

# Sound as a Main Medium for Information Transmission in the Long-Term Cultural Continuity of Mankind

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Acoustics is a subject in which both old and new elements combined perfectly together. For its being intimately connected with two sensory organs-mouth as sound producer and ear as sound receiver, acoustics holds a self-evident importance in the world of science.

The old elements in acoustics are derived mainly from the long history of music and speech, for both of which rely heavily on sound waves as their transmission media and are received by invoking aural senses. A long time before man created letters and thus developed the capability of reading and writing for the promulgation of culture, hearing has been playing the leading role in information exchange and cultural continuation.

A few more examples can be cited to illustrate this point. In the Bible John 1:1, one reads, "In the beginning was the Word, and the Word was with God, and the Word was God." The word "Word" here refers specifically to a sound of voice. Homer's epics Iliad and Odyssey had been formed several centuries before the Greek civilization took shape, and preserved by circulating among many nomadic artists simply through oral transmission. Same examples can also be found in ancient China, where ancient people paid highly respect to Shengxian, a special appellation entitled to those who were famous for their impeccable morality and immaculate virtue. Chinese character of 聖 Sheng (means "Saint" and "Holy") is the combination of three other characters, which respectively represents ear, mouth and king. One may easily conclude from it that in ancient China, before letters were formed, the representatives like a king must first listen to "Word" correctly from God, and then oral account had been made as a main channel. This in turn cultural exchange was made. Another character that deserves to be mentioned here is 聽 Ting (means "listen to") which has three main components respectively referring to ear, eye and heart. It indicates that hearing and seeing work cooperatively in capturing information from our surroundings, and then through cerebral

operation, these information are synthesized into an understanding towards the outside world. A person who can act wittfully in response to his environment is commented as 聰明 (means "smart" or "clever"). 聰 has its original meaning as an acute hearing while 明 refers to a clear eyesight. With 聰 being placed prior to 明, we may sense that the ancient Chinese valued hearing more than seeing. The Analects of Confucius, the most celebrated classic in Chinese culture, was originally passed on to others through sound transmission and it was not until after Confucius' death did his disciples record it in written word. Confucius even states clearly that one should turn an obedient ear for the reception of truth when he or she turns sixty, which strongly manifests the significance of hearing in Confucianism. Furthermore, the images of Buddha and Bodhisattvas in Buddhism always have long and fleshy ears. Among them is the most notable Bodhisattvas generally known as Avalokitesvara, which is later translated in Chinese as Guanyin with the meaning of overview of sound. This instance can also show the special attention paid to hearing function in ancient India society.

On the outset of human history, vocal communication among man precedes written information exchange, since the latter is available only after language came into being. Man has unique vocal organ which is sufficiently well-developed to make complicated pronunciations, and thus led to the wondrous achievements of talking and singing in early ages. Language, once after being fully adapted to fit the need for daily communication, becomes the most inseparable element in human society. It is so far the main information exchange form on which even the invention of letters relies. In Chinese, one of the most ancient languages on earth, various characters found their origin in pictures and concord (homophonic). Chinese characters in all, can be divided into six categories according to the rules of their formation: the self-explanatory characters, pictographic characters, picto-phonetic characters, associative compounds, mutually explanatory characters and

phonetic loan characters. Aside from the picto-phonetic characters, phonetic loan characters are formed solely for the representation of homophones. These two categories stand as the clear proof of the importance of sound in language formation process. As it comes to western language in which the alphabetic system prevails, this is also applicable.

Language, mother tongue in particular, is crucial to the thinking process of man, for man always think with language forming in his mind. We actually murmur the words silently to ourselves when we think. The “stream of consciousness” in literature techniques often resembles a word-for-word record of the language uttered out in the character’s mind and which serves as another good proof for the vital role of hearing in our lives. Even for a long time after the creation of written language, in eastern and western worlds alike, literature works were spread basically through telling and retelling. More specially was that in the western countries when literature works became popular, written customs did not gain an equal prevalence until 18th century. In China, all the way to Tang and Song Dynasty, popular literature forms, such as Tang poetry, Song Ci and other folklores, were circulated and handed down by oral instructions. Only after the popularization of printing were the hearing and retelling skills degraded and written language gradually accepted as the primary form for maintaining the culture continuity.

Modern era brings along with it the development of industry, commerce and transportation, but not without the strong side-effect of the deterioration of living environment. People’s ears suffer from all kinds of noise from different

sources. But the situation has gradually been improved nowadays. The Information Revolution calls for more concern on the art of hearing and once again attempt to bring back the glory of sound lost as history goes on its way. Multi-media technique, long-distance and mobile phone, World Wide Web, HiFi stereophony, Home Cinema, auralization, so on and so forth enwrap us with waves of refined sound. The appreciation of audio and video has become a fashion for many people.

In comparison with light, which means by seeing things, sound, by hearing, as an information exchange medium has many more merits. Sound, for instance, can easily penetrate or skirt some obstacles through diffraction. Besides, one usually feels more freely to express his or her own opinions in oral communication with others in full or more exact meaning and emotion. That’s why a lot of people prefer speaking to writing.

Nowadays, as the techniques for sound radiating, transmitting, receiving and recording generally gets its maturity, we have reasons to believe that storing and distinguishing acoustics has a even more promising prospects. Sound will take up a position of special significance as one of the main media for the exchange of information and the maintenance of human culture.

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