

The "Craftsmanship Spirit" in the New Era: A Study on the Inheritance and Innovation of Zhuo Qin Craftsmanship in Vocational Colleges

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Abstract: As an important concept of the new era, the "craftsmanship spirit" emphasizes excellence, attention to detail, and continuous innovation, which are particularly crucial in modern vocational education. Using the craftsmanship of Zhuo Qin -making as an example, this article explores the inheritance and innovation of this traditional craft in vocational colleges. As the core craftsmanship of Zhuo Qin -making, the art of Zhuo Qin crafting not only carries rich historical and cultural values but also embodies the deep-rooted craftsmanship spirit. However, with the passage of time, Zhuo Qin -making faces difficulties in inheritance. This paper discusses the historical background, technical requirements, inheritance difficulties, and the role of vocational colleges in preserving and innovating this craft, proposing solutions that combine modern technology and educational innovation. Through project-based learning, interdisciplinary integration, and the construction of "dual-qualification" teacher teams, vocational colleges can foster both the inheritance of traditional crafts and the integration of innovation and cultural education, providing new momentum for the sustainable development of Zhuo Qin craftsmanship. The study offers theoretical support and practical guidance for the innovative application of traditional handicrafts in vocational education.

Keywords: Craftsmanship spirit; Zhuo Qin craftsmanship; vocational colleges; inheritance and innovation; project-based learning; interdisciplinary integration; dual-qualification teachers

Introduction

As modernization advances, many traditional crafts face dual challenges of inheritance and innovation. The Zhuo Qin -making craft, as one of the core processes in the creation of the Zhuo Qin (an ancient Chinese zither), carries rich historical and cultural values and is an essential part of Chinese traditional music culture. However, the shrinking market for the Zhuo Qin and the weak awareness of traditional crafts among younger generations have led to increasingly severe difficulties in the inheritance of this craft in modern society. Vocational colleges, as important bases for both technical and cultural education, have unique advantages and responsibilities. By cultivating students' "craftsmanship spirit" and innovation capabilities, these institutions can play a key role in the dual tasks of inheritance and innovation. Therefore, exploring the teaching and innovation paths of Zhuo Qin craftsmanship in vocational colleges holds significant practical and cultural value.

1. Inheritance Background and Development of Zhuo Qin Craftsmanship

1.1 Historical and Cultural Value of Zhuo Qin Craftsmanship

Zhuo Qin craftsmanship, as the process of creating the Zhuo Qin, has a long history and profound cultural significance. The Zhuo Qin is known as the "ancestor of Chinese music" for its elegant and profound sound. It has long been admired by Chinese scholars and gentlemen and has deeply influenced the aesthetics and theory of traditional Chinese music. Zhuo Qin craftsmanship is the key process that transforms the instrument's musical quality and artistic value into a physical form, carrying the essence of ancient Chinese culture. Since the pre-Qin period, the Zhuo Qin has not only been a musical instrument but also an essential tool for self-cultivation and moral education, closely associated with Confucianism, Taoism, and Zen Buddhism. It has symbolized the cultural cultivation of the literati. Therefore, the inheritance of Zhuo Qin craftsmanship is not merely the continuation of the craft but also the transmission and promotion of Chinese ancient culture and philosophical thought.^[1]

The cultural value of Zhuo Qin craftsmanship is reflected in its fine craftsmanship and the pursuit of perfect musical quality. Every Zhuo Qin maker must choose the most suitable wood based on the requirements of the instrument's sound, carefully carve the body, and use unique techniques to adjust characteristics such as "dispersal," "diffusion," and "pressure" to achieve a harmonious and beautiful sound. This meticulous craftsmanship requires the artisan to possess a deep theoretical understanding and rich practical experience to ensure the best sound quality of each Zhuo Qin. Thus, Zhuo Qin craftsmanship is not only the inheritance of manual techniques but also the transmission of the "craftsmanship spirit" in the creation of art—pursuing excellence and perfection, embodying the profound significance of the "craftsmanship spirit" in artistic creation. Through this craftsmanship, the Zhuo Qin not only carries the beauty of musical tones but also integrates cultural philosophy and emotional expression into the production process, becoming an art form with spiritual significance.

As the core craftsmanship in Zhuo Qin making, Zhuo Qin craftsmanship has formed a unique set of technical standards and practical guidelines through centuries of oral transmission. However, with the changing times and evolving societal needs, Zhuo Qin craftsmanship now faces challenges in inheritance and innovation. The declining daily use of the Zhuo Qin and the shrinking market have led to a reduced demand for this craft, with many exquisite techniques at risk of disappearing. In modern society, the Zhuo Qin is no longer widely used, and many artisans' skills are gradually vanishing, creating a severe transmission gap. Nevertheless, the deep historical and cultural accumulation of Zhuo Qin craftsmanship still holds significant value for study and preservation. It offers a unique perspective for the revival and innovation of traditional culture and provides rich content for the "craftsmanship spirit" in the new era. The protection and innovation of Zhuo Qin craftsmanship are not only about preserving traditional culture but also about maintaining and recreating modern craft aesthetics and cultural confidence.

1.2 Crafting Requirements and Technical Challenges of Zhuo Qin Craftsmanship

Zhuo Qin craftsmanship is a sophisticated process that combines artistry and technical skill, involving the selection of wood, carving of the Zhuo Qin body, and the adjustment of musical qualities, among other stages. Each step demands a high level of technical expertise. The most critical feature of Zhuo Qin craftsmanship is the selection and treatment of the wood. Zhuo Qin makers typically choose hard, aesthetically pleasing woods such as sandalwood and cinnamon. The properties of each type of wood vary, and the maker needs years of experience to accurately assess the density, elasticity, and grain of the wood to select the most appropriate material.

In the crafting process, one of the major challenges of Zhuo Qin craftsmanship lies in adjusting the three major musical characteristics: "dispersal," "diffusion," and "pressure." The sound quality of the Zhuo Qin is not merely about pitch but also involves the depth of tone and resonance. "Dispersal" refers to the extendibility and clarity of the sound; "diffusion" refers to the ethereal and harmonious quality of the sound; and "pressure" refers to the stability and accuracy of the sound. Achieving a perfect balance among these sound characteristics is a technical challenge every Zhuo Qin maker must overcome. The maker must meticulously carve every detail of the Zhuo Qin body, skillfully adjust the thickness of the body, the shape, and the distribution of the string holes to ensure these sound characteristics are fully expressed. [2]

Furthermore, the precision of Zhuo Qin craftsmanship also extends to the regulation of string tension and the curvature of the Zhuo Qin's surface. The tension of the strings directly affects the fullness and richness of the sound, while the curvature of the surface influences the resonance and tonal quality. The maker must repeatedly adjust and test the instrument to achieve the best sound. These technical requirements make Zhuo Qin craftsmanship not only a manual art but also a highly challenging technical project.

1.3 Inheritance Challenges of Zhuo Qin Craftsmanship in the New Era

In the context of the new era, Zhuo Qin craftsmanship faces unprecedented challenges in inheritance. First, due to the rapid development of modern society, the demand for traditional handicrafts and ethnic musical instruments has gradually decreased, leading to a shrinking market for the Zhuo Qin. As a result, the motivation for inheriting Zhuo Qin-making skills is weakening. Today, only a few Zhuo Qin makers and enthusiasts still admire the traditional craftsmanship, while the younger generation has relatively little awareness or interest in this skill. With the acceleration of modernization, handmade Zhuo Qin face increasing competition from machine-made modern instruments, leading to a greater risk of loss in the transmission of Zhuo Qin craftsmanship.

Secondly, the inheritance of Zhuo Qin craftsmanship traditionally depends on the one-on-one master-apprentice system, which, while ensuring the detailed transfer of skills, also suffers from slow transmission and limited reach. Currently, there is a lack of general recognition and emphasis on traditional craftsmanship, especially in the educational system, where specialized courses on the Zhuo Qin and Zhuo Qin -making craftsmanship are still inadequate, and relevant research and teaching resources are scarce. Although some vocational colleges have tried to include Zhuo Qin craftsmanship in their curricula, limitations in teaching staff, practical spaces, and technical equipment hinder the quality of instruction and learning outcomes.

The inheritance difficulties also manifest in terms of craftsmanship innovation. While retaining traditional techniques, how to integrate modern technology with traditional craftsmanship to rejuvenate Zhuo Qin -making in the new era has become a challenge for contemporary artisans and vocational colleges. Although modern technology can improve production efficiency, it may diminish the fine details and personalized expression of the craft. Therefore, how to protect and promote traditional craftsmanship in the process of innovation is a key issue for contemporary Zhuo Qin makers and vocational colleges.^[3]

The inheritance of Zhuo Qin craftsmanship requires not only the transmission of skills but also cultural recognition and innovation-driven motivation. Vocational colleges play a key role in this process, as they need to promote the "craftsmanship spirit" while utilizing modern educational methods and technological innovation to explore new paths for inheritance.

2. The Role of Vocational Colleges in the Inheritance of Zhuo Qin Craftsmanship and Innovative Paths

2.1 Theoretical Foundations of "Craftsmanship Spirit" Education in Vocational Colleges

2.1.1 The Connotation and Significance of Craftsmanship Spirit in Vocational Education

As one of the core concepts of vocational education reform in the new era, the "craftsmanship spirit" emphasizes excellence, dedication, and attention to detail as essential professional qualities. For the inheritance of Zhuo Qin craftsmanship, the craftsmanship spirit is not only a requirement for traditional handicraft techniques but also a comprehensive enhancement of cultural transmission, innovative thinking, and work attitudes. In vocational colleges, the cultivation of the craftsmanship spirit should be reflected in students' respect for their craft, their pursuit of detail, and their self-driven commitment to constant improvement. This forms a solid theoretical foundation for the inheritance of Zhuo Qin craftsmanship.

2.1.2 Educational Pathways for Craftsmanship Spirit in Vocational Colleges

In vocational colleges, the educational pathway for the craftsmanship spirit is first embodied in curriculum design and the setting of teaching objectives. The curriculum should integrate the specific characteristics of Zhuo Qin craftsmanship, offering comprehensive teaching content from basic skills to advanced techniques, while also focusing on developing students' practical abilities. Additionally, through school-enterprise cooperation, internships, and practical training, students can be exposed to real-world Zhuo Qin production and restoration environments, allowing them to experience the craftsmanship spirit in action. Furthermore, schools should encourage students to participate in innovative projects that combine traditional craftsmanship with modern technology, promoting the development of students' comprehensive abilities and fostering an educational approach that goes beyond the transmission of single techniques to cultivate practical skills and innovative spirit in the realm of craft innovation.

2.1.3 Specific Manifestations of Craftsmanship Spirit in Zhuo Qin Craftsmanship Education

The teaching of Zhuo Qin craftsmanship requires teachers to integrate the craftsmanship spirit in both theory and practice. Teachers must not only impart traditional Zhuo Qin -making skills but also guide students in understanding and appreciating the cultural connotations behind the craft. The role of teachers as mentors is crucial in shaping students' professional attitudes, especially in cultivating attention to detail, patience, and focus. Through meticulous teaching processes and strict standards for every stage of the production, teachers can help students develop reverence for their craft and a sense of responsibility for preserving traditional techniques, thus nurturing a true "craftsmanship spirit" in students.

2.2 Innovation and Practice in Zhuo Qin Craftsmanship Teaching Models

2.2.1 Innovation in the Project-Based Learning (PBL) Model for Zhuo Qin Craftsmanship

Project-Based Learning (PBL), a teaching model that emphasizes active student participation, has become an innovative practice in modern vocational education. In the context of Zhuo Qin craftsmanship teaching, PBL integrates theory and practice, with students learning techniques such as wood selection, body design, string spacing adjustment, and sound quality tuning through specific Zhuo Qin -making projects. This model not only helps students master Zhuo Qin -making skills but also cultivates problem-solving abilities and innovative thinking. By being task-driven and problem-oriented, PBL significantly enhances students' understanding and overall competence in handling complex craftsmanship.

2.2.2 Innovation in Cross-Disciplinary Teaching Models

Zhuo Qin craftsmanship involves more than just woodworking and carving; it also encompasses fields such as acoustics and materials science. Therefore, vocational colleges can enhance students' comprehensive abilities by integrating cross-disciplinary approaches. For instance, in the context of acoustics, lessons can explore how the structure of the Zhuo Qin body can be optimized to improve sound quality, or how modern materials science can be applied to select appropriate woods for crafting the instrument. The integration of interdisciplinary knowledge not only broadens students' knowledge base but also stimulates their innovative thinking, helping them modernize traditional techniques. This teaching model not only strengthens students' practical abilities but also provides new perspectives for the innovation and development of traditional craftsmanship. ^[4]

2.3 The Key Role of the "Dual-Qualification" Teacher Team in the Inheritance of Zhuo Qin Craftsmanship

The "dual-qualification" teacher model refers to educators who possess both solid theoretical knowledge and rich practical experience. In the inheritance of Zhuo Qin craftsmanship, teachers with practical hands-on experience can help students better understand and master the complex processes involved in the craft. Compared to traditional teaching models, the "dual-qualification" teacher team is able to explain theoretical concepts in the classroom while simultaneously offering hands-on guidance in practical settings, thereby enhancing the practical relevance and focus of the teaching. For a traditional craft that heavily relies on practical skills, "dual-qualification" teachers effectively combine academic theory with hands-on practice, driving the precise transmission and innovation of techniques. This model not only provides students with deeper and broader knowledge but also fosters the inheritance and development of the craft.

To promote the development of the "dual-qualification" teacher team, vocational colleges should focus on the training and development of teachers. On the one hand, school-enterprise cooperation and social practice opportunities can provide teachers with more hands-on experience, helping them stay current with craft developments and market demands, thus maintaining the relevance and practicality of their technical skills. On the other hand, colleges should offer ongoing professional development platforms for teachers, such as regular technical training and academic exchanges, to improve their teaching and innovation capabilities. By encouraging teachers to engage in research projects and incorporating modern innovations into Zhuo Qin craftsmanship teaching, colleges can further enhance the quality of instruction and drive innovation and inheritance in Zhuo Qin craftsmanship. Optimizing the development of the "dual-qualification" teacher team will enable vocational colleges to cultivate high-level artisans with both technical expertise and innovation capabilities, ensuring the sustainable development of Zhuo Qin craftsmanship in the context of the new era.

3. Future Development and Innovation Opportunities of Zhuo Qin Craftsmanship in Vocational Colleges

3.1 Integration and Innovation of Zhuo Qin Craftsmanship with Modern Technology

As a traditional craft, the process of Zhuo Qin -making involves several stages, including wood selection, carving, and sound quality adjustment. The integration of modern technology with Zhuo Qin craftsmanship not only enhances the quality of the craft but also promotes its innovative development. In vocational colleges, using technologies such as Computer-Aided Design (CAD) and acoustic analysis can optimize the structure and sound quality of the Zhuo Qin , improving both production efficiency and

precision. Through computer simulations and data analysis, students can predict and adjust acoustic effects in a digital environment, reducing the costs associated with trial and error^[5].

Advances in modern materials science also present new opportunities for innovation in Zhuo Qin craftsmanship. In addition to traditional woods like rosewood and nanmu, new wood treatment technologies and high-performance materials (such as environmentally friendly resins and composite materials) can improve sound quality and durability while reducing resource consumption. These technologies not only enrich the craftsmanship process but also open new directions for the inheritance and innovation of traditional techniques.

By combining modern technology with traditional craftsmanship, vocational colleges can guide students to innovate on the foundation of inherited knowledge, promoting the sustainable development of Zhuo Qin craftsmanship.

3.2 Industrialization of Zhuo Qin Craftsmanship and Its Integration with Vocational Education

With the ongoing development of the cultural industry, the industrialization of Zhuo Qin craftsmanship has shown new trends. Against this backdrop, vocational colleges face the urgent task of aligning traditional craftsmanship with modern market demands. First, the industrialization of Zhuo Qin craftsmanship can drive the commercialization of Zhuo Qin culture, creating greater market demand and providing more employment opportunities for students. Through the educational resources of vocational colleges, students can not only master the professional skills of Zhuo Qin -making but also understand various stages of the industry chain, such as production, sales, and marketing. Colleges can collaborate with businesses in the Zhuo Qin culture industry to establish industry-academic-research platforms, advancing research on modern production techniques for Zhuo Qin craftsmanship and cultivating professionals who are skilled in both craft and industry.

Secondly, in promoting the industrialization of Zhuo Qin craftsmanship, vocational colleges should emphasize the cultivation of students' innovative thinking and cross-disciplinary integration abilities, encouraging them to engage in technological innovations and process optimizations in practical applications. This will help retain the unique cultural significance of traditional craftsmanship while creating more competitive products in the market^[6].

3.3 Cultural Inheritance of Zhuo Qin Craftsmanship and a Global Perspective

Zhuo Qin craftsmanship is not just a technical craft; it is also an important carrier of Chinese traditional culture. As globalization accelerates, the cultural inheritance of Zhuo Qin craftsmanship faces both opportunities and challenges. Vocational colleges, as key institutions for traditional cultural education, are uniquely positioned to bring Zhuo Qin craftsmanship to the global stage. Through international exchanges and collaborations, colleges can promote Zhuo Qin craftsmanship worldwide, showcasing its unique cultural charm. At the same time, vocational colleges can attract scholars and students from all over the world through international teaching platforms, promoting cross-national cultural exchange and understanding. For example, colleges can organize international seminars, exhibitions, and other activities to increase awareness of the unique artistic value and craftsmanship of the Chinese Zhuo Qin , enhancing its international recognition and influence.

Furthermore, with the advancement of the "Belt and Road" initiative, Zhuo Qin craftsmanship, as an integral part of Chinese traditional culture, will become an important element of international cultural exchange. Vocational colleges can incorporate Zhuo Qin craftsmanship into global cultural interactions through projects related to the "Belt and Road," facilitating the inheritance and innovation of Chinese culture on a global scale.

In summary, Zhuo Qin craftsmanship holds enormous potential for future development within vocational colleges. With the integration of modern technology, industrialization advancements, and a broader global perspective, Zhuo Qin craftsmanship can not only rejuvenate within China but also find its place on the international cultural stage. Vocational colleges, as key platforms for the inheritance and innovation of Zhuo Qin craftsmanship, must continuously explore and innovate, opening new paths for the future development of this traditional craft.

Conclusion

Zhuo Qin craftsmanship, as a treasure of Chinese traditional craft, faces challenges in its inheritance

and innovation in the new era, but it also holds vast development potential. Vocational colleges play an irreplaceable role in this process. By integrating modern educational technologies, cross-disciplinary teaching models, and the construction of a "dual-qualification" teacher team, they can effectively promote the inheritance and innovation of Zhuo Qin craftsmanship. Furthermore, the industrialization of Zhuo Qin craftsmanship, its global cultural promotion, and the integration of technology with traditional crafts provide ample opportunities for the future development of this craft. Moving forward, vocational colleges should continue to strengthen research and teaching innovation related to Zhuo Qin craftsmanship, revitalize traditional culture in the new era, and cultivate high-quality talent with innovative spirit and craftsmanship.

Fund Project

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