

Primordial Tones: Meditation on the Archetypal Energies of Celestial Bodies

Joachim-Ernst Berendt, *ReVISION*, 1987, v. 10, # 1. pp. 45-49

Joachim-Ernst Berendt is director of redaction on Sudwest-funk (Southwestern German Radio and Television Network in Baden-Baden, West Germany. He was one of the founders of this network in 1945. Berendt has produced more than 250 records for leading American, European, and Japanese labels, and has written 21 books that have been translated into 18 languages. Among them is The Jazz Book (Hill & Company), which is the world's best-selling book on American jazz (more than 1.5 million copies sold) .

In recent years, Berendt has written books and articles and given lectures, workshops, and seminars about the conscious-widening aspects of sounds and tones and about the spiritual (yin) ability of the human ear as compared to the more rationalistic (yang) ability of the eye. His books about these subjects are Nada Braham- The World Is Sound (a best-seller in Germany) and The Third Ear. His [recordings] of primordial sounds of the sun, moon, and the planets are available through Bauer Verlag, P.O.B. 167, 7800 Freiburg, West Germany

THE SOUNDS OF THE PLANETS

Since the time of Pythagoras, almost 3.000 years ago, sages and scholars from many different cultures have expressed the idea of a harmony of the spheres; in many respects, it is archetypal wisdom. Over the centuries, this knowledge was further developed by Plato, Cicero, Philon of Alexandria, and later by Johannes Kepler. Continuing with the work of Johann Daniel Titius and Johann Elert Bode (18th century German astronomers), in the 20th century it was further researched by Hans Kayser, the founder of contemporary research on harmonics.

Greek and Hellenistic philosophers already knew that planets "sound", that each planet generates a certain tone. Very early, there were reflections and calculations about which tones these could be. From the viewpoint of 19th and 20th-century rationalist thinkers, such reflections and calculations might seem mystical and vague. Amazingly, many of them are being confirmed by modern findings. In 1475, for instance, toward the end of the middle ages, Bartolomeo Ramos de Perea calculated an A for the tone of the moon. Modern research confirms this calculation.

Ancient philosophers supposed that there was harmony among the tones of the planets, a conviction still appearing in Leibniz's "preestablished harmony." Present day results show that harmony is prevalent; there are many more harmonious than inharmonious relations between the angular velocities and the orbits of the planets. Preestablished harmony by far exceeds mathematical probabilities. Thus, it cannot be mere coincidence that, in our planetary system, harmonious relations are so obviously predominant.

The most plausible theory about the tones of the planets comes from Swiss scientist and mathematician Hans Cousto. Its clarity and simplicity makes one wonder why mankind did not discover it much earlier. Cousto proceeds from the orbital periods of the planets, using the simple

physical fact that time and frequencies are inversely proportional. In general, time is given in seconds, the frequency in Hertz. One Hertz is one vibration per second.

According to the Law of the Octave, the duration of a planet's rotation, that is, the time a celestial body takes to revolve around its own axis and/or the time it needs for one orbit around the sun, can be transposed into tones and colors. The tones and colors are analogous to rotation and revolution.

In order to arrive at the frequency in Hertz (vibrations per second) from an astronomic period, the reciprocal value has to be formed of the duration (expressed in seconds). No mathematical knowledge is necessary for computing a tone or a color analogous to an astronomic period beyond forming the reciprocal value from the duration of the period.

The earth, for instance, has a rotation period of 24 hr, or to be more precise, of 23 hr. 56 min, and 4s, totaling 86,164s. If one takes the reciprocal value, that is, divides 1 by this number, a frequency of 0.00001160577 (an inaudible G) is obtained. Though this G is below the hearing range (which starts at about 16 Hz). transposing it by 24 octaves will create an audible G.

THE OCTAVE AS A SYMBOL OF UNITY

The concept of tone does not depend on the audibility of a tone. Audibility and inaudibility are marks on a continuous scale. The human hearing range is limited. Bats, for example, are able to hear in the supersonic range, 20,000 to 100,000 Hz above the highest frequencies audible to us. Whales and dolphins are able to perceive acoustic as well as electromagnetic waves. Zoologists still do not know what these animals actually hear, but it is known that they are able to hear better, faster, and farther than human beings.

Tones exist, whether we hear them or not. Any music lover knows that a melody can resound within even when it is not being played. A composer hears the music within while notating it and before any sound has been made.

For this reason, transposing by octaves is a legitimate process. Even scientists are using it (for instance, to transpose sound of deep sea fish and bats from the ultrasonic range into human audibility or to better understand signals of pulsars and other stars). The octave (1:2) is the most frequent relationship in the universe -- not only in music, but anywhere in nature, from the micro- to the macro-cosmos. We use the same names for tones that are octaves apart. Singing a melody that was sung to him by his father with his deep bass voice, the child tends to sing that same song one or two octaves higher. Still we say, "The child is singing the same melody as his father."

When a cell divides in mitosis, it chooses the "position" of the octave. The result is the "same cell" again. An octave may vibrate at twice or half the rate (or in powers of two or one-half) but it still is the same tone. It may split the one in two parts or double it, and the result is the same again. Its frequency may be completely different from the basic tone, many Hertz above or below it, but the result is still the same tone again. The octave is the most convincing symbol of unity that we can find in nature. And in nature, it is omnipresent.

When we transpose the tone of the earth (or the tones of the sun, the moon, Venus, or Mars) by octaves into the hearing range, we do basically the same thing that the child does when transposing the melody sung by his father into a more easily accessible range. The result is *the same again*. In this sense, we actually do hear the tone of the earth when transposing it by octaves from an inaudible range into the hearing range. The resulting G (194.71 Hz) is the note marked by the violin clef, a note of central importance in our tonal system and the key note for many tuning procedures. In French it is called *sol*, and it is quite peculiar to note the similarity in the names of the two celestial bodies to which tone and earth-day relate: *sol* (earth) and *soleil* (sun). We could call this a coincidence, since naming *sol* for the G can be traced back to an old Gregorian chant (*Ut queant laxis*). In its fifth bar, where the G appears for the first time, the words "solve polluti" are sung. Therefore, 11th-century Benedictine monk Guido of Arrezzo named this tone *sol*. But can this really be called "coincidence"?

FROM TONES TO COLORS

Because the Law of the Octave is universal, one can continue transposing by octaves to reach the electromagnetic vibrations of colors. From the tone of the Earth (194.71 Hz) another 36 octaves are required to reach 700.16 Nm (Nanometer), which is analogous to the color of orange-red (also analogous to the tone G and to the rotation of the earth around the sun). However, the range of human vision is limited to only one octave compared with the ten octaves of the hearing range.

The ability of the ear to differentiate is much more highly developed than that of the eye. Physiologists speak of the deceivability of our eye in comparison to the astonishing precision of our ear. We are familiar with hundreds of optical illusions but so few "acoustical illusions" that the term does not exist. There are people (not only among musicians) who have absolute pitch, but nobody -- not even a Leonardo or a Picasso -- ever had "absolute hue." "The ear can measure, the eye can only guess," is a standard sentence in many physiology textbooks, but one that might be difficult to accept in our aggressive culture of overemphasis on the eye and under emphasis of the ear. Interestingly, in Taoism, the eye is Yang; the ear is Yin.

In any case, the relationship of a tone to a celestial body is much more precise than relationships between colors and stars. When we say G or A, a tone is much more precisely defined than a color is when we say "blue" or "red" -- which always means many different shades of blue or red. Language, however, mirrors the ability of our senses. Our language can define a tone more precisely than a color because the ear can hear the tone more precisely than the eye can see the color.

TONES AS ARCHETYPES

The tone of the earth is the most important tone for all living beings on this planet, whether we leave it inaudible or make it audible by transposing it into higher octaves. It is with this tone that we rise in the morning and go to bed at night; to this tone we do our work. we get hungry, and we love. But other planetary vibrations and tones, especially those of the sun, the moon, Venus, Mars, and Jupiter, also vibrate directly into our earthly existence. This is why I call them *primordial tones*. They are archetypal tones according to C. G. Jung.

For millions of years, longer and more steadily than any other comparable vibration, the earth, sun, moon, and the planets have been vibrating in cosmic space. Our genes and those of all living beings have experienced these vibrations so often that the processes and mechanisms of genetic programming must have stored them long ago. Our subconscious (which I believe is our true consciousness) knows them. When these primordial tones are made audible to our external ears, we recognize them as old friends.

It is important to realize that the concept of archetypes was not introduced by C. G. Jung, as many believe, but, as Jung himself acknowledged, by ancient philosophers. Interestingly enough, Johannes Kepler used this concept in the same harmonic and planetary context we are dealing with here. Kepler said that the "Harmony of the Spheres" imprinted on the soul of mankind in "archetypes": ". . . *verissimae Harmoniae archetype, qui intus est in Anima . . .*"-- "the archetype of the truest harmony which lies within our soul." We recognize the tones of this harmony "by comparison with the archetypes" within ourselves, just like "old friends."

The reason for the power and the effectiveness of the tones of the planets lies in their archetypal character. They can best be experienced in meditation. For this reason, I have realized these tones, computed according to the initially explained Cousto process and played on a multi-string monochord, the so-called *sandawa*. Entire "choirs" of overtones are produced in this way, "raining down" on the meditating person as from the dome of a cathedral.

It was tempting to realize the primordial tones electronically. We began in this way, with good success. However, most meditators (and even more therapists) seemed to prefer the acoustic realization on the strings of the *sandawa*. It sounds more natural, more "human" to them. And, of course, the *sandawa* generates more overtones. Overtones are the actual spiritual aspect of a music. Among meditators, there seems to be a growing resistance to electronic sounds.

The Tone of the Earth

Tones stand for the same thing their corresponding celestial bodies stand for in our consciousness. By meditating on the earth tone, we strengthen the resonance between ourselves and the earth. We gain the power of Mother Earth, who nourishes and forms us, who grows our food, as well as flowers, plants, and trees. We vibrate in conscious harmony with the planet on which we live, and we gain positiveness, security, a sense of reality, and energy.

Anyone studying Yoga knows the exhortation of many Yoga teachers.

Ground yourself. Make contact with the earth. Feel your feet reaching through the ground upon which you stand, deeply into the earth. Thus gain strength! Feel how you are growing out of the earth as if you were a tree.

There is no better way to "ground yourself" than to meditate on the earth's tone. In this way we place our feet "firmly on the ground, " solidly founded in reality.

The Tone of the Moon

To be sure, we can -- and should -- use not only the power of the earth's tone, but also that of the sun, the moon, and the planets. The period from full moon to full moon (the "synodical month") lasts 29 days, 12 hr, 44 min and 2.8s; a total of 2,551,442.8s. In order to transpose the corresponding frequency into the average range of human hearing, we have to transpose it by 30 octaves. The result is a tone of 420.837 Hz (G sharp), a tone of no great importance to our Western music today, but during the Baroque and early Classical periods, it was of major importance. Mozart's tuning fork, for example, had 421.6 Hz.

At its pinnacle, Western music was directly connected with the tone of the moon. Concert pitch started to rise in the middle of the 19th century, striving for the superficial effect of making the music sound brighter. Thus, Western music started to turn away from the moon's field of resonance, but the moon, in all traditions, is responsible for the arts and the artists, being the planet of sensitivity and creativity. In the 20th century, major American symphony orchestras kept raising the concert pitch tone more and more. In doing this, they have banished Western music from its cosmic relationship to the celestial body of the arts and the artists.

The moon has such strong gravity that high and low tides can be observed even in a cup of coffee. It rules the female monthly cycle. It is not only the planet of art, but of love and of femininity. By meditating on the moon tone, we "ground" -- we "moon" ourselves in love, warmth, emotion, in our heart chakra -- in the ability to be open and communicative and to register and react to the most minute impulses, to be sensitive and delicate, and to transform moods into creativity. This tone is especially powerful when we meditate on it when the moon is full.

Men or women who find it difficult to accept their "anima" should meditate on the tone of the moon. Men, especially, remain caught up in the old patriarchal behavior patterns, which often control even those who believe that they have long ago put them aside. These men repress the female component of their nature. When they meditate on the moon tone for a few weeks or months, they gain a more natural and relaxed relationship not only to the female element in themselves but also to women in general.

The Tone of the Sun

On the other hand, women who have difficulties with their own "animus," the male element in themselves (with their father, but also with men in general) can meditate to the tone of the sun. This tone results from the tropical year lasting 365.242 days or 31,556,926s, and it is C sharp. We can hear it at 136.10 Hz.

In Indian classical music, this C sharp is still the fundamental tone. It is called *sa* or *sadja*, the "Father of Tones." Bells (e.g., temple bells and gongs) are often tuned to this tone, not only in India but also in Tibet, Japan, and on Bali. The prime word OM, the holiest of mantras, has been chanted to the *sa* more often than to any other tone. Today classical Indian music remains in a relationship to the sun, as Western music of the Baroque, Classical and Early Romantic periods was formerly in relationship to the moon.

If we meditate on the sun tone, we create a connection not only between ourselves and the sun but also to everything the sun symbolizes in our consciousness: light, clarity, joy, lightness, flowing, brightness, life's abundance, gratitude, and enlightenment. Our meditation can be intensified by a mantra such as: "I am Light." Or through the words of Isaiah: "Set on thy way, become the light!" Or through the great word of the *Tibetan Book of the Dead*: "My consciousness -- radiant and clear -- indivisible part of the Great Body of Radiance -- knowing neither birth nor death -- is the unchangeable light." Similar mantras can be chosen for meditation on the tone of the moon, such as "I am Love." Or simply, "I love."

PRIMORDIAL TONES AND MEDITATION

As with all meditation techniques, it is useful to meditate once a day for 30 min or twice for 20 min. Therapists in Germany, Austria, Switzerland, and France, especially those who use rebirthing techniques, have made remarkable experiments with primordial tones in their groups and workshops. Many have also included in their work the tones of Mars (activity, fun, humor, energy, spontaneity), Venus (sexuality, the lover, surrender, lust), Jupiter (success, growth, wisdom, divinity), and Saturn (separation, death, dying, sorrow). A Swiss rebirthing therapist has suggested working with the exterior planets as well, with Pluto, Uranus, and Neptune. Very successful experiments with primordial tones have been made by people who have been unable to meditate because of restlessness and inability to concentrate. A practitioner of meditation wrote the following in a letter to me:

I was never able to meditate. My thoughts kept wandering. Ever since I have started to meditate on the primordial tones, it was quite easy. They help me collect myself, carry me, shelter my thoughts.

This is my own experience as well. I meditated on primordial tones for years before I started using them in my groups and workshops, and only after astonishing success there did I publish them on audiocassettes [and now DCDs].

SOUND MEDITATION FOR COUPLES AS A TANTRIC RITUAL

I have also developed primordial tone meditations for couples. The Shiva-Shakti meditation uses the consonance of the sun and the moon; the Karuna meditation uses the chords of Mars and Venus. The latter consists of a fifth, with the Venus being above Mars. The consonance of Mars-D and Venus-A, on the *sandawa* monochord creates especially rich overtone interferences.

It is a deep experience for couples to do these meditations in a tantric manner. The fusion of the Venus and Mars tones (or the moon and sun tones) is a union of the male and the female elements. A couple meditating to these chords will enrich the strength, energy, and depth of their love.

PERSONAL FACTORS IN SOUND MEDITATION

It is important to deal consciously with the thoughts, impressions, and associations arising during primordial tone meditations. After I published the first cassettes [recordings], a practitioner of meditation wrote to me that the earth-tone recording was faulty, that the studio was not adequately soundproofed because he kept hearing the noise of cars speeding by. When we called the writer of the letter and told him that no car ever drove past the house where we did the recordings, it came to light that this man was a sports car fan and a former race car driver.

An elderly lady who had grown up near a Catholic church, where she had gone to pray several times a day during her childhood, thought she kept hearing the ringing of church bells while meditating on the sun tone. The moon meditation of a middle-aged man was constantly interfered with by the sound of female love moans. Of course, none of this is on any of the cassettes [recordings], neither speeding cars, nor ringing bells, nor moaning lovers. Nevertheless, how full (and overflowing) must be the (sub)consciousness of these people to hear all this!

I started working with primordial tones in 1981. Five years of experience is not enough. Experiments continue by meditating people as well as by therapists and in groups. I am collecting these experiences and will publish them at a later date. Up to now, I have published the tones of the earth, the sun, the moon, Mars, Venus, Jupiter, the consonances of moon and sun (Shiva-Shakti sound), and of Mars and Venus (Karuna sound). In the course of time, we will probably succeed in developing even deeper techniques of meditation and therapy using primordial tones.

SOUNDS OF THE CELESTIAL BODIES

Celestial body	Rotation Time	Octaves into audibility	Frequency in Hz	Tone # = sharp	Octaves into visibility	Wavelength in Nm, Color	Meaning
Earth	23hr,56mn, 4s	24	194.71	G	65	700.16 orange-red	Stability; "Ground yourself!"
Sun	365.24 days	32	136.10	C#	74	500.9, green	Light, warmth, joy, animus
Moon	29 days, 12hr	30	420.82	G#	70	648.0, orange-red	Love, sensitivity, creativity, femininity, anima
Mercury	87.96 days	30	141.27	D	72	482.5, blue	Intellectuality, mobility
Venus	224.7 days	32	221.23	A	73	616.2, orange-red	Beauty, love, sensuality, sexuality, harmony
Mars	686.98 days	33	144.72	D	75	471.0, blue	Activity, energy, freedom, humor
Jupiter	11.86 yrs	36	183.58	F#	77	742.6, red	Growth, success, justice, spirituality
Saturn	29.45 yrs	36	147.85	D	79	461.1, blue	Separation, sorrow, death
Neptune	164.78 yrs	40	221.44	G#	81	644.8, orange-red	The unconscious, secrets, imagination, higher potency of Venus (spiritual love)
Uranus	84.01 yrs	39	207.36	G#	80	657.5, orange-red	Spontaneity, independence, originality, higher potency of Mars
Pluto	248.43 yrs	40	140.25	D	82	486.0, blue	Power, crisis and changes; higher potency of Jupiter

