

**LOOKING AT STŪPAS FROM AN ELECTRICAL
ENGINEERING PERSPECTIVE AND POSSIBLE
FUNCTIONING OF RUWANWELI MAHA SEYA AS AN A
LPHA WAVE RESONATOR TO HARMONIZE THE NATURE AND
THE LIVING BEINGS**

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Ancient Stūpas in Sri Lanka are the wondrous heritage of the island. They represent the profound devotion of the Sri Lankan people to the Buddha, as well as standing evidence of the wisdom, vision and skilful craftsmanship of the Sri Lankan ancient Enlightened Monks, Kings, Architects, Engineers and Workers. In addition of being a Buddhist Icon, Stūpas also believed to have utilitarian usage in helping to reduce blizzards, cyclones, earthquakes, famines, floods, landslides, storms, tornadoes, tsunamis, volcanic eruptions, wildfires, bushfires, contractible and other diseases such as plagues, and to improve economy. Recent studies by researchers believe that these structures may have served as lighting protectors. Looking at the story of how the Ruwanweli Stūpa was built, it is apparent that Ruwanweli Stūpa may also have also been used as a piezoelectric generator for generating electricity in ancient times. Similar to Ruwanweli Stūpa the researchers studied the structure of the great pyramids also stated possible use of the pyramids as piezoelectric power generators.

The Authors of this paper studied the construction of Ruwanweli Stūpa with the help of text the Mahawansa [1], the stories of how the Ruwanwallisaya was built, and the archaeological artefacts. In order to observe the similarities the Authors also conducted research on constructions of the great Stūpas in India (Sanchi), Thailand (Phra Pathommachedi), Burma (Great Dogon and Bagan), Indonesia (Baraboedoer) Nepal,

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Myanmar, Cambodia, Vietnam and the great pyramids. The potential common features that may have assist Stūpas electrical engineering function as early streamer emission (ESE) type lighting protector were identified. The findings also showed that there are correlations between the common features of these Stūpas, which resonates the common wisdom that was once there in these parts of the world. The conductive tip and the conductive pathways from the tip into the ground can acted as the ESE type lightning protector. A properly constructed Koth Keralla of the Stūpas could act as a good insulator preventing the leak currents form the tip of the Stūpa to the base via the Gurbaya during raining. Most of the well preserved Stūpas this can be seen very clearly.

In view of the basement of the Ruwanwelli Stūpa may have functioned as the piezoelectric cell, in order to generate electricity the cell and the structure needs oscillations. The oscillations may have introduced by the use of Helmholtz resonators connected to the piezoelectric cell of the basement. According to the text there were metal hollow vases connected to the basement which would in unison with the dome have acted as the resonators oscillating the piezoelectric cell. The oscillating frequency of the structure may have selected to be the Shumman resonance frequency (Earth resonance frequency) of 7.83Hz or its harmonics. The structure may also have resonated by F sharp chord (harmonics of the earth resonance frequency) similar to the great pyramids resonance chord.

The earth resonance frequencies are closely related living beings vibration frequencies. When a being becomes relaxed and not stressed, the EEG of the beings is dominated by the 7.83Hz Alpha wave. Experiments have showed that the when mammals are exposed to 7.83Hz their health and wellbeing improved. Also when the 7.83Hz earth resonance is taken out by keeping the mammals inside EMI shielded chambers, it affected the DNA of the mammals and also they got weaker physically and psychologically. Therefore usually in space shuttles and space stations there are separate earth resonance frequency generators have been installed. The earth harmonic frequencies are common to the all the living beings of the planet and recent experiments have showed that by enhancing the earth resonance frequency the living beings health can be improved.

Therefore considering the above context the Ruwanwelli Stūpa may have used as an Alpha wave or the earth resonance wave generator that could have used to harmonize the living beings and the nature of Anuradhapura and the surroundings.

Looking from electrical engineering perspective at the evolution of the Stūpas, they may have initially used as ESE type lightning protectors, then as lightning protectors and power generators and the pinnacle of this evolution may have been the Ruwanwelli Stūpa which might also have been functioned as an Alpha wave resonator or an earth oscillation resonator.

For further researches, on site study of the artefacts and material testing to understand the electrical activity of the Stūpas are encouraged. It is also recommended if possible to build a Stūpa according to the old traditions with the materials used in ancient times with modern technological enhancements and test its performance. The paper would like to conclude with supporting evidence, that besides prominent presence as religious architecture, Sri Lankan Stūpa possesses significant value serving as an electrical unit for harmonizing the physical living conditions in surroundings. The Authors hope that this paper may open up more questions. It will certainly be interesting to study about the electrical engineering aspects of Sri Lankan Stūpas and find out the answers, particularly are the Stūpas in Sri Lanka were used for lightning protection, electrical power generation and as an Alpha wave resonator?

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