

Reconstruction and Practice of Integrating Northern Xinjiang Intangible Cultural Heritage into Modern Design Curriculum System Under Digital Empowerment

Wenqiang Qi*

Inner Mongolia Honder College of Arts and Sciences, Baotou 014526, Inner Mongolia, China

**Author to whom correspondence should be addressed.*

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Abstract: Under the background of the national cultural digitization strategy, integrating regional intangible cultural heritage (ICH) into modern design education has become a critical path to promote the living inheritance of ethnic culture and cultivate high-quality design talents. Taking handicraft ICH resources in northern Xinjiang as the research object, this thesis discusses the necessity of integrating northern Xinjiang ICH into modern design curriculum supported by digital technology, analyzes the current situation and core predicaments of existing teaching practice, and puts forward specific paths for curriculum system reconstruction combined with the logic of digital empowerment. The study finds that systematic curriculum reconstruction can break the temporal and spatial limitations of traditional ICH inheritance, and realize the mutual promotion of cultural inheritance, talent training, and industrial development. This research can provide practical reference for teaching reform of design majors in ethnic regions and innovative inheritance of regional ICH resources.

Keywords: Digital empowerment; Northern Xinjiang intangible cultural heritage; Modern design major; Curriculum system reconstruction; Cultural and creative industry

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1. Introduction

The deep integration of digital technology and the cultural industry has become a core trend of China's cultural development in the new era, and digital empowerment has provided new technical support for the protection, inheritance, and innovative utilization of intangible cultural heritage. As an important carrier of cultural inheritance and talent cultivation, higher design education shoulders the responsibility of promoting the creative transformation of traditional culture and cultivating high-quality innovative design talents.

Integrating regional characteristic ICH resources into the design curriculum system is not only an inherent requirement for design education to adapt to the development of the times, but also an important path for colleges and universities to serve local cultural construction and industrial upgrading. Northern Xinjiang, with Ili Kazakh Autonomous Prefecture, Tacheng Prefecture, Changji Hui Autonomous Prefecture and Altay Prefecture as the core regions, gathers rich handicraft ICH resources of multiple ethnic groups such as Kazakh, Xibe and Mongolian ^[1]. These resources carry the production wisdom and aesthetic genes of local ethnic groups, and have great design transformation value and industrial development potential. However, restricted by geographical location, traditional inheritance mode and teaching concept, the integration of northern Xinjiang ICH into design education is still in the initial exploratory stage, with problems such as fragmented curriculum content, insufficient digital application and disconnection from industrial demand ^[2]. Existing studies have discussed the digital reform of design courses and the integration of ethnic ICH into design education from different perspectives, but there is a lack of targeted systematic research on the multi-ethnic ICH resources in northern Xinjiang, and the discussion on the overall reconstruction of the curriculum system under the background of digital empowerment is not deep enough. Based on this, this thesis adopts literature research, field investigation and case analysis methods to systematically discuss the necessity, practical dilemmas and specific reconstruction paths of integrating northern Xinjiang ICH into modern design curriculum, so as to provide reference for the teaching reform of design majors in ethnic regions and the innovative inheritance of regional ICH.

2. Necessity analysis of integrating northern Xinjiang ICH into modern design curriculum

2.1. Responding to national cultural development and education reform requirements

The national cultural digitization strategy and the ICH protection and inheritance project clearly put forward the requirement of promoting the creative transformation and innovative development of fine traditional Chinese culture. Colleges and universities are important positions for cultural inheritance and innovation, and integrating regional ICH resources into the professional curriculum system is a key measure for colleges and universities to implement national strategies and fulfill their cultural mission. Meanwhile, the current reform of higher education emphasizes the integration of ideological and political education into professional courses ^[3]. Northern Xinjiang ICH contains rich ethnic cultural connotations and spiritual values. Integrating it into design teaching can not only improve students' professional ability, but also cultivate their cultural identity and national pride, which is an effective way to implement curriculum-based ideological and political education and achieve the goal of fostering virtue through education. Therefore, promoting the integration of northern Xinjiang ICH into design curriculum is an inevitable requirement for responding to the national cultural strategy and education reform.

2.2. Promoting the living inheritance of northern Xinjiang ethnic ICH resources

For a long time, the inheritance of handicraft ICH in northern Xinjiang has mainly relied on traditional modes such as family inheritance and master-apprentice inheritance. Restricted by geographical space, economic benefits and the age structure of inheritors, many traditional skills are facing the risk of inheritance interruption and gradual marginalization. A single protection mode based on recording and preservation is difficult to realize the sustainable development of ICH ^[4]. Integrating ICH into modern design education can

expand the inheritance group of ICH and inject youthful vitality into ICH inheritance. Through systematic curriculum teaching, a large number of young students can understand the cultural connotation and technical characteristics of ICH, and master the methods of innovative design based on ICH elements. Different from the passive protection mode, this integration mode can realize the organic combination of ICH protection and innovative utilization, and promote the living inheritance of ICH in the process of serving modern life and industrial development.

2.3. Enhancing the characteristic competitiveness of design majors in ethnic regions

At present, the talent training of design majors in many colleges and universities generally faces the problem of homogenization. The curriculum setting and training mode are highly similar, and it is difficult to form distinctive school-running characteristics and core competitiveness. For colleges and universities in ethnic regions, regional cultural resources are an important advantage to form professional characteristics. Northern Xinjiang has unique and rich multi-ethnic ICH resources. Taking these resources as the core to build a characteristic curriculum system can help design majors get rid of the homogenization dilemma and form differentiated school-running advantages ^[5]. On the one hand, it can improve the cultural connotation of talent training and enhance students' localized design innovation ability; on the other hand, it can form a professional brand with regional characteristics and improve the influence and competitiveness of the major. Therefore, integrating northern Xinjiang ICH into design curriculum is an important way to promote the characteristic development of design majors in ethnic regions.

2.4. Supporting the talent demand of local cultural and creative industries

In recent years, the cultural tourism industry in northern Xinjiang has developed rapidly, and the market demand for cultural and creative products with regional ethnic characteristics is growing day by day. However, the shortage of professional talents has become an important factor restricting the upgrading of local cultural and creative industries. Many cultural and tourism enterprises lack design talents who understand local ethnic culture and can develop ICH cultural and creative products, which leads to the homogeneity of cultural and creative products and insufficient attraction to tourists. Traditional design talent training pays more attention to general design skills, and lacks targeted training for local cultural resources. By integrating northern Xinjiang ICH into the curriculum system, colleges and universities can cultivate design talents who are familiar with local cultural characteristics and have ICH creative design ability, so as to accurately connect with the talent demand of local cultural and creative industries and provide solid talent support for the high-quality development of the local cultural tourism economy ^[6].

3. Current situation, predicaments and countermeasures of curriculum integration

3.1. Current practice of ICH integration in design curricula

At present, some colleges and universities in northern Xinjiang have carried out preliminary exploration on integrating local ICH resources into design teaching. On the one hand, some colleges add relevant cases of northern Xinjiang ICH in professional courses such as visual communication design and product design, and invite ICH inheritors to campus to give special lectures and short-term craft experience activities, so as to improve students' understanding of local ICH. On the other hand, some colleges have established preliminary cooperative relations with local ICH inheritance studios and cultural and creative enterprises, and set up off-

campus practice bases to provide students with opportunities for field investigation and practical exercise. On the whole, however, these practices are still in the initial stage of sporadic exploration and have not been systematically promoted in the entire professional training system. The integration of ICH is mostly limited to individual courses or temporary activities, and a complete and progressive curriculum system has not been formed, making it difficult to achieve a stable and lasting talent training effect ^[7].

3.2. Core predicaments restricting deep integration

Four prominent problems are restricting the deep integration of northern Xinjiang ICH into the design curriculum. First, the curriculum content is fragmented and lacks systematic planning. At present, ICH-related content is scattered in individual professional courses, and there is a lack of overall design at the training program level. There is no clear progressive logical relationship between courses, which leads to students' superficial and fragmented understanding of ICH culture, and makes it difficult to carry out in-depth design transformation and innovation based on ICH elements. Second, the application of digital technology is insufficient, and the teaching form is relatively single. Most of the current ICH integration teaching adopts the traditional mode of on-site demonstration by inheritors plus manual imitation by students, which is greatly limited by time and space. Digital technologies such as digital collection, 3D modeling and virtual simulation have not been fully applied in teaching, and digital technology has not really played its role in empowering ICH inheritance and design innovation ^[8]. Third, the practical teaching link is weak and disconnected from industrial demand. Most teaching practice takes classroom assignments as the main form and lacks the support of real industrial projects. Students' design works often stay at the conceptual level and are difficult to be transformed into market-oriented products. The depth of school-enterprise cooperation is insufficient, and most cooperative projects are short-term and temporary, failing to form a long-term and stable industry-education integration mechanism. Fourth, the construction of the teaching team lags and the evaluation system is imperfect. Most professional design teachers have solid professional skills, but lack a systematic understanding of northern Xinjiang ICH culture and traditional skills; ICH inheritors have rich practical experience, but lack standardized teaching organization ability and digital application ability. At the same time, the traditional result-oriented evaluation method focuses on final works and ignores the evaluation of students' cultural cognition, process performance and innovation ability, which cannot fully reflect the training effect of ICH integrated teaching.

3.3. Basic principles of curriculum system reconstruction

In order to solve the above problems, the reconstruction of the curriculum system should follow four basic principles under the background of digital empowerment. First, adhere to the combination of cultural inheritance and innovative development. The curriculum should respect the cultural connotation and technological essence of ICH, guide students to understand the cultural value of ICH accurately, and at the same time take modern design as the carrier to promote the creative transformation of ICH, so that traditional culture can adapt to the aesthetic needs and lifestyle of modern society. Second, adhere to the deep integration of digital technology and traditional skills. Give full play to the supporting role of digital technology, apply digital technology to all links of curriculum teaching such as resource construction, classroom teaching and practical training, break the temporal and spatial limitations of traditional ICH inheritance, and realize the complementary advantages of digital tools and traditional craft teaching. Third, adhere to the unity of

systematicness and hierarchy. Based on the law of talent training, build a progressive curriculum system from basic cognition to innovative practice, clarify the teaching objectives and content of each stage, and form a close logical connection between courses, so as to avoid the fragmentation of curriculum content. Fourth, adhere to the integration of industry and education and serve local development. Curriculum construction should be closely connected with the development needs of local cultural and creative industries, take real projects as the carrier of practical teaching, and realize the benign interaction between talent training and industrial development.

3.4. Specific implementation paths of curriculum reform

Based on the above principles, this thesis puts forward four specific implementation paths for curriculum system reconstruction. First, build a three-tier modular curriculum system with clear hierarchy. The system is divided into a basic cognition module, a core innovation module, and a practical extension module. The basic cognition module is set for lower-grade students, offering courses such as an introduction to northern Xinjiang ICH and basic digital design, to help students establish cultural cognition and master basic digital tools. The core innovation module is for middle-grade students. According to different directions of visual communication design, product design, environmental design and digital media art, corresponding course groups are set up to integrate ICH elements into professional core courses and cultivate students' ability of ICH element extraction and innovative design. The practical extension module is for senior students, including workshop training, project-based practice and competition guidance, to improve students' practical design ability. Second, construct digital teaching resources and promote the hybrid teaching mode. Carry out digital collection of typical northern Xinjiang ICH resources, and build a classified digital resource database including pattern library, process video library and 3D model library, to provide sufficient material support for teaching and design. Develop online micro-courses, virtual simulation experiments and other digital teaching resources, and adopt an online and offline hybrid teaching mode to support students' autonomous learning before class and in-depth practice in class, so as to expand the temporal and spatial boundaries of teaching. Third, deepen the integration of industry and education and carry out project-based practical teaching. Cooperate with local cultural and creative enterprises and ICH inheritance studios to build off-campus practice bases and on-campus ICH design workshops. Introduce real industrial projects into teaching, implement the dual tutor system of professional teachers and enterprise inheritors, and carry out workshop teaching. Guide students to complete design tasks in combination with real market demand, and promote the transformation of excellent design works into actual products. Fourth, improve the teaching team and build a multi-dimensional evaluation mechanism. On the one hand, strengthen the training of professional teachers, organize teachers to participate in ICH cultural investigation and digital technology training, and improve their cultural literacy and digital teaching ability; at the same time, carry out teaching ability training for ICH inheritors to help them master basic teaching methods and digital auxiliary tools. On the other hand, construct a multi-subject evaluation system with the participation of school teachers, inheritors and enterprise mentors, combine process evaluation with result evaluation, and comprehensively evaluate students' cultural cognition, innovative thinking and practical ability.

4. Conclusion

This thesis takes the integration of northern Xinjiang intangible cultural heritage into the modern design

curriculum system as the research theme, and systematically discusses its necessity, practical dilemmas, and reconstruction paths under the background of digital empowerment. The study concludes that integrating regional ICH resources into design education is an inevitable requirement to respond to the national cultural digitization strategy and education reform, an effective way to promote the living inheritance of ethnic ICH in northern Xinjiang, a key measure to enhance the characteristic competitiveness of design majors in ethnic regions, and an important support to meet the talent demand of local cultural and creative industries. At present, the integration practice in northern Xinjiang is still in the initial exploration stage, facing prominent problems such as fragmented curriculum content, insufficient application of digital technology, weak practical teaching links, lagging teaching team construction, and an imperfect evaluation mechanism, which restrict the quality of talent training and the effect of cultural inheritance. To solve these problems, the curriculum system reconstruction should follow the principles of combining inheritance and innovation, deep integration of digital technology, systematic hierarchy and industry-education integration, and build a three-tier modular curriculum structure, improve digital teaching resources, deepen project-based practical teaching and optimize the multi-dimensional evaluation mechanism, so as to realize the deep integration of northern Xinjiang ICH and modern design education. This study provides a reference framework for the teaching reform of design majors in ethnic regions, but it still lacks large-scale empirical testing based on long-term teaching practice. Future research can further verify the implementation effect through empirical investigation, and explore the application of more emerging digital technologies in ICH design teaching to continuously improve the quality of talent training and the efficiency of cultural inheritance.

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