

On the Generation and Development of Tibetan Folk Music -- From the Perspective of Geography and Digital Musicology

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Abstract: As a symbol to express human emotion, music has a close relationship with human production activities. From the birth of the music to now, accumulated a lot of music text, digital humanities research perspective projection in Tibetan music, using the theory and methods of digital human, the development and research of Tibetan music feature and style, to explore the regional characteristics of Tibetan music show and spirit connotation, so as to reveal the Tibetan music contains the humanities spirit, To further understand the spiritual world of Tibetan ethnic music, realize the integration of traditional Tibetan folk music with modern science and technology, and promote the three-dimensional visualization of traditional Tibetan ethnic music.

Keywords: Tibetan nationality; Music; Digital musicology

1. Introduction

In the 1990s, Nicholas Negroponte came up with the concept of “Being Digital.”^[1] Since entering the 21st century, the rapid development of computer network, artificial intelligence and other scientific technologies has made the total amount of research data and Digital research data of various disciplines increase exponentially, providing technical support for the Humanities to “data-intensive research”, “The digital time has arrive”,^[2] and Digital Humanities (DH) has expanded the development space of music. Digital Musicology (DM), as an important research branch of Digital humanities, provides a new research method and perspective for music research. In China, new methods and technologies of music research have made great progress, but it is a pity that there is no overall definition and systematic analysis. In addition, the combination of traditional Tibetan folk music and modern science and technology only stays at the level of ordinary combination, and has not been studied in depth due to the lack of technology, infrastructure construction and interdisciplinary communication.

The Tibetan people are good at singing and dancing, and have created diverse and distinctive folk music in the long-term social production practice. In addition, there is another distinctive feature of Tibetan music: dancing and singing with song, which is vividly illustrated by “how to dance without music, and how to eat tsamba without butter”. As early as the Bon Period, Tibetan music has come into being. “In front of the Schinraumiwatchi Supreme, some people are dancing, some people are singing.” With the continuous development of history and the increase of musical practice, Tibetan music has been continuously inherited and innovated, its technical level has been constantly improved, and the types of music have been continuously increased, which can be divided into “folk music, court music and religious music” according to the characteristics, types and contents of music.^[3] Folk music is Tibetan music created by the masses in production and life and popular among the masses. It is manifested in daily life, the most diverse, known as the “mother of Tibetan music” the mother of Tibetan music, which is roughly divided into life custom music, production and labor music, ritual and etiquette music; Court music is in the government, manor houses and other places of elites live music, performed by professional actors, court music is mainly divided into “heap order” and “sac” two kinds, including harmonic “heap” is made up of ali area spread out, by the guitar as the main accompaniment of musical, “capsule” is by ali area spread out, but mainly in the imperial palace, or indoor performance of music; Religious music is the music that spreads in religious places and is used for religious activities, mainly including ritual music (often performed together with religious dance called “QiangMu”), chanting music, etc. In addition, Tibetan music also includes Tibetan opera music and Gesar music.

2. General Situation of Tibetan Living Environment

2.1 Natural environment

Tibet Autonomous Region is located in the southwestern border area of China, covering an area of more than 1.2 million square kilometers, accounting for one eighth of China’s total land area. It is located in the hinterland of the Qinghai-Tibet Plateau, the largest and highest in the world, with an average elevation of more than 4,000 meters. It is known as the “roof of the world”. The Tibet Autonomous Region is connected with Qinghai province and Xinjiang Uygur Autonomous Region in the north and west, and Sichuan and Yunnan provinces in the east. In addition, Tibet has a border of more than 4,000 kilometers and borders with India, Nepal, Bhutan, Myanmar and other countries. Affected by the special terrain, the climate in Tibet is complex and diverse. Its basic characteristics are strong solar radiation, low temperature, large diurnal temperature range, small annual temperature change, and distinct dry and

wet seasons. Modern scientific research has proved that the average oxygen content in the air of Tibet is only about 50% of that in the plain area. It is precisely because of this relatively closed and extremely harsh natural environment that people living on this land have a heartfelt reverence for nature and have a profound impact on human production and life. Unique natural environment created a unique Tibetan music, relatively closed topography to a certain extent, better preserved the original ecosystem in Tibetan ethnic music culture, make it less from the effects of other cultures, and with the continuous development of history, formed the unique Tibetan music culture gene, and inheritance.

2.2 Social environment

The Tibet Autonomous Region is a multi-ethnic area with a majority Tibetan population. According to relevant statistics, by 2014, the population of Tibet had reached 3.12 million, with Tibetans accounting for more than 90 percent and other ethnic groups including the Han, Hui, Lhoba and Monba. Tibetan has a long history and created a very brilliant national culture. As early as the Neolithic age, there were people living in the Lhasa Valley, which was strongly proved by the Qugong site excavated in 1984. Since then, the three groups that constitute the source of the Tibetan ethnic group have continued to communicate and merge, forming the main body of today's Tibetans. The economic structure of the traditional Tibetan society is based on agriculture and animal husbandry. For example, the Lhasa Valley is the concentrated area of agriculture, while Ali and Naqu are based on animal husbandry. As early as the 7th century, Songtsan Gambo unified the Qinghai-Tibet Plateau and established the powerful Tubo Dynasty. At the same time, The Tibetan language was created, and the appearance of writing made Tibetan history enter a new stage of civilization development.^[4] As a phonetic alphabet, the Development of The Tibetan language has been very mature. The historical data recorded in The Tibetan language is second only to that recorded in Chinese characters, ranking first in China's ethnic minority languages. After Buddhism was introduced into Tibet from India, it took root and merged with bon, the indigenous religion, to produce Tibetan Buddhism with strong regional characteristics, which profoundly influenced the spiritual world of the Tibetan nation and also had a profound impact on Tibetan music, "QiangMu" was the embodiment of them.^[5]

3. The Influence of Geographical Environment on Tibetan Folk Music

Due to its special geographical location and natural environment, the Tibetan nation has created a snow area civilization with characteristics of the Plateau, and it has communicated and integrated with the Civilizations of central Plains, India and Arabia for a long time, making the traditional Tibetan culture interactive with localization and foreignization. Hungary sapo qi bin mining in its "the history of melody," said: "they typically comes from the mountain forest, closed river valley, inaccessible plateau, grasslands in remote rural areas, agriculture, lodges and alpine pastoral areas of marsh's cottage folk sound bearing all existing and development in the world, basically is the product of inland is a product of the closed area."^[6] This passage accurately describes the regional environment in which Tibetan music came into being. Tibetan people live in an extremely closed natural environment on the Qinghai-Tibet Plateau, and Tibetan music also has distinct regional characteristics.

(1) Influence on folk music

The terrain of Qinghai-Tibet Plateau is complex and diverse, so it is impossible to explore the production of Tibetan music according to the characteristics of their respective natural environment. It is a direct choice to explore the regional characteristics of Tibetan music from the perspective of linguistics. In addition, some scholars believe that the discipline philosophy and research methods of the linguistics field can provide a lot of reflective significance to the current dilemma of musical form research.^[7] There are three main Tibetan dialects and dialect areas: Weizang dialect, Kang dialect and Amdo dialect.

Weizang dialect is popular in Lhasa, Xigaze, Shannan, Nyíngchi and other places in central and western Tibet. Tibet occupied an important position in history, among which Lhasa and Xigaze were the economic, political, cultural and religious centers of the former and the latter Tibet respectively. The Uighur Tixibuye tribe, which was formed at the beginning of the Weizang region, was one of the important sources of ancient Tibetan culture, and the Tubo dynasty was founded in this system. The geographical position of Weizang dialect area is superior, surrounded by snow peaks, yarlung Zangbo River runs through it, and the terrain is relatively flat. The melting water of snow and ice in the high mountains and the suitable climatic conditions formed the agriculture of Lhasa River Valley, the earliest agricultural area in Tibet, which is still the most important grain producing area in Tibet today. Because of its earliest development and most developed cultural form, Wei Tibetan dialect is also the most mature and the most standard language in the Tibetan language system. The Tibetan folk music formed in the Weizhian-Tibetan dialect area is obviously "rich and colorful collective folk song and dance form".^[8]

Kang dialect is popular in yushu Tibetan Autonomous Prefecture of Qinghai province, Ganzi Tibetan Autonomous Prefecture of Sichuan Province, Diqing Tibetan Autonomous Prefecture of Yunnan Province, Qamdo and Nagqu of Tibet Autonomous Region in the east and southeast of the Qinghai-Tibet Plateau, with the characteristics of cross-regional spread. The Kang dialect area has a long history. As early as the Spring and Autumn Period, various tribes were formed and some even established their own countries. For example, Jialiang, the ancestor of the Present-day Jiarong Tibetans in Sichuan, was distributed in Jinchuan and Danba counties of Aba Tibetan Autonomous Prefecture. Dangxiang distributed in Aba Tibetan Autonomous Prefecture of Sichuan Province, Guolu area of Qinghai Province, is the ancestors of the Xixia nationality. In the period of Emperor Wudi of the Han Dynasty, the ancestors of The Kang dialect area learned agricultural techniques from the Central Plains and gradually moved from nomadic to settled life of agriculture. At present, the residents of Kang dialect area are mostly engaged in agricultural production activities, and only a few of them are engaged in the life habit of half agriculture and half animal husbandry. Tubo dynasty to the tang dynasty compete for spheres of influence, and a wide range of war have occurred many times, the tang dynasty tubo kingdom military action to defend Tibetan dialect spread to the region provides a convenient conditions, kang also began to use Tibetan dialect area residents, but still retained on the pronunciation of the specific characteristics of the region dialect, formed the dialect. The terrain and terrain conditions of The Kang-dialect area are special. The Nu River, Lancang River and Jinsha River run through the area, forming a peculiar natural

landscape. The valley area forms an agricultural belt and plateau pasture, which is still dominated by agriculture. Due to the similar economic type, the Tibetan folk music formed in Kang dialect area has similar characteristics with the Tibetan music in Wei Tibetan dialect area: rich and colorful, strong collectivization, but the changeable natural geographical environment makes different music systems formed in the area.

The Anduo dialect is widely spoken in the northern and northeastern parts of the Qinghai-Tibet Plateau, such as Guoluo Tibetan Autonomous Prefecture in Qinghai Province, Hainan Tibetan Autonomous Prefecture, Huangnan Tibetan Autonomous Prefecture, Haixi Mongolian Tibetan Autonomous Prefecture, Haibei Tibetan Autonomous Prefecture, Gannan Tibetan Autonomous Prefecture in Gansu Province, Tianzhu Tibetan Autonomous County, and Aba Tibetan and Qiang Autonomous Prefecture in Sichuan Province. According to the *New Book of Tang: A Biography of The Tubo kingdom*, "In the Tubo region, xiqiang belonged to more than 50 species, scattered in hehuang, Jiang and Min, with faqiang and Tang MAO, etc., yet it did not start to communicate with China. In the west of the branch water."^[9] Among them, the "analysis branch" is today between the Anima Qingshan and Bayan Kala Mountains in Qinghai Province Guoluo Tibetan Autonomous Prefecture. Historically, many Qiang people settled down here and gradually integrated into the Tibetan nation. In the 4th century, the Tuyuhun kingdom was established. Later, it was absorbed by the Tubo and integrated into the Tibetan people. As the boundary area of Qinghai-Tibet Plateau and Central Plains, Amdo dialect area has been inhabited by xianbei, Han, Mongolian and other nationalities. With a large area and a high altitude, Amdo dialect is the birthplace of many great rivers in China. There are many grasslands, which gradually form a social and economic pattern dominated by animal husbandry. Some areas are half farming and half animal husbandry. Herdsmen live by water and grass and have great mobility, but most of them are settled today. Therefore, the language of Amdo dialect area is mainly Tibetan, but it also integrates Chinese, Mongolian and other ethnic languages. Therefore, influenced by social and economic types, Tibetan folk music in Amdo dialect area is obviously different from the characteristics of rich and colorful and strong collectivity in agricultural areas, and has formed the characteristics of strong randomness and outstanding individuality.

The geographical environment of Tibet is extremely complex, so it is not possible to explore the generation, development and style of folk music in various places simply by social and economic types. For example, residents living in Litang area of Kang dialect are mainly engaged in nomadic production, but mainly speak Ando dialect, forming the geographical phenomenon of "enclaves" in linguistics. Tibetan folk music in various places has some common characteristics, but also shows distinct regional characteristics.

(2) Influence on court music

The court music of the Tibetan people did not originate directly from the court at first. The court music was concentrated in Lhasa, especially after the establishment of the Kandan Pozhang regime in the 17th century. In order to highlight the characteristics of the ethnic group in the Mongolian-Tibetan joint regime, the fifth Dalai Lama Awang Sang Gyatso specially summoned a group of Tibetan artists to Lhasa to perform the ethnic music and songs. In court music, duanxian is the most popular form of song and dance. Duixie was developed from Guoxi, a type of unaccompanied dance popular in the western Ali region, which was later modified and quickly became popular in the upper reaches of the Yarlung Zangbo River with the accompaniment of a six-string instrument. In the 17th century, it spread to Lhasa, and after the promotion of the fifth Dalai Lama, it spread quickly among the upper nobility in Lhasa.

Cangma is another form of court music. It was also spread to Lhasa from ali in the west. At first, Cangma was a kind of chamber music performed for the upper class in Lhasa. It was not open and only had music without dance.^[10] Most of the contents of Cangma were adapted during the period of the fifth Dalai Lama, reflecting to some extent the social life and cultural outlook of that time.

Art is not only a reflection of social life, but also reflects certain geographical changes behind its wide spread. From the geographical point of view, the gradual evolution from Guoxi to Duoxi is a cultural influence of the western Ali region on the central Lhasa region. When duharmonic completed the transformation from folk music to court music, the distinctive regional characteristics of folk music were no longer obvious, but more normative.

(3) Influence on religious music

Tibetan Buddhism has many sects. There are mainly gelug school, Sakya school, Kagyu school, Nyingma school, etc., as well as the Buddhist indigenous religion Bon, etc. The denominations are in Tibetan Buddhism after wong period, are mostly of church leaders and a secular lords joint, such as a force in the kagyu sect - CAI kagyu, is the statue of chasing the lama in CAI, the head of the region representative his Jill is established under the support of developed, sakya is internal to the family in kunming to religious teachings and secular family inheritance development, All the sects of Tibetan Buddhism had obvious regionalism at the beginning of their establishment.

Tibetan religious music is mainly divided into ritual music (also known as Qiangmu music dance), chanting music, etc. Saban Gongga Gyaltsen made a detailed summary of the characteristics of religious music and secular music in his book *On Music*, which made an important contribution to the development of Tibetan music.^[11] Although each sect has its own unique practice system, which has its own characteristics in music, each sect and even different temples of a certain sect have their own score, which makes religious music colorful and varied. Different instruments are used to play different music in the performance process. But the sacredness of religion determines that religious music has high standardization and unity, and there is little regional difference.

4. The Influence of Digital Humanities on Tibetan Folk Music

Traditional Tibetan folk music has gone through thousands of years of development and produced a large number of musical texts. Through the method of digital humanities, digital development of musical texts has enriched the protection path of traditional Tibetan folk music and established a musical development model with national characteristics.

Digital humanistic technology is used to establish a database for traditional Tibetan folk music and inherit it scientifically. There are many kinds of pure Tongtibtetan folk music, and the inheritance mode is single, which has irreversible inheritance risk. Through digital humanistic technology, the database of traditional Tibetan folk music has been established to preserve it in different categories

and establish a permanent resource library for the preservation of traditional Tibetan folk music.

The application of digital humanistic technology provides a new direction for the development of traditional Tibetan folk music. The establishment of the database of traditional Tibetan folk music makes it more convenient for the general public to understand traditional Tibetan folk music, provides an interactive information exchange platform for dunhuang Mogao Grottoes fans, and helps more people to deeply understand the history and culture of traditional Tibetan folk music. It breaks through the limitation of time and space to realize the shared value of culture, which opens up a new direction for the development of traditional Tibetan folk music and harmonizes the contradiction between the protection and development of traditional culture organically.

The influence of traditional Tibetan folk music is enhanced by digital humanistic technology. Traditional Tibetan folk music is not only the treasure of the Tibetan people, but also should be actively disseminated to the outside world, so as to bring traditional Tibetan folk music from the Qinghai-Tibet Plateau to China and the world, and enhance the influence of Tibetan culture at home and abroad (see figure 1).

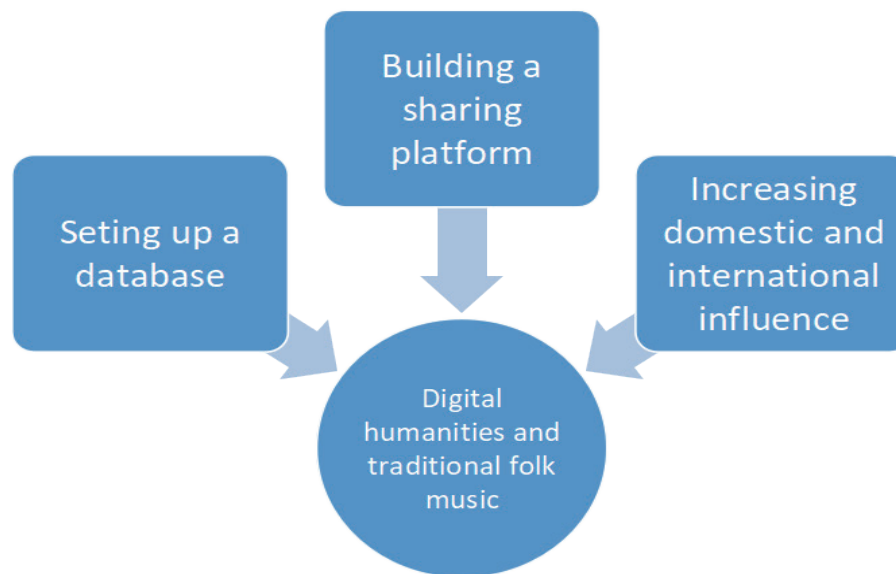


Figure 1. Digital Humanities on Traditional Tibetan folk music

5. Conclusion

Music is an important part of national culture, which is obviously reflected in Tibetan culture. From the perspective of geography to explore the generation of Tibetan music, you can see different regions produce different kinds and different styles of music, and digital music is traditional Tibetan music provides a new research method and development patterns, therefore, to explore the Tibetan music not only to music disciplines perspective to explore the generation and development of Tibetan music, characteristic and style, It should be discussed and analyzed from a multi-disciplinary perspective. The special and diverse geographical environment of Tibet has provided necessary conditions for the generation and development of Tibetan folk music, and digital musicology has also provided new theories and methods for the academic research of Tibetan folk music, thus playing an important role in seeking the commonness of Tibetan folk music in different regions.

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