AUDIOVISUAL ARCHIVING AND NATIONAL MEMORY

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Background

For human beings, music memory, a significant part of cultural memory, plays an irreplaceable part in finding a national, ethnic, and regional identity. In cultural studies, the construction of nations based on ethnic and cultural imagination of a community enables this kind of memory to be an entry point in academic research. Therefore, positioning Chinese traditional music archives in the context of a national memory is a topic that cannot be ignored in the development of politics, economy, society, and culture in other modern countries. Reviewing the construction of Chinese traditional music archives in the past a hundred years, roughly speaking, the development of sound recording and dissemination technology mainly meets the needs of research, communication, commerce, and even personal collections, as well as its widespread existence in social and cultural life. First of all, if we regard the period between the early 20th century to the 1980s as one time period traditional music archives mainly refer to the old records in the publications and the broadcasting archives in the radio, film, and television industries, which are kept by relevant institutions or individuals. At the same time, in a group of specialized research institutions, along with professional field work, a large amount of information is also preserved. The most representative one is the Institute of Music of the Chinese National Academy of the Arts. As a national specialized music research institution, this institution played a special role between the 1950s and the 1980s in collecting and storing a large number of audiovisual materials. Tracing back further, in different regions, audio and video data should be kept according to different socio-political, economic, and cultural needs. Although I do not see specific research results, it is fair to say that they are mainly limited to old records and some archive material in some movie studios and radio stations. In summary the traditional music archives of this early period, did not constitute a reliable resource of music and audiovisual archives under the concept of the nation. As a multi-purpose stock of records and scattered all over the country, these resources do not derive from a clear and specific national archive awareness.

Different Parts of Collecting a National Memory

Another important phase started from the 1980s till now, when traditional music culture and literature works reached the national level contributing to a modern country, and were nationally acknowledge, registered, and compiled in representative and integer collections. This process started in 1979 and includes five categories, folk literature, music, dancing, opera, and folk art. There are ten series, *Collection of Chinese Folk Songs*, *Collection of Chinese National Folk Instrumental Music*, *Collection of Chinese Opera Music*, *Collection of Chinese Folk Music*, *Collection of Chinese Folk Dance*, *Collection of Chinese Songs*, *Collection of Chinese Proverbs*, *Collection of Chinese Folktales*, *Chinese Drama Chronicles*, and *Chinese Folk Art*, collectively referred to the National Ten Integral Chronicle Project. It is a systematic project closely related to Chinese traditional music. Eight of the ten series of books contain traditional music content, and four are entirely composed of music content. Therefore, the collection, which contains sounds from various regions and ethnic groups, is an important part for the national memory. It is the sound system of memory. The collection is sponsored by the Ministry of Culture, the State Ethnic Affairs Commission, and the Chinese Musicians' Association. Actually, a large amount of actual work is done by the China Federation

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of Literary and Art Circles, other relevant associations, and the Chinese National Academy of Arts. The systematic daily work is done by the leading group of the National Art Science Office (the predecessor of the Center for Ethnic and Folk Literature and Art Development, Ministry of Culture), which is organized and managed by the Ministry of Culture. As far as the general sense of sound memory is concerned, the national collection of traditional music practices in these categories is not conducted for the first time in the top-down way of Chinese history, but in terms of its comprehensiveness which includes notations, scores, and texts. Being based on sound recordings, this is indeed the first time. From the 1970s to the present, the protection of intangible cultural heritage, a project which was launched later, was mainly based on project notes. In terms of comprehensiveness and preciousness of historical data, it does not exceed the range of the named undertaking and it is under supported of nationally financed by national cultural administration authorities, responsible for the general policy control, organization management, and funding guarantee. They gather scholars in relevant organizations and related professional fields, and organize cultural systems at all levels from top to bottom and professionals to collaboratively conduct this systematic project.

Regarding the main content of the large-scale collection, first of all, it is a comprehensive survey directly dealing with the community. It requires that music should be synchronized with a kind of 'score' or 'prescript'. In addition, it imposes normative requirements on the collection site as well as it demands relevant information of the performers regarding their later publishing, i.e. making professional publishing notes on audio and video data sources, including singers, recording persons, translators, organizers and others. What needs special emphasis is that the recordings are based on orally transmitted music and knowledge. Therefore, it has to operate with the academic terminology of ethnology as a main starting point. This project is not a cross-cultural study, not a study of one ethnic group by another, but a record of the cultural self-reflection performed in various regions. The state and experts only set out a unified style, but it is still the expression of the voices of various ethnic groups and regions. Therefore, it is more of an ethnological academic paradigm. They are not taken away, which is usually adopted by the current musicology, but selected by local authorities from the bottom to the top. In addition, in terms of fieldwork regulation, there were not enough talents to conduct fieldwork at that time, and the composition of personnel involved in the integration work, including local scholars, local cultural workers, cultural elites of the community who are the backbone of development, and tens of thousands of people. Local scholars mainly include researchers doing ethnic music studies or following music studies of universities and colleges, as well as researchers from various provinces and places. Continuous participants among these researchers have retired now and they are music experts and top-level scholars in various places. In the early days of the collection, many of the participants were newly graduated students. A great deal of fieldwork started after simple training for local cultural centers and local county and district level cultural workers. Meanwhile, this process has also trained a large number of experts who have grown up from the collection and later became experts regarding intangible heritage.

The collection was started by the census. More than 100,000 people across the country participated in a comprehensive survey under the overall requirement of leaving no blank spots. Based on this, the process of collection, compilation, and publication lasted more than 30 years. At present, the Center of Ethnic and Folk Literature and Art Development, Ministry of Culture, China (hereinafter referred to as "the Center") is still compiling volumes from Macau and Hong Kong and recording various music practices. Macau's *Folk Song Volume* is already being finalized. Altogether, the collection basically completed the work of categorizing the folk music that existed in the everyday life of the population. Four music collections (folk songs, instrumental music, opera music, and instrumental folk music) have been compiled and published with about 110,000 tracks in form of volumes and made available nationwide. The *Collection of Chinese Folk Songs* led to 30 published volumes and comprises more than 40,000 folk songs and there are 52.5 million words in total, which mainly are scores. The total amount of folk song resources in the previous period of counting is about 10 times the number of recent publications, approximately 400,000 pieces. The previous *Collection of*

Chinese Opera Music was limited until 1985 and it mainly contains the arias of representative traditional operas. The *Collection of Chinese National Folk Instrumental Music* sums up to more than 20,000 pieces and among those that accompany songs there are about 50 million words in total. The *Collection of Chinese Folk Music* covers more than 300 songs which still exists or existed and could be performed in the 1980s, including more than 20 million tracks, and more than 43.5 million words. We can see that a cultural scripture of a country or the Chinese territory that forms the nation can be described in terms of music. Since there is sound and also a small amount of images considering the overall requirements of relating sound to the notes taken, the total number of collected items should not be less than 500,000 pieces and songs, which is a rather low estimate, because about 400,000 folk songs have already been collected earlier. However, there is a large amount of information in operas and folk arts that are deposited in various types of archives and media. In addition, these materials are currently scattered throughout the art institutes in various places. The number of such places is an abstract number, tentatively regarded as 30 and at least one art research institute in a remote region. Most of these art institutes were restored in the early 1980s for the work of collecting. In addition, a group of art archives and related research institutions (music institutes) managed by cultural administrations of various places have also preserved a number of documents, and in particular, a large number of relevant materials are kept by individual experts at all levels. In general, at the national level, due to limitations of conditions at that earlier time, the main objective was the publication of texts and music scores. The archiving of recorded sound and the small number of images was fragmented and their preservation, storage, and other maintenance were rather backward. Also, the descriptive metadata level was unreliable. As to the technical means of recording, it was relatively low in quality compared to current technical conditions. Although it was backward compared to the present, it was also doing its best at that time. It was very difficult to carry out such a large-scale audio and video collecting work across the country at that time. In the early days of the collection, small and professional recording equipment was very rare, and provincial or municipal agencies needed special funds to have relatively good recording equipment. It is fair to say that from the mid-1980s to the beginning of the 21st century, technological changes during these 30 years have been enormous. In the 1980s, the cassette recorder was regarded as a professional device, but now a mobile phone has almost included all the equipment of a provincial editorial department at that time, and despite this, a large amount of data recorded in the collection period, such as the audio data, still have a very high cultural value. We know that during the 20 years from 1979 to 1999, the disappearance of Chinese folk music was surprising. In the mid-1980s, typical and mature inheritors were between 50 and 70 years old. We can imagine the current age of these people and the possibility of having successors. Another point to note is that these data cover different time spans. In fact, audio data of traditional operas and folk arts mostly derive from the data gathering during the collection period. Earlier radio stations, including broadcasting archives held old records from the 1950s to the 1960s, some of them date back to the 1920s.

Technical Changes and Sound Processing

Advances in technology will inevitably lead to changes and innovations in the concepts, strategies, and methods of related work. It will also involve the work of rescue, recording, preservation, management, use, and dissemination. As a specialized institution of a country, the Center has been working on the integrated inventory resources for more standardized, specialized rescue and digital processing since the beginning of the 21st century. Professional gathering of all metadata and a centralized preservation management are important for a national cultural memory. At the technical level, the basic principle of mastering the music information stored in various technical formats is to carry out digital transformation without any processing and improvement, and to protect the original information as effectively as possible. This is a work requiring a certain amount of technical expertise. The Ministry of Culture has set up a key laboratory at the Center to specialize in related working issues. Over the past decade, it has helped a number of art research institutes around the country to complete relevant tasks.

The first type of carriers is the magnetic tape recordings of cultural information. This needs preservation strategies that help to keep old information transferable. Other old carriers include records, wire tapes, and wax cylinders. The most used carrier in the collection period was a small cassette tape, which was the most popular in the 1980s. Some were also open reel tapes. According to technical experiences, after 25 years, all data indicators of this type of magnetic recordings will be seriously depleted, and valuable data will face a second degree of loss. From the perspective of the entire country, this problem is very serious for the system of the entire music memory. When everyone is still vaguely aware of certain information, this information may have been scrapped, and the rescue work becomes very urgent. Therefore, from the beginning of this century, the Center has already begun to take related measures. There are many technical connotations in the tape's aging basics and manual interventions, including physical and chemical treatment. In recent years, the National Center for Acoustic Rehabilitation at the Center has conducted a lot of explorations and accumulated a number of working tools with related technology patents, especially the technology of laminating old tapes. Many of them use specially developed equipment to carry out this task.

The second is about old records. The Center is also very concerned about various old records of different ages and different specifications. Some of these specialized technologies are at the leading edge. Many institutions, academic teams and technical teams in China are also involved in this work, but at present, there is no joint method found yet. However, I believe that we should follow the basic principles of digital transformation after taking as much protective measures as possible in order to preserve the information on the original carriers without any processing and improving.

In addition, our re-recording and rescue work also includes acoustic measurements of traditional musical instruments. In this regard, the tasks of instrumental measurement carried out by the Center and the National Institute of Metrology, the Department of Music Technology of the China Conservatory of Music, Inner Mongolia, Xinjiang, Yanbian, and Southwestern colleges and universities, their overall technical means have reached the level of measurement similar to those in anechoic rooms. The technical means are completely out of reach in the past days. I believe that we are at the leading edge in Asia in this regard.

With reference to the digitization of the sound symbol system or the notation, first of all, our work favored and still favors notation, because the collected items are published in the form of notation. At present, the symbol system presented through the digital notation of music scores is image-based, but it is necessary to consider that digital notes (whether it is spectral or staff notation) are placed in a musical frame through the digital system. At present, the Center is approaching the maturity in the study of semantic records and expressions. It is expected that better interactivity will provide a transformative application ready for recording, research, creation, communication, and dissemination.

Technical Changes and Digital Integrity

The keyword here is metadata. The problem immediately following digitization is the pressure to face the research of academic and art ontology. The work that must be done in digitization is real research into types and morphology and introduction of standardization into the system. Under the circumstance that the collected materials are almost complete, a close follow-up research is necessary. Strictly speaking, this research cannot realize comprehensive digitization. If only the collection of carriers and individual songs is completed, it will be very difficult for more than 100,000 tracks to be searched and analyzed.

The Center's construction of database and metadata has been going on for more than a decade since around 2002. In the first batch, we set up seven projects. A group of musicologists made a macroscopic study of folk songs as well as instrumental music, religious music, and opera music, but they did not do folk art for the time being. It is very hard to gather people who are able to conduct typological studies at the national level to collect folk art by now. Therefore, it is unfortunately discontinued. The example of classifying the various

songs accompanying work in the Han folk songs is a good example to briefly illustrate the complexity of the task. For example, there are seven sub-levels entitled 'working song', which is already very complicating. When I attended the Art and Archives Society Conference of the International Archives Academic Conference, all foreign experts believed that China would not be able to make such classification. I suggested that it will be done perfectly and it can only be done well because it is a national memory and the Chinese civilization has to define such basic characteristics. We have diversity in unity and differences in harmony. If we cannot even do such things, how can we realize cultural self-confidence?

It should be emphasized that in the field of a systemic research regarding metadata, it is necessary to pay attention to the compatibility with relevant standardization in the country and abroad. The main concern of the Center is keeping to the standardization system of the world memory, Technical Committee standards of IASA, some guiding books, and other cultural achievements. The attempt to digitalization involves again collecting, recording, organizing, describing, and researching. The gathering of metadata must be refined and up to a necessary level even in smallest details, all of which are basic issues. And we are still discussing the extent to which these fundamental resources are to be maintained under digital conditions. This is about the exploration and current research of data standards. The correlation between themse creates enormous pressure and requires creative space for the digital manifestation of the entire ethnic folk culture. From the perspective of anthropology, it focuses on the connection between cultural issues, which is actually an interdisciplinary research system. We hope very much that a large number of scholars, researchers, and students engaged in the study of ontological art can participate in it. Though the academic space here is not personally beneficial in some ways, it is a very meaningful work.

Based on academic research and the application of new technologies, the Center has carried out rescue works on local audiovisual materials. In the past decade or longer, it has become the norm to rescue deteriorating material, and this practice is gradually being developed on a provincial basis. For example, four years ago, we digitized all the materials of folk songs and instrumental music in the Yunnan Province collections, which were about 20,000 items. Afterward, we negotiated with the Yunnan Provincial Research Institute for Ethnic Arts, organized all of them through a standardized ID system, and asked the local employees to do the labeling accordingly. Then, these colleagues asked all their former co-collectors who had participated in the collection period to return to work with them for some time. And a month ago, I was told by the dean about the number of their losses, which he said was about 5%. This loss means that although the sound is still intact, the relevant information is lost, including the name of the recording person, the recording site, the lyrics content and other unclear issues, causing about 5% losses to the sound files. This is fortunate, to be honest, because if these sounds have been placed for too long, and the people who used to do the fieldwork are gone, its value will become very low in fact. Therefore, we should attach great importance to the current situation of incomplete archiving and of the so called second-degree loss and second-degree rescue work.

Another key word in this context is the integrity of the records. It is based on the expansion of the academic vision. In this regard, the Center is organizing to implement two major projects commissioned by the National Planning Office for Philosophy and Social Science: the Chinese Festival Journal and One Hundred Chinese Epic Poems. From these two large-scale national projects one can expect a greater impact of both the audio-visibility and the integrity of the academic direction on the collecting processes.

The One Hundred Chinese Epic Poems project is different from the general collection. Apart from visualizing the complete accounts of the inheritors, it is also a contextualized record, documenting the cultural ecology of the community and the living conditions of the inheritors. It requires the standardization of data entries, including language and community expressions, as well as regulatory requirements for technical systems. In general, it requires scientific, academic, and cultural attention. Its video documents not only have a purpose of propagation, they also emphasize the significance of national archives. This double function is brought in accordance with the anthropological and musicological requirements of some

academic disciplines. This is a remarkable feature of the post-collection era. The other is the Chinese Festival Image and Video Journal in the Chinese Festival Journal project. It is a video recording series of festival culture, including a documentation of a large number of sounds and music (especially folk ceremonial music). In fact, the task after shooting still entails tremendous work, including the need for rapid rectification of massive resources, which also puts pressure on the archival capabilities. As far as I know, video recordings made by general scientific research institutes and photos taken by us all don't display a good state of comfortable accessibility and slow data entries, that is, the lack of an appropriate data system behind it. After many students' fieldwork reports and academic papers are written and after the clips had been approved and disseminated among the few reviewers, the rest of the information is actually fragmented and the loss is still very large. Valuable things are not accumulated. Hence, it is particularly expected that all academic institutions pay close attention to research applications of data entries, their management, and the accessibility of their archives after digitalization.

The work with images of the two projects, the Chinese Festival Image and Video Journal and the One Hundred Chinese Epic Poems, has 250 sub-topics in the country, which are sub-topics of 250 major national projects. Each topic comprises a batch of experts with a deep understanding of the local culture. Just for image records (text work not involved yet), there are probably 2000-3000 masters and doctors who are involved in the entire team, and nearly 100 doctoral supervisors from various disciplines. The time span of these two projects is 8 to 10 years. The Chinese Festival Journal has now been going on for seven years, and probably continues for another three years. The Epic Poem Project might have been going on for four years and it may take another four to five years. In addition to the official publication of all the audio and video products, they ultimately need to be differentiated in order to serve cultural demands in a standardized database. This differentiation is a cultural resource of great impact and practicability. This is the general goal of this task. The workload is very large, but more than 90% of the major participating teams are students and teachers with professional backgrounds.

In general, it is necessary to link national memory with popular life, art development, and cultural exchanges. Here, we also promote the continuation and development of the community within one nation, and promote the construction of a community that will actively participate in the creative transition of the world into a place of cultured peace.

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