

Ordered Resonance: Cultural Meanings of Bell and Stone-Chime Music in the Pre-Qin Ritual and Music System

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Abstract: Bell and stone-chime music was a type of ritual activity in ancient China. Its origin was not only sound but also the connection between instruments, space, body language, technical knowledge, and memory. The four aspects of the subject are: ritual institution, acoustic and ethical order, material technology, and ancestral memory. It proposes the idea of “ordered resonance” to explain how noticeable tonal relations and predetermined arrangements came to have meaning through performance and memory. Suspended ensembles made the rituals visible, coordinated tones created a sense of order and emotion for the people, craftsmanship combined acoustic accuracy with self-discipline, and funeral scenes connected personal identity with the continuity of ancestors. Bell-and-stone chimes should not be regarded as mere ornaments for pleasure or as standalone works of art. Its cultural power came from the interaction of stable forms and new sounds, the division and combination of different elements, and present performance with inherited memory.

Keywords: Bell and stone-chime music; Pre-Qin ritual; Ordered resonance; Materiality; Ancestral memory

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1. Introduction

Bell and stone-chime music were important parts of the pre-Qin ritual and music system. Bronze bells and lithic chimes were not only good at making sound; they also had significance in society, and their creation, placement, use, etc., reflected ideas of order and proper relationships. In the early days of rituals, music served to organize time, distinguish between different groups in society, express emotions, and transmit culture through various forms of ancestor worship. Bell and Stone-Chime ensembles are therefore excellent cases for studying how sound entered the sphere of society and ethics. The term “pre-Qin” refers to a long and varied period. Shang materials, Zhou ritual traditions, discussions of bells, and late Warring States archaeological evidence should not be regarded as the same system of evidence. Pre-Qin is taken as the general historical background here. Generally speaking, the three categories of Shang culture can be divided into instruments, ritual texts, and materials from the late Warring States period. This paper takes performance,

materiality, and funerary memory in the latter period as its focus and puts forward the concept of “ordered resonance,” which refers to the combination of pitch relations, spatial arrangement, bodily movement, ritual differences, and historical memory. It is the circumstances in which a particular sound is regarded as sacred. It is not “ritual order” but rather an experience of order through sensation. The four reasons are that it was an institution; they have an ethical system; it is a material culture; and it has ensured the continuity of Chinese civilization.

2. Bell and stone-chime music as a ritual institution

2.1. Suspension, arrangement, and ritual distinction

The institutional nature of bell and stone-chime music can be seen first in the organization of the ensemble. Instruments were not arranged randomly in the performance. Their number, position, order, and relation to the performers helped to determine when music was to be played. Bells and chimes are relatively easy to suspend, arrange in groups, and strike in a fixed order, so they are suitable for this purpose. The physical shape of the instruments is a kind of organization for music before any sounds are produced; Falkenhausen’s study of suspended bells also extends the concept of suspension to other instruments. By placing each bell in an orderly row, suspension linked the sense of place with time in sound ^[1]. The frame created a space, and then the performance gradually released the notes one by one. The movement of the performer was particular because it was connected to a certain instrument; a note gained significance in an organized system, and thus arrangement changed the distinction between institution and sense perception. Participants can see all the items in a set and hear whether the performance order is correct. Distinction was added to the relationship among object, place, gesture and sound. Production by this group has also been organized knowledge. Bell casting is about controlling the shape and metal; chimes need a good stone for selection and processing. Payments, deferrals and other services are overdue. The instruments were thus a practical discipline for achieving the desired order stably.

2.2. Emotional regulation and bodily practice

Music gave the institutions an emotional expression. Ritual did not require the suppression of emotion; rather, it provided a proper form and occasion for emotion. Resonant tones can give rise to solemnity, joy, sorrow, or awe, but sequences, rhythms, durations, and coordinated movements are not suitable for expressing emotions. Cook’s study of the Yueji is relevant here because it shows the connection among musical expression, emotional response and ritual practice ^[2]. Music begins as emotion, but it is also organized into a certain structure. Bells did not cause people to be good-natured by themselves. At that time, people engaged in ritual activities and had to be aware of their surroundings, self-control, responsiveness, and cooperation. Performers approached the instruments in a certain way, chose striking spots, and responded to the rhythm of the group. The listeners recognized the different tones and followed what was played. Therefore, the people began to be idle and discontented. Music can be learned by participating in it repeatedly, and ethics are also conveyed this way. A single gesture is given meaning by its position in a longer sequence.

2.3. The ensemble as a compound institution

A bell and a stone-chime were both seen and heard. Different instruments and occasions had different spaces; the sounds of music also organized ritual time. Neither was either one alone. A well-tuned bell needs to be set

up correctly, or it will lose its ritualistic effect; an ordered exhibition that fails to move people will be dull. The instruments were still in their original places, but movement gave rise to music. Each bell or chime had its own register and position, but the whole piece of music was not yet realized. The rule in this arrangement is not uniformity but rather harmony through good relationships. The institution was a type of ensemble that organized objects, bodies, time, and attention in a single place.

3. Acoustic order and ethical harmony

3.1. Pitch and measurable relation

Pitch can be measured and reproduced, but it is also relative. A single tone can be heard alone; a musical system is built on intervals, sequences, and relationships among tones. Bell and Stone-Chime were performed together at that time. Each instrument had to be considered in relation to the others, and a change in one part would affect the whole. The strength of pitch was learned through practice, not just theoretical calculation. When comparing tones, people found that they had an order and could hear, remember, and imitate it. Tuning therefore had to be done correctly. It created a world for all sounds to be placed reasonably. A tone not in harmony with the group could be regarded as an offense; harmony, on the other hand, was seen as an expression of emotion. Repeated strikes may indicate entrances and exits, offerings, responses, closures, etc. Performance divided action into recognizable stages, and not all movements had to be visible to everyone. Time has become an ordered series with a start, progress, and end.

3.2. Harmony and ethical coordination

Harmony is not to be taken as pleasantness. An ensemble is harmonious because it has many different pitches and colors. The unity is the result of the relationship among differences, not their absence. This feature gives musical harmony an ethical dimension: cooperation requires each part to have its own function and respond to the whole. A bell or chime does not need to have significance on its own. It was no longer called a drum because of its tone. The same is true of ritual action. A Gesture has acquired meaning through the time and place of a ceremony. Musical performance was thus a type of ethical education. The ratio was felt with the ears and body; there were set-up places and patterns for rituals, and music added a sense of time and emotion. Ritual offered an origin, and sound revealed it. Harmony is a way of organization that pays attention to differences and order.

3.3. The Wu-Yi bells and historical meaning

The discussion of the Wu-Yi bells shows that bells can be objects of historical interpretation as well as instruments for music ^[3]. Not only did they have the sound of language. It was formed by inscriptions, remembered deeds, and the circumstances under which the instruments were written. A bell is often associated with the correctness of rituals, exemplary conduct, continuity, and the inheritance of family traditions, and should not be regarded solely as a technological item. The same type of instrument can have different meanings in various rituals and texts. Although it had the ability to produce sound, the purpose of this sound was not yet known. Inscriptions connected the object with people and events, so the bell also served as a place for storing history. Therefore, it was necessary to remember and continue this way of doing things.

3.4. Mutual formation of theory and practice

Bagley investigated the beginnings of Chinese musical theory and found that it had to be studied together with actual examples of sound creation^[4]. Terms related to pitch, interval, resonance, and harmony gained cultural force because they were linked to instruments and music. Theory has offered a way to judge sound, and in turn, practical experience has provided material for theoretical exploration. An ensemble was not merely the mechanical result of a finished theoretical system. The sounds of these can be used to study timbre, location in space, pitch relationships, etc. Theoretical categories can be used to organize and evaluate the instruments. Musical knowledge spread among craft, performance, description and memory. Sound was organized according to knowledge, and knowledge was also refined by organized sound.

4. Material technology and the production of meaning

4.1. Craftsmanship and acoustic discipline

Bronze bells and stone chimes were not neutral carriers of ideas that existed independently of them. Their Shapes, Sizes, Materials, Suspension Devices, and Striking Surfaces determined the Tones that could be produced. Therefore, the technical problems had to be solved by participating in rituals, and bell-making requires proper shaping of metal. Change slightly to modify the note, decay, sound, etc. Chimes are also dependent on the quality of the stone and the treatment of its surface. The reasons for this are labor, skill, and adaptation. A steady note means that the material has been organized; an irregular note indicates that it deviates from the desired order during performance. Craftsmanship also has a cultural dimension. From the raw material, a systematic arrangement was made to keep track of different items and organize specific work. Technical precision did not create the ritual meaning itself, but it made the desired order materially possible. An instrument is the result of self-discipline; performance is how one expresses that result.

4.2. The Zeng Hou Yi bells and performance conditions

Cook re-examines the connection between musical theory and practice in his study of the Zeng Hou Yi bells^[5]. The inscriptions and arrangements of the ensemble are also in harmony with its sound. It is not only a technical achievement but also shows that an instrument can produce various types of sound; different striking positions result in different tones and resonances. Therefore, the remaining arrangement indicates that at least some musicians in the late pre-Qin period regarded sound as more than just an ordered arrangement of notes. Pitch was still necessary, but other features of expression were added as well. The bells were intended to be played by the body; thus, the position and movement of the person playing affected the sound. Although a theoretical system can outline the relationships among notes, it cannot cover all the potential effects of a group of sounds. Conversely, its Design showed that knowledge did not need to be expressed in propositional form. It was an instrument and a material archive. Acoustic complexity is achieved by introducing some order in the form of modification.

4.3. Instrumental classification and ritual knowledge

Tong's research on Shang musical instruments shows that the early system of music was organized according to materials, forms, and functions^[6]. It was not an enumeration of classes. It offered a way to distinguish between different sounds and associate them with specific situations. Bells and chimes had good sustained resonance and could gather people's attention; they were used to signal the start, end, division, etc., of

a ceremony. A good sound system for exercise and study has been set up. A gesture from the performer moved the object, but the sound did not immediately cease. A short act became a public hearing and spread in the common areas. Material culture thus joined the individual body with collective practice. Hand, striking instrument, tool, and the space around it are all in the same chain of action. To consider only the bell or chime a means to make sound is to ignore the knowledge and discipline that have accumulated through their use.

4.4. Materiality and changing contexts

Bronze and stone were associated with heaviness, durability, and permanence. Therefore, bells and chimes were suitable for ceremonies and funerals where the continuation of life was important. Durability of materials did not have only one meaning. An instrument could be used for music and ceremonies, and later placed in a tomb's collection of objects. At this time, they were gathered from all kinds of places; thus, one should read them together. Archaeology can reveal construction, arrangement, and spatial association; texts can reveal categories, values, and interpretive language. Together, they can help us know what was made, how it may have been used, and what meanings the community later assigned to it.

5. Resonant memory and personal identity

5.1. Resonance and ancestral remembrance

Given that these are rituals and funerals, a sustained tone after the strike has stopped can be considered a way of honoring the deceased in culture. The sound was produced in the present, but it seemed to go on beyond the performer's movement. The temporal quality of this sound is suitable for conveying a sense of distance from people who have been lost to time but are still cherished in our hearts. Sound had a body and could be interpreted in the past. Resonance in the interpretation of rituals may have made people feel the presence of ancestors during the ceremony. It is about cultural mediation, not supernatural communication. The force of the bell was the combination of material sound and shared understanding. As it was tangible in form, it carried the sense of duration; as it had a ritual function, it also took on the weight of memory.

5.2. Tomb ensembles and personhood

A funeral band can help people form a sense of self. The position of the bells and chimes in a tomb was not merely for keeping valuables. It may indicate the status, relationship, professional knowledge, and cherished traits of the deceased. The instruments made up the material biography and did not exist in isolation. The deceased was part of networks of ancestry, ritual practice, craftsmanship and social recognition. The number and arrangement of instruments, inscriptions, and associations with other objects were used to create an image of a person. Material objects did not just represent an already complete identity; they helped to preserve and convey it. Even in the absence of live performances, arrangements can be used by later observers to reconstruct the deceased through sound, labor, and ritual memory; this kind of interpretation should be distinguished from evidence. Tombs indicate the location and relationships of things. Based on the above arrangements and inscriptions, it can be concluded that the ensemble was identified with this ritual. Personhood is the result of the relation between objects, context, memory, and later acts of understanding ^[7].

5.3. Resonance and continuity

It was not continued by reproducing an earlier form without modification. It aroused the inherited

connotations in a new manner. A bell could retain the remnants of an earlier technical or ritual tradition and then gain new associations through performance, transmission, inscription and burial. The past has been preserved, but it has also been renewed; this process can be called “resonant continuity.” The physical object bears the marks of the former work, and a new strike produces sound in the present. Therefore, memory is an endless world of repeated experiences. Bell and stone-chime music were combined because the instruments did not change over time, and their sounds could be repeatedly created.

5.4. Analytical value of ordered resonance

Ordered resonance is the sum of the preceding parts and is not reduced to them. “Order” refers to the arrangement of instruments, tones, performers, actions, and relationships; “resonance” refers to the continuation of sound and meaning beyond an individual gesture. Together, these terms indicate the process by which structure is given meaning and history is conferred upon it. Ritual performance orders bodies and marks time. They offered an idea of proportion in musical thinking. Craftsmanship is the precision of materials and disciplined training. They helped keep people’s memories and sense of self after death. The bell and chime were objects, sounds, actions, and signs; their meanings arose from the connection among all these aspects.

6. Conclusion

Bell and stone-chime music in the pre-Qin ritual and music system was an organized form of culture, not mere decoration. Its meanings have developed through spatial organization, acoustic relations, bodily expression, technical production and memory. Suspended ensembles were added to increase the solemnity of the rituals; organized tones gave structure to the music; skilled craftsmanship added an external expression of discipline; finally, funerary music was used to connect the instruments with personal stories and ancestors. Shang classifications, ritual interpretations, discussions of bells and late Warring States ensembles should not be combined into a single undifferentiated picture. However, if it is a repeated process, they can still be regarded as the same: material ordering was established, activated by sound, and extended through memory; this is called “ordered resonance.” Harmony is more inclusive than harmony because it also considers the spatial, bodily, institutional, and memorial conditions of pitch. It is not as rigid as the order of rituals, and may also aim for a certain effect. Bell and stone-chime music are thus shown to be a combination of difference and coordination, permanence and change, object and event. It can be seen from this that sound can organize experience, and material objects are also able to preserve the relationships of such an experience so that it continues to have meaning.

Disclosure statement

The author declares no conflict of interest.

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