wu Chi is silence and stillness, T’ai Chi is change*”, says Wong; additionally, the book invites us to go back to the most ancient and archetypical image of T’ai Chi, schematized by concentric circles—half Yin and half Yang—by way of justification for the **Chinese Theory of the Elements**.

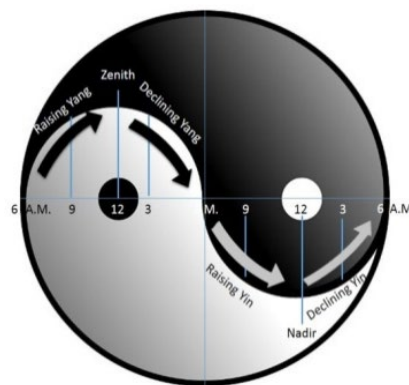


Figure 9. Drawing of “The Four Phases of the Day” (Sussmann, 2003).

Each circle describes a “*moment*” of change and the “*transitional metamorphosis*” of Creation—from Yin to Yang—or its return to it—from Yang to Yin—and has three circular manifestations. The “*internal circle*” is the ancient Yang and Yin; the “*middle circle*” is the major Yang and Yin and the “*external circle*,” the

minor Yang and Yin.

The sinuous dividing line between Yin and Yang generally appears in vertical position in the general orientation of the Tao diagram; however, for me, it is necessary in order to interpret the “**chrono-biological**” effect of light—as well as that of twilight or the darkness throughout the day—it becomes more understandable if the diagram is appreciated in a “*laying down position*”, that is, with its demarcating limit in horizontal state (see again **Figure 9**) which enables us to locate the Yang above it, showing in the Way, the course of sunlight in a more didactic scheme of “*Phoebus’ luminous course*” during the day (Inchauspe, 2018a).

As is probably well-known, the Yin ideogram makes reference to the dark side—or the “shadow”—of the mountain whereas its counterpart, Yang, represents in its etymologic reality “*banners fluttering in the Sun*”. In the same way that Garnier Malet explained in the 20th century, Lao Tse and Confucius established that:

“[...] *the relationship between that which is visible and that which is invisible, that is, between what takes place at the macrophysic or visible level becomes the full expression of what inhabits in the infinitesimal or invisible; between the macrocosm and the microcosm; between the soul and the event at the moment*” (Jacoby, 2006).

In its origins, this drawing illustrates the changes produced during the daily course of solar energy. From the early hours—well before dawn (in fact, from the second initial of the day after the passing of midnight)—*Yang elevation* has begun: let us say that, within the maximum Yin, young Yang is already beginning to grow. This shall reach its apex during the zenith, a situation representing the *Yang within Yang*. From the very peak, it shall begin to decline from its height: *Yin in the Yang* has appeared. Sunset announces the beginning of the night: *Yin within Yin* grows until it reaches the *supreme Yin*, exactly the midnight following that when the diagram was initiated. Then, in its inexorable eternal sequence, *Yang in the Yin* appears again, passing the energy towards early morning and, once again, Chinese wisdom faces us with the process of this **cycle that generates permanent changes**: from the macroscopic to the microscopic; from the cosmologic to the physiologic; from the sidereal macrophysic to the infinitesimal subatomic.

In this way, fully imbued in the everyday nature of the circadian cycle, the Chinese managed to make graphic such “*classical order*” in their lives following the **four periods** which identity during one day: dawn, midday, sunset and night, affirming in this way to know causes and consequences of such processes, as written in the *Ling Shu* chapter 40 “**Four Periods in a Day**”. It is precisely here where the Yellow Emperor made us notice that:

“*The Heart, corresponding to Fire, shall have its **aggravation time from 17 to 19**, the moment of passage of energy to the Kidneys, which correspond to Water; Fire fears Water (Kidney) because (Primordial) Water triumphs over (Imperial) Fire*” (Hoang Ti, 2009a). In this way, we get to discover that the bimodal curve of myocardial infarction, aneurysms and intestinal ischemia take place more frequently—according to my research—precisely at those hours of the day (Inchauspe,

2018a).

Afterwards, said concepts were submitted to the wise observations by the Greek naturalists such as **Aristotle** and then **Galen**, who described the periodicity of sleep; the flowering of plants; the seasonal reproduction of animals; bird migration; the hibernation of some mammals and reptiles, initially considering them as the result of a cyclical routine imposed by the environment. Some 250 years ago, the French astronomer **Jean de Mairan** discovered that circadian cycles were not only a passive response to the environment but that they originated in an endogenous source.

In 1832, **Agustin de Candolle** noticed the daily rhythm of plant cycle; but only towards the end of the 19th century, when **Aschoff, Wever and Siffre** carried out the first research on these cycles were they applied to human beings. In 1960, **Franz Halberg**, founder of Chronobiology, coined the term “*circadian*” for the study of formal biological rhythms (Inchauspe, 2018a).

I am not stating that interpreting Walter Russell is an easy task; however, his brilliant *mystical-scientific conception* proves wonderful in order to understand the *intricate nature of inter-transformation phenomena*, as illustrated in his book *Abundant Hope: The Secret of Light*. Like the Chinese—though taking a different path, no doubt a convergent one—Russell has also recorded the notion of a Universe that manifests following determined vibratory frequencies. In this way, he tries to make us understand the range of his enhanced vision (**Figure 10** & **Figure 11**):

“*The waveline is a record of the quantity of energy that is loaned from a static equator in order to express any mechanical process, such as the vibration of a harp’s chord, the pulses in an engine, the cardiogram of the heartbeats or the patterns of an earthquake*”.

Jacques Pialoux was also an author of therapeutic acupuncture who, in his own way, provided an identical movement to that of Russell’s to the former “*immobile scheme*” of **T’ai ji tu**. Let us read his words:

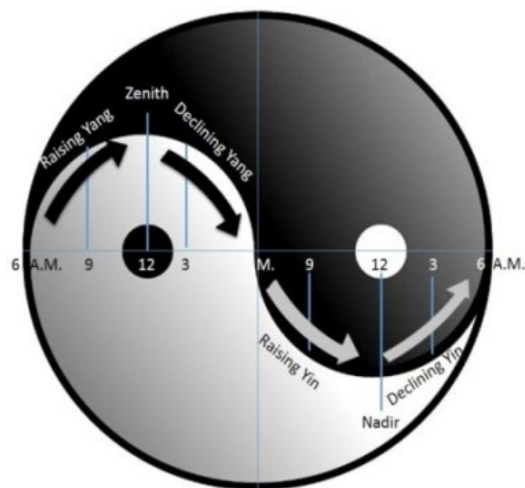
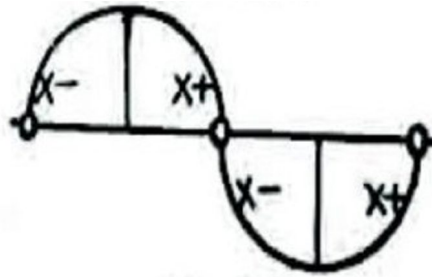


Figure 10. “The Four Phases of Day” (Inchauspe, 2018a).



A-is a credit, B-is an equal debit

Figure 11. Russell, W. “Abundant Hope—The Secret of Light” (Russell, 1994).

“Yin-Yang, continue to be the fundamental qualities of the two energies of expansion and constriction: the *centrifugal* and *centripetal* energies, once the Universe is sure of its genesis, it shall provide an outing to the Three Burners” (Pialoux, 1976).

Quite wisely, the sage Chinese managed to put into graphic form such tendencies within the **cycles of Generation (Cheng)** and of **Destruction or Inhibition (Ko)** *acting within individuals*, thus showing that—like celestial bodies—they also result from the interplay between cosmic forces that begin and end within this very eternal sequence. (Figure 12)



Figure 12. Diagram of the five elements (Fengshui-Doctrine, n.d.)

These states of predominance and interconversions of Chinese dialectics have been intercepted in the West, pretending to also express their understanding by means of, for example, the “*Scheme of Functionalism*” by Wilhelm Reich, based in the *functional dissociation of biological energy* in living beings. However, such an approach was well disputed by Dr. David Sussmann, for the primary cosmic

energy is not exclusive to living creatures but it has the capacity to act over every living thing (Sussmann, 2003).

When referring to the famous T'ai Chi Tu diagram, Schneider and Sagan express in an almost poetical way the impression such ancient drawing generates in them:

*“In abstract, the **bi-dimensional circle** represents an eternal cycle, whereas the **sinusoidal wave** represents an extended time cycle...”* [emphasis is mine] (Sheldrake, 1996).

This observation by Schneider and Sagan is indeed strange, for some time ago I managed to demonstrate—from a Scientific-Mathematical point of view—that the ancient Chinese knew perfectly well the **soliton theory** (which includes information transmission in “packages” of sinusoidal waves) that later on we shall explain in more detail (Inchauspe, 2018b).

Such deductions are the ones that undoubtedly have led me to develop a **new version of T'ai Chi Tu**, which enabled me to manage to put into graphic form their theory about the universal course of sidereal energy intricate in Tao's cosmic principles (see Figure 13). It is truly interesting to elucidate the interpretation of this **solenoid dividing the diagram into equal parts**, the number of connecting ideas that exist as regards this enigmatic scheme. For Jaeger, such interline represents the terrestrial trace of the Equator; and its variations shall mainly depend on the elliptical angle of the Earth at the time of observation (Jaeger, 2011).



Figure 13. Tao Diagram according to Adrián Inchauspe (Inchauspe, 2016).

That which in the West is merely a sign similar to that of Pisces in the Zodiac, in the Orient represents the best way to express the unbalances of all kind that may take place in situations of any nature: from biological systems to energetic ones; from those of Physics to the political or economic models in its course between “*this stubborn flow between Opposites*”.

My special interpretation of the interline is very far away from those proposed by the previous theories; I believe that the line is not so much a sinuous dividing line between Opposites but an **interphase relating them**. Should such line be extended at both ends, one would realize that they converge with the fine delimita-

tion of Yin and of Yang, continuing the curve, *marking the sense of the trajectory in each polarity*. If we aimed an arrow, one could appreciate both extensions continue in the same sense, turning the diagram until each pole takes the position of its complementary one. When providing movement to the figure, the **Inter-Transformation of Opposites** immediately emerges: the scheme stops being an immobile drawing to become alive and illustrates the “*chiaroscuro play*” that takes place on all that has been created.

The proposed scheme was presented before the authorities of Hainan Medical University (Haikou, China) and before the National Chinese Academy of Medical Sciences, at the request of their Director, Prof. Huang Hui.

3.5. Traditional Chinese Medicine and the Five Elements (Inchauspe, 2021b)

3.5.1. Vacuum and Sacred Geometry: The Books by Plato and Euclid (Inchauspe, 2021b)

Galileo Galilei, the famous astronomer, is reported to have stated when referring to the content of the famous treatise *Elements* by Euclid:

“Philosophy (Nature) is written in that great book that is always before our eyes—the Universe—but we cannot understand it if we do not learn first the language and understand the symbols in which it is written. The book is written in mathematical language and its symbols are triangles, circles and other geometrical forms, without their help it becomes impossible to understand a single word; deprived of that, one may wander hopelessly in a dark labyrinth...”

3.5.2. Euclid

“The laws of Nature are no more than God’s mathematical thoughts” (Plá, 2017).

The term *mathemata*, of Pythagorean origin, can be translated as “*that which can be learned*” and, within the classical Greek knowledge, “*that which could be learned*” was made up of a constellation of different subjects that made up the “**Seven Liberal Arts**” of Plato’s Academy (387 B.C.) in Athens (Inchauspe, 2015):

- **Quadrivium:** Arithmetic-Geometry-Astronomy and Music
- **Trivium:** Grammar-Logics-Rhetorics

According to Architas of Tarento, a renowned Pythagorean mathematician, sciences making up the **Quadrivium** provided the student with the capacity to understand—“*the order and harmony of the Universe*”. Millenia later, Schneider and Sagan show us how they themselves noticed the presence of those basic principles from the same fundamental tuning:

“There could be simple physical principles below the biological complexity [emphasis is mine], both in local ecosystems and the biosphere as a whole” (Schneider & Sagan, 2008).

According to the biographic data provided by neo-Platonic philosopher Proclus of Lycia (410-485 B.C.), who wrote his biography six centuries after his death, **Euclid** (330-275 B.C.) was an inspired and skilled mathematician who left us tran-

scendental contributions not only for the Exact Sciences but also for human knowledge in general. His posthumous work *Elements* has been compulsory reading for general culture, with literary repercussions—according to Prof. Pedro Miguel González de Urbaneja—“with a diffusion comparable to that of the Bible or *The Quixote*”. As shall be frequently repeated throughout this text, Euclid’s legacy constitutes “a perfect example of the system of axiomatic-deductive thought par excellence” (González de Urbaneja, n.d.).

Euclid was a disciple at Plato’s Academy in Athens, which he attended to gradually increase the knowledge his master had established in *Geometry*; likewise, he absorbed *Arithmetic* or “*Theory of the numbers*” from Eudoxus of Cnidus, in spite of not having been a contemporary of either mathematician philosophers (Plá, 2017).

According to Pla I Carrera, in his *Euclides: The definition of the axioms of geometry*, it is possible that Euclid gathered from his famous mentors two key mathematical concepts for the development and, later, calculus of his regular polyhedra:

- **The theory of proportion** (necessary to deduce theorems on lines and surfaces)
- **The theory of exhaustion** (theoretical basis to estimate areas and volumes of geometric solids)

He lived consumed by the enigma of the origin and formation of the *Dimensional Solids*, which he transformed into the **Five Regular Polyhedra** after his brilliant explanation by means of unquestionable geometric principles and the propositions published in his formidable work, from which brilliant minds such as that of Descartes, Newton and even Ptolomy II nurtured (Inchauspe & Arakaki, 2023).

From Books VII to X, Euclid analyzed the Geometry of these Platonic Solids; however, in Book XIII—the last and most magnificent one from *Elements*—he presented statements of unquestionable soundness to establish the **Five Regular Polyhedra**, optimizing previous work on the subject developed by Taetetus, a key figure to establish both the epistemological and methodological bases for the construction of the *Dimensional Solids* which reached their zenith in Euclid’s work (González de Urbaneja, 2017).

The wonderful work carried out by Euclid culminates in the splendid justification of proposition 465, XIII, 18, which states:

“*To build the Five Regular Polyhedra inscribed in the same sphere and to compensate the angles of the remaining figures*” (González de Urbaneja, 2017).

For that, he also stated that “*each angle shall be faced by angles smaller to right angles*”.

Thus, he started a deductive and sequential definition of said bodies, starting with the pyramid or **tetrahedron**; the **cube**; the **octahedron**; the **icosahedrons** and the **dodecahedron**, finding the reason for their angles and subsequently getting the figures corresponding to each polyhedron, in de Urbaneja’s words: “...with a most singular geometric genius”. (Figure 14)

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“...the distinction lies in the history of the structures that make them possible and, therefore, the possibility of classifying them into one or the other shall depend on having access or not to the pertinent structural history” (Maturana &

Varela, 1989).

By way of conclusion to such a vast subject, I shall transcribe the comments made by Clarence W. Dunham:

“Euclid has shown us that no logical argument can produce more of these marvelous figures, leaving us a mathematically unbeatable document for 2,300 years” (Inchauspe & Arakaki, 2023).

4. Discussion

4.1. Geometric and Dynamic Relationship between the Five Regular Polyhedrons and Traditional Chinese Medicine (Inchauspe, 2021k)

*“Life is based on the energies from the Five Elements and the Three Original Energies, that is, the energy from Heaven, the energy of the Earth and the energy transaction following the **Law of the Five Elements**”* (Hoang Ti, 2009g).

As we introduced the brilliant deductions made by Euclid as regards the **Five Regular Polyhedrons**, the Orient also explained some causes and effects of their principles by means of an interplay among the **Five Elements of Traditional Chinese Medicine (TCN)**—with identical denomination to that indicated by the Greeks more than twenty-five centuries before—based on a multi-parametric conception, supported in turn, equally by a **Fundamental Classification Theorem**. (Figure 15 & Figure 16)

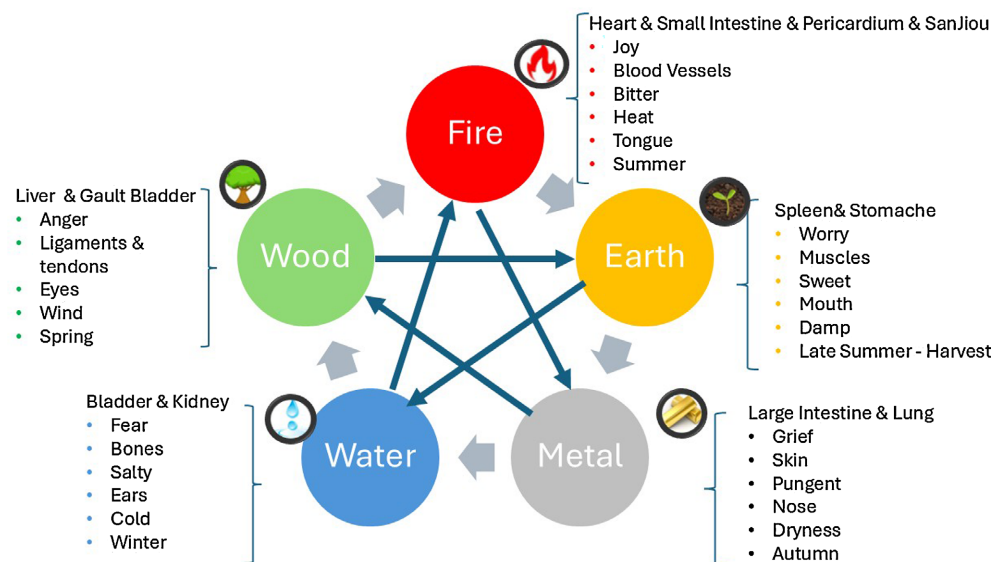


Figure 15. The five elements of Chinese medicine.



Figure 16. Euclid's Five Regular Polyhedrons (Inchauspe, 2015).

That is why, from the very onset of the research, it would have never occurred to me that the **Five Elements of Chinese Medicine** were only mere *homonyms* of Euclid's **Five Regular Polyhedrons**. Both theories were developed more than 2300 years ago, and both were subjected to a **Taxonomic Methodology**, quite possibly in “shared contact” thanks to *Geometry*, the oldest formal science on Earth. The Chinese thought of almost fifty centuries back enabled the understanding of cyclical and successive seasonal chrono-biological stages to such developed civilization, by means of their contact and through direct observation of surrounding Nature.

Even today, some find it impossible to understand the principles on which Acupuncture is based following a logical or Cartesian line of thought; maybe that is due to a cultural characteristic of the West, with its typical tendency to minimize essential concepts of Oriental Medicines because they are considered simple, empirical, metaphorical or allegorical. Anyway, the Chinese—taking into account the cosmic-terrestrial phenomena and establishing their intricate relationship with their **Five Elements**—managed to deduce their referred to *inter-transformation* in the light of their Yin and Yang theory. Such inductive-deductive observation of natural phenomena guided them towards a particular form of taking conscience and the optimization of their critical experience.

Let us illustrate this by citing again this splendid paragraph by Professor and Nobel Prize winner, Robert Laughlin:

*“Among the reasons why Physicists do not usually speak about the **collective nature of the measurement of fundamental constants** [emphasis is mine] there are the problematic implications. As long as our knowledge of the physical world depends on experimental certainty, it is logical that we associate what is true to the most exact measurements. But then, it would seem that **a collective effect may be truer than the microscopic laws by which it is (formally) ruled**” (Laughlin, 2007a).*

We have already established the comparative parameters among the Five Elements of Chinese Medicine and those exposed by Euclid's *Elements*; we shall analyze their root in the Five Dimensional Solids described in Plato's *Timaeus* (see **Figure 17**). We even went further, referring to Yin and Yang and the possible

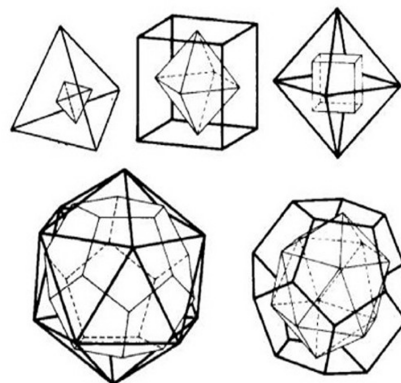


Figure 17. Mathematical Inter-transformation of the Five Regular Polyhedrons (Inchauspe & Arakaki, 2023).

applicable interactions to this qualitative distinction to the two opposing aspects forever present within one same thing or function.

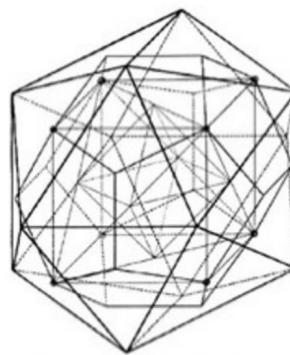
The Chinese experienced the Opposites as the manifestation in “*chiaroscuro*” of the Cosmic Unit in all its possible range of contrasts. The Opposites are abstract concepts which—though including its antonym in itself—are capable of being organized into relative categories within a supported **Taxonomic Methodology**, as we shall see, in a **Fundamental Classification Theorem**. These categories constitute the two parts of the same reality, kept within a relationship of interdependence, contradiction, inter-transformation, etc., which are already described as principles that balance each category of all that exists between their distal or extreme points.

Let us consider a strange coincidence with the Oriental theory of mutations state Schneider and Sagan in their book *La Termodinámica de la Vida*:

*“Bodies or entities considered as living derive from **complex cycles of energy transformation**, which only later developed genes [...] deep down, life must be contemplated as an issue of energetic transformation [the emphasis is mine] as of genetic replication” (Schneider & Sagan, 2008).*

The diagram of **inter-transformation within a same Polyhedron** presented by Prof. Pedro Miguel González de Urbaneja leads us to an even more interesting conclusion: Regular Polyhedrons are capable of successive inter-transformation as we saw expressed in the Chinese **Generative and Inhibitory Cycles** already presented, thus demonstrating not only the exact geometrical character of the nature of their mutations, but also that they can *inter-transform themselves, all of them within the same Polyhedron* (see **Figure 17**) containing, in turn and in itself, all the Polygons in question and their respective generated changes. (**Figure 18**)

Written by Pedro Miguel González Urbaneja, Page 6/11



The five Platonic bodies successively inscribed within each other, according to Pacioli. Illustration from M. Ghyka's work

The Golden Number, Poseidon. Barcelona, 1992, vol. 1, chap. 2, p. 51

Figure 18. Geometrical Inter-transformation (Mutations) of the Elements within the same polyhedron) (González de Urbaneja. n.d.).

In Traditional Chinese Medicine, the **Theory of the Five Elements** becomes fundamental to understanding and comprises the different syndromes (many times, combined) in relation to each one of the meridians for the **Five Organs**, and we also

find the Five Elements present within the **Five Ancient Shu Points**, the main command points to treat the pathologies present within the very channel in question.

In a scientifically neat way, Schneider and Sagan present such a synthesis of energetic convergence:

*“Life’s capacity for self-maintaining, expanding and reproducing in a world subjected to the second law of thermodynamics is a paradox that can be explained by the fact that living beings, **open systems** and dependent on the energy of light or of chemical reactions, liberate heat and other thermodynamic waste in their environment. Organisms do not acquire nor maintain their complexity in a **Vacuum** [...]”; “thus, therefore, the second law contributes to make us understand who we are and why we are here. Integrally linked to the environment from which they are separated, but from which they get the energy to grow, organisms find new ways of keeping and expanding their forms” [emphasis is mine] (Schneider & Sagan, 2008).*

It is interesting to observe the clinical integration resulting from understanding the inter-relations towards which such Mutations presented in I-Ching guide us. Let us value, for example, what Yasuyo Hijikata declares in the paragraph that follows from his chapter “*Application of the **Five Elements**’ Theory for Treating Diseases*”, specifically referring to the Generative Cycle or Cheng:

*“The relationships to generate the different viscera are well defined by the **Theory of the** [emphasis is mine]. The Kidney stores the essence and the Liver keeps and controls the blood and, through the Kidney’s essence, blood is formed in the Liver (the Kidney generates the Liver). The capacity of the Liver for storing blood and its free circulation generate the Heart to control the blood vessels (the Liver generates the Heart). The heat produced by the Heart heats the Yang Spleen. The Spleen controls the transportation (of food) [this clarification is mine] and the origin of the generated transformation of qi and blood, thus controlling the blood.*

Consequently, the Heart supports the capacity of the Spleen to control the blood (the Heart generates the Spleen). The Spleen generates the transformation of food into qi and the blood, and transports them to the Lung, thus helping the Lung to work efficiently (the Spleen generates the Lung). The Kidney controls the water, stores the essence and absorbs the qi. If the Lung’s Qi functions correctly, the Lung can regulate the way of the water and help the Kidney control the Water (the Lung generates the Water)” (Hijikata, 2011).

Similar to the theory of fractals, the **Five Elements** rule the natural seasonal changes in the subject’s environment and the dynamic interaction among them with the different meridians that each individual possesses, as well as the *physio-pathology that each energetic circuit can experience in itself and in relation to the others*, providing at every level such wonderful correspondence of the Elements proposed by Traditional Chinese Medicine.

An identical description is made by Yasuyo Hijikata in the same chapter referred to in the previous paragraph though with reference to the Inhibitory Cycle

or *Ko*. Such relationships are those most used in the book *Recent Advances in Theories and Practice in Chinese Medicine*—of which I also participate as co-author—by Prof. Haixue Kuang:

“The restriction relationships among viscera are also well-defined. The characteristics of the pulmonary function are the purification and the descending delivery (of the energetic course). Consequently, (the Lung) can restrict the Liver’s qi and (prevent) [the clarification is mine] generate the ascending hyperactivity of the Liver’s Yang (Lungs restrict the Liver). As the Liver has the capacity to freely heal, it can dissipate stagnant Qi in the Spleen (Liver restricts Spleen). The function of transportation and transformation of the Spleen helps the Kidney to control water and also to protect the overflowing of humidity from Water (Spleen restricts the Kidney). The moistening action of the Kidney restricts the progression of ‘Fire’ from Heart (Kidney restricts the Heart). The Yang heat from the Heart restricts excessive purification and the sending of the Lung downwards (the Heart restricts the Lung)” [underlining is mine] (Hijikata, 2011).

As Professor Hijikata makes as appreciate so well in this chapter, **both Generation and Inhibitory Cycles are necessary to achieve an adequate energetic body balance**. And, even though they manifest in different possible situations in this inter-relation of the **Five Elements**, they also manifest—as in the Ying and the Yang—the variations of the opposite cycle within itself. The example proposed by Prof. Hijikata is very clear in this respect:

“Wherever a viscera is functionally suppressed by the restriction of the (dominant) viscera, it simultaneously generates so that it does not become deficient or damaged. Likewise, when a viscera is supported by the (the physiology) of its generating viscera, it is also limited by the restricted viscera in such a way that (thus) it keeps a peaceful, not speedy state” (Hijikata, 2011).

What we have just written above, does it make any scientific sense? More than gibberish that makes use of specific terminology, it would seem to have a solid base of evidence (should we seek it, of course). Let me invite you to establish the following comparison between those two paragraphs in between them, almost 48 centuries of wisdom mediate:

*“That is why it is said that **Heaven and Earth are the beginning and the end of everything**, and the Yin and the Yang are male-female distinctions of energy and blood (energy being masculine and blood, feminine); that right and left are the two ways for Yin and Yang (the left one for Yang and the right one, for Yin); that Water and Fire are the symbols for Yin and Yang (Water for Yin and Fire for Yang); that the nature of Yin and Yang make them responsible for the creation of everything” (Huang Di, 2009).*

*“Another important principle for Thermodynamics is **No-Balance**, which some elevate to the category of a fourth law [...] that in the regions of energy flow, **matter describes cycles**. Such cycles, visible in natural complex structures, including the living ones, are produced when limited material resources hurry to provide a vehicle for entropy exportation” (Schneider & Sagan, 2008).*

4.2. The Historic Relationship between China and Greece as Regards the Five Elements Law (Inchauspe, 2021c)

It may seem incredible that for more than 4000 years, the Chinese have evolved their cosmogonic theory by means of **Yin/Yang** and the **Theory of the Five Elements or Movements**, as in the Traditional Chinese Medicine; and have made it clear that the harmony of our organs and our health results from a synchronized sequence of those Elements. Luckily, we can rely on the clarity of Hua-Ching Ni in order to throw light on the issue:

*“Ancient sage called the five sources the **Five Great Makers of the Universe** (Wu Hsing) and they symbolized them with five physical manifestations. **Water** represented the brute force characterized by aggregation, contraction, accumulation and condensation. **Fire** symbolized the weak force, characterized by expansion, disintegration, dispersion and dissipation. **Wood** symbolized the light force, characterized by explosion and dynamism. **Metal** symbolized heavy force, characterized by gravity. The inherent nature of these four different forces fight among them and mutually conquer one another, while the **Earth** symbolizes the united force, harmonized and neutral among them” (Ni, 2001).*

In Chapter 66 of the second part of the Chinese Medicine Treatise *Su Wen* entitled “*Schemes of Circulation of Celestial Energies*”, the following paragraph comes to our notice:

*“In Heaven there are **Five Elements** responsible for the **five directions** in the generation of Cold, of summer Heat, of Dryness, Humidity and Wind. The human body has **five viscera** to transform the **five energies** in order to generate the **five emotions**: joy, wrath, contemplation (worry), fear and dread” (Hoang Ti, 2009f).*

Not only the Orient was able to foresee the existence of such “*pearl of knowledge*”; some of our illustrious Western philosophers were also quite close to discovering it.

In their **continuous inter-transformation** through its Generative (Cheng) or Inhibitory (Ko) cycles, Yin and Yang express their possible mutations in their surroundings. We have explained before the example of how the opposite effects of Fire (capable of evaporating Water) and Water (capable in turn of extinguishing Fire) manage to co-exist as *different polarities interact within the same dimension* in a dynamic balance.

The declining of Yin and the elevation of Yang result in the *dawn* (within the daily chrono-biological cycle) or in the *Spring* (in the seasonal chrono-biological cycle). Precisely, with regard to the latter and its botanical implications, such seasonal moment or “**movement**” is identified as the Element Wood (Inchauspe, 2017) (see **Figure 19**).

Let me quote this precious paragraph by Paul Davies written in his chapter “*The cosmic program*”; when I state “precious”, I mean to weigh up its importance:

*“In fact, the very word ‘**elementary**’ implies in this case that the nature’s primary phenomena are those belonging solely to individual and irreducible objects. The **collective phenomena such as self-organization** [emphasis is mine] the pro-*

cesses of life, the turbulence of fluids, superconductivity, the conscious awareness... all those things have come to be considered purely secondary and reducible to—or derived from—primary phenomena, no need for additional principles” (Davies, 2007).

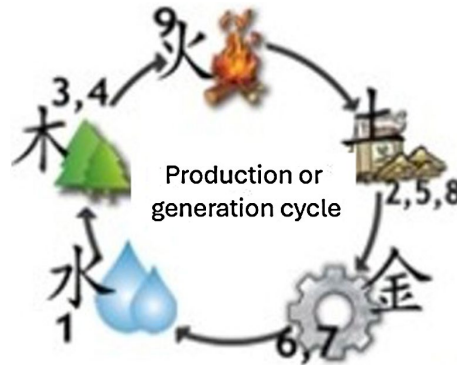


Figure 19. Generative cycle or Cheng (Inchauspe, 2017).

Contrary to the foregoing seasonal example, when Yang declines and the simultaneous emergence of Yin manifests in the *sunset* or *Autumn*—characterized by the involution of the Element Wood—classifying this step as Metal Movement, referring to the action of the axe or the scythe cutting (or destroying) flora (see **Figure 20**).



Figure 20. Inhibitory cycle (of Conflict) or Ko (Inchauspe, 2017).

The “**Fifth Element**” is Man, who attentively observes, centered from the Earth, all the mutation phenomena that take place in the Universe and around him. In this respect, Master Hua-Ching Ni illustrates to us:

*“The harmonization of the four forces creates a fifth, joint force, a T'ai Chi, which is the harmonizing force in the Universe, a common field. The ancient wise men called these five forces the **Five Great Makers of the World (Wu Hsing)**” (Ni, 2001).*

It cannot but take us by surprise the incredible similitude that exists in the knowledge acquired by the great Ancient Civilizations. In the Peloponnese, Euclid established the **Five Regular Polyhedrons** at the School of Athens, where Plato himself founded the **Dimensional Solids**; and towards the Cathay, the Chinese

had already considered the **Five Makers of the Universe**; a situation that surely fostered Zou Yen (born around 350 B.C., as Euclid) to propose the **Theory of the Five Elements** in Chinese Medicine (see **Figure 21**).

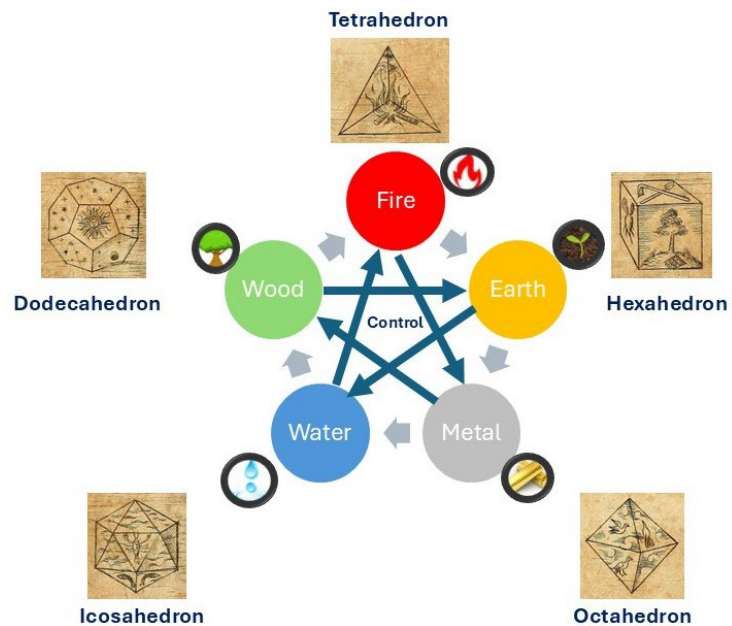


Figure 21. The Five Regular Polyhedrons and their equivalent in the Five Elements of Chinese Medicine (Inchauspe & Inchauspe, 2019).

Extrapolating those Elements, the “**Fifth Movement**”—strategically located eccentrically, making company to the others—enables the cycle to be drawn into diagram with the design of a pentagon (see drawing), a figure calculated (by sheer chance!) for the first time by Pythagoras for the Western world (see **Figure 22**).

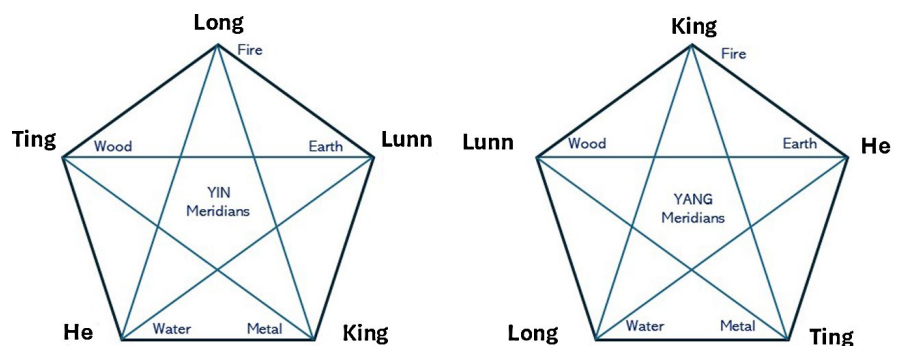


Figure 22. Illustration of the position of the Five Elements in the Yin and Yang Meridians (Sussmann, 2003).

Let us enjoy this amalgam of concepts offered by the Chinese scholar Yu Yuwu, which, besides considering the universal synthesis of the dimensions and energies already mentioned, directly implied the **Vacuum as Generator of the Five Elements**:

“When the practical cultivation arrives from breathing from the womb, then

*eight energy channels remain still and one enters a non-differentiated plenitude. This is exactly the moment of 'exchange'. The energies of the Five Elements are in the elixir field. This is called **gathering the Five Elements and combining the Four Forms**. This is called Absolute Unity which contains the real energy, this is called primordial unified energy... However, it is impossible to reach the wonders of Heaven and Earth without total Vacuum and absolute stillness [...] that which is primordial is no more than energy"* Yu Yuwu (Cleary, 1998b).

5. Conclusion

The wise Greek had already proposed the **laws for the conservation and transformation of the Elements** which ensured that certain properties remained constant in the midst of such changes. To do so, they had to determine the *arché*, that is, *the identity of the different*; the guiding principle for all phenomena (Palazzo, 2017a).

Precisely one of them, Thales of Miletus (624-543 B.C.), supposed that the origin of all things was **Water**, "*first principle*" or **original matter** out of which everything existing in nature emerged (Alemañ Berenguer, 2016). He assumed not only its creative power but also its capacity for purification, be it by means of Heat (evaporation) or by Cold (solidification or freezing) (Capanna, 2010) that is why he considered it of divine origin.

Later philosophers chose other basic principles in order to explain universal diversity: e.g., Anaximenes (590-524 B.C.), also from Miletus, was a disciple of Anaximander (who also perceived a cyclical vision of the Cosmos) and chosen as *arché*. **Air is something undetermined and undefined, invisible, unlimited and eternal, which could only originate from Nothingness** and was indispensable as "*vital breath*" (Palazzo, 2017b).

Heraclitus of Ephesus (535-475 B.C.) was, perhaps, the first Westerner who, on determining the *identity of those different*, managed to demonstrate "*the formal identity of Opposites*"; that is, that the **Paradigmatic Contraries, in fact, do not oppose** but harmoniously coincide, no dissonance whatsoever. *Arché* for Heraclitus, who, according to Diogenes Laërtius, was an obscure, melancholic and disdainful eremite, was **Fire**, as he considered it "*the witness of the Divine*" and that therefore everything derived and ended in it; that is why **it was the best Element to express the synthesis of contraries**.

Later on, Xenophanes of Colophon (580-566 B.C.), related to the School of Elea, stated that the **Earth was the beginning and the end of everything**. Following Porphyrios, considered as principles "*the wet and the dry*", i.e., **Earth** and the sea as opposites that end up "mixing". Apart from the elegies in which he described the gods and their fights against titans and centaurs, Xenophanes deduced **this transit of Elements founded in a cyclical theory**, in which multiple orders of the world took place, demystifying celestial phenomena and any inapprehensible reality as antithetical concept of what is visible (Wikipedia.org, 2025).

Prior to Euclid, Plato himself, in his Academy, presented his theory regarding

Dimensional Solids in his “**Timaeus**.” Interestingly, he described the tetrahedron as the “*origin and germ of Fire*.” It is sufficient to recall the spatial configuration of a carbon atom to validate this notion. Similarly, the Chinese regarded the Metal or Air Element as the “*mother or germ of Water*.” It is worth noting that Mendeleev struggled significantly to position Hydrogen (literally meaning “generator of Water” in Greek) before ultimately placing it at the top of his Periodic Table, at the forefront of the Alkali Metals, while it also behaves as a gas (Plá, 2017).

Quite surprisingly, thousands of kilometers away, ancient Chinese exposed, guided by Zou Yen (305-240 B.C.) a collection of Elements almost homonymous to the Greek one (the “**Air**” element could also be considered “**Metal**” [see below] to which **Wood** had been added (absent from the list by Empedocles of Agrigento though existing such as tetrahedron—atomic structure of carbon) made up the Platonic Dimensional Solids (see Figures 23-26).

Strangely enough, for the Chinese, the “**Fifth Element**” was also man, who observes from the **Earth** all that takes place around him; and it was in Greece that Aristotle added to the four Elements cited, the “**Quintessence**”, presumably referred to the bodies and celestial “beings” (which, tacitly included the human spirit). Sir Isaac Newton called it “*Ether*”, perhaps associating it with its mystical homonym “*Aether*”: according to Blavatsky, the esoteric concept of “*Father-Mother*” in ancient times. The learned English mystic stated:



Figure 23. Empedocles.

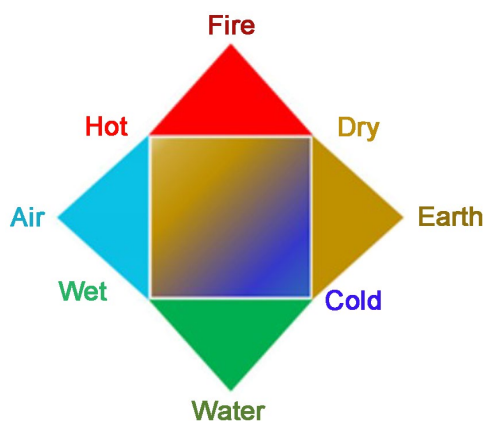


Figure 24. Empedocles's Four Elements.

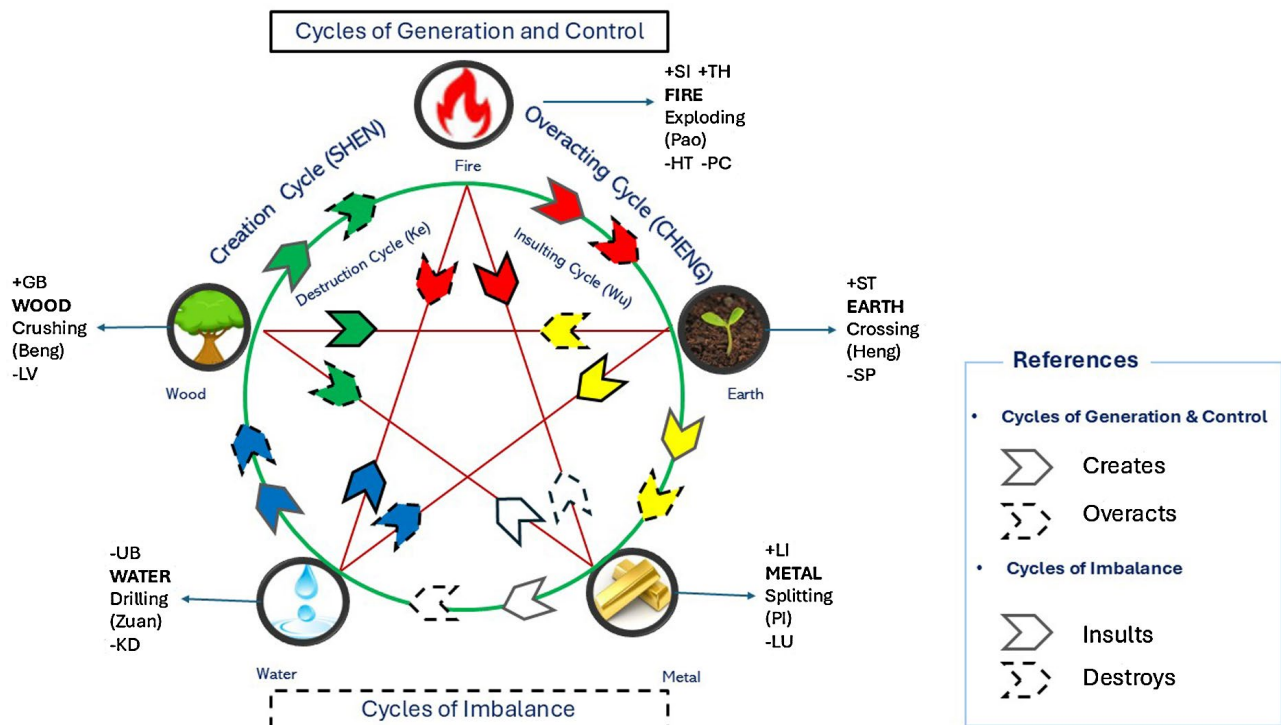


Figure 25. Zou Yen's Five Elements.



Figure 26. Zou Yen (Inchauspe, 2017).

*“Nature is a perpetual operator, **acting in a circular fashion**, engendering fluids from solids; fixed things from volatile things, and volatile from fixed; the subtle from the gross, and the gross from the subtle... perhaps all things may have originated in the **Ether**”* [emphasis is mine] (Blavatsky, 2014).

According to the research of Spanish mathematics historian, Prof. Joseph Plái Carrera stated that Euclid himself had resorted to the **Chinese tangram** (Qi Qiao ban or “The Seven Tablets of Wisdom”) in order to solve several of the propositions written in his book. Here is the full quotation from the Catalan mathematician:

“One of the most remarkable achievements of Chinese Geometry has been the use of the Chinese tangram in order to generate different figures of the same surface. More concretely, it allowed Euclid to demonstrate one of the most paradigmatic theorems in Greek Geometry, the famous Theorem by Pythagoras, as well as solving millennial questions inherited by the people from Mesopotamia” (Plá, 2017).

Why is it that—as with Euclid—it was emphatically accepted that five and only five—no more—are the number of Elements considered by Chinese Medicine? Going beyond the apparent “*semantic play*” that we just now expressed, let me contribute the contemplative view that in this respect, Master Ch’an Pai-chang has to offer:

*“Movement is where one can see the “Heart of the Sky”: there are medicine, furnace and cauldron; the different functions of the three bases (Heaven-Earth-Man); the Four Forms; the Eight Trigrams and the **Five Elements** are all here” Pai-chang (720-814) (Cleary, 1998a).*

6. Epilog

For several millennia, both Fu Hsi and the **pre-Socratic Greek Sage** and **Euclid**—more than twenty-five centuries ago—fully understood how these **Elements** made the Universe around us. Still today, I have to engage in debates with the medical sciences to try to make them understand the valuable transcendence of such supposedly “*antonyms*” ruling the Chinese Cosmogony.

When going into detail as regards the “*Law of the Frontier*”, Robert Laughlin explains this phenomenon as the origin of laws which, in turn, can conform new organizations that generate other new laws (Laughlin, 2007b). In other words, an **inter-transformation takes place in an undefined sequence** (we shall see this more clearly in the paragraphs that follow). Logical knowledge is the one that enables comparison, classification, measurement, and discrimination, thus categorizing the multidimensional variety of forms, structures and phenomena around us. Thus, the **Classification Fundamental Theorem** emerges as an answer before the rational possibility of selecting concepts or abstractions from the environment by their most salient features. The Orient, unfortunately, did not escape from the impulse of stating such necessity.

The consultation, along with the works of renowned mathematicians and the deductions of various Nobel Laureates, underscores the veracity of the material. Regarding the former, this ancestral knowledge lays the foundation not only for medicine but also for Chinese Cosmogony.

More than two thousand years had to elapse for the Western world to accept such structuring “*in a hierarchical system of totalities*” of reciprocal relations and conditions, in spite of the fact that the Chinese had already established millennia before an organization pattern based on the “*Classification General Theorem*” which provided them the categorization by means of the **Five Elements**. Planck, Heisenberg, Bohr and Riedl himself, among others, confirmed that existence of

our planet is due precisely to this reciprocal relation among the Elements already mentioned.

Such comparative methodology allowed the Chinese to advantageously manage—under such criterion and during millennia—the *eternal Mutations* they had described; all of them originated, in turn, out of the **Primordial Vacuum**. This *Classification Fundamental Theorem* managed to “regularize” the disorder coming from Chaos: universal spring well from which **Wu Chi** constantly conceives its unlimited expansion. Therefore, Chi Po (Khi Pa) concludes his detailed explanation in order to duly clarify his Emperor’s wisdom:

“That is why it is said that Heaven and Earth are the beginning and the end of all things; and that Yin and Yang are masculine-feminine distinctions of Energy and Blood (energy being masculine and blood, feminine); that right and left are two ways for Yin and Yang (Yang being left and right, Yin); that Water and Fire are symbols of Yin and Yang (Water being Yin and Fire, Yang), that the nature of Yin and Yang make them responsible for the creation of all things” (Hoang Ti, 2009d).

And Hoang Ti, the famous Yellow Emperor, ordered to be written like this to illustrate and guide generations to come:

“Yin and Yang are the way of Heaven and Earth, the great schemes of all things, the parents of change, the origin and the beginning of birth and destruction, the palace of the gods. The treatment of disease should be based on the origin (Yin and Yang) (Hoang Ti, 2009d).

This Chinese way of data processing is wonderfully simple and efficient. Maybe History one day reflects the incredible tardiness of the West in maturing such principle, though real efforts existed—not many ones—which sought to truly do so. The thing is that Chinese Medicine, with an ever-growing validity still in the 21st century, was based, according to Riedl:

“...in separating that which is constant from what changes; was is supposedly necessary from takes place by chance, and needs to adjust such vision because ‘to fix’ what is constant and necessary is of capital importance to sustaining Life” (Riedl, 1983).

This way, the emerging systems are capable of providing—through a de-centered behavior—*an increased capacity for adaptation* to a self-organized system. That is why the following conclusions lead us to the analysis of “**non-linear**” **devices** of Nobel prize winner Ilya Prigogine, who then established a series of parameters characterizing “*emerging thinking*” which require:

- an “*open system*” exchanging matter and energy with the exterior;
- a series of “*non-linear regulation*” that system (Schneider & Sagan, 2008).

This mosaic of ecologic processes requires a “*resetting*” of the system, a **return to zero** in order to restart a new thermodynamic growth, and a slow ascent towards an increased system “*maturation*”. Such “*vulnerability*” to successional change leads the system to adapt itself by means of non-linear dynamics (Riedl, 1983).

This principle of “**biological resetting**” is the same one that animates the com-

plementary resuscitation maneuver on R-1 *Yongquan* in order to generate the “**Lazarus Effect**” already introduced: a signal with an electro-physical basis similar to an **ascending energetic discharge** by a flash of lightning so as to reinitiate our biologic activity and reformulate homeostasis in a state of extreme emergency or under high vital risk (Inchauspe, 2014).

To the starting point of the Kidney channel “**root** of **Shao Yin**,” its “ignition” from the terrestrial Yin shall give origin to one in search for the celestial Yang, identical to that described as **the initial return of the flash of lightning**, crediting thus the eternal interaction that permits such natural processes occurring **between Heaven and Earth**. Such vectors shall reset the vital constants, reactivating in this way such organs that are located in the higher part of the body whose vital function is never to be interrupted (Heart and Lungs) (Inchauspe, 2021g).

Said “**Lazarus Effect**” is a complementary praxis in order to integrate protocols of vital support (Inchauspe, 2009). It is composed of the energetic planes Shào Yīn (少陰) and Jué Yīn (厥陰). Strangely enough, the Jué 厥 character makes reference to a state similar to that of comma. It is responsible for regularly distributing the blood, nurturing the Heart, and supporting the material basis for later resuscitation actions of Shào Yīn (少陰). Both planes are attributed to this sense of “**refuge**” (withdrawal or storage) and Blood renovation and, consequently, the reactivation of the cardiac cycle. Both the theoretical and practical demonstration of the energetic recirculation in the ways involved determine the aim of the “**Reconciliation Vessel**”: to re-establish cardio-respiratory function from its “root” point, thus restoring vital signs and consciousness (Inchauspe, 2016).

“The energy of Absolute Unity that contains reality is the undifferentiated energy previous to the division of Heaven and Earth. It is the communion of the basic energy of the body” Hu Hungchen (Cleary, 1997).

“When the mind is harmonious, energy is harmonious; when energy is harmonious, the body is harmonious. When the body is harmonious, the harmony from Heaven and Earth responds to it” Master Zhiyang (Cleary, 1997).

Both citations from Chinese Ancient Classics reveal the concordance between internal and external guidelines of what is created, with the syncopated perpetual rhythm of its transcendence.

As stated by the **Generative and Inhibitory Cycles inter-relating the Five Elements**, Ilya Prigogine declared that such “*disturbances*” justified the inter-transformation of a system’s state to a different one. That is why we clarified before that another important active principle in the conception of **Thermodynamics of Non-Balance**—which, according to Schneider and Sagan, some scientists elevate to the hierarchy of a fourth law—is that, in the regions of energy flow, matter describes cycles, which succeed one another according to an order marked by time.

In this way, **Dao** or **Tao** appears as an event that gives place to the **Creation of Everything from Nothing** or **Wu ji** (Wu chi) in order to later divide it into two Opposing aspects—though, in turn, complementary—present in everything that exists (as previously stated: be it tangible or not) within such cycles. That is why,

in Chapter 25 of *Tao Te Ching*, titled: “*Classics on the Virtue of Dao*”, its author, Lao Zi (Lao Tse), stated that

“There is something not discriminated and formalized (in space), (born) **before Heaven and Earth (Yang and Yin) (were formed)**. Extremely immobile and unfathomable, it remains alone and without modification, repeats with every cycle and it never used up; it is able to be mother of Heaven and Earth. I do not know its name, that is why I call it **Dao**” (Lao Tsé, 2008b).

As Paul Davies states in his chapter “*The Cosmic Program: self-organizing principles of Matter and Energy*” several religions derived from Oriental mysticism debate on the issue of what is changeable and the immutable, appreciating in it a progressive cyclical vision and permanently self-organizing in a creative Cosmos inherently complex (Schneider & Sagan, 2008). Somehow, the Chinese tried to make these opposite ideas compatible, understanding that they are in solidarity and complement perfectly as a Whole and to a determined end. When “**remaining open**” they shall be able to deepen through the eras, invigorating them with an intent to approximate the probabilities to certainty.

“Ancient sages also expressed **numerically** the development of the Universe (emphasis is mine). Number One represents the Subtle Origin; Two, the duality of Yin and Yang; Three, the trinity formed by Yin, Yang and its integration into T'ai Chi, which produces life. Such categories are considered the three main ones of the Universe” (Ni, 2001).

In order to do so, Riedl clarifies for us, it becomes indispensable the establishment of a pre-judgement, so as to influence—through it—the arguments to reach the right decisions. This allows us to acquire knowledge that makes us capable of adapting to the **Mutations**, so that before them, “...the inquisitive fate shall have a **true possibility of being right**” (Riedl, 1983).

I believe this was the way by which the Chinese decreed their prerogatives, classifying their knowledge in order to make it predictive in the variable course of events, thus reducing their share of insecurity. And if Kant stated that “...what is peculiar of the categories of modality is that, as far as determining the object, they do not amplify in the least the concept they serve as predicate...”, Riedl is quite clear about pre-judgements in that they represent that which is pre-supposed in any research as regards everything that, by it, one is able to deduce.

Several of the currents on “**emerging systems of self-organization**” stated by Steven Johnson, Ilya Prigogine or Paul Davies explain—be it for Physics, Chemistry or Biology—how they can emerge out of **Chaos to reestablish the Order** of dissipating structures: these behave as “*open systems*”, the capacity of which to spontaneously reestablishing their balance enable them to transform themselves into “*evolutionary models*” at different levels: e.g., biochemical, biological or social ones (Lorimer et al., 2007).

It is then clear that, in order to create this kind of structure, there would not be necessary myriads of different plans but a few, simple, interaction rules. In that sense, Johnson states: “...it is only necessary for a few repeated behavior patterns

amplified to major forms to last for whole generations.”

The surprising parallelism of these conclusions with I-Ching is made extensive to the following conclusion offered by Johnson:

“If life on Earth evolved from the “***Primitive Pool***”, we could say that the more interesting digital lives of our screens evolved from the sludge mold” [emphasis is mine]. (Johnson, 2001).

We shall test the parallelisms between such “***Primitive Pool***” with the ***Five Elements*** and the “***Cycle of Fifths***” elaborated by Pythagoras.

According to scientist Paul Davies in his work: *The Cosmic Program: self-organizing principles of Matter and Energy*, the Oriental mysticism makes manifest an analysis of what changes and what remains immutable from **a progressive cyclical vision and self-organizational**, permanent within a creative Cosmos, in itself very complex. In some kind of way, what precedes enables us to understand how the Chinese were so eager to make these opposite ideas compatible, making them stand in solidarity and complement one another as a Whole and to a determined end.

Riedl seems to have well understood that expectations resulting from comparing “**fields of similitude**”, both structural and functional ones, delimit “*differences and coincidences*” within them, mathematically clearing such mystery, calling it **expectation of necessity**. He also seems to have understood the expectations resulting from comparing similarities both in the structural and the functional fields, thus limiting the “*differences and coincidences between them*”. I believe this is what happened in Chinese Medicine as well, searching for relations among its **Elements** that would enable them to solve unknown diagnoses (Riedl, 1983).

Quite skillfully, Riedl mathematically clears how ***the expectation of necessity shall practically be equivalent to certainty***. ($CN = PN/PN + PA = 0.5/0.5 + 1.3 \times 10^{-30}$)

Therefore, it is possible to understand how *invariability within each Transformation* results in the foreseeability of the Mutations framed within I-Ching hexagrams. Thus, he managed to demonstrate that the remaining insecurity appears with **thirty zeros after the comma**; that is, just a **quintillionth of difference in separation from fate** of this consecutive succession of previsions confirmed which approximate us to the “*intentioned presumption*”, ever so close so long as it continues confirming it in time. That very “**regular anticipation**” enabled such a predictability criterion that it fructified in the compulsory consultation to I-Ching as an oracle capable of foreseeing what was to come.

All things considered: the capacity of living beings to “...keep a stable inner condition thanks to regulating the exchange of matter and energy around him...” is the true “**survival strategy**” which translates into this intricate “**reaction to Movements**”: one of the fundamental pillars of Traditional Chinese Medicine.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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