

## Buddhist paritta (Pirit) chants for mental and physical well being - a scientific approach

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### Abstract

The unraveling of the perceptual, physiological, and neuroanatomical basis of the interaction between rhythm and movement has been, and continues to be, a fascinating endeavor with important ramifications for the study of brain function, sensory perception, motor behavior, and mental well-being. This paper describes some benefits of listening to Buddhist pirit chanting perceived through modern scientific techniques.

An experiment was conducted at the Kanduboda International Meditation Centre in Sri Lanka to understand the effect of pirit sound on human beings. The *Cool Edit* and *Band-in-a-Box* computer software packages and a stethoscope fitted with high band width microphone fitted to a computer was used to analyse the pirit sound and heart beat of subjects listening to pirit, simultaneously. The study revealed that Buddhist chanting of pirit gives best results when it is chanted at medium speed. The Pirit sound gives only four notes contrary to the conventional music having 7 notes and therefore would induce no *raga* thoughts in one's mind producing better results by pirit than that of special music used in music therapy. When subjects are allowed to listen to pirit chants, it is found that within 10 minutes of the commencement of the pirit their heart beat reduces and the heart pulse amplitude halved and they come to an alpha state similar to what you get under a meditative trance. Therefore, listening to pirit is good for your heart and also gets the similar benefits that one get under trance condition in meditation such as increasing the body's immune system, producing lasting changes in the brain leading to increase IQ level, sustained positive emotions, gives relief for insomnia, reshapes and expands the mind to foster happiness and cultivate compassion, thicken the brain tissues, increase attention and sensory processing, and increased oxytocin peptide will increase the well-being and sense of trust in social situations.

Moreover, a recent Japanese study conducted by Masaru Emoto shows that water when exposed to pirit sound for several hours and then freezed produced hexagonal shape ice crystals. Since our body is consisting of about 70% of water, when listen to the pirit, many water molecules in our body congregate to hexagonal aggregates (other wise may stay in pentagonal or some other shape). It has been found that such hexagonal water made our body and its cells healthy and disease free and even can recover or stop further development of cancers in cancer patients.

In general, listening to Buddhist pirit chants or make others to here pirit chants for a period exceeding 10 minutes would be of immensely beneficial to the recovery of deteriorated mental state and health condition of an individual in the modern complex society. It would also help to the betterment of the society in large and develop the sense of trust in social situations.

### 1. Introduction

Recent research in medicine, in experimental psychology and what is still called parapsychology has thrown some light on the nature of mind and its position in the world. During the last forty years the conviction has steadily grown among medical men that very many causes of diseases organic as well as functional, are directly caused by mental states. The body becomes ill because the mind controlling it either secretly wants to make it ill, or else because it is in such a state of agitation that it cannot prevent the body from sickening. Whatever its physical nature, resistance to disease is unquestionably correlated with the physiological condition of the patient.

'Mind not only makes sick, it also cures. An optimistic patient has more chance of getting well than a patient who is worried and unhappy. The recorded instances of faith healing includes cases in which even organic diseases were cured almost instantaneously.

In this connection it is interesting to observe the prevalence, in Buddhist lands, of listening to the recital of the *dhamma* or the doctrine of the Buddha in order to avert illness or danger, to ward off the influence of malignant beings, to obtain protection and deliverance from evil, and to promote health, prosperity, welfare, and well-being. The selected discourses for recital are known as "*paritta suttas*," (**discourses for protection**).

"*Paritta*" in Pali, "*paritrana*" in Sanskrit and "*pirit*" (pronounced *pirith*) in Sinhala mean principally protection. *Paritta suttas* describe certain suttas or discourses delivered by the Buddha and regarded as affording protection. This protection is to be obtained by reciting or listening to the *paritta suttas*. The practice of reciting or listening to the *paritta suttas* began very early in the history of Buddhism. The word *paritta*, in this context, was used by the Buddha, for the first time, in a discourse known as *Khandha Paritta* in the *Culla Vagga* of the *Vinaya Pitaka* (vol. ii, p. 109), and also in the *Anguttara Nikaya* under the title "*Ahi (metta) Sutta*" (vol. ii, p. 82). This discourse was recommended by the Buddha as guard or protection for the use of the members of the Order. The Buddha in this discourse exhorts the monks to cultivate *metta* or loving-kindness towards all beings.

It is certain that *paritta* recital produces mental well-being in those who listen to them with intelligence, and have confidence in the truth of the Buddha's words. Such mental well being can help those who are ill to recover, and can also help not only to induce the mental attitude that brings happiness but also to overcome its opposite. From among the 24 *parittas* described in the Book of Protection (*Pirith Potha in Sinhala*), five *parittas viz.* 1) Factors of Enlightenment (Maha Kassapa Thera Bhojjhanga), 2) Factors of Enlightenment (Maha Moggallana Thera Bhojjhanga), 3) Factors of Enlightenment (Maha Cunda Thera Bhojjhanga), 4) Discourse to Girimananda Thera (Girimananda Sutta), 5) Discourse at Isigili (Isigili Sutta) by Buddha is said to be specifically discoursed to cure illnesses.

Originally, in India, those who listened to *paritta* sayings of the Buddha understood what was recited and the effect on them was correspondingly great. The Buddha himself had *paritta* recited to him, and he also requested others to recite *paritta* for his own disciples when they were ill.<sup>5</sup> **This practice of reciting *paritta* is still in vogue in Buddhist lands. The habit of listening to the recital of *paritta suttas* among the Westerners too is growing slowly but steadily.**

*Several factors is said to be combine to contribute towards the efficacy of *paritta* recitals.*

#### **(i). The Power of Truth**

*Paritta* recital is a form of *saccakiriya*, i.e., an asseveration of truth. Protection results by the power of such asseveration. At the end of the recital of each *sutta*, the reciters bless the listeners with the words, *etena sacca vajjena sotti te hotu sabbada* which means "by the power of the truth of these words may you ever be well."

### (ii). The Power of Virtue

Several discourses of the Book of Protection describe the virtuous life. The starting point in Buddhism is sila (virtue). Standing on the firm ground of sila one should endeavor to achieve a collected mind. If it is true that virtue protects the virtuous, then a person who listens to the recital of paritta suttas intelligently, in a reflective mood, with complete confidence in the Buddha's words, will acquire so virtuous a state of mind as would enable him to dominate any evil influence, and to be protected from all harm.

### (iii). The Power of Love

The reciters of the paritta are expected to do so with a heart of love and compassion wishing the listeners and others weal and happiness and protection from all harm.

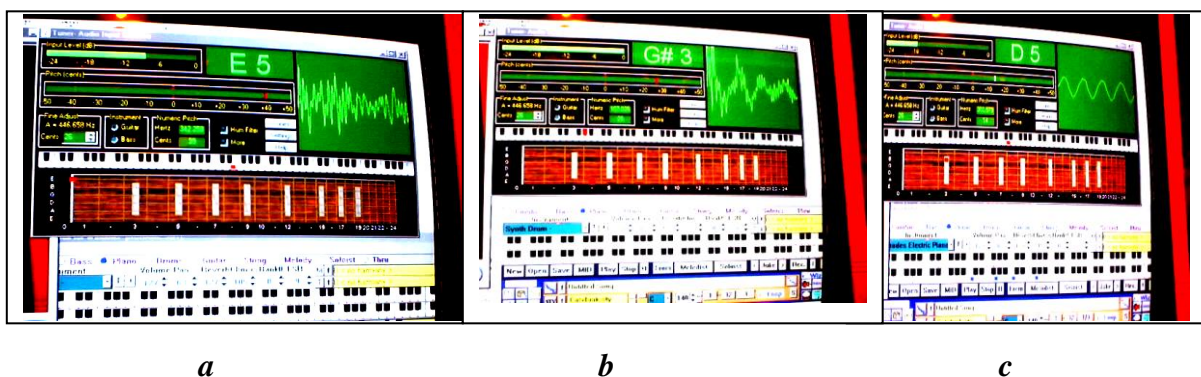
### (iv). The Power of Sound

It is believed that the vibratory sounds produced by the sonorous and mellifluous recital of the paritta suttas in their Pali verses are soothing to the nerves and induce peace and calm of mind; they also bring about harmony to the physical system.

**This paper describes the results of some scientific experiments conducted in Sri Lanka by the author and a few other scientists in other countries to understand this fourth cause-the power of sound in piritta.**

## 2. Scientific Aspects of Buddhist Pirith Chants

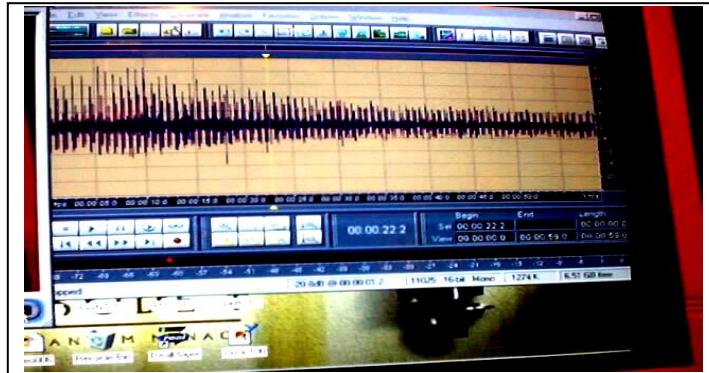
A research study conducted by Ven Madawala Upali Thero and the author in 2002 at the Kanduboda International Meditation Centre in Sri Lanka using the *Cool Edit* and *Band-in-a-Box* computer software packages and a computer connected microphone fitted to a stethoscope end revealed that Pirith sound gives only four notes contrary to the conventional music having 7 notes..



**Figure 1.** Computer analysis of music and paritta chants using the Cool Edit Programme. a) wave patterns of normal classical music-*disorganised rough waveforms*, b) and c) wave patterns of paritta chants –*smooth waveforms*.

As such, seven notes would induce *raga* thoughts in your mind but not so with pirith and it will calm you down. It was also found that the reiteration of pirith gives best results when it is chanted at medium speed When the recitations are done in a hurry or very slowly by dragging the words and sentences like a song, the computer indicated more than 4 notes producing no soothing effect.

When subjects are allowed to listen to pirith chants, it was found that within 10 minutes of the commencement of the pirith their heart beat reduces and the heart pulse amplitude halved and they come to an alpha state similar to what you get under a meditative trance.



**Figure 2.** Computer sound analysis chart indicating the reduction of heart beat and pulse amplitude of a person within 10 minutes after the commencement of listening to pirit chants.

**This implies that listening to pirith is good for your heart and also gets the similar benefits that one get under trance condition in meditation** Prolonged listening to a pirith chant done throughout a whole night could thus produce higher benefits similar those of meditation (benefits received at alpha level). Here we limited our research only to study the effect of sound. It was also found that live pirit chants made by priests or laymen produce better results than those of playing back the same pirit chant recorded in some form. Here the sound quality of the speakers affects very much.

### 3. Brain wave patterns during meditation and /or listening to pirit chants

Brainwaves are the electrical wave patterns generated in every person’s brain. These waves vary according to level of consciousness, subconsciousness and unconsciousness and are characterized by four distinct types of brainwaves. Each of these electrical wave patterns have distinctly different ways of perceiving, processing, learning and knowing information (Hoiberg, 1989). All of these brain waves are produced at all times. However, a predominance of a specific desired brainwave state can be created at will, which allows a person to potentialize his or her capabilities towards achieving human excellence. Brainwave frequencies are described in terms of hertz (Hz), or cycles per second, which are

#### **The four general categories of brainwave frequencies and their main characteristics**

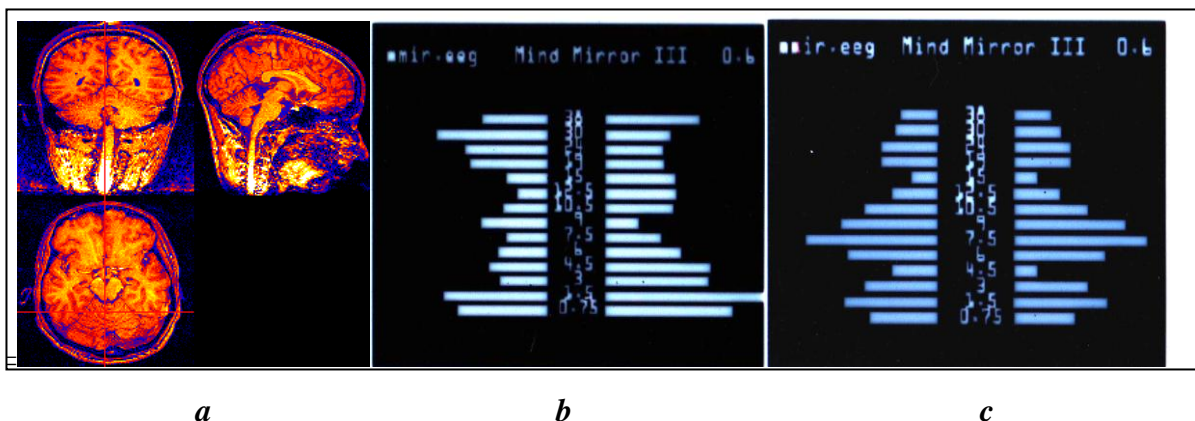
a. *Beta (  $\beta$  ) brainwaves: 14 -34 hertz* - beta brainwaves are characterized by logical, analytical and intellectual thinking, verbal communication and awareness of surroundings.

b. *Alpha (  $\alpha$  ) brainwaves : 7 -14 hertz* - they most commonly occur when we are calm and relaxed, yet mentally alert, they also present at the lower or middle level of trance in meditation. These brainwaves are also present during daydreaming (Jaggi,1984).

*c. Theta (  $\theta$  ) brainwaves: 4 – 7 hertz* -characterized by being deeply relaxed and inwardly focused, they also present at the very deep level of trance in meditation.

*d. Delta (  $\delta$  ) brainwaves : 0.5 – 4 Hz* - being extremely relaxed, characterized by sleep.

Left part (left hemisphere) of our brain controls the right side of the body and it also responsible for our logical thinking, interest in mathematics etc. The right hemisphere of our body controls the left side of our body and is responsible for our artistic abilities, music etc. When we are fully awoken more beta waves are emitted from both the left and right parts of the brain, but there is a grate disparity between the left and the right activity (see Figure 3 b). During sleep, neurons fire with more synchrony than during wakefulness. In the deepest stage of non-REM sleep, the dominate brain wave is called a delta wave. Under meditative trance or listening to pirith chants consciously, the neuron firing rates in the brain are such that both the parts are generating more alpha waves compared to the other waves and moreover both the left and the right brain hemispheric activities become well balanced (Figure 3 c).



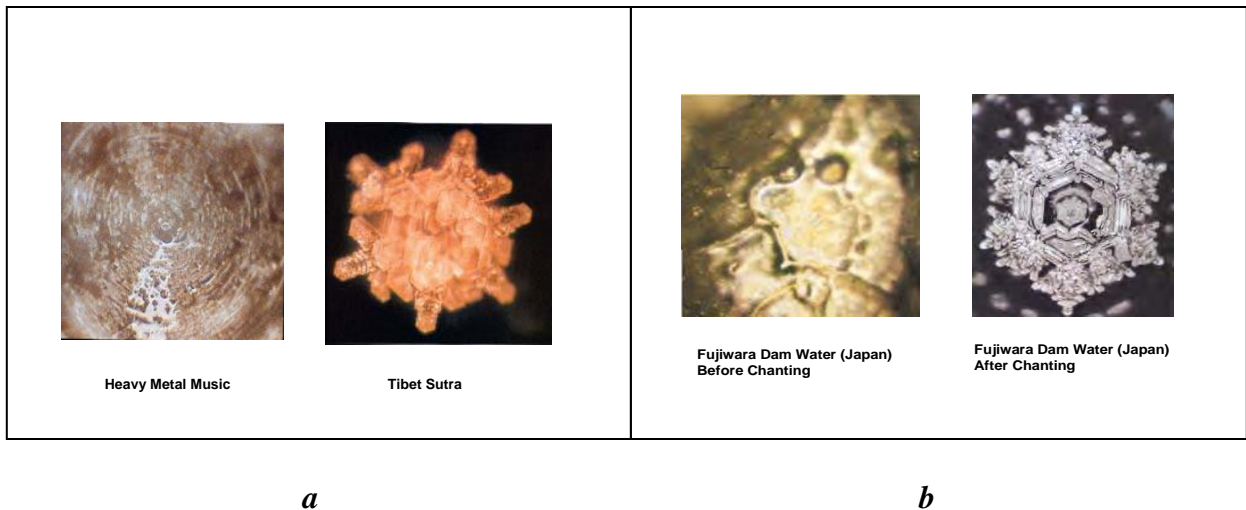
**Figure 3.** *a.* The human brain-three views, *b.* brain wave histogram for a non mediator and *c.* brain wave histogram of a mediator in trance with highest activity at alpha level in 7.5 Hz (Histograms are from 0.75 Hz to 38 Hz.).

#### 4. Some benefits of pirit chants made through neuroplasticity of the brain

According to latest research on Neuroplasticity, one of the hottest topics in brain science, which refers to the brain's recently discovered ability to change its structure and function, alpha level under meditation or through external sound effects like FFR(frequency following rspose). Lsitting to pirthh cahntings for periods longer than 10 minutes would bring the human brain into alpha stage - a trance level similar to what one achieved during meditation. As such, listing to Buddhist pirth cahnting not only produce a calming effect on mind and increase the body's immune system, it also produces lasting changes in the brain leading to increase the IQ level, learning abilities and problem solving capabilities, sustained positive emotions, gives relief for insomnia, reshapes and expands the mind to foster happiness and cultivate compassion, thicken the brain tissues, increase attention and sensory processing, and increased oxytocin peptide will increase the well-being and sense of trust in social situations (Jayaratne, 2006).

## 5. Effect of paritta sound on water molecules in the body to cure diseases

A recent Japanese study conducted by Masaru Emoto(2004) shows that water when exposed to pirith sound for several hours and then freezed produced hexagonal shape ice crystals. Since our body is consisting of about 70% of water, when listen to the prith, many water molecules in our body become hexagonal aggregates (other wise pentagonal or some other shape). It has been found that such hexagonal water made our body and its cells healthy and disease free.



**Figure 4.** Water exposed to several hours of paritta chants and freezed shows clear hexagonal shape ice crystals (a) Same water sample - heavy metal produce no clear shape, but the Tibet Buddhist Sutta, (b) Fujiwara Dam Water (Japan) – before and after chanting paritta.

## 6. Conclusion

These research indicate that chanting and listening to paritta chants produce immediate physical and mental health benefits then and there and it is good for our health, reshapes and expands the mind to foster happiness and cultivate compassion, thicken the brain tissues, increase attention and sensory processing. In the context of Global Recovery, listening to Buddhist pirit chants, or make others to here pirit chants for a period exceeding 10 minutes would be of immensely beneficial to the recovery of deteriorated mental state and health condition of an individual in the modern complex society and the well-being of the society at large.

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