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TESLA'S GOLDEN RATIO 3:6:9

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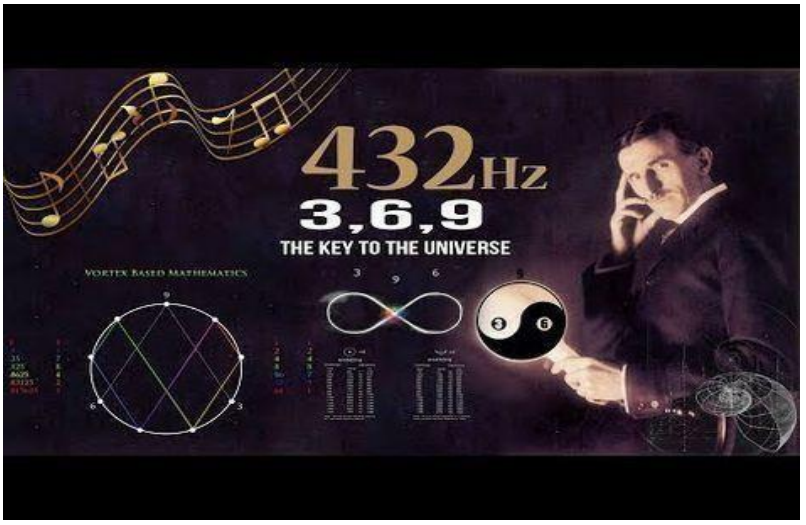
Those of us working to consolidate the Nikola Tesla Legacy are forever researching and examining available information to try and refine our understanding of Tesla innovations and one such project has been considerably challenging. Tesla refined a mathematical ratio that he stated was the key to understanding the Universe. Well, of course, such an important statement from Tesla must mean that he had worked out fundamental laws which govern all we see around us and the work to unravel what this fundamental "Golden Ration" relates too, has proven to be an irresistible and time consuming challenge. No evidence has been uncovered which will confirm what is put forward for consideration but the Ratio works well, in adding and removing energy from vibrating systems.



Graphic 1

"If you only knew the magnificence of 3,6,9 then you would have a key to the Universe"

Many researchers have spent a great deal of time and energy trying to work out what this relationship refers to but as an introduction to one possible application of this ratio a "Thesis for Discussion", was put forward for presentation to innovator groups. Tesla spent many decades working on fundamental frequencies resonance, energy associated with these frequencies and ways of calculating how fundamental

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frequencies interrelate. The effort was directed at finding ways to work vibrating systems as needed and optimise the relationship existing in complex vibrating systems carrying energy.

The following study is work in progress and assumes that the above ration relates to frequency and its energy and is taken to be a method for varying energy in other vibrating systems. Adding energy synergically in phase to fundamental frequencies, increases the energy of the base frequency and conversely, by synchronously adding out of phase vibrational energy to a given vibration, results in annihilation of both energy terms. How vibrating energy is combined has a very great effect on the resultant energy output of an assembly and an analysis is put forward to demonstrate how the 3:6:9 rations can be applied and why it is so universally applicable to problems relating to varying the energy carried by any given frequency.

It has long been known that certain sound and vibrations induce a sense of peace and well being and man has for a very long time used chants that induce good feelings in people and promote good health. Given vibrations have been used for millennia by shaman of old and witch doctors and many other applications of a musical nature have been employed to induce a sense of well being. The rhythmic thumping of a stick on a resonating log was well understood by healers of old and ceremonies always used such rhythmic sounds to create atmospheres that relaxed and enchant gatherings. In our scientific times we understand and can reproduce precisely the sound frequencies that achieve such effects and more importantly researchers like Tesla worked out why such rhythmic systems work. If Figure 1 is a standing wave, then the nodes become critical to the thermodynamic stability to its energy flux.

Fig 1
Is this the cue as to how Tesla used the 3:6:9 Ratio

In the late 1890s Tesla was working on combining vibrational energy to vary the amount of work done by given vibrations and in his analyses, he identified the frequency at which human bodies vibrated. Much to his surprise, it turned out that not only did various objects vibrate at given frequencies but that buildings and the entire planet vibrated at 7.83 cycles per second. Tesla postulated that the entire universe and everything in it also vibrated at a fundamental frequency and it did not take Tesla long to try and vary the strength of various frequencies. He quickly discovered that adding energy to given vibrations at exactly the right moment in the vibrating cycle, increased the vibrational energy output of the system.

This discovery sparked and opened up an entire science of frequency modulation that had been known about but neglected and as Tesla's continued experimenting on various objects, including his laboratory, he on one occasion, synchronously added energy to the fundamental vibrational frequency of the building and discovered to his alarm that the bricks were shaking loose. As he continued his research he reportedly caused panic in the neighbourhood and on one occasion, he could not shut down his frequency amplification machine and demolished the building he worked in? In time, Tesla continued this research to generate earthquakes and was greatly admonished by the State Authorities. All this experimentation has a specific goal in mind as Tesla was trying to generate energy transfer from one end of the world to the other.

His research was difficult because the complexity of blending the vibrational energy inputs was a new science that had not been refined and a great deal of research had to be done on vibratory synchronicity. There was a major problem of how to determine optimum frequencies to achieve a given result. It was difficult to determine which frequency to add and at what time in the cycle of vibrations to achieve perfect synchronicity and maximum energy transfer. To simplify the difficulty and as a means of explaining the problem Tesla was trying to resolve, a laboratory generated vibrational trace is used. Figure 2 is an image of an oscilloscope trace, reflecting the regions of high energy (compression dark trace) and regions of minimal energy flux (rarefaction spaces in between the dark sectors) are shown on the graph of a vibratory cycle. An energy trace of a vibration is made up of compressive and rarefactive regions during a vibratory cycle.

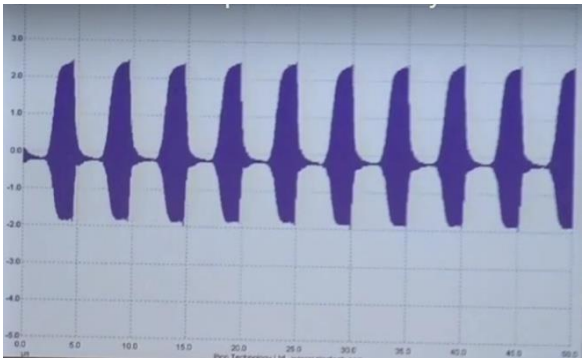

Fig 2

Pulsed output of vibratory energy.

In laboratory experiments using modern technology, the above energy distribution can be simplified by recording the energy trace on a time scale and Figure 3 demonstrates the energy distribution characteristics of a vibratory flux.

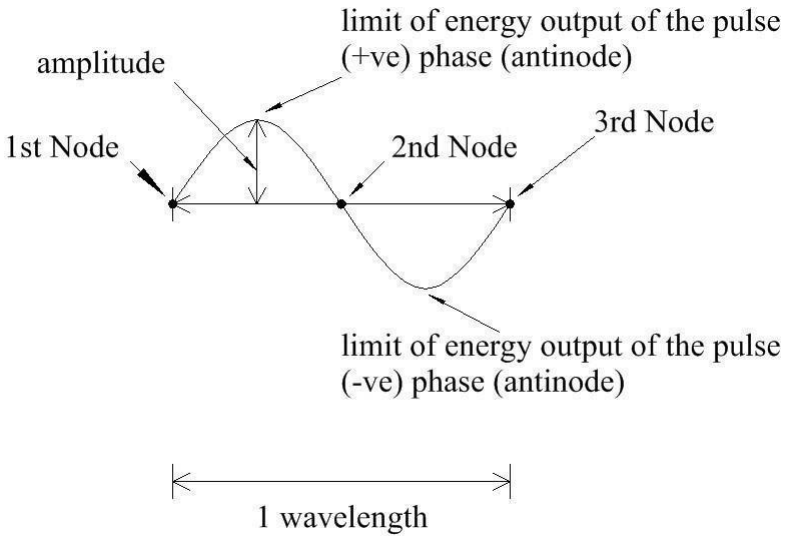

Fig 3

A diagram demonstrating the basic components of a pulsating wave.

To better understand the energy flux during a typical cycle a set of graphical drawings is presented which deal with individual components of the vibrating cycle. In Fig 4 a typical fluid displacement cycle is presented. There is evident a positive phase of the vibration where the compression phase is demonstrated in the vibration, highlighted with a thicker line and a regressive part of the cycle shown below the time line during the rarefaction phase. All vibrations therefore have a compression and rarefaction phases. Compression phase is seen at the nodes and rarefaction at the antinodes.

The energy flux of the vibrating system can most easily be understood if the vibrational phases in the graphs are linked to the position of the terminal end of the tuning fork limb. The drawing to the right of the above kinetic energy graph demonstrates the position of the limbs during any given vibrational phase.

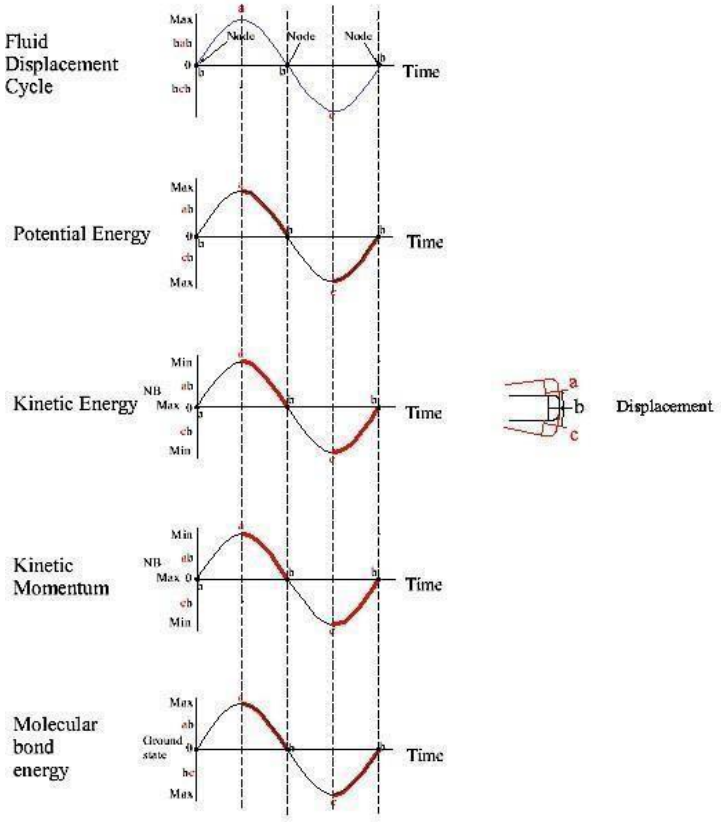

Fig 4

Synchronised graphs of the energy distribution
during a vibration cycle of a tuning fork.

The Potential Energy Graph demonstrates the place during a vibration where energy is being absorbed by the vibrating system and the region of the cycle where the absorbed energy is released into the vibrating system. Here, it can be seen that energy is absorbed in the first quarter of the vibrational phase and released in the second, to complete the compression half cycle of the vibration by releasing energy. The released energy is then again absorbed by the system during the rarefaction phase in the third quarter of the cycle, to again be released into the system in the forth quarter of the cycle. There is therefore absorption and emission of energy during any vibrational cycle. Thin lines represent absorption of energy by the system and thick lines, the release of energy from the system into the environment.

The Kinetic Energy Graph demonstrates the vibrational energy state during the absorption and release of the energy by the vibrating system. The important feature to note is that in this case, the absorbed energy has minimal kinetic energy at position "a", the antinode in the cycle and is at its maximum value at position "b" the 2nd and 3rd nodes. It is the kinetic momentum of the vibrating members that forces the vibration to traverse the null energy flux sites at the nodes and impart energy to the participating molecules of the vibrating system during the regressive phase of the

cycle. The imparted kinetic energy displaces the vibrating limbs to its regressive maximum value at "c" and there is again a release of energy into the system during the last quarter of this phase.

The next graph links the potential and kinetic energy of the vibrating system to the Kinetic Momentum of the vibrating members and as can be seen from the graph the kinetic momentum is at zero when the tuning fork limbs are at their maximum displacement i.e. there is at this point of time no movement of the limbs. When the energy is being discharged into the system the kinetic momentum reaches its maximum value at the "Null Energy" points of the cycle at "b", the nodes. Energy from the participating energy vibrations is at its maximum value at these sites of the vibrating cycle because the vibrating limbs have discharged their energy into the vibrating system.

The fine detail of these energy exchanges relate to the state of the molecular configurations of the vibrating system. When the limb is displaced to point "a" on the graph the molecules of the system are in their most stretched positions and that induces the maximum stress on the molecular bonds. This high energy state reflects in the maximum potential energy of the system, minimum kinetic energy and no movement of the limb. As the vibrating limbs move away from this maximum displacement position they release energy into the system and the limbs move, to gain kinetic momentum and release energy during this second quarter of the cycle. At the nodes, the molecules have discharged their potential energy to attain their thermodynamically stable positional configuration so that the node can be considered as the "ground state" of the vibrating system. At these points in the cycle the limbs of the tuning fork have discharged all their energy and are in the Null Energy state. It is the kinetic momentum of the limb mass that forces the molecules of the limb material into a distorted configuration by absorbing the energy of the kinetic momentum. The molecules distort into a state of tension because the molecular bonds of the tuning fork material are stretched. There is a cyclical release and uptake of energy in vibrating system which can be varied with additional energy input at the node points.

The state of the energy flux in the vibrating period is of considerable importance because the place along the forth dimension, the time scale of the cycle, at which additional energy is superimposed on the fundamental vibrational phase has a major effect on fundamental frequency characteristics. All of Tesla's work on controlling the energy superimposition of the frequency he was modifying depended on superimpositions of energy to be timed precisely. A further explanation of the energy flux is consolidated in Fig 5 to demonstrate where the rarefaction and compression occurs in any given vibratory cycle.

Most text books on Fluid Dynamics state that compression and rarefaction phases during a vibrational cycle are positioned at the antinodes. The compressive phase is considered to be at the antinode of the +ve phase of the vibration and the rarefactive phase, at the antinode of the negative phase of the vibration[1.] This Thesis argues that

the compressive and rarefactive phases of the vibration must be considered in terms of the energy flux of the vibrating media and not its potential energy maxima. Indeed, all of Tesla's 3:6:9 calculations are related to the energy flux at the maximum measured kinetic momentum of the vibrating media and that position is at the nodes of any given vibration. See Fig4 & 5.

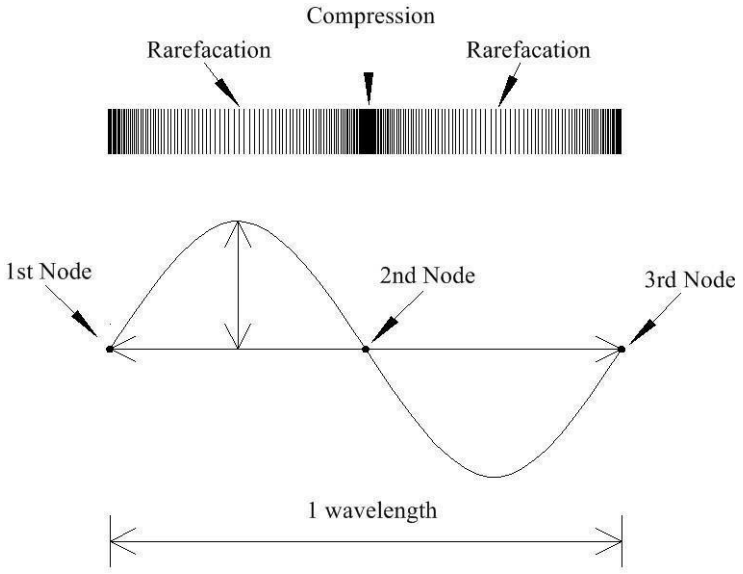

Fig 5

Energy characteristics during a cycle of a given vibration.

At the first node energy is being added to the vibrating system but as the vibration precesses along the time line no further energy input occurs at the antinode. As the charged apparatus releases energy into the vibrating medium the released energy achieves its maximum output at node 2. At this site (see kinetic momentum graph Fig 4) the imparted energy attains its greatest flux and it is at these sites that energy synchronisation achieves its best effect. In the above representation the energy flux of the medium imparts energy to the vibrating elements. The vibrating mechanics are again stressed to attain maximum potential energy at the (–ve) antinode, to then release energy into the medium, in the last quarter of the vibratory cycle.

The energy uptake and release during any cycle is of the utmost importance to synchronous coordination of frequencies. Fig 6 exemplifies the energy uptake and release during a typical vibrational cycle. The clear areas of the cycle are durations of the vibratory workings during which energy is absorbed by the vibratory mechanics and the shaded areas are regions of the cycle where energy is released from the vibrating mechanics into the environment.

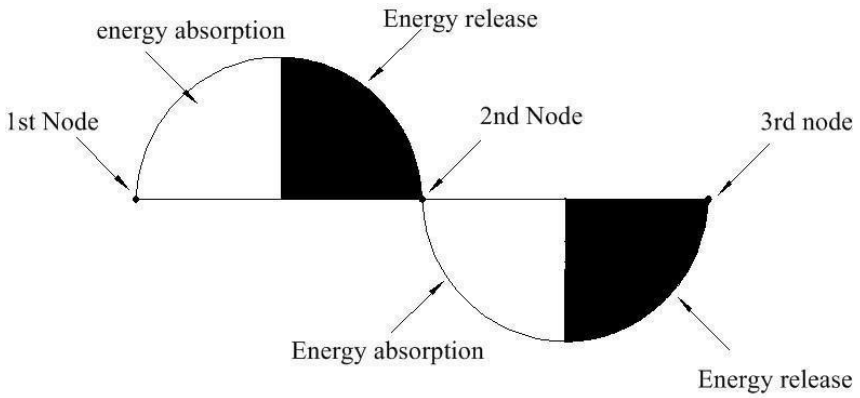

Fig 6

Vibrating system absorbing and releasing energy during 1 cycle.

And so Tesla describes the energy throughput of a vibration in an attempt to synchronise energy transfer from calculated frequencies to existing vibrating systems. He worked out a means by which energy can be added or removed from the vibrating arrangement by the exact interaction of energies across null energy flux sites to control the work done by vibrations.

In further experimental trials on standing waves, Tesla determined that control of energy transfer at the nodes can be managed so that only a half of the vibratory cycle is used to add energy to the working frequency. He discovered that adding the energy of half a cycle of the vibration, resulted in 100% more energy being transferred from the calculated frequency compared to the addition of the energy flux of a whole vibration. He continued to experiment and worked out that when the synchronisation between the calculated frequency and the working frequency was so controlled that only the energy released from a quarter of the vibratory cycle, that the energy transfer was 3 times greater then that of the whole cycle?

After decades of strenuous effort Tesla had optimised a system to allow him to precisely synchronise vibrating system and control energy output of any vibration. His "Golden Ratio" of 3:6:9 relates according to this discussion to a way of adding energy, when applied in phase, to any vibrating system. To further exemplify the ratio Fig 7 describes how the calculated frequencies match exactly the in phase transfer of energy via the node sites of the vibratory cycle.

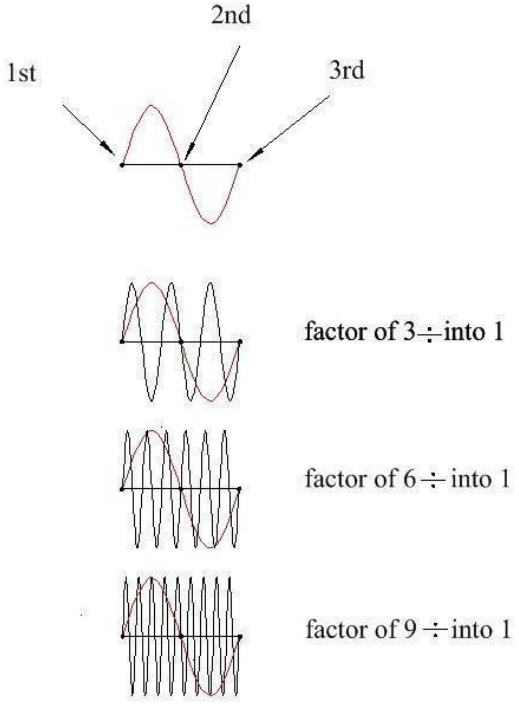

Fig7

A fundamental frequency divided by Tesla's 3:6:9: factors.
Note that all calculated frequencies traverse the nodes.

When Tesla extended his analyses of the 3:6:9 ratios to calculate longer wave length values he discovered that the ratio applied equally as well to longer wavelengths so that this magical ratio allowed the manipulation of energy variation to shorten fundamental frequency periodicity and calculate extended wavelengths he wanted to work with. As an example of his calculations it was confirmed with detailed graphical examples, that the ration again traversed all the node positions of the fundamental wavelength he was working with. Total synergic compliance was achieved with his 3:6:9 calculations.

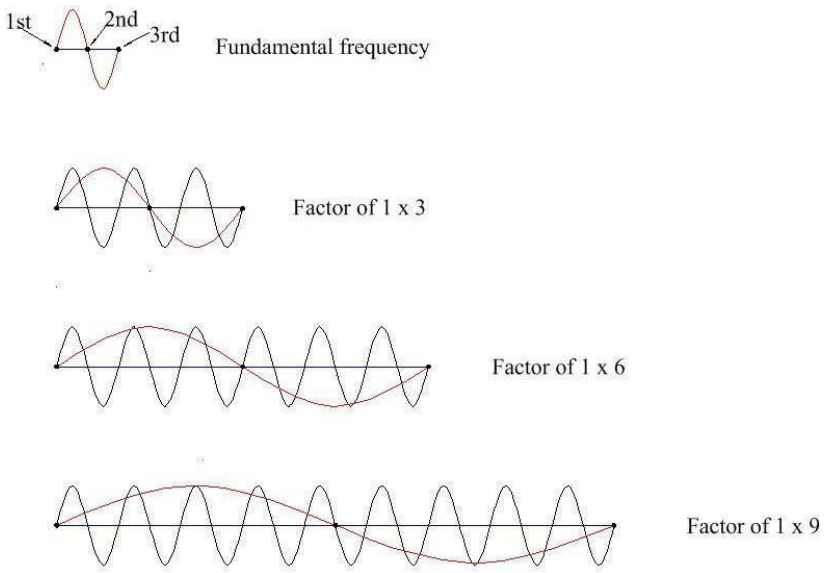

Fig 8

Calculated wavelengths and the fundamental frequency wavelength pass through the 1st, 2nd and 3rd nodes to impart energy to the ff.

Good science is reproducible and stands the test of critical inspection and as a means of looking more closely at the point at which the 3:6:9 frequencies traverse the nodes on the 1st, 2nd and 3rd intersections of the worked frequencies, an exact graphical representation was drafted using Professional CAD software, accurate to 6 decimal places, a scaling and snap facility to precise grid positions, to plot the intersections between the ff and the calculated frequencies. As an example only, a Tesla's factor 9 scaling calculation was used to plot the graph in Fig 9 and when analysed at great magnification, the null point energy flux intersection on the time scale, demonstrated remarkable synergy between the ff and the calculated value! The greater the enlargement the more accurate the cross over synergy between the energy fluxes is apparent. All this was available to the world in the 1890 when Tesla presented and used the development but none of it was transferred into the public domain and all subsequent attempts by researchers to apply the know how was smothered?

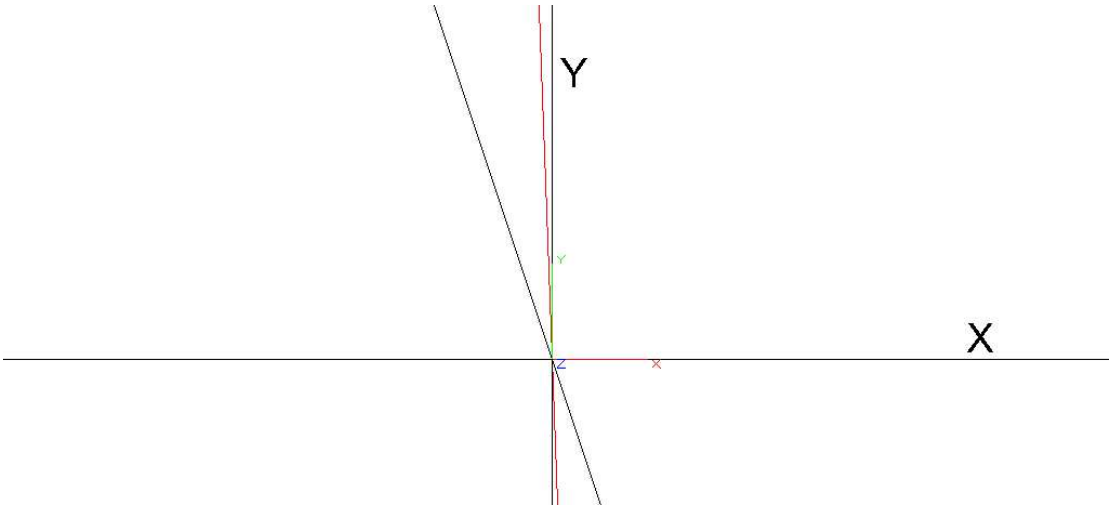

Fig 9

The red line is the fundamental frequency vibration and the black the calculated value.
NB that at this extreme enlargement both vibrations traverse the time scale at a node, the null point of the energy flux of both vibrations.

More recently, a Professor of music, Anthony Holland in the USA, was conducting trials in a well established modern medical laboratory, using the best equipment available and working under strict scientific protocols, working to test the effectiveness of Dr Rife's 100% cure for cancers. Dr Rife refined and used this resonance methodology to shatter cancer cells to great effect as far back as 1935, so Holland repeated those experiments and demonstrated that not only was this methodology scientifically sound but that the effectiveness of Rife's frequencies could be substantially made more effective by synergically adding the 11th harmonic to the ff used. In great anticipation, results are awaited from trials which apply the Tesla 3:6:9 calculations instead of the 11th harmonic, to compare how effectively the Tesla calculations destroy cancer cells. Cancer morphology is variable and each classification of the disease requires that frequencies applied be identified and confirmed as useful in treatment.

The addition of such synergic energy vibration resulted in a very substantial improvement in the rate and extent of cancer cell destruction. Here too, was a vibrational energy source that seemed to be well matched with the vibrational energy of the ff used and a CAD drawing scaled to the exact parameters specified in the Tesla 3:6:9 ratio, demonstrated graphically the synergic relationship between the worked frequency and the calculated frequency Holland used. When used with the 11th harmonic synchronised to traverse the 1st, 2nd and 3rd nodes of the ff, the two energy vibrations intersected the null point energy site in "almost" the same place. The 11 harmonic substantially fortified the ff vibrations to make the bombardment of cancer markedly better at destroying cancer cells but the harmonic was not a perfect synergic synchronicity observed with the 3:6:9 Tesla Ratio. Over time the frequencies

misaligned and the efficiency of the combined energy sources faded. See: http://www.ebritic.com/?p=643875

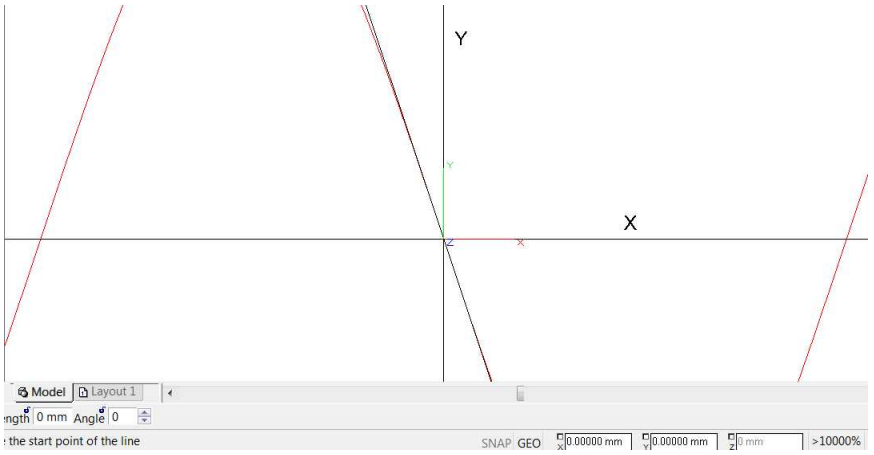

Fig 10

Anthony Holland's 11th harmonic initially traverses the node positions of the ff use but is not as accurate as the 3:6:9 calculations.

Many other examples of using the ratio can be quoted because there are a number of ongoing research projects to identify the use of 3:6:9. Several projects are looking at the use of this ratio, said to be buried in the numerical values Tesla worked with. Tesla was held prisoner by the nefarious Mafia encircling him and because he could not escape their strangle hold he buried false date and secreted it away knowing it would be found and acted upon and there are many examples where it can be identified that Tesla tried to hide what he was researching. But he was so prolific and generated such a flood of money making projects that the self interest, vigilante Mafia, whose credo was one where succeeding and becoming rich by theft and criminal activity was acceptable and indeed lauded, went to great lengths to spy on Tesla and made sure that nothing he developed was hidden from them[2].

The abuse Tesla experienced is in today's times very much more sophisticated and theft of Intellectual Property[2] is so extensive that most innovators no longer bother to innovate and submit patent applications. As an example, statistics available from the UK IP Office show that in the 1970s, there were on average well in excess of 40000 granted patents each year but the most recent statistical data available, shows that only some 6000 odd patents were granted to innovators. A catastrophic collapse in innovation and not only because innovators cannot protect their work nor can they enforce their patents in the Civil Courts of Law[3]. And yet, most industrialised societies state that innovation is the driving engine of successful economies?

Modern technology facilitates incursion into people's computers and thieves can download anything being worked on without the individual being ware and as all phones can be tapped, emails intercepted, faxes downloaded, mail opened and read before being delivered, bank accounts examined, medical records retrieved by nefarious interests etc it becomes obvious that individuals cannot prevent theft of their work. The Law, established to ensure justice for all, no longer works[4]?

Refusing to stop working and reveal the whereabouts of his research the Mafia murdered Tesla and ransacked his belongings, stealing whatever information they found. To date, only some of the names of those directly involved in the torture and murder of Tesla are known but it seems to many, that the same self appointed Mafia is more active today than it has ever been?

Given that Tesla set false trails relating to his research the synchronicity application seems to be very applicable to the mechanics of the universe and to test the concept and apply it to known phenomena, a useful test of applicability is to superimpose the calculated values on established examples. Of particular interest is the fundamental resonance hub of the Universe and the stated fundamental resonance of heavenly bodies. Tesla calculated the ff of our planet and stated that it was 7.83Hz and that not only the planetary mass vibrated at that frequency but all else on the planet as well. Given that our bodies also vibrate synergically at this frequency it is of considerable importance to examine the ff of the planet and superimpose its cyclicity on the Universal Hub Frequency of 432Hz.

Tesla curtailed his effort to determine the precise value for the fundamental vibrational frequency of earth presumably because of factors not available to researchers at the time and he settled for a calculated value of 7.83HZ. Some 50 years later, Schumann also attempted to calculate this frequency but gave up and settled for the already established Tesla frequency of 7.83Hz. Note that neither researcher attempted to provide a more accurate value than two decimal places?

Using the above described synergic compliance of calculated and experimentally determined resonance frequency, the frequency of earth was superimposed onto the Tesla specified Universal Hub of 432 Hz and when the calculated value is superimposed on the universe's resonance hub, it became clear that there is no exact synergy at the nodes between the 432Hz and 7.83Hz vibrations. It seems clear that there are unknown factors which need to be taken into account when estimating the value of the vibratory frequency of planetary masses. Further calculations using the node synergy only, gave a closer match between the intersecting nodes at a calculated value of 7.854(2^)Hz. The figures of ~54 repeated twice further down the decimal scale but as Tesla stopped his calculations at two decimal places, no further calculations were undertaken. As a mathematical exercise, a colleague Branko Gasevic, showed that the ~54 figures, recurred for many decimal places beyond the original evaluations and well beyond the accuracy Tesla worked to, imparting unknown properties to the vibrating mass?

Accurate determinations of vibrational frequencies are possible using the node intersections between the determined and the calculated and we have yet to confirm that the 432Hz fundamental hub is correctly measured. Missing variables introduce impossible complexity so to date no one has tried to provide a more accurate fundamental resonance frequency for our planet. Using the synergic superimposition of frequencies does show that refinements to the 7.83Hz and 7.85Hz are required so further study is awaited.

It can be speculated, that the density of the planet varies as the planetary volume increases and contracts as it vibrates to dissipate energy via scalar dynamics so the missing variables related to knowing the exact dimensions of the planetary volume and its density during a vibration but those values are to this day elusory. If indeed the missing variables relate to the variance in density and volume of the planet then it is not clear how Tesla hoped to provide enough energy to increase the amplitude of mass displaced given that the frictional losses alone must be huge. Any increase in vibrational displacement must be large enough to be useful as a means of tapping energy on the other side of the world?

It seems that Tesla had indeed established the magical formula for control of energy transfer between vibrations and the Golden Ratio of 3:6:9 is a magnificently simple mathematical relationship that allows complete command of energy in vibrating systems. However, it has not been possible to confirm the above Thesis because there are no documents in the Tesla Museum Archives, which describe how Tesla applied the 3:6:9 ratios and there remain “many alternative proposals” that need to be analysed, in an effort to identify what Tesla developed the ratio for?

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