

# An educational framework connecting planetary and mind frequencies

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## Introduction

### • What is this talk about?

A mechanistic worldview of the modern science and technology  
Growing human footprint due to highly materialistic life-styles  
21<sup>st</sup> century racing towards a civilizational collapse (Brown, 09)

### • Why do we care?

If Geophysical scientists-educators don't care, then who will?

### • How to reverse the current trends?

Our proposal: Introduce a multi-cultural educational focus

## Schumann planetary frequencies

- Schumann (1952) made a theoretical prediction of the existence of resonant frequencies in the earth-ionosphere cavity (the atmosphere)

ELF (extremely low frequency waves) propagation in the earth-ionosphere cavity has many resonance frequencies (Schumann resonances).

Schumann resonance frequencies are excited by lightning during thunderstorms around the globe

- Theoretically, the reciprocal of time ( $T^{-1}$ ) for the velocity of light to go around the earth's circumference gives a frequency of 7.5 Hz
- Modern observations show that the lowest Schumann frequency lies in the range 7 and 8 Hz (Sentman, 1987)
- Above findings in space geophysics establish the nature of the planetary oscillator

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## Detection of Schumann resonances

Sentman, Rad. Sci, 1987

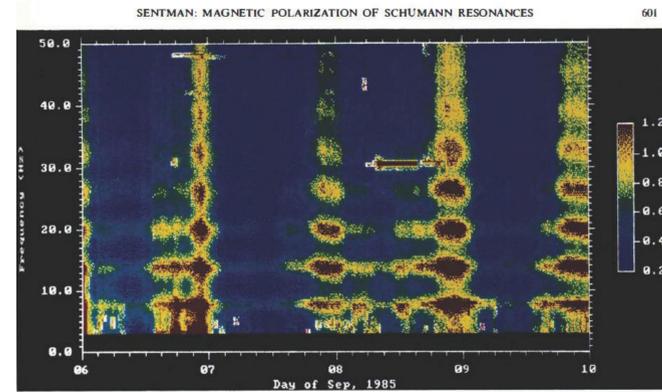


Plate 1. A frequency-time Fourier spectrogram of the total horizontal magnetic power covering the 4-day interval Sept. 6-9, 1985, analyzed in the polarization analysis. The color bar at the right is scaled for absolute units of  $pT^2/Hz$  times 4. The red saturation power thus corresponds to  $0.3 pT^2/Hz$ . The narrowband features at 48 Hz during Sept. 6-7 and at 30 Hz on Sept. 8 are believed to be of local origin. The measurements were made at Table Mountain Observatory, California.

## The mind frequencies according to the ancient science of Yoga

- Inquiry into the mind has a long tradition in the ancient science of Yoga and Indian philosophy
- The modern science accepts the physiological and the electrical nature of brain (Lipton, 2005)
- Electroencephalogram (EEG) places electrodes on human head and measures the electromagnetic (EM) activity of brain as *frequencies*
- How are the brain and mind frequencies related? It is a big question, because brain is material but mind is not
- Dhamodharan (2015) tested the hypothesis that "*it is impossible to separate the frequencies of the mind and the brain*"
- Dhamodharan conducted an EEG experiment on himself using three different stages of SKY meditation system

## EEG and mind frequencies using SKY

- Brain frequencies are designated as Beta, Alpha, Theta and Delta [Lipton, 2005]
- Delta is the lowest of synchronized rhythm, 1 – 3 Hz, Theta 4 – 7 Hz, Alpha 8 – 13 Hz, and Beta >14 Hz is the highest
- Notice that Theta is very close to the Schumann frequency
- SKY meditation practice lowers mind frequencies systematically from Beta in day-to-day activities
- SKY meditation is based on linking one's mind with the *life energy*, or the *Kundalini energy* in the yoga literature (Vethathiri, 1999)
- We limit our discussion to only one of the multiple stages of SKY meditation, called *Thuriya*, which corresponds to Theta frequency

## EEG experiment with SKY

- Dhamodharan (2015) is a senior professor of the SKY system and conducted the EEG experiment on him-self in India
- He placed 20 electrodes on different parts of the head, fingers, and ears, and sat on a 3' high wooden box
- The third stage of SKY meditation is Thuriya, where the life energy is experienced on top of the head
- The researcher concentrated for five minutes on top of his head, and the EEG recorded Theta frequency shown below

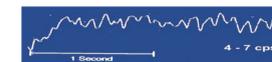


Fig.-1 EEG pattern of Theta Frequency

## Spatial map of EEG data

- A voltage map of the EEG measurement of electrical patterns at the surface of the scalp gives a spatial representation
- It reflects the cortical activity that is commonly referred to as "brain waves".
- The map below presents frequencies in terms of different colors. Pink and yellow represent neutral voltage



- In Thuriya, the central part of brain becomes pink & yellow, while the periphery (blue) shows higher frequencies

## Entrainment of coupled oscillators and implication

- We have illustrated that the lowest Schumann (7-8 Hz) is slightly above meditation in Thuriya (4-7 Hz)
- Two oscillators vibrating at frequencies close to each other can result in entrainment or phase locking
- Bentov (1977) observed that mind in meditation at 7 Hz can phase lock with the lowest Schumann frequency
- Subconscious mind is programmed in the Delta frequency in the womb and in Theta in the first six years after birth
- 95% of one's behavior after the age of six is dictated by the subconscious mind (Lipton, 2005)
- Subconscious mind must be reprogrammed in Theta frequency to reduce unchecked consumption and simplify a highly materialistic life style

## A framework for transforming current education

- A systematic practice of Thuriya meditation offers a simple method to experience that human existence is connected with the whole planet
- The ancient and indigenous cultures believed and practiced planetary interconnectedness
- Students can use meditation to balance their academic, personal, family and social lives
- Meditation is a cost effective tool to maintain personal health
- Universities need to introduce meditation in their sustainability curricula
- A transformation of education is urgently needed for reversing the current unchecked consumption and a highly materialistic life style

## Acknowledgement

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