

Changing the Face of Aging: Music and Medicine, Part Two

"MUSIC HATH CHARMS TO SOOTHE THE SAVAGE BEAST": A PYTHAGOREAN MUSICAL "INTERVENTION"

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One of the most famous anecdotes concerning Pythagoras is related by Lamblichus, a student of Porphyry:

A young man from Taormina (Sicily, for Pythagoras lived in Magna Graecia, which was the southern part of Italy, including Sicily) had been up all night partying with friends and listening to songs in the Phrygian mode, a key well known for its ability to incite violence. When the aggravated lad saw the girl he loved sneaking away in the wee hours of the morning from the home of his rival, he determined to go burn her house down. Pythagoras happened to be out late himself, stargazing, and he walked in on this violent scene. He convinced the piper to change his tune from the Phrygian mode to a song in spondees, a tranquilizing meter. The young man's madness instantly cooled, and he was restored to reason. Although he had stupidly insulted the great philosopher just hours before, he now addressed him mildly and went home in an orderly fashion.¹

It appears from the above that the Pythagoreans would have had ample opportunity to observe the effectiveness of applications of their harmonic theory in real life. We should probably note, however, that the ancient Greeks did not share our 21st century notion of musical "harmony"; for them (like the Chinese, as we will see below), it meant successive, not simultaneous, tones.

We should probably clarify any confusion by reiterating that (despite the seeming contradiction of these two viewpoints), as we have outlined above, "harmony" is an intrinsic attribute of all musical sounds, because each tone is a self-contained universe of harmonic potential. From this perspective, musical intervals represent the unfolding of that latent vibratory matrix into space and time.

Archetypal Qualities of Musical Intervals²

Unison: Two identical pitches sounding together, a 1:1 relationship. This is the sound most indicative of the primal cosmic union, and represents perfect serenity and peace.

Octave: The first overtone of any given series, an interval generated by two sounds, one of which is twice the frequency of the other; a 2:1 relationship. This interval is restful, meditative, calming and grounding, and represents the harmonious union of yin and yang, perhaps best exemplified by the sound of men's and women's voices singing together in unison, since (due to the nature of their vocal cords and the conventions of musical notation) their "unison" melodies are, in effect, sung an octave apart.

Perfect 5th: The second overtone of a series, generated by sounds in a 3:2 relationship. The 5th is opening and stimulates power and movement. It can bring forth new life, creative ideas and rebirth. The 5th is also the functional fulcrum within an octave, in that it can facilitate movement either to the upper tonic note, or a return to the fundamental. It was used most notably by the medieval mystic Hildegard of Bingen in her musical compositions to express openness, joy and healing.

Perfect 4th: This is the 3rd overtone, a 3:4 relationship. This interval touches the heart, but at the same time, awakens feelings of being controlled, making people uneasy. In the medieval period, the perfect 4th was used in certain types of plainchant to reinforce the status quo, in which the Church had dominion over the hearts and souls of the populace.

3rd: This interval, the 4th to 6th overtone, can be either minor (5:6) or major (4:5), depending upon the number of half-steps, or semi-tones, that comprise it.³ Each has a different quality. This simple, unadulterated interval can possess great sweetness, and suggests possibilities, compatibility, stillness and repose. In keeping with the traditional symbolism of the number 3, the major 3rd was considered a harmony of divine perfection.

2nd: Like the 3rd, the 2nd (the 7th overtone and higher) can be major (two semi-tones) or minor (one semi-tone); it creates friction, agitation and dissonance, and contains the potential for movement beyond pre-existing limits and strictures. It promotes growth, and can be likened to the grain of sand in the oyster - an initial source of irritation that in time gives rise to the beauty of a pearl.

Tritone: The most dissonant of intervals (32:45), the tritone was referred to by medieval music theorists as the "*diabolus in musica*" ("devil in music"), because the functionality of its dissonance sought resolution outside the parameters of an existing tonal center, thus presenting the potential for musical and harmonic anarchy. It is energizing, lifting (in that it can resolve upward to a perfect 5th), and encourages creative thought, with an anticipation of something unexpected. It is also referred to as an augmented 4th or diminished 5th.

The Oriental Perspective: An Introduction

Almost 5,000 years ago, the Chinese had evolved a unique philosophy of music, which, according to author David Tame, in *The Secret Power of Music*, involved a "system of musical mysticism." Music contained an essence of transcendent power, and a composition was an "energy formula," not unlike the flow of energy in the meridians, that could be either blocked or balanced. This free-flowing energy could be used or misused, according to one's free will. Music directly affected the health of the physical body. To sing well, states one text, spreads moral influence, and also strengthens the spine.

Chinese Musical Mysticism: Number and Archetype

To the ancient Chinese, the individual *notes* of music were real, living and vibrant ... "large, radiant

dots, swollen with feeling and esoteric significance."⁴ This is in marked contrast to the Western system of musical *intervals* outlined above. However, they did acknowledge certain fundamental numerical correspondences between the structural *elements* of music and the cosmos, which can be seen as somewhat analogous to the Pythagorean symbolism of Western intervallic harmony:

1: The one tone, or cosmic sound of the supreme

2: The *t'ai chi*; the first differentiation of the one

3: The trinity; offspring of the *t'ai chi*

12: The 12 tones of the zodiac, their earthly counterparts being produced from a series of 3:2 ratios

5: The minor tones of the 12 zodiacal tones

7: The seven major tones of the 12 (of which five are whole tones and two semi-tones)

"Master Wen Evokes the Seasons": A Chinese Musical Tale

The origins of Chinese music are so ancient that, as is the case with Pythagoras' musical discoveries, they can only be described in legends:

In one story, Master Wen followed the great Master Hsiang on his travels, trying to bring forth melody from the zither, but was unsuccessful. Master Hsiang said to him, "By all means, go home." Master Wen sighed and said, "It is not that I cannot bring a melody about. What I have in my mind does not concern strings; what I am is not tones. Not until I have reached it in my heart can I express it on the instrument; therefore, I do not dare move my hand and touch the strings. But give me a short while, and then examine me."

Sometime later, he returned and again approached Master Hsiang, who inquired, "How about your playing?" It was spring, and when Master Wen plucked the *Shang* string and accompanied it with the 5th semi-tone, a cool wind sprang up, and the shrubs and trees bore fruit. Now it was autumn.

Again, Master Wen plucked a string, the *Chiao* string, and accompanied it with the 2nd semi-tone; a languid, warm breeze arose, and the shrubs and trees bloomed fully. It was now summer, but he plucked the *Yu* string and the 11th semi-tone responded, upon which frost and snow came down, and the rivers and lakes became frozen.

When winter had come, he then plucked the *Chih* string, and accompanied it with the 5th semi-tone; the sun blazed forth, and the ice immediately melted away.

Finally, Master Wen sounded the *Kung* string and did so in unison with the other 4 strings; beautiful winds murmured, clouds of good fortune came forth, sweet dew fell and springs welled up powerfully.⁵

While the Chinese attributed to music the power to influence the phenomena of nature, they did not feel that the tones of human music could have this same effect. What we would seem to have here is an inversion, or variation, of the famous axiom of Hermes Trismegistus, "As above, so below," or perhaps, more properly, "As within, so without." In his striving for mastery of his outer instrument, the zither, Master Wen has likewise achieved a perfect harmony of his constituent elements, the "four seasons" within his soul. Thus, his inner "music" is perfectly entuned with, and mirrors, the concords of the great symphony of nature.

We might view the *Kung* string referred to here as the *quinta essentia*, the 5th element, the goal of the great work of alchemical transformation. To the Chinese, the *kung* was also the foundation note of the *huang chung*, the "yellow bell," the earthly manifestation of divine will; a sacred, eternal principle, upon which the welfare of the entire state depended. As he plays with such virtuosity upon the *kung* string, Master Wen achieves perfect harmony with the cosmos, establishing the conditions for an earthly paradise.

"Music is the harmony of heaven and earth ... through harmony all things are made known..."

-- from the *Li Chi*⁶

Conclusion

The Chinese believed that music embodied in its structures the elements of celestial order; the ancient Greeks strove for alignment with Pythagoras' planetary music, and effected personal healing through judicious employment of musical harmony. Both of these estimable cultures recognized the power of music to attune human beings with their higher purpose, by effecting healing transformation. There has been a resurgence of interest in these ancient beliefs regarding music and medicine, and many new approaches are being made to the art of vibrational healing.

We have attempted to provide a brief introduction to this subject, which is particularly far-reaching in scope, and will continue to explore it in future articles.

References

1. Cited in James, Jamie, op. cit., page 32.
2. This discussion will not include the intervals of a 6th and a 7th, as they are inversions of other intervals, the 3rd and 2nd, respectively.
3. In Western music, the frequency range of an octave, so as to minimize discord, is customarily divided into 12 equal increments; this is called equal temperament. Each characteristic interval is composed of a specific number of these units, called half-steps, or semi-tones. Thus, a minor 3rd consists of three semi-tones; a major 3rd, four semi-tones, or two whole steps.
4. Tame, David F. *The Secret Power of Music*. Destiny Books, 1984, page 43.
5. Tame, David F., op. cit., page 43.
6. Ibid, page 40 (excerpt).

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