Analysis on the Origin and Development Path of Chinese Minority Art Based on Big Data Analysis

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Abstract. China is a multi-ethnic country. People of all ethnic groups have created different fine arts in practice. These fine arts have become an important treasure in the treasure house of traditional Chinese culture since they came out. They not only represent the unique development history of each ethnic group, but also reflect the unique national temperament of different ethnic groups. This article will analyze the origin and development of Chinese minority art based on big data.

Keywords: Ethnic Minorities, Fine Arts, Ethnic Culture, Big Data Analysis

1. The history of Chinese Ethnic Art

In history, the rock paintings made on the stone walls and the sculptures made of bronze ware constitute the double walls of the cultural creation of ethnic minorities. The two aforementioned arts represent the outstanding achievements of ethnic minority culture in the bronze age[^1]. The mural works of the middle ancient times in the history of China present the real life of the people under the rule of the northern regime at that time. In the middle and later period of Chinese history, with the development of religion, the level of art and culture of ethnic minorities has also been improved. It can be found that when religion achieves rapid development, the culture and art related to it will also show prosperity. For example, Buddhist art in Tibet, Islamic Art in Xinjiang and so on, the development of these ethnic minorities' art fully verified the influence of religion on them. Therefore, it can be said that religious power has a crucial influence on the improvement of the art and culture level of ethnic minorities.

1.1. After the founding of the people's Republic of China in the last century, the domestic art circle gradually realized the achievements of the art culture of ethnic minorities

After the founding of the people's Republic of China in the last century, the domestic art circle gradually realized the achievements of the art culture of the ethnic minorities. And a considerable number of art artists have rushed to the domestic ethnic minorities inhabited areas and started the art
collection, which made many fine art works come out [2]. For example, Dong Xiwen's thousand year old land turned over and Wu Guanzhong's zhashrenbu temple are all outstanding works in this period. At the same time, there are also a large number of outstanding art artists in the minority areas, who take the life scenes and local customs of their own nation and region as the subject matter of art creation, and create many excellent fine art works, such as the trial of sin by Xinjiang Uygur painter Hazi aimaiti. It can be said that the art works born in this period, to a certain extent, represent the outstanding achievements of the art creation of ethnic minorities at that time.

1.2. It is the first time for art creators to go to ethnic minority areas for art collection.

After Dong Xiwen went to the kangzang area for art collection in the middle of the last century, he started the art creators to go to the minority areas for art collection. This makes many excellent art works that vividly show the local customs of ethnic minorities come into being. In this process, the creation theme represented by Tibetan theme has become the main theme, and a large number of artists have emerged. Since the late 1970s, many outstanding creators have created a series of popular works, as shown in table 1 below.

| Representative works                  | Artists        | Application scenarios       |
|--------------------------------------|----------------|----------------------------|
| Beautiful, rich and magical Xishuangbanna | Ding Shaoguang | Great Hall of the people   |
| Happy water splashing Festival       | Yuan Yunsheng  | Airport murals             |
| Creation, harvest and joy           | Liu Bingjiang  | Beijing Hotel murals       |

At the same time, a group of Yunnan painters, represented by Ding Shaoguang and Jiang Tiefeng, became the "Yunnan painting school" with extensive influence to reflect the Dai style. These paintings have made contributions to the enrichment of ethnic art.

2. The content of Chinese Ethnic Art

From the perspective of the development of ethnic art in China, the ethnic culture in each period has achieved the real record of the living situation and customs of ethnic minorities in the specific background of the times. In Luanping county, for example, a large number of works showing the life scenes of nomadic people are preserved in the tomb of Rong nationality [3]. At the same time, in these works, there are various kinds of ornaments, which are made of different materials, some of which are made of bronze, some of which are made of agate. It can be said that from the perspective of the choice of creative themes, these art works are closely related to the preferences of the nomadic people at that time. Influenced by their living habits, most nomadic people usually take animal patterns as a form of artistic expression, which shows their unique aesthetic attitude.

3. The prosperity of the development of national minority art creation is the result of the combination of political ecology and national aesthetic purport

China is a multi-ethnic country. This kind of political ecology makes the field of art creation pay enough attention to the theme of ethnic minorities. Especially after the founding of the people's
Republic of China, the Party Central Committee paid great attention to the issue of national unity, which led to the endless creation of art works with the theme of ethnic customs. The coexistence of nationalities and ethnic groups has puzzled many countries in the world, but in China, where 56 nationalities live together, it has basically solved this kind of trouble[4]. This kind of atmosphere of one family of nationalities has become the only theme of Chinese national subject art creation, and also makes new China's art creation an important way to promote national unity and reflect artists' social responsibility.

In addition, in the vast minority areas of our country, their scenery, folk customs and social culture have distinct characteristics different from other areas, which makes art creators realize that this subject matter is a new material for art creation. Moreover, in the vast minority areas of China, there are still a large number of original ecological natural environments that have not been affected by industrial civilization. In this way, when the art creators put these original life scenes on the canvas, they will inevitably change the long-standing homogenization of creative themes in the field of art creation, so as to give people a fresh impression, which will ensure that the created art works have the artistic appeal and shock that other works of theme do not have. This is the internal reason for the creation and prosperity of art works with the theme of ethnic minorities.

4. The development path of Chinese minority fine arts based on big data analysis

4.1. Strengthen the training ways of Minority Fine Arts

The core network plan of Chinese minority art major is the application of graph and network method in minority art. The combination of minority fine arts and other professional courses and practice forms a practical teaching mode, which is conducive to improving the ability to solve practical problems. Put forward practical minority art design cases, use the theory and method of operational research to solve, cultivate the ability of system design and construction[5]. In addition, the linear programming method is applied to the art design of ethnic minorities in China, and the ability of computer design and application, such as the ability to model and solve problems by computer, is an important skill to meet the needs of the future development of ethnic art.

4.2. Improve the applicability of tools

For the reform of operations research, artists should also make clear the important role of tools, and pay attention to the compilation and improvement of tools. In view of the current trend of operational research reform, it is necessary to strengthen the applicability of operational research materials and strengthen the compilation of materials, especially focusing on the organic integration of theoretical knowledge, methods and engineering practice. Only with the adaptable content of the minority art tools, can it better promote the reform of operational research and meet the objectives of applied talents.

In order to make the tedious and tedious process of solving minority art models clearer, easier to understand and better to remember, the flow chart showing the create process and steps can be drawn specially in the teaching process[6]. At the end of each independent mathematical model solving unit, a flow chart is used to summarize the whole solving process, which is convenient for artists to clarify their ideas and consolidate their knowledge points, and has a good effect, and use charts to summarize
and consolidate the effectiveness of learning.

4.3. Establish network platform

It could use the online platform to establish an online minority fine arts design, upload the minority fine arts design syllabus, courseware and other content, especially the content of the minority fine arts selection, artists can self-learn through the network. Besides, it could build a rich operational research question bank, by using exercises to strengthen the review and consolidations of the knowledge learned, and establish an online Q&A system to enhance communication and interaction among different artists.

4.4. Enhance practical operation

It should develop teaching experiment courses, select more mature teaching software such as figure 1 below, and encourage artists to use software programming to solve problems, use computers instead of manual calculation, and improve their hands-on ability. Encourage artists to participate in the minority art modelling competition, to combine theoretical learning with problem solving, and to improve the ability to use knowledge.

![Figure 1. Mature teaching software for minority fine arts design.](image)

5. Conclusion

Through computer big data, we can learn about the artistic inspirations of artistic creation in ethnic minority areas, explore unique artistic creation materials, make artistic works more vivid, and rely on the sublimation of artistic creation of artistic creators to make the works glow with unique and lasting charm. In this way, the artists who grew up in New China, represented by Dong Xiwen, ye Xianyu, Huang Zhou, Huang Yongyu, etc., completed their own artistic sublimation. The creation of national theme art has provided endless nutrition for the development of new China's art. As a unique phenomenon in China, national theme art creation, from the starting point to the process and results, embodies the characteristics of Chinese art, which only new China can have.

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