

RAINFOREST RESONANCE AND THE GOLDEN SECTION

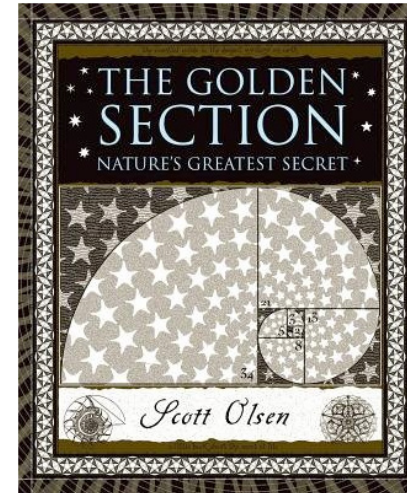
by Scott Olsen, Ph.D

During my life's journey, I have undergone a series of transformations that began in childhood with a perinatal experience of full consciousness shortly after birth that progressed through several intense revelatory OBEs (out-of-body experiences) with accurate and verifiable perceptions of the environment and events. These began in my late teens while a student at the University of Minnesota, followed by more climactic epiphanies until I became aware of the sublime mathematical patterns underlying the Cosmos, Nature, and all of life. When I entered into the shamanic world of quantum coherent non-local resonance, I knew where to direct my attention. Most of my work focused on opening my brow center, the proverbial third eye. I was not disappointed when my senses crossed over in synesthesia where, for example, I could "inwardly" see sound and hear colors. In one uncanny resonant identification with the consciousness of a jaguar, I realized that they can "smell" the beating of your heart at a distance!

My primary intention throughout all of my shamanic endeavors, both in the rainforest and the mountains, was centered on achieving a deeper understanding of the role of the Golden Section throughout Nature and the Cosmos. I had already suspected through my studies and experiences that it was the fundamental scale-independent modular of all existence. In one particular encounter in 2005 I was presented with a grand epiphany that allowed me to put it all together when I was shown the working of the Golden Ratio throughout all of Nature, which can only be described as being simultaneously from both an inner and outer perspective. The experience was so all-consuming that I remained fully conscious – regularly reconnecting with, for lack of a better term, the "Eternal Now – Divine Source" over nineteen days of continuous awareness.

My rainforest experience appeared to be an attunement with the central operative role of the Golden Section throughout Nature, a confirmation of that which I was already cognizant giving me confidence to go forward with my book. *The Golden Section: Nature's Greatest Secret* was written over the next

seven months. Published in 2006, it won first place for design at the 2007 New York Book Show and became an international best seller, translated into nine languages.



Quantum Coherent States of Consciousness and The Silent Pulse

In 1665, the Dutchman Christian Huygens gave one of the first explanations of what scientists later referred to as entrainment or the "mutual phase-locking of two oscillators." Huygens observed that two pendulum clocks left hanging on a wall beside each other, tended to fall into a synchronous rhythmic swing together. He maintained that there was a kind of "sympathy" established between them in which they *sought* to keep the same time – attuned with one another in a synchronous pulse. This universal phenomenon is now known to occur "whenever two or more oscillators in the same field are pulsing at *nearly* the same time, they tend to 'lock in' so that they are pulsing at *exactly* the same time."³⁶

Madame H.P. Blavatsky, co-founder of modern Theosophy and the author of *The Secret Doctrine*, once said: "all is vibration." We now know that the brain waves of musicians fall into synchronization, according to researchers at the

36 George Leonard: *The Silent Pulse: A Search for the Perfect Rhythm That Exists in Each of Us*, 1978, 1986 p.13.

Planck Institute and the University of Salzburg.³⁷ A former dancer, theosophist Judith Snow, once told me that her dance instructor would get so upset as all the female dancers suddenly went absent from rehearsal, attending to the onset of their menstrual cycles at “essentially” the same time.

We observe synchronous attunements in the flight of a flock of birds, the sudden simultaneous movements of a school of fish, or swarm of bees. In physics, we find the phenomena of superconductivity and superfluidity at or near Absolute Zero where everything moves in lock-step coherence, unrestricted by the normal constraints of gravity and other barriers. Recently the white dwarf star Trappist-1 was found to have seven earth-sized planets exhibiting a harmonic Fibonacci dance [see figure 13] similar to Pythagoras’ and Kepler’s music of the spheres: “The original discoverers noted that those orbits were almost exactly in what scientists call ‘resonance.’ That is, the second planet completes five orbits in almost exactly the time the first planet makes eight. The third planet completes three orbits for every five orbits of the second planet, and the fourth planet makes two orbits for every three orbits of the third.”³⁸

Quantum coherent states of consciousness where we go into lock-step resonance with broader and broader fields of awareness, may well be inherent within the very fabric of so-called space-time – the quantum foam

that makes up everything! The universal-total-cosmic awareness is potentially present within each of us. The eminent physicist, David Bohm, my professor at Birkbeck College, University of London, suggested the holographic nature of the universe and maintained that: “the essential features of [quantum interconnectedness] are that the Whole Universe is in some way enfolded in everything, and that each thing is enfolded in the whole.”³⁹ This state of cosmic consciousness may in fact be our birthright: the Whole Universe is co-present within us. Historical, cultural, philosophical, and religious evidence abounds, suggesting that through proper discipline, focus, and selflessness one can enter a quantum coherent state of resonance in which the state of full awareness, at-one-ment in total bliss, or cosmic union is possible.

It is believed that Siddhartha Gautama seated under the “Bo Tree” went into quantum coherent resonance with the Consciousness of the Universe. Downloading the consciousness of the Divine, he became a Buddha, or simply an awakened one, entering into a state of illumination. When Buddha was asked, “Who are you, a god, a man...?” He simply responded, “I am awake.”

Edgar Mitchell, the Apollo 14 Astronaut who was the sixth human to walk on the moon, conducted successful, statistically significant psi experiments going into resonant-attunement with the minds (telepathy) or objects being randomly selected (clairvoyance) back on earth. When he was able to relax,

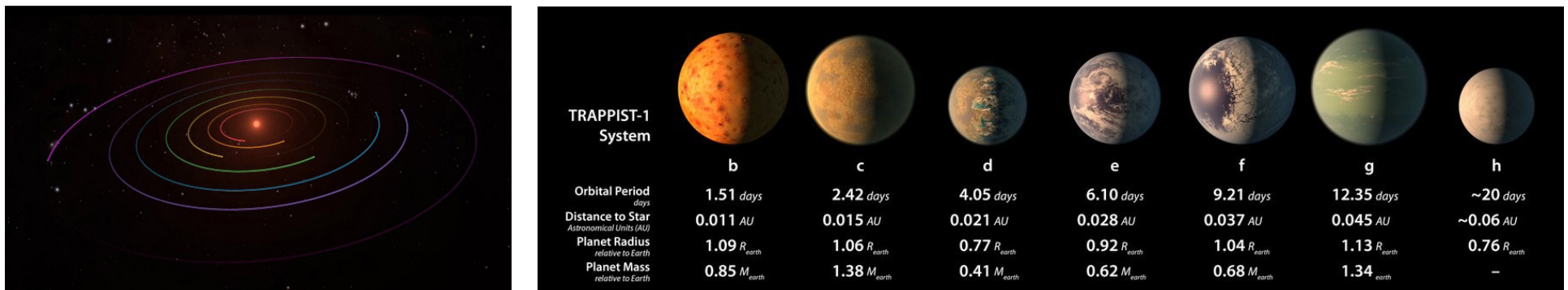


Figure 13. While planet g completes one orbit around its star, planets b, c, d, e complete 8, 5, 3, 2 orbits respectively, in descending Fibonacci order. Planet f completes 4/3 orbits – a musical fourth. Planet h with an approximate 20 day orbit is a very close Golden Ratio approximation relative to the orbit of Planet g (i.e. $20/12.35 = 1.619433198380567\dots$).³⁹

37 Shari Roan, March 18th 2009, “Becoming One In Music, Minds,” Sun Sentinel. http://articles.sun-sentinel.com/2009-03-18/news/0903170444_1_brain-study-synchronization

38 Kenneth Chang. “The Harmony That Keeps Trappist-1’s 7 Earth-size Worlds From Colliding.” *The New York Times*, May 10, 2017.

Franck Selsis. “An Exceptional System of Exoplanets.” www.cnrs.fr. Feb. 22, 2017.

39 David Bohm and Basil Hiley. *The Undivided Universe: An Ontological Interpretation of Quantum Theory*. Routledge, 1968.

he entered into a state of Samadhi or Cosmic Consciousness.⁴⁰ For our purposes here, he came to the conclusion that it is through the quantum computational microtubules and associated clathrins within each cell that this quantum coherent resonant superconscious experience occurs.⁴¹ Mitchell stated: “Religious and mystical experience and all psychic effects are, by this way of thinking, a result of the individual bringing nonlocal information to the level of conscious awareness.... When in these states and intending a particular action, resonances within the field are altered, and energy from the zero-point field is available to create the desired effects [all knowledge becomes accessible].”⁴² Because the microtubules and clathrins exhibit a golden ratio resonance, it appears that we are hardwired for supernormal experience through the Golden Section.

In Search of the Lost Chord

The premier role of Master Plant Teachers is to provide a means of attunement for humans to go into successively expanded states of consciousness to connect with deeper and broader realizations of the reality that surrounds and permeates all of existence. They also hold a hidden key for the observant seeker that has a variety of titles: the Divine Ratio, the Hidden Sacred Word, the Elixir of Immortality, the Philosopher’s Stone, the Silent Pulse, the Pearl of Great Price, the Atman which is one with Brahman, the Christ within, or Buddha Consciousness – it is the Lost Chord lying behind all of existence, the intermediate link that allows one to reconnect with the Source.

The unfoldment of plants moves in synchrony with the silent rhythm of Nature – which is one with the Cosmos. The sunflower’s daily movement is attuned to the position of the sun relative to the movement of the earth. The cycles, rhythms, and periodicity of Nature is observed everywhere. Nature has an ingenious method of expressing its attunement with the Cosmos through whole numbers, primarily through a series known as the Fibonacci sequence. Johannes Kepler first observed that the Fibonacci numbers occur in leaf

arrangement, or what Charles Bonnet later in 1754 termed phyllotaxis (from the Greek *phullon* “leaf” and *taxis* “arrangement”).

In the Foreword to their monumental treatise, *Symmetry in Plants*, Jean and Barabe placed the Golden Section front and center of the mystery of phyllotaxis when they wrote: “Daisies and sunflowers are the emblems of phyllotaxis: all the problems of phyllotaxis are summarized therein. The presence of particular numbers e.g., Fibonacci numbers, an angle of 137.5 degrees, the golden number $\tau = (\sqrt{5} + 1) / 2 \approx 1.618$, and forms (e.g. logarithmic spirals) in their capituli, and shoot apices, demands an explanation, and has served as a spur to the human intellect.... It is in phyllotaxis that symmetry in plants is most striking and puzzling.”⁴³

It turns out that there is an ideal angle for phyllotaxis in the plant kingdom referred to as the “ideal divergence angle” or “genetic angle” that governs the tendency of buds, leaves, and limbs to emerge “ideally” at or near 137.5 degrees from the previous one. If you take a circle and golden cut its 360 degrees, you will have two segments, one of 222.5 degrees and another of 137.5 degrees. It is a well-known fact that flowers tend to have a Fibonacci number of petals, and therefore are golden. It was Johannes Kepler who first observed that the majority of flowers are pentagonal, i.e. have five petals, and anything pentagonal automatically has an underlying golden proportional foundation (see diagram pentagram from GS book page 9). If 137.5 degrees is the synchronous key, where is it in the five petaled flower? To find an answer, I spent considerable time examining the petal growth of penta-flowers in the rainforest.

One answer I found lurking in the flowers’ structure resulted in an intriguing Fibonacci approximation to the golden proportional phenomenon of 137.5 degrees. By carefully numbering the petals and examining the underlying structure, I realized that the petals are structurally related – not in an adjacent sequence – but in a pattern where you skip a space i.e. every other one. The petals would be related as petal #1 to petal #3, #3 to #5, #5 to #2, #2 to #4, and #4 back to #1 [see figure 14]. Given five petals and periods of two, we

40 See “Pathways to Transformation,” p. 18.

41 Edgar Mitchell. “Nature’s Mind: the Quantum Hologram.” *Journal of Cosmology*, 2011, Vol. 14. <http://journalofcosmology.com/Consciousness149.html>.

42 Edgar Mitchell. *Way of the Explorer*. G.P. Putnam and Sons, 1st edition, 1996, p. 200.

43 Roger V. Jean and Denis Barabe. *Symmetry in Plants*. World Scientific Publishing Company, 1998, p. vii.



Figure 14. Petal periodicity

have a periodicity of $2/5$ or 0.4 . If we think of the circle as 360 degrees and multiply it by $2/5$ or 0.4 it equals 144 degrees. Following the Fibonacci sequence of $0, 1, 1, 2, 3, 5, 8, 13...$ we have a Fibonacci approximation of 144 degrees to the golden divergence angle of 137.5 degrees. We also find this $2/5$ Fibonacci approximation of 144 degrees in the leaf arrangement of many trees including oak, cherry, apple, holly, plum, apricot, coast live oak, California bay, pepper tree, manzanita, common groundsel, mustard, toyon, and madrona.⁴⁴

Petals	Flower(s)
3	lily, iris
5	most flowers, including the buttercup, wild rose, larkspur, columbine (aquilegia), pinks
8	delphiniums
13	ragwort, corn marigold, cineraria, some daisies
21	aster, black-eyed susan, chicory
34	plantain, pyrethrum
55,89	michaelmas daisies, the asteraceae family

Table of Flowers having a Fibonacci number of petals.

Something nagged me to go deeper and combine my outer perceptual examination of the plants with my inner visions from the Master Plant Teachers. The discovery I made became a synthesis of outer left-hemispheric observation and inner, intuitive right-hemispheric revelation.

During one visionary experience, it was revealed that I needed to consider nesting pentagrams and pentagons, alternately within one another. During full waking consciousness I considered the puzzle once again. Eyeballing the 144 degree angle from the center of a pentagram to the tips of the first and third arms or petals, I realized that if the pivotal point was placed further back from the center, I could find the 137.5 degree angle. Was there a

systematic – sequential method of finding it? Applying the inner journey/plant teacher insight, I realized that it might lead to the solution. Using a compass and straightedge allowed me to find what I ultimately called the fixed Archimedean point that led to the mathematical solution. As Archimedes said, “Give me a lever and a fixed place to stand and I will move the earth.” I have attached a drawing done with compass and straight edge that leads to the discovery [see figure 15]. Although the solution is not exact, it is extremely close. The important point I discovered in pursuit of the ancient wisdom of the Mestizo, Shipibo, and Quero (Inca) shamans, is that Nature works through approximations, meaning you do not have to have exact golden cuts to get golden proportional resonance.

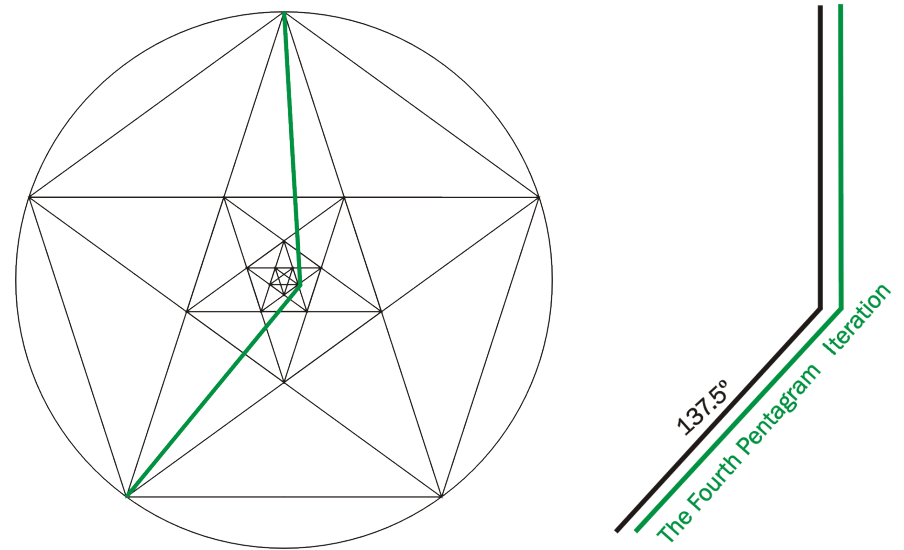
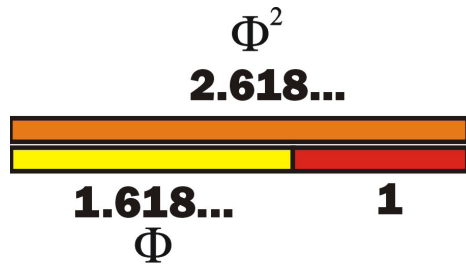


Figure 15. Geometrical construction nearing the 137.5 degree golden section angle

This holographic essence of the Universe and Nature is implicit in the Hermetic maxim – “As Above, So Below, and As Below, So Above,” but what is it that links the Above and the Below? It is the “Lost Chord” – the Golden Section that bonds the Above and Below together in golden proportional symmetry. This is illustrated in the diagrams: A) where we see that Φ is the geometric mean bonding together Φ^2 and 1 ; and B) where 1 is the geometric mean bonding together Φ and $1/\Phi$; and C) where the Fibonacci number 8 acts as an “approximate” geometric mean bonding together 13 and 5 .

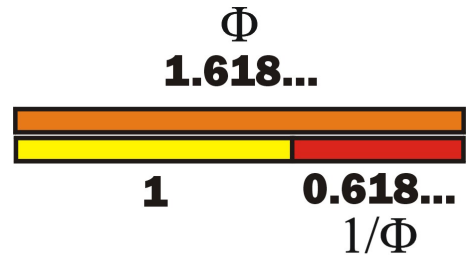
44 Scott Olsen. *The Golden Section*. Wooden Books, Bloomsbury USA, 2006, p. 58.

This is demonstrated, for example, in the Venus Kiss (see page 70). Like the pentagonal flower, Venus' dance with the Earth creates a pentagram in the sky.⁴⁵ This Silent Pulse or Philosophical Stone rooted in the Primordial Scission or Golden Section permeates all of Nature and the Cosmos, and is holographically and fractally present at all levels: The Lost Chord is now revealed.



$$\Phi^2 : \Phi :: \Phi : 1$$

Diagram A - Φ is the geometric mean.



$$\Phi : 1 :: 1 : 1/\Phi$$

Diagram B - 1 is the geometric mean.

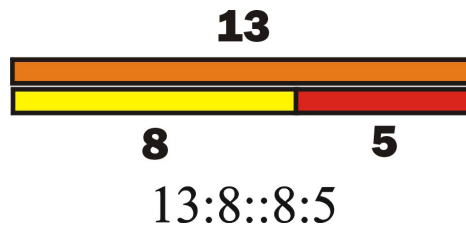
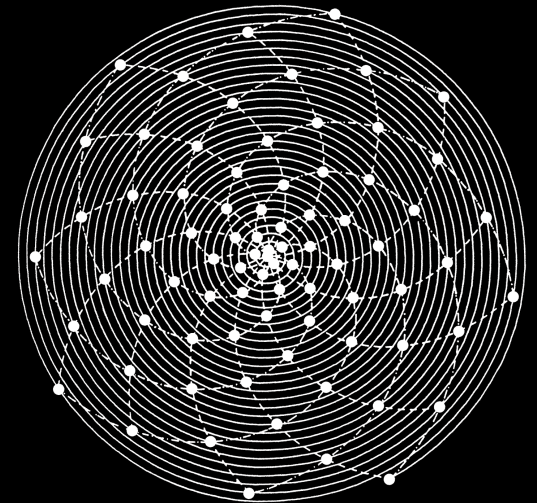
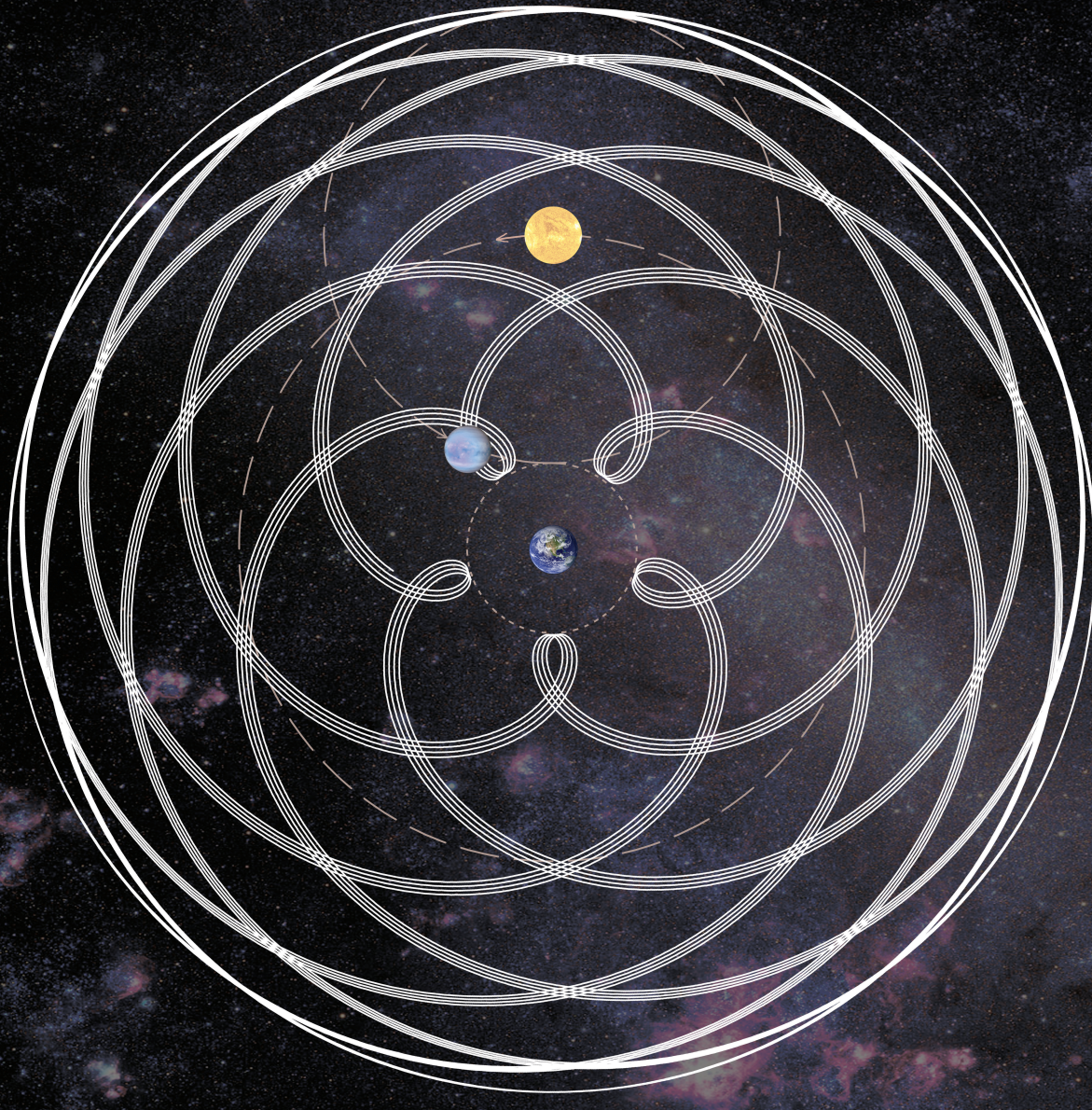


Diagram C - 8 acts as an approximate geometric mean.

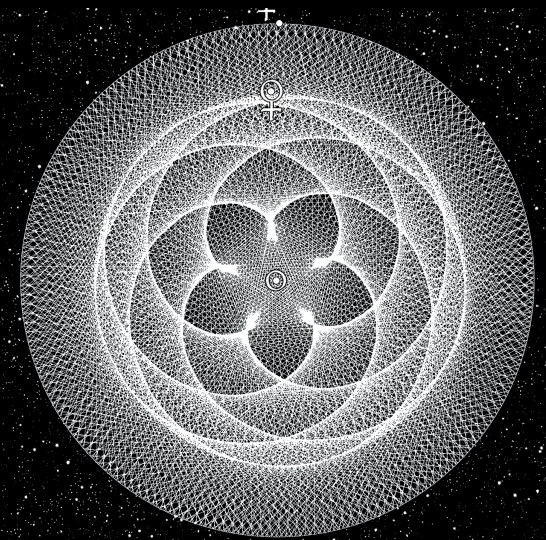
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http://articles.sun-sentinel.com/2009-03-18/news/0903170444_1_brain-study-synchronization.
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- [10] John Martineau. A Little Book of Coincidence. Wooden Books, Bloomsbury USA, 2002.

⁴⁵ John Martineau. *A Little Book of Coincidence*. Wooden Books, Bloomsbury USA, 2002.



Count the clockwise and anticlockwise spirals on plants - most have 5, 8 and 13, and we have 5 then 8 teeth in each quarter of our mouths.



With the Sun in the centre, if we draw a daily line between the positions of Earth and Venus, this is the picture produced after eight years.

THE DANCE OF VENUS

Two of the eight-year Venus cycles are shown in the main graphic, so the motion of Venus around Earth over 32 years. The Sun has been scaled down; it is 109 times bigger than Earth. In music the octave is most often the 8th note or the 13th note. Taken from *A Little Book of Coincidence* by John Martineau, Published by WOODEN BOOKS, and *In Love with Venus* by Angela Moore, Published by THE SQUEEZE PRESS. More details in *Quadrivium*, published by WOODEN BOOKS / WALKER / BLOOMSBURY PUBLISHING. Poster & graphics © Wooden Books, Glastonbury, UK, 2012. All rights reserved. For more information visit www.woodenbooks.com. To order more copies of this poster please send an email with your address to info@woodenbooks.com.

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