

Lesser known Nikola Tesla - a scientist of the future

Amount of Nikola Tesla's misunderstanding is truly unthinkable.

Initially, I thought it was only illusion because of the existing mechanisms of the "system" that disavow Tesla's work in accordance with their interests, as well as of all those who are more seriously involved in Tesla's work also - but lately I find that it is not just an illusion but true misunderstanding.

The fact is, that IT IS NO ONE AN INSTITUTE, or an institution (including the Nikola Tesla Museum in Belgrade), not only in Serbia, but also in the world, whose work is based on THE ORIGINAL TESLA'S MACHINE: "MAGNIFYING TRANSMITTER" from Colorado Springs and energy transfer principles applied on that machine - but on his "CLASSIC" VERSION OF HIGH-FREQUENCY TRANSFORMERS WITH THE AIR CORE, with which Tesla worked in New York and whose functioning is based on induction, which method is completely inferior to "disturbed charge of ground and air method" applied in his the famous "Magnifying Transmitter", as Tesla writes in his diary on June 5 1899. [1].

As far as I know, no one else in the world has achieved an approximate result, nor did attain effects like Tesla, which is not surprising because its elementary rules and principles are not respected - at least a part that is available to the public.

Of course, I do not dispute any freedom of exploration, which is actually desirable, but if you investigate someone's work then you have to respect his instructions for a specific experimental setup. I find as inappropriate to impute Tesla something that is, not only different, but most often even contrary to his principles. Contemporary science, as well as many explorers, do just that. And so over a century.

The story about "Tesla waves" is better not even start.

It is paradoxical but true that for a whole century, Tesla's wireless transmission system is trying to explain by the same principles as Markoni's radio, an incomparably poorer and more inferior system. Namely, the "Wardenclyffe Tower" (1901-1917), Tesla's Miracle of Miracles, compares and attempts to explain by the same rules and principles applied by Guglielmo Marconi, who allegedly "preceded" Tesla - what is absolutely incorrect - because Markoni's system is a completely different setup although both are actually Tesla's, because Markoni applied 12 Tesla's patents for the key elements of his "Hertzian" radio.

Tesla himself says: "I AM NOT PRODUCING RADIATION IN MY SYSTEM; I AM SUPPRESSING ELECTROMAGNETIC WAVES. But, on the other hand, my apparatus can be used effectively with electromagnetic waves." [2].

Two best experts for Tesla's work from the aspect of conventional, technical, science, brothers: Dr. James F. Corum and Dr. Kenneth L. Corum, confirms these Tesla's statements and points to a fact [3] that TESLA RETAIN ENERGY in his system - what is quite opposite to "Hertzian" broadcast system that Markoni used.

Analyzing Smit's diagram, they hypothesize that Tesla operated the Extra Coil against the earth as a slow-wave resonant transmission line. Theirs calculations show that VSWR of Extra Coil have a great value and it would be undesirable to use it as an antenna or as a loading coil for the tower since its ability to step-up the base-fed excitation is seriously reduced.

Unfortunately, the official science is trying to explain these two - essentially diametrically opposed systems - by the simplified - but also the only valid - version of Maxwell's theory - which is very difficult and actually impossible.

The reason is very simple.

With its original equations, J.C. Maxwell described various forms of electromagnetic waves propagation that can be spread in the vacuum (free space) or in other mediums. The theory is presented in the form of quaternion's, i.e. - hyper complex numbers.

After his death, a group of scientists led by Oliver Heaviside, considering Maxwell's equations unnecessarily complex and complicated for analysis, threw out the scalar part of the quaternion and reduced them to a simpler, dimensionally lower, vectorial form, in which they - as the basis of modern electromagnetism - is used today. A modern ("simplified") interpretation of Maxwell's theory is extremely suitable for the description of the so-called "Hertzian" electromagnetic waves, in which the electric and magnetic fields oscillate vertically to one another, and the wave propagate in the direction vertical to the variations of both of these fields. Therefore, these waves are called transversal-vectorial waves. Unfortunately, this version of the mathematical interpretation of Maxwell's theory, although much easier and more convenient for the analysis and description of the "Hertzian" waves, the form used by Markoni e.g., are much less suitable for the description of "Scalar" energy fields, "Longitudinal" electrodynamic vibrations that oscillate in the direction of their propagation - form that is used by Tesla. What's more, longitudinal electrodynamic vibrations, unlike the "Hertzians", base their propagation on a

ponderable environment. Tesla, as it is known, based his technologies on longitudinal waves and "luminiferous ether" (!!!) and the science declared the ether as nonexistent ...

In my opinion, this is the basic reason for the insufficient clear understanding of Tesla's technologies based on longitudinal etheric vibrations, which Nikola Tesla called "Non-Hertzian", or "waves of completely different kind". So, the basic reasons for "suppressing" Tesla's technologies from contemporary science, denying and not recognizing the true size of his work - both in the past and today, is the fact that (regarding original, quaternion, version of Maxwell's theory), it is not possible to limit the velocity of longitudinal (etheric) electro-dynamics vibrations propagation, which means that they, unlike "transversal-vectorial" waves, can theoretically reach an arbitrarily high velocity of propagation, which directly contradicts to the key postulate of Einstein's theory of relativity. The Michael-Morley experiment that has proven the Non-existence of the ether - today is impugned by a series of experiments performed by far more modern equipment, which makes the original Tesla's statements extremely important.

It's more than interesting that, even today, Tesla's KEY CLAIM that he DOES NOT USE "Hertzian" waves in his system is mostly disputed of all his statements!

Namely, according to the interpretations of conventional physicists, Tesla was genius, but he did not quite understand what he was doing, so in his scientific non-knowledge, he emphasized that he uses some "Non-Hertzian" waves. According to modern science, Tesla actually work with waves that are only a specific form of classical, "transversal vectorial waves," the so-called "surface waves", in the near transmitter zone, such as for example, are "Zenneck waves", "Norton waves" and the like.

In his remarkable story of his discovery of the "True Wireless" [4] Tesla shows us that he is indeed the "Father of the Wireless." To him the Hertz wave theory is a delusion ..., because "Hertzian" waves are significantly weakened after they have traveled a short distance from the sender. Regarding Tesla explanations, received signals must actually be induced by earth currents - not by spatial waves!

However, I am sure that the truth is on Tesla's side, and because of physicists inconsistency (Coulomb's, Maxwell's and Lorentz constants, vacuum permittivity ...) they were literally forced to expel Tesla from science and transform his original statements to suit them.

The reason for this is very simple.

Hertzian waves do not require a material environment for their propagation because changes in the magnetic and electric fields support each other (rolling wave) while the propagation of longitudinal electro-dynamics vibrations is based on the ether as its carrier, similar to the transmission of the sound through the air, where air molecules transfers a mechanical vibration.

The fact that longitudinal electro-dynamics vibration can spread with over-light speeds, even infinite speed, was a huge nuisance to the theory of relativity. This probably was the reason why many scientists of that time criticized Ether's theory (among others, Tesla's compatriot M. Pupin) and, finally, have to experimentally prove (Michelson-Morley) that ether does not exist. Without ether, there are no longitudinal-scalar electro-dynamic waves, neither Tesla's "Non-Hertzian" waves ...

However, fact that Tesla was what he really was - and not as was interpreted - is strongly confirmed with his original statements. One of the extremely controversial but well-documented statements of the genius Tesla reads: "Tesla Sees Evidence Radio and Light Are Sound" ! [5]. So, speaking with the language of the 21st century, Tesla debate about something that was "scientific heresy" in that time and it is still today: "Light cannot be anything else but a longitudinal disturbance in the ether, involving alternate compressions and rarefactions. In other words, light can be nothing else than a sound wave in the ether..." [5].

Exactly this sentence points to the magnificent power of Tesla's intuitive genius because he expound LIGHT as LONGITUDINAL DISTURBANCES OF ETHER which includes the alternating COMPRESSION AND EXPANSION of ETHER, or - in other words, that the LIGHT IS "ETHEREAL" "SOUND" wave.

Whether it was spiritual limitation, intentional suppression, vanity, fear for position, or "just" greed, NONE DOES NOT NOTICED - neither then nor even today - TESLA'S INTERPRETATION OF LIGHT PHENOMENA AS VOLUMETRIC VIBRATION OF ETHERIC SUBSTRATE - WHICH IS STRUCTURALLY AND ESSENTIALLY DIFFERENT FROM so-called "HERTZIAN WAVES", whose "quantum carrier" is a photon - "massless particle" that moves at the speed of light and therefore it must not have a real rest mass ...

So, before the whole century, Tesla speaks of three-dimensional, "volumetric", energy fluctuations in the "breathing" regime, as are described in the ancient Vedic writings (Sankhya karika e.g.) and which modern science currently studies as the theory of TORSION FIELDS (A. Akimov, G. Shipov, 1980, [6]) - that are non-electromagnetic and non-gravitational phenomena, subtle-energy forms that possess elemental consciousness and propagate with minimal speed billion times greater than the speed of the light !

That's what "real" Tesla spoke !

Tesla's experimental data point us to what extent he was unconventional. On numerous "Teslian" sites one can find instructions for the "Tesla Transformer" construction. The basic condition for the operation of this apparatus is that the resonant frequency of the primary circuit must be equal to the resonant frequency of the secondary circuit, where the coupling coefficient usually is 0.1 to 0.2 maximally. Voltage on the secondary is proportional to the ratio of the primary and the secondary coil windings numbers.

In the Magnifying Transmitter case this ratio is 1:17, so the maximum voltage expected on the "Top Load" is about 170,000 V, since the input voltage of the "Westinghaus" transformer used by Tesla in CoSpgs was 10 kV. However, Tesla's got a voltage of about 12 million volts !!!

How?

The answer is very simple.

The classic "High-frequency and high-voltage transformer with air core" is a version that is mostly known as "Tesla transformer" but that version Tesla used mainly in his initial research in New York laboratory, before his experiments in Colorado Springs (1899). The device he has built in CoSpgs is absolutely dissimilar device of that because in "Magnifying transmitter" Tesla applied the COMPLETELY DIFFERENT PRINCIPLES AND CONSTRUCTION.

Firstly energy transfer through the complete system is not carried out by induction. The primary-secondary coupling coefficient is extremely large (depending on the experimental setup k is from 0.4 to 0.6), as no one "ordinary" "Tesla transformer" does not work in nowadays. Connection between the secondary coil and the Extra coil is galvanic, whereby INDUCTIVE COUPLING IS OF NEGLIGIBLE VALUE (!).

Second, and mostly important fact can be seen from the Tesla diary data, especially from his measurements of 14 December 1899 [1] with the subtitle: "Determination of the system vibration with the latest version of Extra Coil", when Tesla determines THE RESONANT FREQUENCY OF THE SYSTEM WITH THE LATEST VERSION OF EXTRA COIL: $f = 89.42$ kHz, and – in the same experimental setup – THE RESONANT FREQUENCY OF THE PRIMARY CIRCUIT (with the coupling coefficient $k = 0.4$): $f = 56.4$ kHz!

Obviously, the frequency ratio is $89.42 / 56.4 = 1.58 \sim \pi / 2$. So this apparatus does not work on the same way as millions of "Tesla transformers" worldwide ($F_{pr} = F_{sec}$) - but - the resonant frequency ratio of the system to the primary circuit almost is equal to the value of $\pi / 2$!!! This information points to a great analogy of Tesla's principles and axiomatic principles of ancient builders, which becomes even more interesting if we have to remind ourselves that Tesla was used planet Earth as a "resonator".

More interestingly, by dividing the system resonant frequency value with the number π (the basic cosmic constant, whose value Sankhya draws directly from the golden mean) we get a value of $89.42 / 3.14 = 28.47$ kHz, which is the "working frequency" of the Wardenclyffe tower ! It's even more unusual that the same value is measured on Rtanj mountain in Serbia and on the top of the Pyramid of the Sun in Visoko, Bosnia and Herzegovina also !

The fact that the ratio of the Cheops Pyramid [7] base length which is 230.34 m and its height of 146.71 m, which is decadal multiple of Earth - Sun distance (!) is: $230.34 / 146.71 = 1.57$ what exactly is equal to $\pi / 2$!!!

It's hard to believe that this "coincidence" is accidental ...

Really amazing argument about Tesla's unconventionality are absolutely non-random values which he applied in his most controversial machine "Wardenclyffe Tower".

For example, tower height above ground is 57 m [8], and its underground part length (depth) is 36 m. Its ratio is equal to $57 / 36 = 1.58$ which is very close to $\pi / 2$ value (≈ 1.57). Also, the ratio of total tower size and its over ground part is: $93 / 57 = 1.63$ what is almost the same value as golden mean (1.618) !

The exact values of "Tesla Tower" are unknown to us and here presented numbers are one of the few variants which can be found on the Internet. In any case considered relationships show that the Wardenclyffe Tower construction is based on the values of the golden mean and on the number π – numbers that characterize a lot of pyramidal and/or sacral objects, pointing to the possibility that the ancient builders knew the secret of "multidimensional resonators", i.e. principles of general cosmic harmony.

By all odds, our inability to explain Tesla's technology sufficiently clearly by the valid theories can be overcome by combining a modern physics with the knowledge of the ancients.

Anyway, Nikola Tesla was one of the few scientists in this civilization who seriously approach to the knowledge of ancient civilizations which significantly exceed our present knowledge. On that way, Nikola Tesla's "Non-Hertzian" technologies, expelled from today's science, most likely will become a technology of the future and will be a basis for all advanced technologies of the future.

This is my basic motive for the research of pyramidal and other objects built by ancients, whose forms and structure expressed principles of Nature, same that Creator embedded in all levels and forms of Reality, the same ones that Tesla "copied" into his machines and therefore attain the fantastic efficiency that today's technology can not achieve.

What's more, it's clear that many Nikola Tesla's controversial ideas, which today are pure science fiction, such as "superconductivity of Natural media (Earth by Tesla)", instant communications, non-inertial and anti-gravity systems - seems a more realistic, achievable and absolutely attainable in terms of Tesla's Technologies and knowledge of ancients.

In Belgrade, 29.11.2017.

Goran Marjanović, B.Sc.

References:

1. Colorado Springs Notes, 1899-1900, <https://www.scribd.com/doc/335469/Nikola-Tesla-s-Colorado-Springs-Notes>
2. Nikola Tesla On His Work With Alternating Currents and Their Application to Wireless Telegraphy, Telephony and Transmission of Power", an extended interview, Leland Anderson, editor. Published 2002 by Twenty-First Century Books
3. "A Technical Analysis of the Extra Coil as a Slow Wave Helical Resonator", http://www.padrak.com/vesperman/A_Technical_Analysis_of_Tesla%27s_Extra_Coil_6.24.14.pdf
4. THE TRUE WIRELESS by Nikola Tesla, Electrical Experimenter, May 1919, <http://www.tfcbooks.com/tesla/1919-05-00.htm>
5. New York Times, Sec. X, P. 9, c. 1, April 8, 1934, http://aetherwizard.com/tesla/Articles/april_8_1934.htm
6. TORSION FIELDS - Theory of Physical Vacuum, <http://www.eioba.com/a/1tzs/torsion-fields-theory-of-physical-vacuum-shipov-and-heim>
7. Dimensions of the Cheops-pyramid (Khufu's pyramid), <https://www.cheops-pyramide.ch/khufu-pyramid/khufu-numbers.html>
8. The Tesla Longitudinal Wave, fig.1 Dimensions of Tesla's tower, <https://teslauniverse.com/nikola-tesla/articles/tesla-longitudinal-wave>

Nikola Tesla, Colorado Springs Notes, 1899-1900

378 Nikola Tesla

Сим додјатни калем без конструкије: 6)

Капацитивност у примару 0,1296 μF Индуктивност у примару 22 650 cm

$f_0 = 53,034$ kHz $k = 0,4$

$f_R = 93,04$ kHz

Да би се обезбедила резонанција са прикљученом конструкијом и под условима најбољег рада побудног система који би можда имао само неколико завојака регулационог калема у примару, морамо на основу датих података да смањимо индуктивност додатног калема у сразмери 22 650 / 76150. За исту дужину број завојака биће

14. децембар 1899.

Олаери ради одређивања слоборне вибрације новој система са додјатним калемом (исслерчеи)

700 L 906 (= 79 μH) $F_0 = 42$ kHz

$C = 0,16$ μF $k = 0,23$

ДЕЦЕМБАР 1899 $F_{AMP} = 87,5$ kHz

У оба случаја побуда је била изведена преко секундара осцилатора, и то са тачке која се налази на 34 завојака од уземљене плоче. У првом случају индуктивност примара, узимајући у обзир реакцију секундара, проценјена је на 41 000 cm. Додатни овоме индуктивност веза и 3 завојака регулационог калема, 71 10 000 cm, добила се укупна индуктивност од око 31 000 cm. Ово би се капацитивношћу од 0,081 μF дало периоду осцилација система који садржи два калема везана серијски

$T_1 = \frac{2\pi}{10^3} \sqrt{0,081 \times \frac{51}{10^6}} = \frac{2\pi}{10^3} \times 2,03 = \frac{12,75}{10^3}$ прибл., односно

$\lambda = 78 500$ (приближно) у секунди. У случају са капацитивношћу кугле позника 30' спојене са системом, имаћемо да је индуктивност примара

и прибл. $\lambda = 70 000$.

Калем који је везан на ред са додатним калемом био је намотан већ раније на добос. У једном случају на овај добос је била намотана жица No. 10 а 346 завојака је имало индуктивност од 6 040 000 cm. Нови

December 14, 1899 **Determination of the system vibration with latest version of Extra Coil**

The resonant frequency of the primary circuit /with coupl.coef. k=0.4/ :
 $f_{0, prim} = 56,4$ kHz
 The resonant frequency of the system with latest version of extra coil:
 $f_{0, sist} = 89,42$ kHz
 \Rightarrow 1) $f_{0, sist} = f_{0, prim} * \pi/2 = 56,4 * 1,58 = 89,42$ kHz
 2) $f_{0, sist} / \pi = 89,42 / 3,14 = 28,47$ kHz ! (Wardenlyfe, Visocica, Rtanj !!!)

Капацитивност примара: 0,081 μF Индуктивност примара: као горе само са 7,1/2 завојака у регулац

π relation !

потребно $\frac{90 \times 9}{11} = \frac{810}{11} = 74$ боце приближно, што износи по 148 боца са сваке стране или готово 4 танка. Ово је само приближна процена за при

$453 \mu H$ $\sim 907 \mu F \Rightarrow F_0 = 89,42$ kHz