

Chapter II:

The Healing Power of Sound and Music

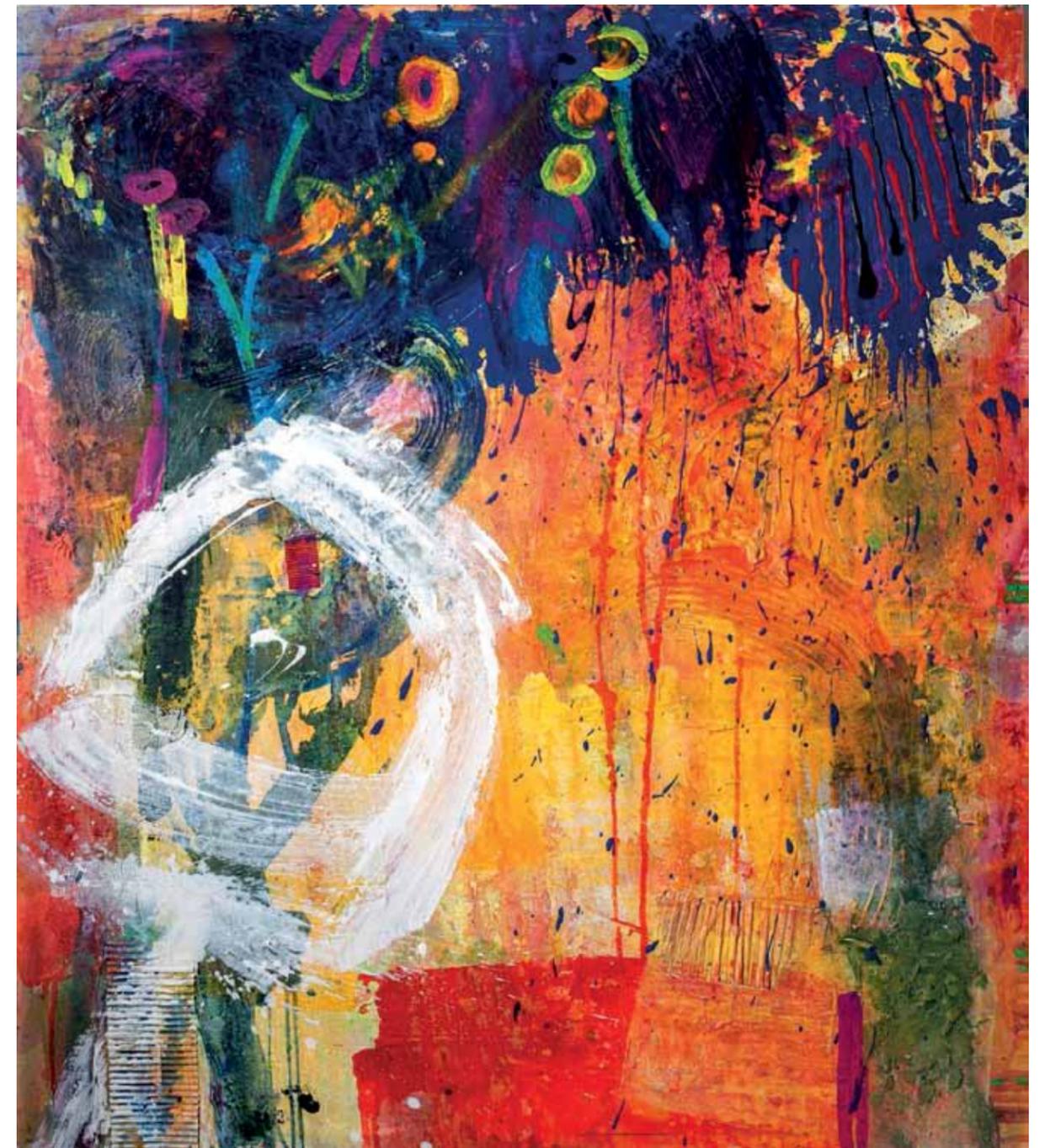
The psychoacoustic, emotive, and inspirational qualities of music are predicated upon its basic elements, harmony, rhythm and melody. Of these, the most important is rhythm, for rhythm is the backbone, the DNA, the core and the foundation upon which the harmonic and melodic structures of music are built. “There are three important things in music... rhythm, rhythm and rhythm” (Janich).

Research has shown that rhythm and its healing qualities were an integral component of the Shamanic rituals of the Upper Paleolithic era, and exist in rituals and music performed worldwide and multi-culturally to this day. In its most basic form, rhythm is communicated and produced through the act of drumming. In his study of the effects of drumming on patients being treated for drug addiction and in drumming circles, anthropologist Dr. Michael Winkelman, a leading researcher in the field of neurotheological perspectives on shamanism, found that: “drumming induces relaxation and produces natural pleasurable experiences, enhanced awareness of preconscious dynamics, a release of emotional trauma, and a reintegration of self” (Winkelman 650). In general, production of relaxation and resultant healing effects of music are the product of “high-voltage low-wave limbic discharges” which produce “interhemispheric synchronization and coherence; brain stem limbic and limbic-cortical integration; and integration across the neuronal axis, results in the synthesis of emotion, thought and behavior” and in general, conditions of an alternate state of consciousness (ASC) experience (Winkelman 2002 73).

What are these altered states of consciousness? Among those mentioned in the literature are “hypnosis affect, meditative tranquility, trance as well as hallucinations (visual, kin-aesthetic, cutaneous, perhaps auditory, and doubtfully gustatory and olfactory); sometimes even epileptic seizures and psychopathology” (Sturtevant 133). In times of prehistory, these states of consciousness usually were achieved during shamanic ceremonies in cave dwellings, and later in man-made structures, and were an integral part of the ritual experience. There are countless examples of ASCs induced by ritual drumming and other activities occurring during the shamanic ceremony. It is found that posture can bring one into an ASC. This shall be discussed in the chapter on dance. The dwellings and structures in which the drumming occurred and the rituals that took place are in part analogous to the Jungian art therapist healer’s chamber of today. Such chambers are more than simply an office whereby discourse takes place. They can become a “nursery for old pathological scenes to be experienced, a stage for new object-related drama to be played, or a jungle for the hero to confront his or her inner instinctual beast” (Lewis 37). Reviewing technical aspects of the history and nature of rhythm

in producing ASCs reveals the powers inherent in rhythmical musical performance in helping to transform environments into tenemos (vessels) in which healing and transformation can take place now, as they did thirty to forty thousand years ago in the cave dwellings of the upper Paleolithic.

Patrick Bubna-Litic - *Song of Joy* / Acrylic mixed media on canvas / 120 x 100 cm / 2014





Said Tiraei - **Famine** / Oil on canvas / 129 x 150 cm / 2006

In the film *Ethnogenic Shamanism Ancient Astronauts History* by Gregg Krawczyk, the phenomena of “binaural beating” (Ethnogenic) is defined as a characteristic of auditory perception that is a resulting phenomenon produced by a single sound arriving at our ears at different times, these sound waves thus being slightly out of phase. Through evolutionary adaptations, when a single sound, such as a handclap, is picked up by both ears, our brain combines the two waveforms, one from each ear, into a single waveform. This is usually accomplished by turning the head toward the sound, thus eliminating the phase disruption. However, if slightly out of phase sounds are delivered to both ears through an external source, and the head cannot be turned, such as through headphones or in a chamber which produces echoes, these waveforms then will beat, or create low frequency vibrations in the brain which produce brain waves in corresponding rhythms. This phenomena called “beating,” or tuning, the brain below seven cycles per second produces electroencephalographic (EEG) results corresponding to theta and delta brain states. These states are related to sleep and dreaming, specifically, theta to sleep and delta to dreaming. However the sustained beating produces a state in which the body is asleep, and the mind is awake. It is this state to which the drumming of the ancient shamans brought us. This is empirically demonstrated in the film: *Ethnogenic Shamanism Ancient Astronauts History*.

In EEG studies done on subjects around the world in a number of Archeological structures, Skip Atwater of the Monroe Institute has reports in the film that the architecture of these structures enabled – through the use of percussion induced beating patterns amplified by the architecture of the structure itself – individuals to enter theta and delta states of consciousness. This is the state of “body asleep, mind awake” mentioned previously, and is thought to be the state in which Shamans flew or had out-of-body experiences, travelling to other spiritual realms. The ASC induced by the beating frequencies in structures such as Maeshowe on the Orkney Islands in Scotland, The “Pyramid of the Sun” in Teotihuacan in Mexico, and even in the Great Pyramids of Giza, all have been discovered to produce the necessary beating frequencies for induction of theta and delta EEG patterns, and thus are capable, with the proper percussion performed in the innermost chambers of these structures, to produce ASCs (Krawczyk).

Also presented in the film is an ancient structure built around the year 3100 BC called Maeshowe (Krawczyk). Dr. Keating and his team found that beating a drumhead at between two and three times per second at the position of the junction between the hallway and the main room of the structure, which is a half-underground pyramid, produced a two cycle per second (c.p.s.) wave with the sound

pressure level of 135 decibels. That is louder than a jet engine or rock concert. The wave was produced by a phenomena known as “Helmholtz” resonance (Helmholz resonater), which occurs when for example you blow a stream of air across the mouth of a bottle. The beating of a drum set up a movement of airwaves that produced the great surge of sound energy at two c.p.s. The dimensions and rock walls of the structure amplified the frequency. Of course we do not actually hear such a low frequency, because it is well below the audible range of human hearing ability which itself begins at the low frequency of 20 Hertz and reaches upward to 20,000 Hertz. So, to test the theory that the ancient structure was built to induce ASCs, Dr. Keating measured his own EEG while a drum head was being beaten at the mouth of the chamber. His EEG went down to approximately two c.p.s., which is the delta state, and he reported a state in which he felt physically asleep, but mentally alert (Krawczyk). So their evidence infers that the architectural dimensions of the structure was used for induction of trance-like ASCs. Similar experiments were performed in both the Pyramid of the Sun at Theotecoacan, and in the Great Pyramids of Giza. Further support of the theory that these structures were used to produce, or to help produce ASCs and out-of-body experiences is found, in the case of the Pyramid of the Sun, the Great Pyramids of Giza, and Catalhoyuk in Turkey which are much older ruins thought to be the first agrarian village (Krawczyk). The interiors of these structures are covered with paintings of humans in flight, at times painted as half-vulture or other bird, and half-man. It is suggested that flight of sorts was achieved in visiting and participating in the rituals within structures, and that this flight was achieved by man. The “flight” of course was internal, imaginative flight, and was a chief means whereby the shamans or priests brought new knowledge, strength, and vitality to the community. The shamans, and apparently their guests, in their ASCs and flights were accessing the region, power, and personalities of their Gods, their heavens, and their hells. In Jungian and in more modern terms we might say they were accessing their spirit, their archetypes, and their complexes, and drumming, and any ancillary music was a very strong influence in getting them there. That is music; through rhythm is one of the keys to the gateway to the soul, and to the transformational energies of ritual healing.

Fast forward thousands or perhaps tens of thousands of years: The term “technoshamanism” has been coined to describe the work of the DJ at the techo music-infused “raves” which have been going on both in legal and illegal venues throughout much of the Western hemisphere since the 1980s. It has been found that there is a strong similarity between the healing rituals of the shaman, and the activities of the modern day rave DJ. These DJs produce music by mixing preexisting recordings at venues where hundreds if not thousands of people congregate for dance parties lasting all night.



Nicole Majer
Woman with Horns
Illustration printed on Alu-Dibond
90 x 120 cm
2014



Helga Kreuzritter - Peterchens Mondfahrt / Collage / 40 x 35 cm / 1990

The music played is usually “techno,” an “electronic” music dominated by percussion rhythms and averaging about 120 beats per minute (B.P.M.)” (Hutson 53). However, the B.P.M. can be anywhere from 115 to 160 B.P.M. (Mizrach). It appears that a combination of these elements of the rave experience with drumming rhythm as its backbone element can produce ASCs. In rave culture, the “DJ as shaman... is given credence because of his abilities to produce trance, ecstasies, visions, or other extremes of experience... (Kubiack 274).” It is an experience of the rave enthusiast in fact to be healed: according to a raver named Rick quoted in Hutson’s article, “Raves build... an awareness that promotes inner peace, open-mindedness and free expression... [they] release anxieties, fears and worrying... Raves are a therapeutic unified gathering that can continuously help an individual learn more about strength and weaknesses, help channel energy toward positive directions in life“ (Hutson 63).

The physical effects of music on the body has been outlined in research by Dr. Cornelius Conrad, a surgeon and musician who has found that music stimulates the production of human growth hormone, reduces heart rate and blood pressure, and lowers the level of stress hormones. Also, it was found that music produced an increase in pituitary growth hormone, which is known to be an important chemical element of the healing process (Dobbs).

In this interview, Dr. Conrad speaks of the “Mozart effect” (Jausovec et. al. 73). This is a well-known phenomenon which occurs while listening to Mozart’s music which produces a heightened cognitive functioning and healing effects. It is generally not known why Mozart’s music has such an effect, while almost all other music similarly studied has shown not to produce this effect. However it is known that Mozart was ill a good portion of his life. He is a prime example of the wounded healer in this regard. The healing energies exhibited in his music most likely arose from his own physical difficulties. Dr. Conrad theorizes that this healing energy might in fact be a result of Mozart’s method of composition, in which “intricate variations are absorbed as part of a melodic accessibility so well organized that even a sonata for two pianos never feels crowded in the ear, even when it grows dense on the page” (Dobbs). This is supported by research done on Mozart’s Sonata K. 448 and Piano Concerto No.23. Both have been shown to decrease epileptic activity. Only one other piece of music researched is said to have this activity, the Acroyali/Standing in Motion by Yanni (version from Yanni Live at the Acropolis performed at the Acropolis) (Dobbs). It is noted that these pieces were all similar in compositional qualities.

An artist whose work is of great interest as it relates to music therapy is Grammy Award winning producer and composer Barry Goldstein. He uses music as therapy to change moods and to balance and “tune” the individual, much as a guitar is tuned. To do this, proper music must be chosen. For a mood-altering effect, one must choose music which will get you to the place you want to go. For healing and balancing, one must use relaxing music which doesn’t trigger old emotions or memories. Goldstein calls this music “anxiolytic,” and it must provide no references which will provoke emotional stimulation. According to Goldstein:

Our main energy centers, referred to as Chakras, are like the strings of the guitar. Each Chakra vibrates at a different frequency and when properly attuned, align themselves perfectly to create an optimal flow of energy. If one Chakra is out of tune, like the guitar, the whole instrument does not perform optimally and energy blockages may occur. These blockages can affect disharmony and often manifest as disease in any or all of our Physical, Emotional, Mental or Spiritual bodies. (Goldstein)

According to Dr. Penny Lewis, whose psychoanalytic techniques were discussed in the last chapter, “The rhythmic flow of voice and music, the rate, vibration, volume and manner in which the vocal chords create sound can express affect, and drive... Because sound permeate(s) through body boundaries and intellectual defenses, it is often considered the most basic form of connecting and communing with the imaginal realm” (25). It has been found “human infants as young as five to seven weeks of age encode some acoustic attributes of naturally occurring speech into long-term memory and that the representation of these attributes influences infants’ subsequent responsiveness to the speech stimulus” (Spence). If acoustic elements are held within the auditory memory from infancy, perhaps from even within the womb, it seems likely that the myriad of states and emotions aroused by music result at least in part from the accessing of historical memories related to the kind of sound being experienced. It is also possible based on this analysis that, through



Mozart
Sonata for Two Pianos in D, K. 448

Davood Roostaei
Wolfgang Amadeus Mozart
Acrylic on canvas
122 x 182 cm
2007

