

**Casting Bells and Shaping Needles**  
**Music as a Metaphorical Guide in Classical**  
**Chinese Medicine**

Ferreira Medeiros Ephraim ; Lan Fengli

Abstract

The use of concepts and metaphors originated from ancient musical theories is an important feature of the theories that base the early practice of acupuncture in China despite being neglected by modern textbooks.

In this paper, we highlight how concepts and ideas originated from the ancient musical theories influenced and contributed to shape the discourse of acupuncture theories in *Huangdi Neijing* 《黄帝内经》 (HDNJ). We correlate musical metaphors and medical theories when investigating the Yellow Bell (*Huangzhong*-黄钟), a metaphor from an important musical concept that is also an ancient musical instrument and appears in one important passage of the text of chapter 78 of HDNJ *Lingshu* - On the Nine Needles 《黄帝内经·灵枢经》《九针论》 when explaining the choice of the number nine as the primordial number of shapes for the classical acupuncture needles.

This exemplifies the central role that ancient Chinese musical theories and its metaphors-embedded in the discourse of HDNJ- play in the construction of the early theories and practices of Acupuncture and Chinese Medicine.

### 铸钟与制针

#### ——音乐作为古典中医学的隐喻指南

#### 摘要

使用源于古代音乐理论的概念和隐喻是中国针灸早期实践的重要理论特征，而这在当代教科书中却被忽略。

我们在本文中强调，源于古代音乐理论的概念和思想如何对《黄帝内经》针灸理论话语的形成产生影响和贡献。我们在研究黄钟时，将音乐隐喻与中医学理论联系起来。黄钟，一种古老的乐器，同时也是重要的音乐概念隐喻，出现在《黄帝内经·灵枢》第78篇《九针论》中重要的一段，该段解释了古典针具的形状为何以九为基数。这体现了嵌入在《黄帝内经》话语中的中国古代音乐理论及其隐喻在建构针灸和中医药早期理论与实践中所起的核心作用。

## Introduction

Musical ideas and metaphors are abundant in the discourse of early acupuncture theories in HDNJ *Suwen* 《黄帝内经·素问》 and *Lingshu* 《黄帝内经·灵枢》 and , together with metaphors and ideas from the ancient Chinese astronomy, astrology and mathematics/numerology, these elements are important constituents of the fundamental theories that support the practice of classical acupuncture from the ancient times until today .

To understand how ancient Chinese music ideas and metaphors have influenced and shaped the medical discourses and practice of acupuncture and Chinese Medicine in HDNJ, it is necessary to first define briefly the role(s) of music in ancient Chinese civilization in general.

## An Overview of the Manifold Roles of Music in Ancient Chinese Civilization

In ancient China, music was a phenomenon rooted in the natural world and perceived to be central to many natural processes, especially those that involved distant interaction or influence between physically separate realities.

Music in Chinese is written with the character 樂 (“*Yue*”). First of all, it is important to keep in mind that the term “*Yue*” is not entirely congruent with our own conception of music, and, indeed, that its meanings are not clear-cut or fixed even within the context of Chinese history. *Yue* in classical Chinese generally points to an entire genre of audio-visual performance that centers on music and dancing.

At the heart of early Chinese discussions of music therefore was the assumption that there exists a fundamental homology between musical aestheticism, natural process, and ultimately, cosmic harmony. Music was regarded as the essence of the harmony existing between Heaven, Earth and Man—the all-pervading influence—and was thought

essential in achieving harmony and order in the material world. The primary role of music was not to please the senses but to convey eternal truths and make man receptive to these truths.

There are two main terms that designate musical sound in ancient Chinese texts: *sheng* 聲 and *yin* 音: Most frequently, the term *sheng* 聲 has been translated as “sound” and “melodies,” while *yin* 音 has been translated as "tone," "voice," and "sound." The two were on occasion interchangeable, depending on the context, author, and date of the text under examination. This is apparent in the phrasing of the "Five Tones" as both *wu yin* in the Warring States and *wu sheng* in some Han texts. In Warring States usage, both terms *sheng* and *yin* point to a broad range of meanings beyond that of musical tones, sometimes even describing the sounds of humans.

## Cosmology and Political Implications of Music in Ancient China

Studies on the political significance of music in ancient China agree that music was from the beginning unmistakably linked to politics. Ancient treatises on music and acoustics were always found as parts of political documents, court chronicles, and state protocols.

The Chinese also regarded music as an image of the universe and since all things were one in their view, it was assumed that music was also the image of the laws of heaven. Correctness or propriety in music was considered essential to the cosmos. Man had no control over time, space, substance or power, but the sound he created himself and it was a reflection of what was in his heart. Music could either strengthen or weaken the equilibrium of the world and was thus accepted as a serious responsibility.

The idea that the natural world was subject to the transformatory influence of human governance runs throughout much of the discourse on music in Warring States, Qin and Han writings.

The music system was considered a microcosm of the cultural whole, it reflected “the heaven and earth. As a model for the macrocosm, “changes in it and the explanations for

these changes serve[d] also as interpretations and explanations for changes in the cultural system considered as a whole.”

Music was conceived as being the harmony of Heaven and Earth and *li* (ritual) the *order* of Heaven and Earth. The theory was that music led to common union, from which issues mutual affection. *Li* led to distinction and therefore to mutual respect. If mutual affection and respect coexisted to a great extent in the kingdom, stability and peace would be assured.

For these reasons, the tuning system had to be adjusted constantly for it paralleled complicated cosmic relationships. Even the shapes and forms of instruments were understood to depict the shape of the universe.

Due to this analogous perception of the relationship between cosmos and music, and of the importance in ensuring harmony in Chinese statecraft, it was vital to every government to keep its music in order. Traditionally, a ruler had therefore to ensure that the correct (*zheng*) type of music was sounded throughout his country since music could both create and undermine the order of a country. The proliferation of an evil type of music among the people would at first serve the function of a cautionary tale, but could eventually cause a country’s downfall.

## Music, Morality and Ethics in Ancient China

Central to the early Chinese perception of music was the idea that, in addition to being aesthetically pleasing, music provided a moral force for the cultivation of the self as well as a medium through which the sage or ruler-king could radiate his authority over the natural realm and the world of men under his command.

At the dawn of the early imperial era, *Ru* authors (as early as *Xunzi*) proclaimed an awesome role for music. They spoke of its ability to transform the psyche and lead it from raw emotions to moral virtue and what is right. Beyond this, they spoke of its role in helping create social harmony in the clan and in the culture more broadly.

With respect to the individual, music was thought to be a primary means of moral and spiritual attainment.

It is most often in connection with character that Confucius spoke to his students about music. One's character, he said, should be "stimulated by the study of poetry, established by the study of *li* [ritual] and given its finish by the study of music." This implies not a sleek refinement but refers to a clarity and balance of all the proper elements making up the character of a true gentleman.

We can see an example from the Analects: On Ritual and Music

*"The Master said, "It is by the Odes that a man's mind is aroused, by the rules of ritual that his character is established, and by music that he is perfected [finished]"*

The Classic of Music, the *Yueji*, which is a chapter in the Book of Rites (*Liji*) says that music proceeds from the heart of man. The harmony of man's heart then produces harmony of the breath and the harmony of the breath produces that of the voice. The voice is the expression of harmony between heaven and earth.

The link between "music" and "serenity" is itself a Chinese one: both are written with the same ideogram (although the pronunciation is unrelated).

### The Influence of Music in Discourse *Huangdi Neijing* 《黄帝内经》

Musical ideas and metaphors can be seen directly or indirectly all over the text of both HDNJ *Su Wen* 《黄帝内经. 素問》 and *Lingshu* 《黄帝内经. 灵枢》. From very fundamental discussions and theories to much more complex elaborations of Chinese medicine we can find entire chapters discussing sounds or using musical metaphors. Some examples:

Example 1- *Suwen* (素問), chapter 5 《阴阳应象大论》:

among the depots it is the spleen; among the colors it is yellow; among the tones it is gong; among the voices it is singing; among the movements [indicating] changes it is hiccup; among the orifices it is the mouth; among the flavors it is sweet; among the states of mind it is pensiveness.

The five musical scales are made up of five pitches of the ancient Chinese five-tone scale and relative to the 5 movements (*Wu Xing* 五行). Five Movements (*Wu Xing* 五行) and Yin-Yang are important and fundamental constituents of Chinese Medicine theories.

The text of HDNJ describes and discusses the theory of 5 movements (*Wu Xing* 五行) defining correlations between multiple aspects of nature in correspondence with the different aspects of the human being (anatomy, physiology, psychology, social life, etc) and, among the many characteristics and qualities described for each of the five movements there are five basic pitches each one related with one of the five movements.

- Example 2- Lingshu chapter 44 - The Qi Moving in Accordance with the Norms  
Divide a Day into Four Time Periods 《順氣一日分為四時》：

“Huang Di: I wish to be informed of the “five modifications.

Qi Bo: “The liver is a male long-term depot. Its color is greenish. Its season is spring. *Its musical tone is yue*. Its flavor is sour. Its days are jia, yi. The heart is a male long-term depot. Its color is red. Its season is summer. Its days are bing, ding. *Its musical tone is wei*. Its flavor is bitter. The spleen is a female long-term depot. Its color is yellow. Its season is late summer. Its days are wu, ji. *Its musical tone is gong*. Its flavor is sweet. The lung is a female long-term depot. Its color is white. *Its musical tone is shang*. Its season is autumn. Its days are geng, xin. Its flavor is acrid. The kidneys are a female long-term depot. Their color is black. Their season is winter. Their days are ren, gui. *Their musical tone is yu*. Their flavor is salty. These are the five modifications.””

Looking at the examples above, we find that the *Wu Yin* (five basic notes of oriental music) are used in medicine within the relationship between Heaven, Earth and Man. The *Wu Yin* are: *Jiao, Zhi, Gong, Shang* and *Yu*.

Generally, the *Wu Yin* (5 basic notes) represent the *Wu Xing* (5 Movements) in this way: *Jiao* corresponds to Wood; *Zhi* to Fire; *Gong* to Earth; *Shang* to Metal and *Yu* to Water.

The terminology of five pitches as a metaphor of the Five Movements is extensively used in the entire text of chapters 70 and 71 of *Suwen* (素問) and chapters 63, 64 and 65 of *Lingshu*.

*Suwen* chapter 70 - *Comprehensive Discourse on the five regular Policies* 《五常政大論》 and *Suwen* chapter 71 《六元正紀大論》 do *Suwen* explains an intricate and complex web of relationships between different periods of time (years) which are described as the basis of the five sounds system. *Suwen* chapter 71 *Comprehensive Discourse on the Policies and arrangements of the six Principal [Qi]* 《六元正紀大論》 is even much broader as it also correlates multiple aspects of nature with different parts and functions of the human body in a central idea of expression *Tian Ren He Yi* 天人合一 and *Xiang*

Bi Qu Lei 取象比类 methodology. Lingshu, chapter 63 - *On Flavors* 《五味论》 deepens the use of musical metaphors in HDNJ correlating the different types of human beings with 5 musical notes and the five flavors. Expanding this discussion Lingshu chapter 64 - *The Yin and Yang [Categorization] and the 25 Human [Types]* 《阴阳二十五人》, features twenty five different types of human beings, each of which is primarily presented in correlation or "resonance" with a specific musical note. The chapter 65 of Lingshu - *Five Tones, Five Substances* 《五音五味》 describes specific treatments (including a specific food combination) to each one of these different human body types previously described.

These chapters are clear examples that illustrate how the musical metaphors deeply influenced and shaped the discourse and ideas exposed in the text HDNJ.

The fundamental theories and discussions about the practice of acupuncture in HDNJ also feature terms related to music. For example, Lingshu chapter 78 - *On the Nine Needles* 《九针论》 describe the functions of acupuncture needles *Pizhen* 铍针 and *Yuanlizhen* 员利针 using musical metaphors. *Pizhen* 铍针 (acupuncture needle number 5) is correlated with the 5 sounds and *Yuanlizhen* (acupuncture needle number 6) 员利针 with the 6 tones.

### The *Huangzhong* (黄钟- Yellow Bell), and The Construction Of The Theory of The Nine Types of Acupuncture Needles in HDNJ.

The *Huangzhong* (黄钟 -Yellow Bell) is a concept originated from the ancient Chinese theories about music and harmonic mathematics.

In Ancient Chinese Musical Theory, *Huangzhong* (黄钟 -Yellow Bell), is the first of the twelve tones. It is generally considered the fundamental tone and its pitch being the basis for generating all other tones.

The term *Huangzhong* (黄钟 - Yellow Bell), appear only one time in the entire text of HDNJ, in chapter 78 of *Lingshu - On the Nine Needles* 《九针论》, as a metaphor that emerges when the text explains the reason why the acupuncture needles have 9 primordial shapes:



Huang Di: The needles correspond to the number Nine. Why?

Qi Bo: Now, the sages have introduced the numbers of heaven and earth. They started from one and multiplied it by nine. The fact is: [These numbers] serve to establish the nine regions. Nine multiplies nine. Nine times nine is 81. This takes up the numbers associated with the [flute named] Yellow Bell. The needles are meant to correspond to these numbers.

## The Mythological Origins of the *Huangzhong* (黄鍾 - Yellow Bell)

### The Chinese Myth of Creation of Music

The oldest texts about the creation of the pitchpipes, *Guanzi* 管子 (chapter *Diyuan* 地圓) and *Liushi chunqiu* 呂氏春秋 (chapter *Guyue* 古樂), narrate how *Ling Lun* 伶倫 created the Yellow Bell Pipe 黃鍾, and on the base of its size, calculated the dimensions of a whole set of twelve bamboo pipes. The calculation was made with the help of the number of millet grains filled into the tube, determining the volume, as well as the length, diameter and circumference of the pipes.

The book *Liushi chunqiu* 呂氏春秋 says that he came from the far west and once lived at the foot of the Kunlun Range 崑崙. When he heard the cries of phoenixes, the idea came to him to use these sounds to create a tempered musical system. The Yellow Emperor ordered him to cast twelve bells (*zhong* 鍾) with the support of *Rong Jiang* 榮將. These bells would produce the five tones (*wuyin* 五音) of the pentatonic scale and realize the music of the type of *shao* 韶.

This is a mythical story, but it clearly demonstrates the centrality of the twelve so-called “pitch pipes” (*likuan* 律管), in theoretical discussions of pitch.

Music theorists developed other methods of determining pitch that were either more durable (bells) or more easily measurable and manipulated (monochords), but the pitch pipe always maintained its preeminence in the cultural imagination.

Chapter 2 A of the *Hanshu* states that harmonics consist of five categories: number; musical pitch; length measures; capacity measures and weights and balances. All five had their origin in the *Huangzhong* pitch—pipe.

Chinese culture used the musical notes of the *lilü* as the basic system of measurement for all the other units of length, weight and capacity. Once the *Huangzhong* had been correctly tuned, the *Qian Hanshu* provided not only the length of 90 *fen* [1 *fen* D 0.33 cm], but even the number of the 1,200 grains of millet that it had to contain, and the weight of 12 *zhu* [124 of 50 grams].

It is also remarkable how *Huangzhong* functions as a metaphor of the centrality and authority imagined and represented in many discourses of Ancient China. This idea of centrality was expressed very early in Chinese texts like Liji 《禮記》 : which also considers this important :

*“Right in the middle (between Heaven and Earth, and the other elements) is earth. Its days are Wu and Ji. Its divine ruler is Huang Di, and the (attending) spirit is Hou-tu. Its creature is that without any natural covering but the skin. Its musical note is Gong, and its pitch-tube gives the gong note from the tube Huang Zhong. Its number is five. Its taste is sweet. Its smell is fragrant. Its sacrifice is that of the middle court; and of the parts of the victim the heart has the foremost place.”*

In ancient China percussion music (mostly bell and drum) was ritualistic: via music, one communicated with the ancestors, and via music the ruling families reified authority—two activities not unrelated. Bells, in particular, fashioned out of bronze and able to maintain the “unalterable pitch standards” essential to the performance of liturgical music, were vested with political significance, for the “preservation of correct pitches was a strategic imperative for the state that relied on ancestral support for its continuity.”

The fact that bells were often used to start a musical performance and that this was considered a “powerful act of just authority” further ties the musical references to the symbolic meaning of the king's journey.”

As already pointed before, the *Huangzhong* pitch refers to the fundamental pitch on which all the other pitches in the bell set are calculated, and which is to be produced by a bell that have the same name of the pitch: The *Huangzhong* bell. All the other bells in the set (usually sixteen) are then built accordingly. Similarly, the pitches of the string and wind instruments in the ensemble must be adjusted accordingly. It is not difficult to see the superior status and authority of the *Huangzhong* pitch over all other pitches, and the *Huangzhong* bell over all other instruments. A new *Huangzhong* pitch was almost always set by a new dynasty, and sometimes by a new emperor. The symbolic meanings of these acts are clear.

For this reason it is possible to think that *Huangzhong* also symbolizes authority and orthodoxy.

## The *Huangzhong* (黄钟 - Yellow Bell) as a Metaphor in Ancient Chinese Cosmology

The metaphorical use of *Huangzhong* in the theory of the Nine Types Acupuncture Needles (九针) in *Lingshu*, chapter 78- On the Nine Needles 《九针论》 seems to be inspired by the cosmological and numerological approaches and models widely used in early China. In this direction, we can point that chapter 78 of *Lingshu* 《九针论》 has some textual similarities with “The Treatise on the Patterns of Heaven” 天文训, chapter 3 of *Huainanzi* 淮南子 :

John S. Major in his comments on this chapter of *Huainanzi* made important remarks about the influence of music theories in Ancient Chinese Cosmology and Astrology/Astronomy :

[...]It is particularly significant for the history of cosmology and astrological thought in the early Han period that the pitch-pipe notes are associated here with the seasonal nodes. The months and the celestial circle as governed by the movements of the handle of the Northmen Dipper.

HNZ 3 contains other passages that treat the pitch pipe and pentatonic notes numerologically in association with calendrical phenomena.

There are five notes and six pitch pipes. The notes double to produce the number of the days. The pitch pipes double to produce the earthly branches. Thus, there are ten days and twelve branches. Thus, it is said. "The Dao begins with one. "One (alone), however, does not give birth. Therefore, it divided into yin and yang. From the harmonious union of yin and yang. The myriad things were produced. Thus, it is said. "One produced two. Two produced three. Three produced the myriad things," and Heaven and Earth. Three months make one season.... The year continues for three shifts (of seasons) to make the seasonal nodes [complete their cycle].... Using three to examine matters:  $3 \times 3 = 9$ . Thus, the Yellow Bell pitch pipe is nine inches long, and harmonizes with the note gong. Furthermore.  $9 \times 9 = 81$ . Thus, the number of the Yellow Bell is established therein.... The number of pitch pipes is six, classified as female and male [for a total of twelve]. Thus, it is said there are twelve bells to act as adjuncts to the twelve months. Each of the twelve is based on three. Thus if one sets up (the number) one and triples it eleven times [i.e. 3<sup>11</sup>]. The total is 177,147. The Great Number of the Yellow Bell is thereby revealed 9."

The *Shiqi* (1<sup>st</sup> c. B.C.) states 'when numbers assume form, they realize themselves in musical sound'. Musical discussions inevitably involve principles such as the yin/yang duplicity and the five elements . The stars, the planets, the seasons, all produce sound. The sounds issue harmony, and that creates accord. From this harmonious accord was born music, set down by the sage rulers.

The calendar was closely related to harmonics and this is another very important feature that permeates the discourse of HDNJ. Music pitches were considered reflections of cosmic rhythms. This was again based on the general ideas of Chinese cosmology: the cosmos is an organic system in which all realms of existence are not only correspondingly connected, but also are resonating with each other in accord with the cosmic rhythms. The medium of the resonance is qi, the cosmic ether.

In the perspective of the Ancient Chinese, this same reasoning can also be applied for the human body and the practice of medicine because it represents a micro-cosmos.

To the Chinese, music not only exists in harmony with nature: it is organically integrated with the cosmological universe. In Daoist cultivation practices and Chinese medicine, the musical notes of the *lulu* are used to measure the rhythm of nature, the cyclical patterns of Qi and the meridian system in our bodies. Huangzhong is strong Yang Qi from deep within the earth moving upward during the winter solstice. It is also the vibration of new life energy.

Knowing when (and when not) to perform acupuncture and cauterization on a patient was a matter of concern to the physician authors of the Inner Canon. Without foresight and careful planning, the insertion of needles was a risky business. Prohibitions based on the ten celestial stems are detailed in a Lingshu essay entitled « Wu Jin » (Five prohibitions)”

When passages from the Inner Canon are placed in a context that includes the newly excavated manuscripts, we see the symbiotic connections between medicine and divination, and between physicians and diviners. Physicians mined astrological, calendrical, and hemerological systems for theory, just as in their treatment of patients they mimed the diviners with their predictions.

## Conclusion

The *Daxue* (大學 ‘Great Learning’ . Third or second century BCE) says that ‘Things have their roots and branches.’ The roots of the theories of Chinese medicine lie in ancient texts and their descriptions of what we might term the spiritual, magical, astrological and philosophical. In the Han Dynasty (206 BCE—220 CE) medical science had its theoretical roots in the yin and yang and the Five Phases

Metaphors play an important role in discursive constructions in the early Classical Chinese Medicine, functioning as a crucial conduit between medical theories and the peculiarities described in texts of different fields of knowledge (Astrology, Music, Mathematics, Calendar, etc), preparing the field for the construction of the microworld of Chinese medicine described in *Huangdi Neijing*. They are also essential to the expression and transmission of Chinese medical theories. For these reasons, metaphors are ubiquitous in Chinese medical language, ranging from single words to phrases, sentences, and concepts too. They reflect how the basic Chinese medical concepts and theories were

formed, stated, and constructed, and how Chinese medicine has developed (and been transmitted) for centuries.

The Chinese medicine has a metaphor system as its underlying structure, where all core concepts and theories in its discourse are expressed, including the theories of essential qi, yin-yang, and five phases that explains physiological functions and pathological changes of human being, and also guide the diagnosis and treatment of diseases in the clinical practice; the visceral image system that explain the functions of Zang Fu organs; the inference from the flow of Qi and Blood to expound the physiology of Yang Qi; the Jing-Luo (Vessels) theory to elaborate the amount of Yin, Yang, Qi and Blood in different meridian-vessels; the theories of etiology and pathogenesis to interpret the onset and development of diseases; and the therapeutic system to interpret the actions of acupoints and medicines, thus determining principles and methods of treatment.

What maintains life was not merely the internal circulation of Qi but a continuous, rhythmic interchange between body and cosmos: “Covered over by heaven, borne up by earth, among the myriad things none is nobler than man. Man is given life by the Qi of heaven and earth and grows to maturity following the norms of the four seasons.”

As we discussed before, the State order was not just implicated through the correct use of music; indeed, the entire movement of the cosmos could be affected through it.

Hence, if the Yellow Bell was no longer in tune, the state would eventually fall into demise, for no longer would harmonic music depict and reflect harmonic government.

The ancient cosmology upon which Chinese medicine rests, articulates reality as a complex system of interacting processes. This cosmology sees the world not as primarily mysterious, but as an intelligible continuum where virtually all the phenomena of the human body are dependent and influenced by time and cosmic rhythms.

Perhaps, the concept of Harmony (和) is the best example to understand how musical metaphors shaped the construction and transformation of certain forms of ethical cosmology, serving as the primary means by which notions of the taboo were built and styles of music were contested but lately becoming enmeshed in a larger discourse on man’s physico-spiritual, or medical, relationship to the cosmos).

The same reasoning could be valid to the human being lifestyles, and the experience of health and disease. Human body and mind also need to be constantly “tuned” (*Táo* 调) and “rectified” otherwise patterns of disharmony/syndromes (*Zhen*/证) will manifest in body/mind as illnesses. Following this same reasoning, the disease and the experience of illness could be expressed metaphorically as “a music being played out of tune” and Chinese Medicine treatments aim at repositioning of the human being within the space and temporal rhythms (like seasons, changes of weather) where the changes emerge during the course of the 4 seasons.

Because the human body is represented and understood as a micro-cosmos, the permeability of its boundaries was an extremely important issue to physicians. The Qi that fills the universe fills the body as well and since ancient times [it has been understood that] penetration by [the Qi of] heaven is the basis of life, which depends on [the universal Qi of] yin and yang. The Qi [of everything] in the midst of heaven and earth and in the six directions, from the nine provinces and nine bodily orifices to the five visceral systems and the twelve joints, is penetrated by the Qi of heaven.

The body may fail by admitting substances that harm it, by keeping out those that it needs, by letting its own vital substances leak out, or by not excreting what it should. Because the Qi circulation is fundamental not only to the body’s growth but to its main tenancy, irregularities in it are responsible for pain and disease. Somatic blockages are analogous to failures of circulation in the universe and the state.

The concept of the Nine Types of Acupuncture Needles in HDNJ as any instrument and tool (*Qi* 器/ *Ju* 具) in ancient China itself represents and incorporates several reflections and thoughts from its primary conception to purely technical issues (manufacturing methods, method of use, etc).

Why nine basic needle shapes instead of any other number (e.g. 3, 5, 8) that the Chinese Numerology also considers meaningful and “auspicious”? In *Lingshu* chapter 78 - On the Nine Needles 《九针论》 we observe that this choice of the number nine to represent (or embody, or even empower) the basic shapes of acupuncture needles complies with the ancient cosmological and musical views that pave the road on which all the discourse of Chinese Medicine flows in the texts that compose the HDNJ. The Huangzhong (Yellow Bell), a concept originally from ancient Chinese musical theory, emerges from HDNJ to

provide a numerological reason for the choice of nine as the number to represent (empower) the basic shapes of acupuncture needles.

*Huangzhong* is an antique musical instrument prepared from bamboo with a length of 9 inches. Each inch-length covered the length of 9 millet grains. Hence, the 9 inches extended over the length of 81 millet grains. Therefore the nine ‘needles correspond to these numbers’ means: [their use] corresponds to very many changes. They can be adapted to numerous diseases.

*Huangzhong*, also functions as a metaphor of centrality and authority with the special role of positioning and putting focus on the Human Being as central element inside of this much wider “web of metaphors” that includes (and is dependent on) time(s), rhythm(s) and measures.

The influence of music in the theories and practices of Chinese Medicine is surely wider than what is shown in this paper but of central importance is to view these discussions of music and medicine in terms of the more fundamental, cosmic notions of balance and harmony that underpinned both realms of knowledge. Understanding that music was often chosen to be the exemplar or representative manifestation of the harmonious cosmos itself makes comprehending how bodily systems, morality, social and state order, and cosmos intersected in essential ways an easier task. We get that much closer to a comprehensive understanding of both discourses on ancient Chinese music and early imperial spiritual orientations regarding human relationship to the cosmos.

This intricate web of relations also reflects a persistent argumentation in the theory and model of practice of acupuncture in HDNJ that stresses awareness of the practitioner to phenomena that are beyond the patient’s body boundaries but exerting influence decisive for the success or failure of a treatment.

Examining the metaphors applied to and inspired by the body in the different times provides us with a way of bridging some of the difficulties encountered in combining anthropological and historical approaches. Metaphor analysis allows us to transcend the simple observation. Instead, rather than becoming sidetracked by intricate details of ethnoscience, we can focus on how the particular virtues of the framework of analysis embedded in early Chinese medical theory have contributed to the continuing relevance of Asian medical ideas in modern settings worldwide.



Acupuncture practice discourse, and here we include all kinds of metaphors and not only those ones coming from the music realm . A deep understanding on the nuances of the acupuncture discourse in HDNJ certainly has the potential to support innovation, improvements and developments that could result in (much needed) improvement in the design of specific scientific models and more balanced and less culturally biased research in acupuncture, making the experimental findings and conclusions more reliable and consolidated (as well as supporting analysis and critical studies) in the light of modern science.

## • References

Artur K Wardega, and Antonio Vasconcelos de Saldanha. *In The Light And Shadow Of An Emperor*. Newcastle upon Tyne, UK: Cambridge Scholars Publishing, p.35 2012.

Barbara, Mittler. *Dangerous Tunes: The Politics of Chinese Music in Hong Kong, Taiwan, and the People's Republic of China since 1949*. Harrassowitz Verlag, 1997, p. 38.

Bruhn, Siglind, *The Musical Order Of The World*, Pendragon Press, 2005.

Cheng-Yih, Chen, *Early Chinese Work In Natural Science*. Hong Kong University Press, 1996.

Christopher, Cullen. *Astronomy and Mathematics in Ancient China: The Zhou Bi Suan Jing*. Cambridge University Press, 1996, p. 1-67.

Curt, Sachs, *The Rise Of Music In The Ancient World, East And West*.

David W. Pankenier, 'Astrology for an Empire: the 'Treatise on the Celestial Offices' in the Grand Scribe's Records (ca. 100 BCE)', in Nicholas Campion and Rolf Sinclair (eds) : *Culture and Cosmos*, Vol. 16 nos. 1 and 2 , Sophia Centre Press , 2012, pp. 163-174.

- Deborah Lynn, Porter, *From Deluge To Discourse*, State University of New York Press, 1996, p.121.

Donald, Harper, "*Physicians And Diviners : The Relation Of Divination To The Medicine Of The Huangdi Neijing (Inner Canon Of The Yellow Thearch)*". *Extrême orient Extrême occident* 21.21, 1999, p.91-110.

Elisabeth, Hsu, *The Transmission Of Chinese Medicine*, Cambridge University Press, 2004.

*Encyclopaedia Of The History Of Science, Technology, And Medicine In Non-Western Cultures*. Springer, 2008. p.1010.

Ephraim F., Medeiros E. F. and Fengli, Lan, *The Nine Types of Acupuncture Needles Metaphors and Constructive Realism*. In Friedrich, Wallner, and Gerhard, Klünger. *Constructive Realism: Philosophy, Science, And Medicine*, 2016, p.141-171.

Erica, Brindley, *Music, Cosmos, and the Development of Psychology in Early China*, *T'oung Pao* 92.1, 2006.

Erica, Brindley, *Music, cosmology, and the politics of harmony in early China*. State University of New York Press, 2012.

Fengli Lan. *Culture, philosophy, and Chinese medicine*. Frankfurt am Main: Peter Lang, 2012.

Friedrich, Wallner, , Fengli Lan, and Martin J Jandl. *The Way Of Thinking In Chinese Medicine*. Peter Lang, 2010, p.67.

- Geoffrey Lloyd and Nathan Sivin. *The Way and the Word: Science and Medicine in Early China and Greece*. Yale UP, 2002, p.220.

Hans Ulrich, Vogel "Aspects Of Metrosohy And Metrology During The Han Period". *Extr êne orient Extr êne occident* 16.16, 1994, 135-152.

Helaine, Selin *Astronomy Across Cultures*. Dordrecht: Kluwer Academic Publishers, 2000, p.443-452.

Hermann, Tessenow, Paul U., Unschuld, *Huang Di Nei Jing Su Wen: An Annotated Translation Of Huang Di's Inner Classic - Basic Questions, 2 Volumes, Volumes Of The Huang Di Nei Jing Su Wen Project*, University of California Press, 2011.

Howard L., Goodman, *Xun Xu And The Politics Of Precision In Third-Century AD China (Sinica Leidensia, V. 95)*, Brill Academic Publishers, 2010.

- Ivette M. , Vargas-O'Bryan, and Zhou Xun. *Disease, Religion, And Healing In Asia*. Routledge, 2014, p. 151.

John, S. Major "Celestial Cycles And Mathematical Harmonies In The Huainanzi". *Extr êne-Orient, Extr êne-Occident* 16, 1994, p.121-34

Joseph S. , Alter, *Asian Medicine And Globalization*. University of Pennsylvania Press, 2005, p 48.

Judith Farquhar. *Medicine and the Changes Are One: An Essay on Divination Healing with Commentary Chinese Science*. No. 13, 1995, p.107-134.

Lars Berglund, *The Secret of Luo Shu: Numerology in Chinese Art and Architecture*, Tryckbiten, 1990.

Lothar, von Falkenhausen, *Suspended Music*, University of California Press, 1993.

Mark Edward, Lewis, *Writing and authority in early China*. State University of New York Press. 1999 p.278-284

Marta, Hanson, *Hand Mnemonics in Classical Chinese Medicine: Texts, Earliest Images, and Arts of Memory*, Festschrift issue in honor of Nathan Sivin, Asia Major series 3, 21.1, 2008, p. 325-57.

Mary, Guerrant, *Three Aspects of Music in Ancient China and Greece*, College Music Symposium Vol. 20, No. 2, 1980, p. 87-98.

Nguyen, Van Nghi, Viet Dzung, Tran, and Christine Recours-Nguyen. *Huangdi Neijing Ling Shu*. Sugar Grove, 2006, p. 168.

- Paul U., Unschuld, *Huang Di Nei Jing Ling Shu: The Ancient Classic on Needle Therapy*, University of California Press, 2016, p.722

Roel ,Sterckx, *Transforming The Beasts: Animals And Music In Early China, T'oung Pao* 86.1, 2000, p.8.

Shigehisa, Kuriyama, *The imagination of winds and the development of the Chinese conception of the body* in Angela Zito, and Tani E., Barlow, (eds) : *Body, Subject & Power In China*. University of Chicago Press, 1994, p.23-41

Tito M., Tonietti. *And yet it is heard*. Basel: Birkhäuser, 2014. p.138.

Volker Scheid. *Convergent Lines of Descent: Symptoms, Patterns, Constellations, and the Emergent Interface of Systems Biology and Chinese Medicine*. East Asian Science, Technology and Society, 8(1), 2014, p.107-139.

Weichen, Tang, *Qi-ju Design Knowledge : An Historical And Methodological Exploration Of Classical Chinese Texts On Everyday Objects* - PhD Thesis , The Hong Kong Polytechnic University, 2013.

Yung, Bell, Evelyn Sakakida Rawski, and Rubie S Watson. *Harmony And Counterpoint*. Stanford University Press, 1996, p. 23

- Zhongxian Wu, Karin Taylor Wu. *Heavenly Stems And Earthly Branches*. London: Singing Dragon, 2013, p.101.

#### Websites

Friedrich, Wallner, *A New Vision of Science*, Available at <https://www.bu.edu/wcp/Papers/Scie/ScieWall.htm> [Accessed 31 Jul. 2016].

Xiaochun, Sun, *Moral and Political Significances of Nature in Ancient China*, Studies in the History of Natural Sciences, 24 , p. 49–57, Available at <http://www1.ihns.ac.cn/members/xiaochun/pdf.data/a-02.pdf> . [Accessed 11 June 2016].

*Huangzhong (黄鍾 - Yellow Bell) Diao*, Available at: <http://www.silkqin.com/02qnp/10tgyy/tg24hzd.htm> [Accessed 11 Feb. 2016].

Theobald, Ulrich, *Chinese Literature - Huainanzi 淮南*, Available at: <http://www.chinaknowledge.de/Literature/Daoists/huainanzi.html> [Accessed 31 Jul. 2016].

Theobald, Ulrich, *Chinese Literature - Lilü Chengshu 律呂成書*, Available at: <http://www.chinaknowledge.de/Literature/Science/lvlixinlun.html> [Accessed 31 Jul. 2016].

Jonathan, Service, *Essays "Chinese Music Theory"*. Available at: <http://www.hcs.harvard.edu/soundingchina/Service.html> [Accessed 1 Aug. 2016].

- Acknowledgments

Cristiane L. R. de la Hoz, Ph.D. from the Canadian Institute of Traditional Chinese Medicine (Calgary, AB - Canada) for help editing the final English text and footnotes.