

## Analogy of Tesla's measurements , expected values by the KGE model and measurement results on Visočica

Considering settings of the Model of quantum density , i consider that all material objects which geometry is based on principles who are an analog to those whom nature have put into foundational structure of universe , meet necessary and sufficient conditions for their full, mutual coherence , that is for their multidimensional resonance.

Replication of arranged mathematical structure into special geometrical shape and interial structure (content) of some object, results into very specific wave features of those objects and properties characteristic for coherent systems.

All up todays theoretical and practical researhes are showing possibility that objects of certain gabarits and special shape , manifested on supstantial level, and specially arranged material structure represent some sort of multidimensional –dipola- , that is resonators and concentrators of special energetic forms, including hypothetical sub-Plank wave entities from domain hyper – space( area of sixth quadrant Reality by the KGE[1]).

Purpose of this text is to show ,trough analysis of space and time relations , that Teslas technologies based upon universal principles all Cosmic machines like for instance Solar system and same those which are implemented into structure of certain, mostly sacral , buildings of the ancient civilizations.

According to my understandings , reality is dual and its always made by two oposite semi realities . In that meaning time and space are equivalent oposites, that is quantitatively equivalent but qualitatively inverse entities. In support of this understanding of the structure of the world i noted few concrete examples in particular paper[2] and here, for the sake of an ilustration, im quoting example of multtidimensional system Moon-Earth-Sun-Galaxy :

**Basic time quantum[3] =  $1,59 * 10^{11}$**

**sec.;     Basic space quantum[4] =  $1,49*10^{11}$  m.**

**Time revol. of Sun around the Gal.center =  $1.54*10^{15}$  sec.     Sun's radius from mass[5] =  $1.4*10^{15}$  m**

**Time revol. Month around the Earth =  $2,42*10^6$  sec.;     A real Month radius =  $1.7*10^6$  m.**

**(A curiosity: Basic Time quantum ~ Basic space quantum ~ Month radius from mass / 5 / =  $2.7 * 10 ^ 11$  m)**

Complete, multidimensional ,simetry in which everything that is coherent is filtered, is area (space) overlaping, (time ) synchronicityand 3D/4D (that is 'in-onut') "balance". Therefore all objects of specific shape specific gabarits and specially arranged internal structure which fulfill conditions of basic –cosmic accordance: space harmony ,space synchronicity , and their mutual coherence , they represent multidimensional resonators , meaning subtle – energetic concentrators . In other words (interpreted from the aspect of our model) , in order to achieve multidimensional resonance, basic coherence or "superconductivity" , needed and enough condition is that velocity and way of moving some substantial object or wave package, that is a frequent spectrum of objects of wave nature to be completely coherent with appropriate parameters of the medium trough which they are moving or propagating.

Nikola Tesla, undeniable intuitive genius of our civilization, has reached during his life extremely deep comprehensions, but unfortunately he never summarized them in some form of his own cosmogony. However with the analysis of his many interviews, articles, specially the diary from Colorado Springs, his patents and documents which are available to us – it can be seen that all of his successes came out from deep connection with the nature and respecting of those same basic-cosmic laws which can be seen in solar system, in the world of atoms or the people way of thinking. The thing that characterizes those principles is their simplicity, which is as we know the ultimate achievement of perfection. Therefore if we seek perfection, we should follow the nature, and Nikola Tesla found all his inspiration in nature[6].

In the following piece, we will show, from the aspects of Models of Quant Density of Energy [1], in which extent is the work of Nikola Tesla in accordance with nature. On the base of made analysis in this work, I claim that there is a full analogy: Tesla's measurements, expected values by the KGE model and results of measurements on Visočica[7], which I find as affirmative arguments which speak in favor of all Tesla's statements and interpretations and mostly his famous, eventhough – from aspect of classical science – controversial, claims that he: is not working with Hertzian waves, then with waves of some totally different kind'. I find this work to be a great contribution on understanding Tesla's work because it can not be understood enough through existing theories, which validity and accuracy I do not question at all.

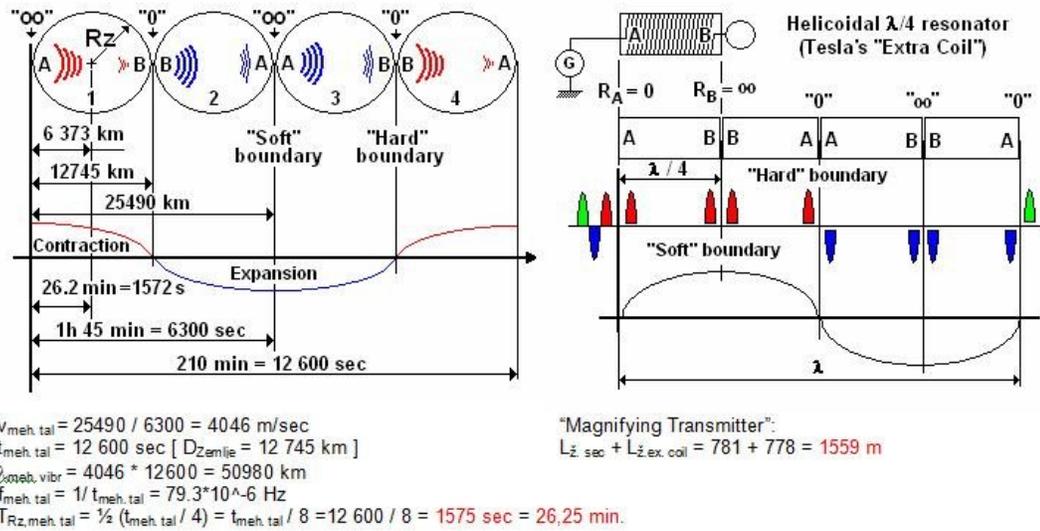
Lets go with one of Tesla's statements, which is by my opinion, one of the most significant that he has ever said in his life, and which describes the deep of his understandings:

“... I was very lucky to discover new and amazing phenomena, such as rotating magnetic field, glowing of wireless vacuum tubes and many other high frequency effects, which amazed the world, BUT WHAT IMPRESSED ME AS MORE BEAUTIFUL THAN ANYTHING ELSE WAS THE DISCOVERY OF STATIONARY WAVES, to which I came in 1899, and which showed that that the whole planet on which we live, despite its incomprehensible size, could be made to response with vibration to the lowest whisper of human voice. ...”.

There's few of those who believe in this. However let us continue with the analysis of Tesla's original statements. Since it's about elementary mathematics, generally known relations and universal symbols of the physical sizes, I will comment only most interesting results.

## 1. Measurements of Nikola Tesla:

“Teslino proročanstvo”, M.Matić, str.143/: **‘Earths vibrations are periodical and last around 1 hour and 45 minutes**: That is if I shake earth, **contraction wave goes through her and comes back in 1 hour and 45 minutes, but in state of expansion**. The earth is, as everything else, in permanent state of vibrating. She is constantly contracting and expanding.”



vFrom the quote above it follows that **Mchanical wave of earths vibration has period of 105 min.** Way to antipod ( $2 * R_z$ ) and back (again  $2 * R_z$ ) equals to  $4R_z$  which means that the way of mechanical wave , from earths surface to its core ,lasts quarter of entire time or 26,25 min = **1575 sec** . Entire cicllus ,which besides the contraction includes phase of expansion, lasts 12 600 sec, which is quite non random value , as it will be shown in follow up.

In the picture above – right, comperison sake, its given principled view of work Tesla's additional coil . Working principle of this – on the first look simple- but actually very complicated device – is analyzed in detail in work " Secret of Tesla's coils"[8] and here I emphasize the fact that the basic principles resonant amplification are similar to the work of a classic laser[9] , eventhough **in the case of earth it is about mechanical waves ,and in Tesla's coil its the electromagnetic wave.** In both cases one end has a soft border on which the wave bounces without changing the phase and oposite end has firm border on which the wave refects and changes the phase for 180 degrees . Since its about  $\lambda/4$  resonators entire length of the way is  $\lambda/2$  so the reflected way in the begining point is always in phase with the newcoming wave, which based on affirmative interfeerention , results with constant recharging the energy inserted in system so it constantly grows to the wanted value. This confirms Tesla's words that with his devices he can reach arbitrary values of the potential while the relation of the coil primar and secundant of his transformator ,of inductivities or any other parameter are not crucial. Therefore totally the opposite of what the most of "Teslians" do even though Tesla himself once said that : " many windings of the thin wire is the worst way to get high voltage."

Lets look at now other ,also very important Tesla's statement , description of the events which studying led him to biggest life cognition and understanding which "...is more beautiful then anything else..".

"Teslino proročanstvo", M.Matić, str.187: " Later that night the **instrument again started to work and stopped alternately, in intervals of near half an hour**, although the sky had already cleared."

$T_{\text{Tesla. stac. tal}} \sim 28 \text{ min} = 1680 \text{ sec.}$

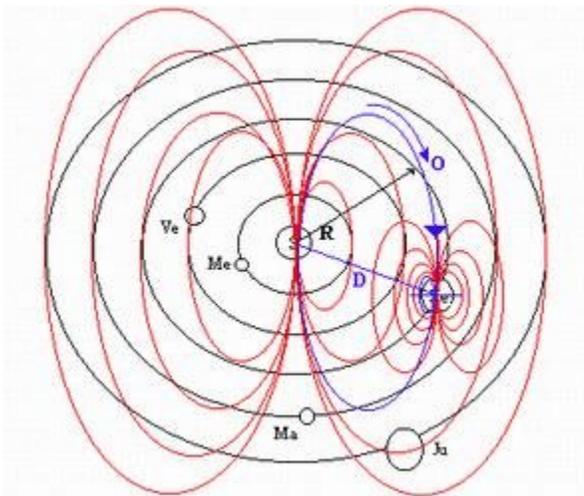
It follows from this quote that the **Stationary waves** caused by the storm **have periodicity** of approximately 28 min = **1680 sec.**

I believe that hardly anyone noticed correlation data in the above quotes of Tesla's original notes . **However, they speak directly to support my claim that Tesla was the first man of this civilization who succeeded full coherence , that is multidimensional resonance of his NonHertzian oscilator and natural mediums , and thus ensure the transfer of energy trough natural mediums without loss , meanin to create eneretic waves trouh which natural mediums demonstrate the effect of the minimum resistance (superconductivity!?) !**

This statement may sound to pretentious , but further analysis will show that it is not groundless.

## 2. Expected values , Model KGE :

G.Marjanovic, Energy Density Quanyfying Model, <http://users.beotel.net/~gmarjanovic/madod.pdf>



General law of unity micro,macro and hyper space determined by the EDQ model is  $m = r^{2n}$  and for first degree of quantization , it is normalised on value  $m=2,5r^{1.9}$  . Using this equation for the earths mass  $m=5,9*10^{24}$  kg we get value  $r=6,7*20^{12}$ m which according to the postulates of our model is appropriate Compton Wavelength  $\lambda_c$ , therefore (in accordance with the Hip.3) we get  $\lambda=\lambda_c \cdot 0,037$ , which makes  $\lambda =2,5*10^{11}$  m . It is very interesting and almost fascinating that EDQ model this value of wavelength of (some) vibration , which size comes directly from the earths mass, offers as possible alternative meaning of radius R , that is a middle value of the earths distance to the Sun. Since this value is proportional to the size of electric dipole antenna whose dimensions are equal to half the wavelength of the vibration - the appropriate wavelength has twice the value of, which implies **expected value for the periodicity of vibration based upon diameter and mass of the Earth**,incredibly close to the one Tesla was measuring:

$$T_{M-R-\lambda} = 2 * 2.5 * 10^{11} / 3*10^8 = 1666.6 \text{ secodnosno } T = 27.7 \text{ min}$$

Space-time deformation of the structure of the unity in the direction of propagation of the fourth dimension, caused by the presence of the earth and the sun, is shown in red colour ,and her diameter D has the value identical to the magnitude of the medium value of the distance Earth from the Sun. The way on which could Tesla's waves move on the way of magnetic field lines (N.Tesla , A.Puharić...) corresponding to the distance Earth-Sun, they would cross the path

sined with  $\Omega$ . Since the  $D=1,49 \cdot 10^{11}$  m, **expected time of propagation EM signals which would be moving on the way of magnetic field lines E-S is:**

$$T_{el. tal-z-s. magn} = \Omega / c = D \cdot \pi / c = 4.68 \cdot 10^{11} / 3 \cdot 10^8 = 1560 \text{ sec, ie } 26 \text{ min}$$

**Synthesis of the data presented in this and the previous section shows complete coherence of Tesla's oscillator with earth and sun, viz on the full symmetry of three equivalent opposites (spatial ) overlap, (temporal) synchronicity and their 3D/4D balance and that is the exact thing that makes the essence or physical reality of Tesla's NonHertzal waves.**

**It is quite obvious that the way of mechanical wave «inside», from the earth's surface to its core, lasts the same time as the way of EMW «outside», which is according to Models postulates quite expected since its the same event seen from two different corners ( from two opposite hemi – hyposferes) ,**as two different and on first look not related motions , while both are** ( way of EMW 1560sec, way of mechanical wave 1575sec) **completely synchronized with earth's stationary waves** ( period of 1680sec),**

As illustration that time-space are two quantitatively equivalent but qualitatively the inverse entities , I cite the fact that the frequency of vibration of the earth of 1575 sec corresponds to its equivalent opposite, that is " spatial" category of **1575 m** and time NonHertzal wave corresponds some spatial category of **1560m** . It is very interesting that the complete length of wires secundant and additional coil (galvanic connection) Tesla's "Magnifying Transmitter" from Colorado Springs is exactly :  $801 + 778 = 1579 \text{ m}$ .

**This general alignment parameters a variety of different entities is what makes the core of Tesla's NonHertzal waves enabling them propagation trough "Natural mediums" with the desired speed, even bigger then the speed of light.**

It's hard to believe that so much similarity quite dissimilar of entities is accidental. But this is only the beginning of our analysis. However, I consider this the opening, considerations made so far, despite their apparent naivete, showed **that the size and content of Tesla's work can not be understood clearly, without a better understanding of the multidimensional reality of their structure, particularly its dual nature.**

### **3. Measurements, Dr.S. Mizdrak & All, PyramidoftheSun, Visočica, april 2012.**

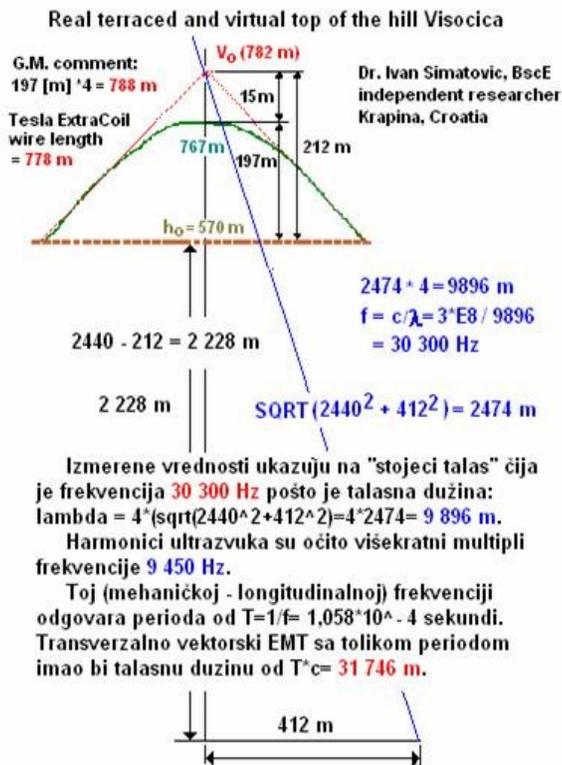
Based upon previous researches and earlier cognitions on ultrasound and electromagnetic radiations on the hill Visočica ( Bosnian pyramid of the Sun in archaeological site Visoko), at the end of april 2012., a very important experiment was performed under the guidance of dr.sc. Slobodan Mizdrak.

Experiment of great complexity, needed more days to assemble the equipment on the field, and more then few months to plan the analytics of the work, procurement, production, testing and develop of the equipment needed for the experiment in which the measurements lasted more then 39 hours ( or exactly 140 448,41 sec) .

Under direct control over four cameras, wirelessly conected with operative centre located in hotel Pyramid of the Sun in Visoko, strong transmitters (45W) were situated on the top of the Pyramid of the Sun which radiation, combined with the existing radiation from the pyramid, was fully registered and followed full time during the experiment.

During the experiment ultrasound and electromagnetic waves on frequencies close to those previously detected on the Pyramid of the Sun and other objects inside the archaeological site Visoko. Magnitude from 26 to 36 kHz , in steps of 100 Hz, in duration of 2 sec with 2 sec pause, was scanned. Sensors for reception of EMW were located on the top of the pyramid and sensors of mechanical waves (sound, ultrasound) on the top and in the Tunels of Ravna. Their work was recorded continuously, during all the 39 hours of measuring.

Collected data of more then 30 TB were analyzed in three different , independent statistical centres for mathematical analysis in order to get more reliable results. Final results, which were collected after three months of research are completely identical and their summary is given beside the picture in which we illustrated analogy and shown the possible connection with the gained results and real gabarits and structure if the Pyramid of the Sun.



**Dr. S.Mizdrak&All:**

- Institution for Statistic in Zagreb, Croatia
- Institution for Statistic in Belgrade, Serbia
- Institution for Advanced Mathematics in Wien, Austria

**EMW:**

**Source of electromagnetic radiation:**

2440 m above / below zone of measuring,  
 0,006% error  
 with a displacement of 412 m  
 0,001% error  
 at 68 degrees / 248 degrees.

Power est. more than 10 kW

Signal deviation time: 28,1 min.

**Ultrasound:**

Two lower frequencies,  
 around 9.378Hz,  
 next around 18.834Hz.  
 central between 28.361- 28.417Hz  
 next, between 37.827-37.854 Hz,  
 higher around 47.259 Hz.

Distance among peaks are 9.444-9.456Hz  
 between two contiguous peaks.

**Detected anomalies:**

- the expected level of the signal was 1.1 V (upper tolerance limit) but during the measurements it was reaching 3.6 V which was the maximum value that could be registered and which leaves the possibility that the values were greater.
- signal delay of 28.1 min was observed = 1686 sec.
- concentration of EM and ultrasound wave inside the circle of 5 m.

Even at first glance, it may be observed direct correlation, inverse and opposite wave form parameters between mechanical and electromagnetic vibrations, as well as their large consent with the realistically determined size of Visočica. In what follows it is pointed to the extremely large size of the coincidence that characterize these totally different entities.

#### 4. Comparison of measurements of N. Tesla and dr.S.Mizdrak and expecting values by the EDQ model

{1.} => Tesla: travel time of mechanical wave “inside” Earth:  $T_{Rz,meh. tal} = 1575 \text{ sec} = 26,25 \text{ min.}$

{1.} => Tesla: periodicity of stationary waves, caused by storm:  $T_{Tesla, stac. tal} \sim 1680 \text{ sec} = 28 \text{ min.}$

{2.} => EDQ: expected periodicity of the vibration based on earths mass and radius:  $T_{M-R-} \lambda = 1666.6 \text{ sec} = 27.7 \text{ min}$

{2.} => KGE: time of the EMW travel “outside”, by way of the magnetic lines E-S:  $T_{el. tal-z-s. magn} = 1560 \text{ sec} = 26 \text{ min}$

{3.} => **Registered signal deviation(delay) /Dr.S.Mizdrak&All/: 28,1min = 1686 sec.**

Based on the principle of inverse space-time transformation which is postulated as a possibility by our model , duration (periodicity) of a mechanical vibration of the Earth by measuring Tesla has value 12 600 sec, transferred to the appropriate category of inverse spatial (EM) entities of 12 600m. A quarter of that value corresponds to the time of Tesla's mechanical vibration from the source to the antipodes, in temporal way, or earths diameter in dimensional meaning. According to the principle entirely analogue, with the example of determining expected time of delay for the distance Earth – Sun ( $T_{el. tal-z-s. magn}$ , according  $D_{z-s}$  section {2.}):

Tesla's (longitudinal/EM/scalar ) waves ( A.Puharić...) in this interval have crossed the distance ( which value represents the wavelength ) of:

$$\lambda_{el. tal} = \text{/space-time inversion/} = t_{meh. tal} / 4 * \pi = 12\,600 / 4 * 3.14 = 9896 \text{ m.}$$

This wavelength, postulated by the model EDQ, has a corresponding (hypothetical) frequency of:

$$\Rightarrow f_{el. tal} = c / \lambda = 3 * 10^8 / 9896 = 30\,315 \text{ Hz}; \quad + \text{ periodicity /see {2.}/ of: } T_{el. tal-z-s. magn} = 1560 \text{ s.} = 26 \text{ min.}$$

**I emphasize that I have in my research in June 2011., on the top of the Pyramid of the Sun, personally detected and measured[10]the frequency EM signal of about 31 000 Hz /+- 15%/.**

The wavelength of the signal realistically detected on Pyramid of the Sun , has a value which is fully consistent with the duration of Tesla's mechanical standing wave , and which is again identical to the stationary wave generated during stormy atmospheric discharges ({1.}) with both values close to expected values whose are offered by the EDQ model ({2.}) indicating their undeniable connection and affirmation of Tesla's ideas of possibility of using Earth as “resonator”.

Let's look at something even more interesting. In the previous example, we have based on mapping corresponding spatial temporal categories, transforming parameters of mechanical vibrations reached the value of its electromagnetic screening, in next example we will do the opposite.

Earth circumference is:  $O_z = D_z * \pi = 12,7 * 10^6 * 3.14 = 4 * 10^7 \text{ m}$ , and the time needed for the EM wave to circle the earth:

$$T_{el. tal. Zemlja} = O_z / c = 0.133 \text{ sec.} \Rightarrow \text{/space-time inversion/} \Rightarrow \lambda_{meh. tal} = 0.133 \text{ m}$$

To this hypothetical value of the wavelength corresponds the frequency of mechanical wave ( as a sort of “projection” of realistic EM wave) which - for propagation velocity determined by Tesla ({{1.};  $v_{meh. tal}$ ) has a value:

$$f_{meh. tal} = v_{meh. tal} / \lambda_{meh. tal} = 4046 / 0.133 = 30\,421 \text{ Hz}$$

So, based on realistic parameters EM WAVE propagation, as its inverse opposite entity KGE model offers us MECHANICAL VIBRATION of 30 421 Hz

**As remarkable curiosity I mention the fact that I found during my research in June 2011. , on the top of the Pyramids of the Sun, I have measured /10/ the frequency of the ultrasonic signal from about 28 000Hz /+-15%/.**

## 5. Correlation of the measurements in terms of superluminal propagation Tesla’s NonHertzian waves

Bearing in mind that the average relative dielectric permittivity of Earth  $\epsilon_r = 1.02$  and magnetic permeability  $\mu_r = 69,7$  theoretical value of velocity of propagation electromagnetic wave through that medium is:

$$v = c / \sqrt{\epsilon_r * \mu_r} = c / \sqrt{1.02 * 69,7} = c / 8,4$$

Therefore, the speed vector, transversal EMW through the Earth, is about eight times smaller than the speed of light in vacuum and about its speed in free space. As such, symmetry of "emission source" compared to measuring point /see {3}/ is absolutely impossible because there are two very different media (air, earth) which, according to current theories, the speed propagation (classic EMW) are significantly different.

Also, the depth of penetration of the EM signal frequency of 30 kHz (the distance at which the signal is weak at approximately  $(1/e) \sim 40\%$  of its original value) for the Earth is at most a few hundred meters. For mechanical, ultrasonic waves penetration depth is at most a few tens of meters. Since for realistically measured frequency  $f_{measured} = 31\text{kHz}$  /7/ expected wavelength for the EM wave which spreads through the Earth is:

$$\lambda_{EMT-Zemlja} = (c/8,4) / f_{izmereno} = 1152 \text{ m.}$$

It is obvious that this value, and a quarter of that value is absolutely not correlative with any size determined by measuring the electromagnetic and / or mechanical vibration or actual overall dimensions of the pyramid. Bearing in mind the estimated value of “emission source distance” is 2474m, this discrepancy is difficult to explained by the laws and the characteristics of the propagation of classical EM wave whose quantum carrier is photon.

What is more than unusual - and to put it mildly - extremely interesting is the fact that the same results could be explained by Tesla's most controversial statement that his " NoHertzian waves" spread at a speed greater than that permitted by the basic postulate of Einstein TR. In fact, according to one of the well-documented statement of Nikola Tesla - **speed of the electrical disturbance (“wave train”) that it sends through the Earth is  $\pi/2$  times greater than the speed of light in vacuum:**

In his : Canadian Patent 142 52, “ Improvement in the Art of Transmitting Electrical Energy Trough the Natural Mediums”, Tesla says : “The most essential requirement is , however , that irrespective of frequency the wave or wave – train should continue for a certain interval of time, which I have estimated to be not less then 0.08484 of a second and which is taken to and

returning from the region diametrically opposite the pole over the earth's surface with a mean velocity of about 471240km/sec ...

Analysis of possible trajectories "through" (quotation marks indicate that this is a fictitious wave whose quantum carrier is not a photon because its interaction with the Earth as a physical structure of the medium propagation velocity would be significantly lower) the Earth and those around Earth that this ratio is equal to  $\pi/2$ .

$$T_{\text{el. tal. Zemlja}} = O_z / c = 133 \text{ msec}; T_{\text{Tesla wave train}} = 84 \text{ msec}; \Rightarrow T_{\text{el. tal. Zemlja}} / T_{\text{Tesla wave train}} = 0.133 / 0.084 = \pi/2,$$

So instead - in line with the classic - scientific knowledge EMW propagation speed through the Earth is 8.5 times smaller than the speed of light, with great attenuation, - speed of Tesla's NoHertzian wave ("wave train") THROUGH Earth, according to Tesla, C.P. 142 352 / is  $\pi/2$  times bigger than the speed of light, because the movement time of Tesla's NoHertzian wave ("wave train") is  $\pi/2$  times shorter than the movement time of Hertzian wave AROUND the Earth:

$T_{\text{Tesla wave train}} = T_{\text{el. tal. Zemlja}} / \pi/2 = 0.133 / \pi/2 = 0.084 \text{ sec}$ . Quite the opposite is true also. Traveling time of Hertzian wave is  $\pi/2$  times longer than the Tesla waves:

$$T_{\text{el. tal. Zemlja}} = T_{\text{Tesla wave train}} * \pi/2 = 0.084 * \pi/2 = 0,133 \text{ sec}.$$

As we have seen in {1.} mechanical wave of Earth's vibration has a period of 26,25 minutes = 1575 sec, so in this case, by the same analogy, Tesla's interpretation of his "wave train" would give corresponding time::

$T_{\text{NeH}_Rz, \text{ meh. tal}} = 1575 \text{ sec} * \pi / 2 = 2474 \text{ sec.}$ , from where, on the basis of the EDQ model, follows:

$$\lambda_{\text{NeH}_Rz, \text{ meh. tal}} = \text{/space-time inversion/} = 2474 \text{ m}; \quad \text{Remark: } \lambda/4 \text{ /see \{3.\}} \\ / = \text{sqrt}(2440+412) = 2474 \text{ m}.$$

Therefore, under the assumption of «superluminal propagation» ( on «Tesla's way») some hypothetical mechanical wave with a period identical to the period "Tesla's mechanical vibration" resonant with Earth, EDQ model gives us exact same value, based on the experiment of dr. S.Mizdrak&All, all three institutes gave as estimated value of the distance of the source of the radiation, and which is under my opinion connection point Tesla's scalar wave. Attached to it speaks the further analysis.

Entire ciclus of mechanical wave sending and his return /as we seen in {1.}/ lasts 1 hour 45 minutes, or 6300sec, and implies wave propagation in area with size  $4R_z$  - so in that part of cycle appropriate wavelenth is :

$$\lambda_{\text{ciklus, NeH, meh. tal}} = 2474 * 4 = 9896 \text{ m, or analogue "Tesla's wave train": } \lambda_{\text{ciklus, NeH, meh. tal}} = 6300 \text{ sec} * \pi / 2 = 9896 \text{ m}$$

which is four time value of distance of the «source of radiation», or alternatively, by our model nearly[11]the wavelenth of Tesla's scalar wave.

Hypothetical frequency of that Tesla's scalar wave, postulated by the Model, would have the value of :

$$f_{\text{ciklus, NeH, meh. tal}} = c / 9896 = 30 \text{ 315 Hz}.$$

Obviously, this value is indeed very close to the one determined by measuring the number of research teams. Interestingly, the same frequency phenomena were recorded on mountain Rtanj[12](of the height 1565 m), in so called «Najdan circles» , and many other pyramidal structures.

As has been shown in {2} expected time periodicity of EM waves that would move through the magnetic field lines (N.Tesla , A. Puharić...) corresponding to the Earth – Sun distance, is:

$$\{2\}: T_{\text{el. tal. z-s. magn}} = S_{\text{z-s. magn}} / c = R_{\text{z-s}} * \pi / c = O / c = D * \pi / c = 4.68 * 10^{11} / 3 * 10^8 = 1560 \text{ sec} = 26 \text{ min}$$

Under the same analogy, EM waves that would move trough the magnetic field lines, in this case those who correspond to the diameter of Earth, would cross (ellipsoidal) path of length  $R_z * \pi$ , so the corresponding time of their propagation is:

$$T_{\text{el. tal. cz. magn}} = R_z * \pi / c = 6.373 * 10^6 * \pi / 3 * 10^8 = 0.066 \text{ sec.}$$

Under assumption of superluminal propagation possibility in «ellipsoidal path», in "NonHertzian" form, by Tesla's principle  $T_{\text{el. tal. Zemlja}} = T_{\text{Tesla wave train}} * \pi/2$ , we get the value:

$$T_{\text{NeH, el. tal. cz. magn}} = 0.066 * \pi/2 = 0.103 \text{ sec.}$$

Since the inversion of spatial-temporal categories includes tranformation electromagnetic into mechanical vibration, expected value of the assumed mechanical wave wavelength is:

$$\lambda_{\text{NeH, el. tal. cz. magn}} = 0.103 = \text{/space-time inversion/} = 0.103 \text{ m.}$$

Cycle of going and returning wave trouh Earth includes the distance which is nearly equal to  $4 * R_z$ , so it implies:

$\lambda_{\text{ciklus, NeH, el. tal. cz. magn}} = 0.103 * 4 = 0,417 \text{ m} = \lambda_{\text{meh}}$ , Therefore – with speed of propagation according to Tesla's measurements ({2.},  $v=4046 \text{ m/s}$ ), appropriate frequency has a value of:

$$f_{\text{ciklus, NeH, el. tal. cz. magn}} = f_{\text{meh. tal}} = v_{\text{meh. tal}} / \lambda_{\text{meh}} = 4046 / 0.417 = 9688 \text{ Hz}$$

Hence, based upon assumption of periodicity of Tesla's NonHertzian waves whose resonator would be the planet Earth, with the assumed possibility of superluminal propagation in NonHertzian form, Model offers expected value (9688 Hz) very close to frequency of sound wave of 9 378 Hz which has been registered by the prof.dr. Paolo De Bertolis. If the value of the whole hypothetical mechanical vibrations is seen as a fundamental harmonic integer - multipliers of its values are close to those established by measuring.

$$f_{\text{meh. tal}} * 2 = 19 376 \text{ Hz, /P.De Bertolis: around 18.834Hz/}$$

$$f_{\text{meh. tal}} * 3 = 29 065 \text{ Hz, /P.De Bertolis: between 28.361- 28.417Hz/}$$

$$f_{\text{meh. tal}} * 4 = 38 672 \text{ Hz, /P.De Bertolis: between 37.827-37.854 Hz/}$$

$$f_{\text{meh. tal}} * 5 = 48 340 \text{ Hz, /P.De Bertolis: around 47.259 Hz/}$$

Considering that we are in many ways have determined the Earths resonance with the vibration of 30 kHz, the fact that the wave with frequency of about 28 400 Hz has the highest amplitude, it is quite understandable.

## 6. Final considerations

As for the so-called. "Hertzian", ie. vector, electromagnetic transverse waves, experimental reality is that their speed of propagation depends on the electromagnetic properties of the medium through which propagated ( $\epsilon_r, \mu_r$ ), as already shown in{5.}.

The measured EMW frequency values, on top of Pyramid of the Sun, and its corresponding wavelength are correlated with the estimated distance of "radiation source" only if the propagation speed is equal to the velocity of light, what - in the case of classical EMW – is Impossible. In other words - a photon can not be a quantum carrier of electromagnetic vibrations recorded at the top of the Pyramid of the Sun because its propagation speed through the Earth is about 8.4 times smaller than its value in a vacuum or about - in free space. Corresponding wavelength value is incommensurable with the realistic measured frequency. For the same reasons symmetry of results obtained for the "upper" and "lower" radiation point is not possible.

According to our assumption, Tesla's NonHertzian waves are scalar, longitudinal, EM waves without its own quantum carrier, and the velocity restrictions and propagation laws described with modern interpretation of Maxwell theory, that prefer the existence of electromagnetic vibrations in the form of the transversal, vector, wave - whose quantum carrier is a photon – could not be applied on them.

In anticipation of the expected values offered by EDQ model with measured values, both in the Tesla experiments and measurements with prof.dr. S.Mizdraka and his team is more than obvious. Here is another example.

On the basis of Tesla's statements, {1}, we determined the frequency of the **mechanical vibration** of the Earth:

$$f_{\text{meh. tal}} = 1/t_{\text{meh. tal}} = 1/12\,600 = 79.3 \cdot 10^{-6} \text{ Hz}$$

This value projected in her "NonHertzian form" has its value enlarged proportionally on earth's radius in 3D, and the one that it will have.... i.e. that which it has now in 4D. /see 1./:

$$t_{\text{meh. tal. NeH}} = 79.3 \cdot 10^{-6} \cdot (R_{\text{zIV}} / R_{\text{zIII}}) = 79.3 \cdot 10^{-6} \cdot 1056 = \mathbf{83,8 \text{ msec.}}$$

Value we have got, is very similar to the one that Tesla was measuring:

{5.} => Time of departure and return of Tesla's **electric wave** (wave train):  $T_{\text{el. tal}} = \mathbf{84 \text{ msec !}}$

The fact that the values for "NonHertzian form" of mechanical vibration of the Earth and the periodicity of the Tesla Electric wave are almost identical, speaks in favor of a model and points to a "double", or Multidimensional resonance of the Earth. The same can be illustrated in yet another example.

Earth's diameter is **12 745 - km**. These values together "projected," "in there", according to the same mechanism as in the previous example, has the size of its "inverse opposite" an entity of:  $12\,745\,000/1058 = \mathbf{12\,070 \text{ sec}}$ . It's really hard believe to that this value is accidentally very close to the frequency of Tesla's vibration of **12 600 sec** ({1.}). On the contrary, I believe that the correlation of specified values is completely not random and that this numbers are actually showing the profundity of Tesla's cognitions on the deep interweaving of the time and space categories in all natures segments. I also believe that value of a close values of Earth radius [m] and the frequency of Tesla's vibration [s], are indicating the coherency of those two inversely - opposite categories.

Measurements of prof.dr.S.Mizdraka and his team also speak directly in favor of the established mechanism dual (Hertzian-NonHertzian) reality of objects, whose core can be expressed in the form of two quantitatively equivalent but qualitatively inverse entities.

In section {3.} we have seen that the difference between measuring point and “point of radiation” is 2474m, which corresponds to the quarter of the vibrations wavelength, whose frequency is 30 300Hz if the speed of her propagation is equal to the speed of light. The fact that on the Pyramid of the Sun have been detected EMW whose frequency is very close to this value – it enables us to assume that the “radiation points” are actually nodal points of Tesla’s scalar – longitudinal wave which vibration has a very close value to the value of the frequency of **30 300Hz**, whose wavelength is (with  $v=c$ ) **9 896 m**.

On the other hand measurements of Ph.D. P.De Beriolis show all the peaks registered in the domain of the measured sound spectrum are harmonics of central mechanical vibration {5}, with strictly consistent gap between neighboring peaks of:  $df_{MEH} = 9 450 \text{ Hz}$ . Hypothetical electromagnetic waves of that frequency would have period  $T=1/f=1,058*10^{-4}$  and corresponding wavelength (with  $v=c$ ):  $\lambda = c*T = 31 476 \text{ m}$ !

More interesting is the fact that the value very close to this value can be obtained on the basis of wavelength (theoretical) electromagnetic vibrations of 30300Hz. Specifically, if the value of its wavelength of 9896 m is understood as spatial entity in diameter of assumed spheroidal path ( $D_{HIPOTET}$ ) would move Tesla (longitudinal, scalar) waves (via magnetic lines, quite analogous to the example in section {2}) to get the value of:

$$D_{HIPOTET} * \pi = 9896 * \pi = 31 089 \text{ m}.$$

Quite an indisputable fact of really amazing closeness wavelength size of hypothetical electromagnetic wave whose size we get from basic value of the fundamental frequency of real mechanical wave whose range actually was registered by Ph.D. P.De Bertolis and values obtained on the basis of coherence Earth-Sun system ~ also support EDQ model postulates and principles that Nikola Tesla applied in his work.

## 7. Conclusion

Energy Density Quantification model includes a vast scale dimensional objects whose ratio is an order of magnitude  $10^{110}$  in the space-time and in terms of energy. Given this, it is unrealistic to expect highly accurate results. However, this model allows us analyze reality in ways that allow overcoming limitations contemporary science has, the speed of light and/or the value of Planck’s constant, and that - without disrupting existing theories. Since this model is actually a kind of their upgrading, allowing us to observe deep intertwining and connectivity of all that is, of the Universe in which everything is included – up to the Supreme spiritual Absolute, which is contained in all!

The fact that we are in many ways determine the Earth resonance vibration of about 30 000 Hz, for electromagnetic and mechanical waves, indicating that - as its operating frequency of his (multidimensional) oscillator in Wardenclyff, Nikola Tesla chooses value of 28 000Hz – acts as totally not random!

The most interesting curiosity is certainly the fact that - **assuming propagation on "Tesla's way"** [N.Tesla, Canadian Patent, 142,352;  $v = (\pi/2)*c$ ] - **of a hypothetical mechanical wave whose period is identical to the duration of "Tesla's mechanical vibration" resonant with**

**the earth, EDQ model offers us a value that is completely identical to the estimated value of the "radiation source" distance, which suggests that the "source of radiation "actually is a nodal point of the Tesla scalar wave for whom the Earth exerts effects analogous to the phenomenon of superconductivity!**

Each theory may or may not be true - in entirety or in a particular domain. However, the numbers are inevitable and those with EDQ model aspects and performed measurements, speak in favor of feasibility of Tesla's words that he was trying to convince his contemporaries that he "does not work with Hertz waves but with waves of a very different kind."

the possible veracity of all the Nikola Tesla words, including his most controversially messages, this work has aimed at re-affirmation of the name and work of the undisputed genius of the world, and thus the feasibility of his unrealized projects becomes more likely.

Belgrade, 13.09.2012.

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[1] Goran Marjanovic, <http://users.beotel.net/~gmarjanovic/index.html>

[2] "Višedimenzionalna struktura Jedinstva sa aspekta modela KGE", KPV, <http://kpv.rs/?p=2253>

[3] Prema Majanskom kalendaru, Veliku Zodijačku Godinu (Great Zodiacal Year, Platonic year /26000 godina/ ) čini pet osnovnih vremenskih ciklusa (5 Suns), pri čemu svaki od njih traje 5 125 godina. Ova vrednost je bliska vrednosti  $\sim \frac{1}{4}$  orbitalne (apsidne) precesije (21000/4=5250 god), ili – što je još interesantnije  $\sim \frac{1}{5}$  osne precesije (prec. ekvinočija) = 25 920/5=5 184 god. Obzirom na to, kao osnovni vremenski kvantum možemo usvojiti vrednost "jednog sunca Maja" od 5125 godina, što iznosi:  $5125 \cdot 360 \cdot 86400 = 1,59 \cdot 10^{11}$  s.

[4] Poluprečnik Zemljine orbite oko sunca definiše sferu koja odgovara jednom ciklusu kretanja Zemlje oko Sunca.

[5] Prema Modelu KGE, za prvi stepen kvantizacije  $R \sim \sqrt{M}$ ;  $M_s = 2 \cdot 10^{30} \Rightarrow R_{s,m} = 1.4 \cdot 10^{15} \text{m}$ .

[6] Stihovi Geteovog "Fausta" koje je Tesla izgovarao posmatrajući zalazak sunca - bili su "okidači" za jedno od njegovih najvećih otkrića - obrtnog magnetnog polja. Na sličan način, posmatrajući oluju spoznao je "Stacionarne talase"...

[7] "Finished experiment of April 2012 on ultrasounds beam and electromagnetic waves from the top of the Pyramid of the Sun", Dr.S.Mizdrak&All, April 2012.g., <http://www.sbresearchgroup.eu/index.php/en/>

[8] "Tajna Teslinih kalemova", <http://users.beotel.net/~gmarjanovic/Tajna.pdf>

[9] Sinhronizacijom ritma emitovanja energije ekscitiranih elektrona i talasnog kretanja paketa talasa sukcesivno reflektovanog svetlosnog snopa omogućuje se njegovo prihranjivanje energije do željenog nivoa.

[10] Rezultati istraživanja u Bosanskoj dolini piramida, 27.06.2011., Goran Marjanovic, dipl.inž. <http://www.piramidasunca.ba/ba/> .

[11] Stvarna vrednost podrazumeva merenje u tački virtuelne visine Visočice a ne na stajnoj tački – njenoj realnoj visini.

[12] Visina planine Rtanj (1565m) jednaka je tačno dvostrukoj vrednosti virtuelne visine Piramide Sunca (782m) i zbiru mehaničke dužine žice sekundarne i dodatne zavojnice Teslinog "Magnifying Transmittera" iz Kolorado Springsa (  $801+778 = 1579$  m).

