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## Sound Healing: An Ancient-Modern Comparison of the Uses of Music and Sound for Therapy

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# University Honors Program Research Project

## APPROVAL PAGE

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Sound Healing: An Ancient-Modern Comparison of the Uses of Music and Sound for Therapy

Abstract:

It is my intention to bring to light important information about healing by examining ancient creation myths and cultural practices. In these traditions it is obvious that sound – or vibration – plays a vital role in the formation of matter and our universe. Modern science has proven these ancient beliefs to be so in the vibration is essential to our existence, therefore by examining and comparing ancient and modern practices of sound and music for healing I believe we will see that these important cultural aspects impact us greatly due to the effects of vibration on living bodies and cells. The impact of vibrations for therapy use is substantial and should be made known as a more viable resource for healing. My goal is to expose the certain aspects of sound and music healing that will be beneficial for the population as a whole to know because we are currently mostly unaware of this important reality.

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**Sound Healing:  
An Ancient-Modern Comparison of the Uses of Music and Sound for Therapy**

**Calli Woodard Thomason**

**Honors Research Project**

**Dr. Carolyn Sanders**

**5 May 2010**

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Honors Research Project

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### Sound Healing:

#### An Ancient-Modern Comparison of the Uses of Music and Sound for Therapy

#### **Abstract**

It is my intention to bring to light important information about healing by examining ancient creation myths and cultural practices compared to modern methods. In these traditions it is obvious that sound – or vibration – plays a vital role in the formation of matter and our universe. Modern science has proven these ancient beliefs and it has been proven that vibration is essential to our existence. Therefore, by examining and comparing ancient and modern practices of sound and music for healing, I believe we will see that these important cultural aspects impact us greatly due to the effects of vibration on the human body. The impact of vibrations for therapeutic use is substantial and should be made known as a more viable resource for healing. My goal is to expose the certain aspects of sound and music healing that will be beneficial for the population as a whole to know, because we are currently largely unaware of this important reality.

#### **Introduction**

Just like music, the patterns of the external world are comprised of rhythm, repetition, and natural flow (Wiora 101). The cyclical nature of weather and the seasons, the gestation period of plants, the mating processes of different species, and the intricate biology of humans all have specific blueprints that follow the same organized rhythmic flow that we find in music. The vibration of heart beats and brain waves depends on good rhythm as well as harmony to keep the body healthy. Because music is a kinesthetic experience in which the frequency of

different pitches affects living tissue in profound ways, the vibrations producing music cause physical responses from humans at a fundamental level. Dance, or even the simple task of clapping or tapping a foot to music, is a prime example of this kinesthetic quality of music and its ability to affect rhythms within the body (Jourdain 325). The human body takes on the vibrations of music by absorbing the rhythms, melodies, and harmonies produced and allowing these same elements to join with the body which pulses as an actual part of the music. What many people do not realize is that in the event of being exposed to the vibrations of sound or music, the human body is physically impacted in a powerful way. Modern science is now proving that vibrations can be used to balance the physical body for healing and sustained health. Scarantino writes, “Today, modern biochemists and astrophysicists, as well as yogis, agree that our bodies are systems of vibrating atomic particles, and that the cells in our bodies resonate automatically to incoming sound vibrations” (30-31). The possibilities are great for the future of sound and vibrational therapy, and many spectacular results have already been documented. In order to best understand the concepts and science behind healing with sound, or music, it is necessary to begin with the origin of the belief that music holds great power.

### **Historical Context**

Music has been noted for millennia as a special medium to express and connect with things beyond mankind’s temporal experiences. Every early civilization in all corners of the world lauded music as something mystical, sacred, or metaphysical. In all religious backgrounds, it is notable that sound is *the* essential component in the creation of the physical world that ancient peoples and modern societies have experienced and are still experiencing. Considering these beliefs which ultimately seeded the direction of our modern societal structures and beliefs, it is no wonder that sound has been seen as a constant source for therapeutic use.

Because many ancient traditions believe that the universe was formed by vibration, or sound, the ancient cultures in which these beliefs are found are also those that have record of the

power of music to influence health. In the ancient cosmogony of the Egyptians the god Thot, also known as Thoth, created the world with only the use of his voice. Thoth was considered to be the “Divine Intelligence” and it was stressed that at the simple sound of words coming from his mouth, not his thought or action, the earth was brought into being (Benenzon 143, Perry 293). In fact, his speaking is thought to have birthed four other gods comparable to himself who “peopled and organized the world” (Benenzon 143). Benenzon notes that Egypt also provides us with one of the oldest known records of music therapy on “Egyptian medical papyri dating back to 1500 B.C.” (143). These papyri include instructions for musical “charms” that would enhance female fertility (Benenzon 143).

The first open record of music therapy appears in *The Bible* when David played his harp for Saul to cure his “black moods with soulful music” (Benenzon 143, Portnay 188). Again, this story comes from a culture where the Divine creates with voice, or sound. In Genesis, the Judeo-Christian god speaks the world into being: “Let there be light...” (Holy Bible, Gen 1.03). With this same basic element of creation by word, or sound, it is interesting to note that the Hebrews were the only ancient civilized people that did not attribute music to metaphysical sources (Dickenson 14). Music, however, was used to connect to the Divine as is repeatedly noted in *The Bible* and the traditional ceremonies of the Hebrews.

In ancient Chinese philosophy, music was the “basis for everything” (Scarantino 4). According to Lao-tse, an ancient Chinese philosopher, there were two types of music. Human music was that which was in unison with men and celestial music was that which was in unison with God (Wiora 101). Wiora states:

Thus the oriental view of music embraces many and various ideas: heterogeneous and common to humanity, ascetic and devoutly vital, rigid in form and elemental, extrovert and introvert. It is multicolored and multiform. Amid its confusion of voices one hears the deep tones of metaphysical mysticism. “Great space has no corners,” says

Lao-tse, “great gifts take long to ripen, great music is gently heard...And the Tao is hidden.” Tao is the way, the truth, the cosmic order. (101-102)

This celestial music was what ordered existence, and comprehending it meant staying in harmony with nature and the hierarchical relationship for all that exists. Again, we see an organized system of belief and viewing reality that has the foundational element of sound, or vibration. Tao as “the way” and “the truth” sound exactly similar to Jesus’ words in the Bible, “I am the Way, the Truth, and the Life...no man cometh unto the Father but by me” (Holy Bible, Jn 14.06). If, as read in John’s gospel, Christ as God is the Word or *sound* of creation, great parallels can be made between these two traditions.

There seems to be a music, or organized sound element, that created the reality we are now discussing. This element, vibrational in nature, provides us all with the means to living life, not only physically, but also metaphysically. The same order and ratios that govern the universe and relationships of galaxies to one another is the same order from which our human bodies are generated and understood. As with other ancient cultures, staying in harmony also held great importance for moral action within society. Good action kept this universal harmony and order in balance within the individual and without (Wiora 101). The Chinese word for medicine even stems from the word for music. Traditional Chinese medicine involves the linking of five tones, which are each associated with a specific part of the body, to the five elements used for balance and healing in the curing process of the body (Smith).

However, the final Eastern example of music’s involvement with the origins of the world stems from ancient India. In Indian culture, there are many names for this creating sound that have meanings such as “word, inner sound, or song,” as well as “inner melody” and “soundless sound” (Perry 293). Wiora notes that the Vedas reference to Brahma in regards to atman, or soul, is the root of all that exists; Brahma itself, in the original language, meant “song, the sung formula, the word” (101). The Persians and Hindus, according to Benenzon, believed that the

entire “universe was created by an acoustic substance” (144). Perry records that a Persian saint of the twelfth and thirteenth centuries is noted to have said, “From the Sound (Word) the entire creation came into being, all light emanated from it” (294). Benenzon provides more detail on this belief:

In principle it is supposed to have come from the sound emerging from the depths of an abyss, which changed into light, and that little by little this light was transformed into matter. This materialization, however, was never complete, because every particle of matter still retains a certain amount of the original sound component. (144)

In modern scientific discoveries belonging to the world of quantum physics, scientists are discovering that this ancient belief may not be as farfetched as one would imagine. This will be addressed later as a key factor for the validation of sound as important in the healing arts.

Even the Native Americans of the Northwest believed that music brought contact with the spiritual realm (Walker 190). Healers of the North American Indians would have dreams or visions in which certain songs would be given to them to influence a particular illness through the music’s effect on the evil spirits that were believed to be causing the illness (Alvin 27). Walker also notes in his book *Musical Beliefs: Psychoacoustic, Mythical, and Educational Perspectives* that “Societies untouched by Renaissance thought have less difficulty accepting a traditional belief in the power of music to cure ills or contact the world of spirit beings” (186). This is due to the absence of an emphasis on empirical evidence that came to dominate the thinking of the Western world.

The paramount example of music in mysticism and healing for the Western world itself lies in the ancient Greek civilization. Along with the Biblical account of David’s healing music, the two other “greatest books of antiquity” - the Greek *Iliad* and *Odyssey* - remain the oldest examples of specific music therapy stories. In the *Iliad* Greek young people pleased the god Apollo so much with their music that he ended the death plague that was so detrimental to the

people. The *Odyssey* imparts the instance in which the hero Ulysses' knee has an injury from a wild boar which is cured by chanting, or a "healing song" (Portnay 188, Meinecke 82). The famous love story of Orpheus and Eurydice also revolves heavily around the concept of Orpheus' impressive ability to bring his wife back from the dead by playing his music, perhaps charming the poison of the snake bite to cure Eurydice (Meinecke 80-81). Upon examination of the actual culture of the ancient Greeks it is obvious that healing with music was a common idea because of its position in the order of reality. Therefore, it is no surprise that, along with other traditional stories of the ancient Greeks, many of the most famous ancient stories should include a reference to musical healing.

Juliette Alvin adequately explains the Greek understanding of the significance of music as a natural force in the universe in her book *Music Therapy*:

The Greeks tried to find reason and intellectual logic in the world around them and in man himself. Man to them was not only part of but the centre of a universal harmony. Their ideal was to attain perfect harmony between body and soul, between habits and reason, between intellect and emotions. (37-38)

From this it is easy to understand that the Greek people of antiquity saw the potential for music to heal because illness was seen as an imbalance, or *disharmony*, between the body and soul. The harmonious art of music was the obvious answer to restoring the harmony needed for good health. The great philosophers are noted for their experiments with the effects of music on humans and found that different types of music caused notable physical as well as mental effects. For this reason it was popular belief that music was such an important influential force that it should be government controlled (38).

Music was the only art named after the gods from Greek mythology. The *muses* became known as a single entity *the Muse*, which seems to have been connected to creation and growth (Wiora 72). It is directly from the gods that music supposedly originated, therefore the

connection of the gods, humanity, and the rest of the universe is logically associated with musical harmony (73). Apollo was the god of music as well as medicine and it was common to call on him with the lyre for healing, but it was dangerous because this process could have ill effects if the music was displeasing or incorrectly offered. For example, donkey ears were given to King Midas for favoring Pan's pipes to the lyre (Alvin 29-30).

The primary philosophers of ancient Greece held that there was a universal sound current. Socrates and Plato taught that an individual's inner sound could help one transcend to the spiritual (Perry 293). Aristotle followed this idea and, even the scientific mind, contended that music had a certain impact on health (Benzon 164). Following these main three paragons of Greek philosophy we see that from them the earliest means of applied music therapy in case study form can be seen in their first emergence.

Plato, the first of the great notable philosophers we will discuss, suggested a correlation between the traditional Greek musical modes with specific influences on the *soul*, which here can be understood to mean a mental state or mood which is indicative of the higher self and a connection with higher reality. The only two modes suitable for training future citizens, according to Plato, were the Dorian and Phrygian modes because they brought about courage and control respectively. Aristotle would agree with this and emphasize the use of the Phrygian in education because it promoted self discipline (Blackwell 170). Plato noted that the songs of the people could be distinctly noted as beneficial or harmful because of the power music held in different expressions (Walker 185). Because of these aspects, music should be utilized not simply for entertainment or pleasure, but for the promotion of good morals within the individuals of the society; only good music should be allowed so as to promote only that which is best for the ideals that were meant to be upheld in the civilization of that era. Dickenson notes, "The Dorian mode was considered bold and manly, inspired valor and fortitude; the Lydian, weak and enervating" (14). Plato promoted the use of music and dancing to release irrational

apprehensions and nervousness, “ ‘Music has not been given to man to please his senses but rather to calm the turmoil of his soul and the movements felt by a body full of imperfections’ ” (Benenzon 147). One particular study by Plato involved a positive response by an agitated woman to music that was exhilarating (Portnay 189).

Much of the same emphasis on the power of music over the human psyche, as well as body was held by Aristotle, who was Plato’s pupil. Music therapists claim that these two figures were fundamental in the establishment of using music for healing purposes in Western society. Aristotle saw “medicinal value” in music because of the control it had over the emotional being due to his observations of the calming or exciting effects of music on people with extremely low or high states of emotion (Benenzon 146, Alvin 38). He saw mental illness as a deficiency in the soul due to intemperance. Body and soul were inseparable for Aristotle, meaning that if one was unhealthy that the other would be as well. Music was the means by which balance between the two could be regained, therefore creating good health (Portnay 189). It is also interesting to note that Aristotle thought music should only be used for the cleansing process of the emotions rather than the strengthening of the mind (Alvin 41). This is perhaps because using music to shape a mind could be so powerful that if any one wrong principle or emotional pattern is given to the person during a musical experience, it could have negative or opposite effects of the intended purpose of the music therapy itself.

In general, the tradition of the ancient Greeks held that passionate music could heal the mentally unstable, just as the Phrygian mode, described as “orgastic and frenzied,” was used for the worst cases of mental insanity (Portnay 189). One might compare this to a more contemporary rebellious adolescent who plays the most bombastic music as loudly as possible while driving in a car. There seems to be some attraction for certain people towards certain music because it helps to envelope their entire person in a particular emotion or mood that is obvious to even the most modern individual. Following Aristotle’s claim that music’s use

should purge the emotions, the Lydian mode was soft and sad and was used to treat melancholy and depression. The Dorian mode, as has already been discussed, was a positive mode that was used for the balancing of individuals whether they were healthy or sick (189-190).

It is perhaps in Pythagoras, however, that the mystical quality of music in relation to the universe is explained. From here it is easier to understand the actual reasoning behind the Greeks' belief in the therapeutic power of music. Pythagoras determined that numbers contained the key to the universe, and that everything that exists does so within certain proportions to every other thing that exists. This "mystique of numbers" was adopted by his followers and all Pythagoreans held that numbers are the prime reliable cosmic principle on which the laws of the universe are based (Wiora 77). He used the ratio of spheres to explain the science behind different musical pitches as well as the harmonic balance that should be contained in all of life in order to match the universe (Scarantino 4). Pythagoras looked at the heavenly bodies and the ratios inherent in their relationship to one another as well as to earth as having a musical quality of their own, which he called the "music of the spheres" (Perry 293).

For the Pythagoreans, the world's structure was based on numerical principles, especially the *tetrarkis*. The *tetrarkis* is the group of the first four digits in ratio to one another – 1:2:3:4. Pythagorean teaching claimed that the laws of the universe could be found by using these numbers and their relationship to each other as a monochord, if each of the four numbers were thought of as a musical pitch different from the others (Wiora 77). Wiora comments on how the *tetrarkis* is the fundamental answer to basically any question for the Pythagoreans, "To this... they attribute the most various instances: 'What is the oracle of Delphi? The *tetrarkis*! For that is the musical scale of the Sirens.' Number, harmony, and music seemed to raise the soul to divinity in their(the Pythagoreans') teaching" (77). According to Scarantino, the number seven was also held as matching the "universal vibrations and the well-being of mankind," something which is speculated to have originated the notion of *the lucky number seven* (76-77).

Thus, it was through numbers that the order of the universe was understood and numbers, in turn, that could affect the natural order of the universe. It was because of this belief that the Pythagoreans held that certain melodies could be applied to psychopaths for therapeutic purposes, while other melodies could be devised for healthy people and show just as ostensible results (Meinecke 82). Pythagoras himself believed that all of these elements of life – number, consciousness, and harmony – could not be separated and he made a form of musico-therapy a part of daily practice (53). His followers were known to use music to alter one's emotional state, or mood, in order to cure whatever ailment might be plaguing the physical body. Portnay explains:

To them (Pythagoreans), the human soul and the world soul were united and governed by similar harmonious laws. Since music is an imitation of the divine harmony it can, through rhythm and melody, instill a harmonious balance in a human soul that has become untuned. Music can produce in others the mood that it expresses itself, and thereby modify the character of its listener and alleviate the ills of the mind. (189)

With the cosmic importance placed on the numerical ratios found in music as the harmony of the universe, it is effortless to see the reasoning behind the belief of the ancient Greeks in the healing power of music.

Following the Greek domination of the ancient world was the Roman Empire, from which we have a few accounts of discussion over music being used for healing purposes. In a letter to Cassiodorus, Boethius comments on the different medicinal values of the different musical modes (Portnay 190). Coelius Aurelianus treated elderly people with sounds of songs that were repetitious, which he claimed alleviated pain because of the vibrations it caused in the air (Benenson 147). In his book *On Deadly Infections*, Democritus wrote of the healing power of the flute against a variety of illnesses including a poisonous snake bite (Meinecke 81, Alvin 41).

The Arabs followed the Greeks' strong history of scientific medical studies, and with it the notion that music should be used for healing (Alvin 41). For medieval hospitals in the Middle East, where Christians, Jews, and Arabic Muslims were all held under the same roof, music was used for alleviating pain (Benenson 146). Benenson relates, "An old Hebrew manuscript contains a picture showing a lute player in a doctor's waiting room, probably called to exorcise the mind of the possessed or to play his part in the cure of the patient" (146). Thirteenth century Arabs, who studied Aristotle and other ancient philosophers, applied the use of music for the treatment of patients with mental disorders (Portnay 190).

In the early Christian church, we also see the recognition of music's influence over the human condition. Just as the Hindu and ancient Egyptian creation stories claim that sound was the root of the existence of the universe, the Gospel of John's "In the beginning was the Word..." can be found restated in another text with much stronger vocabulary. The "Essene Gospel of Peace" which was hidden from the world for hundreds of years in the Vatican, states "In the beginning was the Sound, and the Sound was with God, and the Sound was God" (Perry 295). This shows that Christianity, the main religion of Western society, holds the same fundamental understanding of the order of the universe as stemming from vibrations, or sound, just like the ancient mid-eastern and eastern as well as Greek accounts of the universe.

Even the early church fathers recognized that music was an essential component of existence. St. Augustine himself was wary of the use of music in church because it had such great sway over the emotional being as well as man's spiritual connection to God (Dickenson 372, Holsinger 70). Dickenson quotes Augustine's *Confessions*:

How I wept at thy hymns and canticles, pierced to the quick by the voices of thy melodious Church! Those voices flowed into my ears, and the truth distilled into my heart, and thence there streamed forth a devout emotion, and my tears ran down, and happy was I therein. (66)

Although he did not understand the mysterious relationship of musical harmony that the Greeks would have identified in numerical value, Augustine recognized that certain musical modes elicit unique emotions depending on the nature of the individual mode (Blackwell 171).

It is in Clement of Alexandria, however, that the full understanding of musical harmony in a Christian account of existence and the universe is found. Historical information about his life remains elusive, yet it is known that Clement lived in the late 100s and died before 216 A.D. He was a pagan convert to Christianity and was highly trained as a Greek ecclesiastical scholar and teacher. His studies included those of Greek poetry and prose, as well as philosophy. He claimed that Christianity surpassed Greek philosophy because it revealed the definitive truth, which was Christ (Strunk 59). In accordance with the belief of the creation by *the Word of God*, Clement called Christ the “New Song,” because he believed that the original map of creation and a pure and perfect world in its glorious harmony was restored by the life of Christ. Christ needed no musical instrument to produce music because the whole universe was his instrument, which he tuned to perfect harmony in all its various parts – including the physical body and metaphysical soul of man (Clement 62-63). In causing vibrational harmony within the universe, health and balance to all living things was to be restored through Christ. While this provides a more metaphysical view for the belief of music’s power, it may not actually be far from the findings of modern science. Modern sound healing with vibrational therapy presents an ancient approach to new ways of healing the physical body.

### **Modern Affirmations**

There are few accounts of music being used for medicinal or therapeutic value in the Renaissance, and even fewer still during the centuries between the Renaissance and the twentieth century. Therefore, for the purposes of this project in an examination strictly of ancient and modern accounts of healing with sound, we will now turn our focus to the modern development of music therapy and its extraordinary contemporary application in the field of sound healing.

Like the ancient cultural and religious notions that sound is the source of the universe, modern quantum physics can verify that vibrations are what lie at the root of existence.

Everything that exists is inherently connected by the root of all things which has been determined to be vibration, or energy. From the great ancient philosophers to the 20<sup>th</sup> century Einstein, man has strived to theorize about the fabric of the universe (Braden 17-18). The ancients called it *ether*, but modern scientists can sum it up in a single word – energy (19). This energy is hard to detect because it is what forms matter as well as what fills the vastness of seemingly empty space (21). Because of the different levels of this energy which manifest in different frequencies and intensities, the world is full of matter, light, and sound of all different types – multiple colors, diverse biology, and sounds that all stem from each particular manifestation of this energy that makes up the universe.

One of the earliest quantum physicists, Max Planck, conjectured that the world was made of bursts of energy called *quanta*, which presented a remarkable suggestion that reality is not actually solid. In 1970, String-Theory Physics was the newest account describing the existence of the universe. The theory stated that the universe itself was made of “tiny vibrating strings of energy,” which directly supports the ancients’ view that vibration is at the root of existence (24). In 1985, String-Theory Physics was formally accepted by the mainstream physics community as a plausible answer to the age-old question of a unified explanation for the origins of the universe and all that it holds (25). Until recently, man has not had the technology to detect this master energy field from which all stems; however, it continues to become more apparent with new modern breakthroughs (41, 54-55).

In his book *Sound Therapy*, Wayne Perry explains the importance of the universe being composed of vibrations as it relates to the possibility of healing with vibrations, sound, or music:

Scientists have affirmed that, from a vibrational perspective, all that is in the Universe is present in man. In fact, man is a vibrational reality of sound, light, and form,

the different states of which are only differences in frequencies or vibrations. The Universe is the macrocosm; the body the microcosm. (295)

Because pure vibration is just a form of energy, the energy that makes up all of reality permeates through our bodies just as much as black holes, the atmosphere, and trees. Therefore, it is easy to understand that a balanced and healthy energy, or vibration, within all things would be a world in perfect equilibrium. But, just looking at the microcosm of the human body we can confirm that vibrations can harm and destroy or balance and heal.

Modern mystical beliefs line up with those of the ancients as well. Christians still hold that the world was created by the voice of God, and the eastern traditions also maintain the same vibrational origins for the fabric of the universe. The religions of the world have maintained the “sound” element of creation, and therefore line up with modern science at least on a basic level. Even highly lauded societies, such as the Masonic Order, believe that the highest pursuit of life should be to discover the *Logos*, or “Lost Word.” The goal of every Masonic Master is to attain this Lost Word. The New Testament of the Bible relates this same word, *Logos*, as being “the Word,” which is used as another word for God the creator, as well as his manifestation in physical form as Jesus Christ (Perry 293). In fact, Scarantino quotes a modern interpretation of this passage which says, “In the beginning was the Word – the Creative Sound – from which God brought forth Light, which filled the universe. And they complimented each other: Sound being audible Light, and Light being visible sound” (76). Modern-day Christians, therefore, espouse a text which declares that sound and vibration is the supreme source of everyone and everything.

With these modern scientific as well as religious and mystical affirmations of ancient claims, it is quite easy to agree with Scarantino’s claims on the matter:

So, it seems that the ancient teachings and philosophies on music are being borne out by scientific experiments. Today, modern biochemists and astrophysicists, as well as

yogis, agree that our bodies are systems of vibrating atomic particles, and that the cells in our bodies resonate automatically to incoming sound vibrations. (30-31)

The biological results of music and sound on the human body have been of curiosity for millennia, yet until the 20<sup>th</sup> century they were much less than reliable and rarely proven through actual scientific studies. In the 1950s medical usage of music became a popular notion and even the V. A. had music therapy programs in some hospitals because they could see the benefits of using music for therapeutic purposes. It quickly spread to civilian hospitals, especially mental hospitals, because music was noted for its ability to bypass psychological issues that hinder the healing of other illnesses in the body (Scarantino 73-74). While music was considered a viable use for these sorts of psychological issues, it was still believed to be limited in its actual usefulness. Many believed it to be no more than a mild anesthetic for physical and dental surgery, but hoped that with increasing technology machines would be able to produce sounds, pitches, and rhythms at levels that would greatly enhance the anesthetic effects (Portnay 192). While music was noted as having recordable effects on health at this early stage of modern medical usage, concrete studies and proof of why and how music affected the body were not as far along as they are today.

Although music therapy seems to have involved more question as to its provable usefulness in health during the first part of the 20<sup>th</sup> century, sound or vibrational therapy was at one of its peak moments. Dr. Royal Rife, a brilliant scientist most noted during the 1920s and 30s, discovered that microorganisms have different spectrographic frequencies in the span of light. These frequencies could either cause the organisms to live or die depending on if they were the natural frequencies in which the organisms lived, or frequencies that would cause death to the organisms because of the lack of correct frequency. Even cancer, probably the disease with the most sought after cure, was cured using Rife's machine. Unfortunately, his exact work and machines were lost by late mid-century and modern researchers have been unable to

duplicate his methods, technology, or results. Today, there are many scholars who agree that his work was extremely valid and effective, but the mainstream medical community has not yet espoused his notions of healing with frequencies, essentially vibrational healing. Many claim that this is due to the monopolies held by the pharmaceutical companies and other medical strongholds that do not wish to give up their control over the health and pocketbooks of everyone who seeks conventional modern medical treatment, and with the remarkable results that Rife was able to achieve, this may not be so far-fetched idea as some would claim. There are companies that produce frequency machines intended to be used as Rife's machine, and some even have prominent online advertisements and businesses in selling these machines ("The Royal Rife Story," [Rife Resonance Therapy](#)).

While Rife's machine was invented for the positive purpose of healing, other sound and frequency machines proved to have detrimental effects on the body. In the 1950s the government of France had to confiscate a machine because of the immediate deaths it caused when it was used. Professor Gavreau, who was an engineer experimenting with the effects of frequencies on the human organism, designed a large model of the French police whistle that was six feet in length. It was powered by compressed air and when his assistants turned on the contraption their internal organs exploded and caused almost immediate deaths because the volume, or amplitude, of the sound was harmful to the inner systems of the human body. The sound apparently also cracked concrete. The French government claimed the giant whistle as well as other equipment and data from Gavreau and has kept it under lock and key ever since (Goldman 75-76).

In his book *The 7 Secrets of Sound Healing*, Jonathan Goldman provides a comprehensive, yet concise, list of the different forms of sound healing in our contemporary world (110-126). Along with the acknowledgment of ancient mantra chanting as still a viable means of therapy, we now have many more options available through technological advances.

In order to understand how these methods, or any vibration, impacts the body we must understand the body as a vibrational function in and of itself. As the entire world is composed of elements that depend on natural rhythms, such as the changing of seasons and tides, our bodies are themselves dependent on natural rhythms such as heart beat, blood flow, walking, and breathing (Scarantino 112).

The physical effects of vibrations upon the body depend on the resonance that certain body parts have with the vibration or vibrations being introduced to the body. Put simply, resonance is the “sympathetic vibration” of the physical body which entails matching the vibrations that are actually being projected into the body (Verdeau-Pailles 42). Indeed, some people choose music for an exercise routine based on the beats per minute of the music in order to gain the desired heart rate during the workout in accordance with this phenomenon; the heart’s rate will be affected depending on the speed of the beats in different music (Scarantino 114-115).

Whether or not most people are conscious of it, sounds and vibrations are constantly being projected into our bodies. From the earliest stages of development in the womb, the human ear begins growth around three weeks. Even the embryo is exposed to sound. A mother’s heart beat is approximately 72 beats per minute (bpm) and is soothing to infants after birth because it is a sound they were accustomed to hearing in the safe environment of the womb. It has even been found that vibrations that reach 120 bpm are upsetting to infants (Gaynor 26). Therefore, it is evident from the very beginning of life that sound and vibrations affect the human greatly.

Scarantino records that the human body has its own optimal frequency, which actually matches that of earth:

In its natural state, the earth’s vibrational frequency is about 7.5 cycles per second. When you are in your most comfortable natural (healthful, undisturbed) state, your frequency level is about 6.8 to 7.5 cycles per second. Placing yourself physically in

Mother Nature's nurturing surrounding helps to bring your vibratory level down from its usual frenzied condition to one of serenity and inner peace. This is when your mind and body can repair and regenerate themselves. (80)

This is one modern affirmation of the "Music of the Spheres" notion originated by Pythagoras. Scarantino suggests that calming into a meditative state helps the human body to align in healthy vibrational resonance with the universe and the "Music of the Spheres" (80). This is the same way in which many environmental sounds have an effect on our bodies. For example, it has been proven that women living near airports give birth to smaller babies than mothers not affected by the great sounds that are associated with air travel (Gaynor 26-27).

Out of all the modern sound a vibrational therapies, music therapy is the most accepted by the mainstream medical community (Goldman 110-114). Music therapists are able to enhance the healing process by using different music to calm patients, bringing the body into a relaxed state which enhances the immune system and other crucial body functions and also helps rid the body of pain as well (114). Just as music is full of rhythm and cadences, so are the natural workings of the human body. Breathing, gestures, and walking all require coordination on a rhythmic level, which leads one to think that music could be a great possibility in affecting the functionality of humans (Verdeau-Pailles 40). Dr. Hans Jenny, a Swiss scientist, experimented with the effects of vibrations on metal filings, liquids, and powders during the latter half of the 20<sup>th</sup> century. He found that different music produced certain organic shapes within the substances depending on the type of music he played. Dr. Stephern Halpern applied this directly to the human body, and was able to create original music that was more effective in reducing the stress and causing calm, healing states to be adopted within the body (Scarantino 30-31). According to Portnay, music has been proven to "change metabolism, affect muscular energy, raise or lower blood pressure, and influence digestion" (194).

In agreement with these studies, it has been found that certain types of music have

definite impacts within the human body. Classical music has been proven to align the left and right brain, causing healing states within the body. Coordination of patients with mental, memory, and coordination issues has been greatly enhanced with organized music such as classical music because it follows the natural rhythms and cadences of the body, restoring vibrational wholeness where it was lacking (Scarantino 44, Sacks 45, 237, 205).

In contrast, the rhythms and vibrations of music that is contrary to the natural rhythms and vibrations of the human body can have extremely adverse affects. In the popular music of today, such as pop, rock, and country, the predominant beat of the music is called a stopped anapestic beat. A stopped anapestic beat, *da-da-DAH*, is contrary to the human heart beat, *DAH-da*, and studies show that it causes human bodies to come out of alignment with their natural rhythms. Among the negative impacts of the stopped anapestic beat is the buildup of the stress hormone adrenaline within the body as well as the simultaneous weakening of every muscle in the body, as proven in a study with the bodies of rock musicians. It also causes the symmetry between right and left brain to be totally lost, which puts the entire body into a panicked state. This is known to cause many problems, such as behavioral and learning disabilities, “poor work performance,” fatigue, as well as depression in adults (Scarantino 32-34).

Amplification is another means by which the body can be harmed. Whether in an enormous stadium for a loud sports event, a symphony hall, or a pop artist concert, the human body can be detrimentally affected from the inside out if the vibrations are too loud for a healthy experience, such as Professor Gavreau’s deadly machine. It is important to note that not only popular music, but art music as well, can have an adverse effect on the body. Also, any number of chaotic or dissonant pieces of music can cause human muscles to go weak, just as rock and roll. Two instances of this are Stravinsky’s “Rite of Spring”, which is most noted for its extreme dissonance and contrasting rhythms, as well as “La Valse” by Maurice Ravel (Scarantino 34).

Bob Larsen, a former rock guitarist who later became a Christian minister, notes the

experiments of Flosdorf and Chambers in their study of the effects of high frequencies on liquids. At rock concerts, people put eggs on the stage which would expose them directly to the intense vibrational output of the music. After the concert, the liquid inside the egg had been coagulated to form a hardboiled egg due to the frequencies projected into it through the stage and the sound waves surrounding it (Scarantino 33).

As the human body is made almost entirely of liquid, it is important to note the extreme effects recorded in this study. If the inner parts of a human body were to start coagulating, health problems would certainly become an issue. Music is also being researched as a viable influence over the electromagnetic field of the body. It is already being used for ultrasound, allowing doctors to view embryos and other physical aspects of the body that would otherwise be unable to be examined. Ultrasound is also used for the shattering of kidney stones, and there is evidence that electrical fields (vibrational in nature) may be useful in healing broken bones and even the regeneration of limbs (Scarantino 75).

In the 1995 a Harvard team for brain imaging development reported that music has a direct impact on the physiology of musical people. The part of the brain that connects the right and left hemispheres, the corpus callosum, is notably enlarged in professional musicians. In musicians with absolute pitch the planum temporale, which is part of the auditory nerve, has an asymmetric enlargement. Higher volumes of grey matter are also found in the motor, auditory, and visuospatial areas of the brain's cortex and cerebellum in professional musicians (Sacks 94). In his book *Musicophilia: Tales of Music and the Brain*, Oliver Sacks goes on to make the remarkable realization that, "Anatomists today would be hard put to identify the brain of a casual artist, a writer, or a mathematician – but they could recognize the brain of a professional musician without a moment's hesitation" (94).

In noting the important ways sound can affect the human body we will now continue through Goldman's list of therapeutic methods based upon frequencies or vibration. For the

remainder of the project, I wish to stress the more unconventional forms of healing with sound, or vibrations. Resonant-frequency therapy helps heal the body by bringing any diseased part of the body back to its “resonant frequency,” or the frequency at which the organ is in healthy function. Just as blue and red have different frequencies within the spectrum of light and the pitches of A and C have different frequencies within the audible sound range, the different parts of our biological make-up have different frequencies. When these frequencies are caused to be altered, illness and disease manifests in the body (Goldman 115, Perry 135). As discussed previously, Dr. Rife’s machine was based on resonant-frequencies of certain illnesses within the body that can be killed simply by causing the correct frequency resonance to destroy the undesired disease. Sir Peter Guy Manners, M.D., is an osteopath as well as sound therapist. His book *Cymatic Therapy* describes the way in which the human body itself corresponds to and contains sound waves of its own. Therefore certain frequencies can be used to heal illness within the body itself (Perry 136). This is called Cymatic therapy, or Cymatherapy, and can be administered by a machine much like that of Rife’s. It is capable of producing over five hundred composite frequencies found to treat different imbalances within the frequencies of the human body. Rather than using just a single tone, a Cymatherapy machine uses five different frequencies to help produce the strongest possible resonance of the correct frequency within the body for health and healing (Goldman 115).

Another form of technological advancement that is making vibrational healing more accessible is sonic-entrainment technology. This method, originated by Robert Monroe, involves bringing the body into its correct vibrational frequencies by listening to separate tracks of beats at one time through headphones. This balances the right and left hemispheres of the brain and can be used to induce particular brain functions (Goldman 116). Dr. Jeffrey Thompson, D.C., B.F.A., director of the Center for Neuroacoustic Research at the California Institute for Human Science, uses a similar technique to sonic-entrainment. He calls his method “Sonic Induction

Therapy,” which uses electronically mixed sounds from the natural world, such as streams and bird calls, to cause patients to alter the vibrations or frequencies within their bodies to those of its natural state and become deeply relaxed (Gaynor 140).

Dr. Thompson also determined a way in which to record and develop a “voiceprint” for the harmonics and overtones within a specific person’s voice, which is part of the next form of sound healing – voice-analysis therapy (Gaynor 140, Goldman 119). A major part of the sounds humans encounter every day, the voice itself can be analyzed for missing frequencies. In the absence of certain vocal frequencies, the rest of our bodies can be thrown out of balance – emotionally, mentally, and physically. Therefore, Sharry Edwards developed a technique which involves recording a person’s voice, scanning for missing frequencies, and re-mixing the recording with the missing frequencies to be played back into the body. While different people have tried many approaches to this technique, the most notable are BioAcoustics by Edwards herself, as well as Sound Wave Energy and Biowaves (Goldman 119).

Aural-enhancement technology is yet another form of a healing therapy that uses vibrations and was originally developed by Dr. Alfred Tomatis, M.D., who was a French otolaryngologist. Tomatis spent decades determining the importance of the ear and hearing for the health of the entire body. He is popularly remembered for curing a group of European monks from their depression by suggesting that the sudden mandatory abandonment of their daily Gregorian chants was the cause of their debilitated state (Gaynor 91-92). Among the basic reasons for hearing and balance, Tomatis found that the ear was responsible for charging the energy of the brain. By using a device called the Electronic Ear, Tomatis tried and tested the influence of different sounds entering the brain and body through the ear. The results of his experiments show that while certain sounds stimulated the brain and body through the ear, other sounds caused noticeable fatigue. Recently, some therapists have combined the Tomatis technique using the Electronic Ear with the sonic-entrainment method established by Robert

Monroe (Goldman 117-118).

Other techniques involve projecting certain sounds, vibrations, or frequencies into the body to restore or maintain health. In vibroacoustic therapy, specially designed tables, beds, or chairs are used to send sonic information – such as certain frequencies or music – directly into the body. Somatron, the BETAR, and the Genesis Bio-Entrainment Module are some of the most noted machines of this nature. Michael Bradford, the creator of the Genesis apparatus, designed the machine to not only send vibrations into the body but also analyze the absence of frequencies that the body may need by using a computer to scan the body. The missing frequencies are then projected back into the body for restoration. Again, this is linked to the work of Dr. Jeffrey Thompson at the Center for Neuroacoustic Research; Thompson utilizes the vibroacoustic method in combination with voice-analysis to both identify missing frequencies and also project them back into the body using the human voice. Another device called the So Chair simply projects the vibrations of music from compact discs into the body (Goldman 120).

Dr. John Beaulieu designed tuning forks that were to be used specifically for therapeutic uses. By using two tuning forks at a time, Beaulieu found that you could help balance the brain because of specific relationships between the two frequencies being projected into the body through the ears. The most popular ratio for tuning forks is 2:3, which has many ancient religious and mystical implications in and of itself. Pythagoras himself encouraged the use of this frequency, thus the tuning fork method has often been referred to as “Pythagorean tuning forks” (Goldman 121). Upon hearing the ratio received from the tuning forks, the physical body falls in sync with the ratio itself and this causes the immune system to achieve balance. The brain itself can also be balanced between its two hemispheres using this method, which allows the brain waves to settle down into a more relaxed state. There is a large market for tuning forks used for therapeutic purposes, and there are many great claims as to the benefits of this method (Goldman 122).

With the resurgence of eastern traditional medical practices, such as acupuncture, much has been researched on sound application in concordance with these therapies. Sonopuncture is the therapeutic practice of projecting sounds into the meridian points utilized in traditional Chinese medicine. Tuning forks are perhaps one of the most used as well as most practical means by which to accomplish sonopuncture as special weighted tuning forks cause the vibrations to travel down the handle of the fork rather than be released as more audible sounds. Some practitioners use the same tuning forks for all meridian points, others use tuning forks of specific frequencies for different points; this is called BioSonics or Acutonics (122-123).

While there are a large number of CDs that claim to be healing because of their sounds, the most accessible form of sound therapy is closer than anyone may typically imagine – the human voice. While much has been accomplished through technology with vocal analysis and neighboring techniques, the simple act of toning has been proven to influence and heal even such extreme conditions as cancer. In *Sound Medicine*, Wayne Perry defines toning:

The nonverbal process of using the voice to assist in the harmonizing and healing of the body is commonly referred to as *toning*. The practice of toning uses various sounds created by the voice – without coherent meaning or reliance on the structural patterns of speaking or singing – to generate vibrational energy. When we sigh, grunt, groan, or hum to release stress, we tone routinely without necessarily realizing or calling it so. Toning can be used as an extraordinary tool for healing and transformation. (17)

In one of many studies regarding toning usage for healing, two breast cancer patients were told to tone for three and a half hours every day for an entire month. At the end of the month both patients had extremely good results. In one woman, the tumor had completely disappeared, while the other found the tumor was reduced in size and “completely dry” upon its removal. The woman made a full recovery (Gaynor 136-137). The fact that the human voice itself contains healing qualities is not surprising when we think of our personal daily soundscape. Every animal

has its own unique sound, and so does every human. Upon stubbing a toe, “Ow!” is a typical response, allowing the pain in the body to be expressed and escape through the energy of verbal acknowledgment. Likewise, there are different vowel sounds associated with different areas of the body (Scarantino 55-57).

After spending decades as a practicing sound therapist, Wayne Perry believes this is the healthiest way of implementing sound therapy as it does not require artificial creation of sounds by electronics. Indeed, he claims that studies show the best vibrational treatment with frequencies in the body is one’s own voice. As a second choice, he says that non-amplified acoustic instruments are also acceptable because the frequencies produced are not artificial as in many of the sound therapy machines that are available, which have been proven to be less effective than both acoustic instruments and the human voice (Perry 30-31). Throughout his book, Perry cites many examples from his personal practice about the effective treatment of notable illnesses and pains within his clients’ bodies by using the healing benefits of toning.

While it is certain that toning vowel sounds is beneficial to health, there are many different opinions about which parts of the body are associated with which vowel sounds. Yet, some similarities are constant among toning experts in that particular vowel sounds are often associated with the same general areas of the body. Scarantino gives a more simplistic claim that the vowel sound *Ah* belongs to the upper lungs, *O* to the lower lungs; *Ohm* is related to the heart and *Oo* to the sex glands; *Ea* (as in head) belongs to the throat, thyroid, and parathyroid; *Ee* is associated with the head area, particularly the pituitary and pineal glands (56-57). Perry provides a much more detailed chart of every area of the body that matches different extrapolations of all the vowel sounds (142). Each vowel relates to several areas of health within the body, as well as a particular gland. Rather than detail this information in the body of the text, a single chart has been provided to communicate a summary of Perry’s usage of vowel sounds in treatment of different parts of the body (see Vowel Double Chart).

<i>Uh</i>	<i>Hu</i>	<i>Oo</i>	<i>Woh</i>	<i>Oh</i>	<i>Aw</i>
Adrenals, general circulation, larger muscles, hormones, heart muscle, sore muscles, constipation, colon, anemia	Sex glands, digestive circulation, tendons and ligaments, sore muscles, asthma, colds, constipation, sex organs, reproduction	Sex glands, digestion, liver, pancreas, gallbladder, spleen, cramps, blood sugar	Digestive glands, digestive oxygenation, respiration, colitis, ulcers, lymph, small intestine	Respiratory glands, oxygenation, lungs, respiration, nerves, lymph, ulcers, stomach	Thymus gland, kidneys, bladder, reduces blood pressure, Insomnia, Heart

<i>Ah</i>	<i>Eh</i>	<i>Ay</i>	<i>Ee</i>	<i>Mmm/om</i>	<i>Nnn/silence</i>
Thymus gland, screening and filtering, insomnia, thymus imbalances, heart, allergies	Thyroid gland, neuro-transmitters, Utilization of B vitamins, bones, back pain, speech, throat, skin	Thyroid gland, enzyme production, speech, laryngitis, tonsillitis, back pain, allergies, colds/sinus	Pituitary gland, body's rebuilding, toxins, eyes and ears, deafness, stop bleeding, insanity	Pineal gland, body regulation, utilization of minerals, eyes and ears, deafness, epilepsy, nervous system	Pineal gland, subtle circulation, body mechanics, nerves/electrical body, blood purification, epilepsy

Vowel Double Chart. (Perry 142)

As is evident, Perry sees similar sounds as overlapping in their application to the body and its conditions. Every two vowel, or vocal, sounds listed above seem to have overlaps in treatment usage for the body. It is important to note that as a sound healing practitioner Wayne Perry has seen incredible results with his methods of sound therapy using the human voice as evidenced throughout his entire book (Perry, *Sound Medicine*).

What we can say about healing with sounds is that it works. It is genuine in its impact on the human body, and even medical doctors are beginning to adopt the mindset that it should be

incorporated into modern treatment options. Medical doctor Andrew Weil is one of many such medical professionals beginning to encourage sound therapy. As an internationally recognized physician, he encourages the use of sounds and music for health treatment purposes and has been active in speaking out in this arena (Weil). Mitchell L. Gaynor, M.D., who has already been discussed, believes that sound is “the most underutilized and least appreciated mind-body tool...(and) should become a part of every healer’s medical bag, whether a conventional allopathic physician or a traditional healer from a far-flung culture” (26). He goes on to state that it will grow to a prominent place in future medical usage, and has noted its powerful healing influence over the human body in his own practice (26-27). With growing acceptance in “mainstream” society, healing and medical treatment with some form of sound – music, rhythm, frequencies, or vibrations – seems imminent and must now be considered for the great possibilities it holds.

## **Conclusion**

While there are numerous details and studies supporting toning and modern approaches to sound healing technologies, the details and science behind those studies has been discussed in as much detail as deemed appropriate for this project as a comparison to the ancient beliefs and uses of music and sound for healing. The advances that have occurred since the ancient examples cited from thousands of year ago have been great. What Plato, Aristotle, Pythagoras, and Lao-tse attempted to explain as the substance of the universe seems to be borne out in modern scientific data. Our universe and entire existence can be seen at a fundamental level as stemming from vibrations. It is amazing that, although the ancients did not have the technology or ability to test this theory, it was still so apparent in the truth of nature that man, even then, understood existence in vibrational terms.

Healing with vibrations in the form of music, sound, or simple frequency therapy is most decidedly gaining the scientific backing needed to be acceptable within the “mainstream”

society, just as sound healing methods were once espoused in ancient cultures. It is amazing that in the millennia separating our world from that of the ancients that some truths have remained the same, especially in regards to healing. Technology has provided us great benefits for health and longer living, but also continues to validate a primary and easily accessible source to healing – sound. A healthy body requires balance within, something which has been proven to be accomplished through vibrations because of the vibratory nature of our very existence. In the future, it is highly likely that this will become a main form of therapy for healing purposes.

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