



Research on the Innovation Model of Lingnan Jade Carving Talent Cultivation Based on the Studio System

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Abstract. With the development of jade carving industry, the inheritance of traditional handicrafts has been gradually included in the education system of colleges and universities. This study explores the problems existing by exploring the model of training talents in Lingnan jade carving, including teacher-apprentice system and school training. The studio is established according to professional characteristics of art discipline on the basis of the traditional workshop-style. Besides, studio carries out practical exploration from the integration of industry and education, the integration of professional teaching and apprenticeship system, and the diversification of teaching models. Therefore, the exploration of the studio-based teaching model is conducive to building a new talent training model of school-enterprise cooperation, "double mentor" team and changing the teaching mode.

Keywords: jade carving; talent cultivation; studio system.

1 Introduction

Lingnan jade carving is a unique jade carving art form in southern China, with Guangdong Province as the centre, especially in Guangzhou, Foshan and other regions [1]with a long history and unique style. Because of the popularisation of e-commerce, the traditional jade sales model has been impacted by a variety of emerging sales models such as live broadcast by Internet celebrities[2]. In addition, consumers do not know much about jade culture, and the stagnant development of the jade industry. The Lingnan jade industry has encountered different degrees of development bottlenecks. Therefore, it is urgent to explore a new jade industry model. How to innovate the training mode of jade carving talents, break through the dilemma of talent training, and improve the quality of talent training is a key issue that needs to be solved urgently in the development of jade carving industry.

The inheritance of Lingnan culture and art today still retains a mixture of multiple modes, such as master-apprentice teaching, the studio system and family workshop production. The traditional training of Lingnan jade carving is still dominated by the apprenticeship system[3]. This model emphasises practical operation and the inheritance of experience, which can enable apprentices to have an in-depth understanding of the

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technical details of jade carving. Nevertheless, there are also limitations to the apprenticeship system. For example, the master's skills and concepts may be limited by personal experience, and it is difficult to cover the comprehensiveness and diversity of jade carving. At present, some colleges and universities and vocational schools in Lingnan have offered professional courses related to jade carving, such as art, design of jewellery and processing, etc., aiming at providing students with theoretical knowledge and practical skills training. However, these courses often focus on the inheritance of traditional skills and insufficient coverage of modern design concepts, marketing and other contents, making it difficult for students to adapt to the needs of the market after graduation. Meanwhile, there is also a modern apprenticeship system on the basis of school-enterprise cooperation, such as "1+1+1" teaching mode [4] and "4+1" teaching mode [5].

What's more, students majoring in jade carving in China are generally from families engaged in jade carving. Therefore, the lack of employees in jade carving industry has seriously restricted the development of the industry and the inheritance of jade carving skills. Additionally, with the development of science and technology, such as the application of high-tech technologies CNC engraving machines, how to integrate modern technological innovation while maintaining the essence of traditional handicrafts has become a major challenge in talent training. In order to explore the training mode that can not only inherit traditional skills but also adapt to the market, this study explores the training mode of Lingnan jade carving based on the studio system.

2 Current situation and problems in the cultivation of jade carving talents in Lingnan

There are a variety of training modes for jade carving talents, including traditional apprenticeship system and school. The training mode of Lingnan jade carving talents has gradually changed with the development of technology and market in recent years, but it still faces some challenges and problems.

2.1 Combination of multiple training methods

Handicraft works are usually the integration of technology and art, and skills need to be passed on from generation to generation. The inheritance of jade carving skills mainly includes the traditional apprenticeship system and the cultivation of colleges and universities. The traditional apprenticeship system refers to teaching carving technique in which apprentices acquire skills in the main form of oral and heart-to-heart teaching in the actual production process. This kind of inheritance is taught by imitation, and the apprentice can devote himself to the study of technology. Under this model, the learning objectives of apprentices are clear, and the master assumes the responsibility of comprehensive education in the training of apprentices. The traditional apprenticeship system belongs to individual education, which takes 3-5 years on learning. At the same time, the traditional apprenticeship system requires students to give up their studies and enter studio around the clock for study. Nevertheless, the learning

content of this model is relatively simple, and it is gradually unable to meet the needs of today's society for the cultivation of high-quality jade carving talents.

Therefore, in order to improve the current situation of jade carving industry, some vocational colleges in Lingnan have set up jade carving majors in recent years, aiming at training a large number of high-quality talents for jade carving industry. These colleges take advantage of their proximity to the Lingnan jade carving cluster, aiming at cultivating "applied technology" talents. In the curriculum and training mode, the school pays attention to training students to master the basic knowledge of art, crafts design and the common sense of art appreciation. After learning, students should be able to use a variety of carving tools and equipment to carve in accordance with the design requirements. Meanwhile, it will give play to the regional advantages, and students can go to the local industrial cluster for field study. In addition, the inheritance of traditional handicrafts has been incorporated into the teaching system of fine arts in higher education, and the training mode of handicrafts talents integrating higher education and vocational education has emerged.

2.2 Derailment between technology inheritance and modern education

The training model of handicraft talents is an effective exploration of the inheritance of traditional handicrafts by all kinds of educational and teaching institutions to actively adapt to the development of the handicraft industry, and focuses on talent training. Some of the traditional models of master-apprentice inheritance mode are for the purpose of "exclusive stunts" and only teach their own children. The childless masters were likely to lose their skills in the next generation, which also seriously restricts the exchange of skills and the improvement of employees. At present, almost all the staff engaged in jade carving are repeating the things of their ancestors day and night. Although this way of working subtly edifies people's aesthetics and cultivate folk artists, it limits and hinders the development of art and turns potential artists into craftsmen. How to make traditional skills inherit is a problem that modern education needs to face.

The main goal of vocational education is to train skilled workers. The school is an important carrier for the inheritance of jade carving skills. In school education, education of jade carving is still in the stage of exploration and practice in subject development and curriculum setting. The school carries out cultural courses, professional courses and elective courses in order to cultivate students' artistic and cultural cultivation and technology. However, in the process of training, it is prone to problems such as insufficient practice of professional teachers, separation from theory and practice, and poor connection between teaching content and market. Meanwhile, due to the lack of new technologies schools are lagging behind the market. In addition, the inheritance of handicraft skills lacks overall construction in disciplines, majors, curriculum systems, etc., the inheritance models of various handicrafts are different, the lack of systematic construction, and the current situation of talent training is not optimistic. In particular, there is no appropriate solution to practical problems such as subject attribution and curriculum setting in the study of the inheritance model of handicraft skills, which is also the main factor that plagues the construction of the inheritance system of handicraft skills.

2.3 Mismatch between talent and market

Due to the changes in production methods and the development of social economy, the public's demand for art and culture has increased, and the demand for talent training for jade carving has also changed. In recent years, with the improvement of people's consumption, the market scale of jade carving products has continued to expand. At present, tens of thousands of people are engaged in jade carving industry in Guangzhou alone. The places where the production of jade is relatively concentrated are in Pingzhou Jade Street, Hualin Jade City and other places [6]. However, the prosperity of the market does not bring artistic prosperity. Products of jade carving have become more of a commodity in circulation and trading. Most consumers are concerned about the value of jade materials, and the demand for innovation of jade carving is not high. The jade market is generally commercialised. There is not much difference between the jade carving works in Lingnan, mainly Ruyi, Buddha statues, Guanyin, etc. The majority of products generally express the traditional jade culture of "Fu, Lu and Shou" in the theme selection and design, as well as the widely accepted traditional jade carving jewellery such as bracelets, rings and jade pendants. The market pays more attention to the value of jade and has a conservative attitude towards artistic innovation.

The traditional master-apprentice system is more about training jade carving craftsmen, focusing on the professional cultivation of handicraft talents. School education is not only cultivation of professional ability, but more importantly, it forms professional quality, covering humanistic literacy, artistic accomplishment, professional ability and other abilities of handicraft talents. This may be the main direction of handicraft inheritance in the future, which is also the basis for the continuous development of handicrafts. There is a sharp contrast between the pursuit of artistic value in schools and the market. How to adapt to the development of the market while promoting the artistic and cultural value of jade carving. It is also a challenge for school education.

3 Exploration and practice of teaching mode of Lingnan Jade Carving Studio

"Studio" was originally a form of production organization, and the formation of studio originated from the Bauhaus "workshop" teaching mode used in design. The faculty of the Bauhaus School of Design is composed of technical education tutors and art form education tutors. As the studio model is highly consistent with the professional teaching of art, the teaching system of fine arts in China is also deeply influenced by it, and most of them adopt the teaching system with the studio. This is also established on the basis of the traditional workshop-style teaching mode and according to the professional characteristics of the art discipline. The studio is the basic unit of professional development in discipline. Through the teaching mode of studio system, it can promote the cross and harmony of different teaching, which can form cross-disciplinary teaching.

3.1 Integration of industry and education

Established by a reference art professional studio, studio integrates the needs of manual technical talents in teaching content and teachers to realise the integration of industry and education. The studio system represents a step-by-step teaching concept, with distinctive ideas and plans, which runs through the reform of the handicraft talent training. The studio system represents a step-by-step teaching concept, with distinctive teaching ideas and perfect teaching plans, which runs through the reform of the handicraft talent training. On the one hand, students can rely on school resources to learn courses of basic design and improve their innovative ability in art. On the other hand, studio can invite masters from industry to enter the studio to teach. The studio has natural geographical advantages because it is close to the jade carving industry. After students master the basic knowledge and skills of jade carving, enterprises can be introduced to carry out project-based learning. Through project-based learning, the combination of teaching practice and industrial reality can be realised, so that students' design concepts can be implemented.

What's more, enhance the level of art research and development. In view of the lack of innovative design in the production of traditional jade enterprises, the corresponding professional art design courses are expanded in jade carving courses. School will embed the needs of enterprises into the design curriculum of students to improve the level of research and development design. With the characteristic of different curricula, it makes up for the weakness of creativity of enterprises, combines art and cultural resources with the advantages of college art education, and cultivates the innovative ability of arts and crafts talents.

3.2 The combination of professional teaching and teacher-apprentice inheritance teaching

The studio mode integrates the inheritance of manual skills into teaching, reserve traditional apprentice skills, and enriches students' artistic and cultural accomplishment. The studio sets up professional skills and practical courses according to different handicraft processes and handicraft production capacity training. Through studio teaching, students can not only master solid basic modeling skills, but also learn traditional crafts. Hence, students master the basic knowledge of art and arts and crafts design in the studio, and have certain common sense of art appreciation; master the basic theories and skills necessary for professional design and production; understand the new trend of the development of arts and crafts, have the spirit of innovation, independent learning, the ability to adapt to career changes; basic knowledge of enterprise production management.

The studio model is conducive to improving the curriculum and teacher training, and can effectively solve the practical problems faced by the training of new handicraft talents. Besides, the studio enrich the diversity of teachers by inviting off-school masters, and students can learn different sculpture styles. This has improved that colleges and universities are prone to have inadequate teachers. Additionally, the studio construction in different directions can also form overall teaching idea, and the manual

training and artistic accomplishment improvement can be realized through gradual teaching.

3.3 Diversification of teaching models

The learning of jade carving requires a place for students to practice using teaching equipment. The establishment of the studio provides convenience for jade carving teaching, and effectively combines professional teaching with skill learning. The dual-track teaching mode is coached by art teachers and artisans with exquisite manual skills which is in line with the talent training model of vocational education. Meanwhile, a variety of teaching methods are used. Carry out project-based learning, and build a practical teaching platform and system matching the development of jade culture industry with the participation of schools and enterprises. Using a mixed classroom organization form, teachers record the jade carving process video for students to practice repeatedly. The studio also takes students to the jade market for field trips, leading students to learn to judge the types and qualities of various jade. Most of the studios are based on fine arts disciplines, and will also pay attention to the cultivation of students' design thinking, break through students' understanding of traditional jade carving, and carry out artistic creation. Each studio school will be equipped with special teaching assistants, timely guidance for students' learning, as a teaching aid for teachers, but also to ensure the safety of the laboratory.

At the same time, the studio tries to integrate professional qualification standards with teaching content. Introduce the professional qualification standard of arts and crafts in teaching, so that the trained talents can better adapt to the needs of enterprise positions. The teaching plan is formulated according to vocational qualification standards, and through the integration of skill training and vocational qualification training, students can complete their studies and obtain relevant vocational qualification certificates when they reach the corresponding level, which improves their vocational adaptability and employment competitiveness.

4 Construction of Lingnan jade carving cultivation mode based on the studio

The construction of a new manual talent training model based on "studio" should start with changing the curriculum concept of art subjects. Integrate two different educational environments and educational resources of schools and enterprises, solve the problem of professional and industrial docking, and integrate teaching goals with the market. Effectively integrate teacher-apprentice inheritance teaching into the professional teaching of higher education, establish a "double mentor" system, and design course modules in a studio-based teaching mode.

4.1 Promote school-enterprise cooperation

Due to the short time and rich learning content, it is difficult for students to have a clear understanding of professional life. Although studio can provide students with a platform for cooperation and exchange, since cultural and artistic background involved in jade carving teaching comes from many fields, students can have a deep understanding of art and culture in various fields through practice [7]. Students in the studio system are the main body of teaching activities, thinking independently and taking the initiative to solve problems, while teachers are the organizers of teaching activities, supervising the implementation of teaching activities, giving students adequate learning guidance, forming an interactive teaching mode between teachers and students, which meets the needs of talent training for the inheritance of manual skills.

Meanwhile, the studio teaching mode will transform the daily production process of jade carving into a basic component of the teaching process, effectively integrate the production process with the professional teaching, and explore the reform of professional experience teaching mode. In jade carving professional teaching, the daily jade carving professional skills training itself includes the learning of jade carving workflow. In the studio, students will participate in practical training in all aspects of production, including material selection, design, production and post-processing. Teachers will lead students to visit enterprises for study and practice. In addition, the school should strengthen the contact with enterprises, integrate enterprise projects into the teaching activities of the studio, so that students can fully participate in the whole process of jade carving design, material selection and carving, and experience the practical work [8]. School-enterprise cooperation can also present the employment needs of enterprises in the process of cooperation, and the process of project cooperation can realize the advance of talent recruitment and select high-quality talents.

4.2 Build a "double mentor" team

The operation mode of "double mentor" is based on the school-enterprise cooperation mode, which teachers and masters jointly participated in teaching. The course content involved in the inheritance of handicraft skills includes three aspects: basic training of artistic modeling, upgrading of handicraft skills and learning of theoretical knowledge [9]. Among them, the handicraft skills course adopted to cultivate handicraft skills is unique and practical, which is suitable to carry out classified teaching based on the studio. The studio teaching model divides the course into two modules, namely basic teaching and practical teaching. Studios in different modules play different roles in teaching: The basic teaching module is mainly the basic training of manual skills, which is taught by industrial technicians according to the production process of jade carving, and is used to impart basic manual skills and complete the course tasks of basic skills training; The practical teaching module is specially used to cultivate the ability of manual work in practical teaching. It is carried out by art masters or enterprise tutors. Traditional manual skills and artistic concepts can be learned in the studio, which can be used to complete tasks such as internship and graduation creation. The knowledge of

art theory can rely on the advantages of art colleges and universities, who can give lessons to related design disciplines.

"Double mentors" jointly formulate the jade carving talent training plan. Use Lingnan industrial platform to give full play to the role of "double mentors", implement professional training by docking the professional needs of jade carving industry, and promote students to effectively combine learning content with jade carving positions. The practice and its standards are formulated by enterprise teachers, and professional courses are formulated by teachers in the school [10]. Each off-campus teacher responsible for training students formulates a supplementary training plan for the studio based on the requirements and characteristics of the jade carving skills taught, and give professional skills guidance to students.

4.3 Transform the teaching strategy of the studio system

The studio can try to reform the teaching mode, combined with the development of Lingnan intangible cultural heritage market, and integrate the job operation of enterprise employees into the teaching process of the studio. Through the way of project cooperation, jade carving design courses and production are docked, and the students are developed and led to design and create product samples according to the production process of the enterprise, and polished and made jade carving works, and the design works in the teaching are transformed into products. Secondly, the cultivation of students' digital technology, digital modeling and simulation of jade carving design is necessary. At the same time, the creation is combined with digital carving, such as JEWELCAD, 3D printing technology, computer engraving, VR virtual reality[11][12], etc., so that students can master traditional crafts. The application of these technologies in teaching will help improve teaching efficiency and innovation ability. Besides, students are led to the Lingnan jade carving cultural production, and the field investigation of jade culture is carried out to enrich the classroom organization form. Through the field investigation, the students can further understand the cultural and historical background of jade carving, and provide a theoretical basis for further creation.

What's more, the studio can also adopt the "online + offline" teaching mode, make full use of existing teaching resources, provide students with abundant content, and establish a complete chain. Although jade carving is a highly practical subject, online courses can also assist teaching. In order to integrate teaching resources, give full play to the role of tutors. For example, teachers record the class content in one place, and students can learn after class. After recording the carving skills demonstration, students can also pause or fast forward in the operation to accurately check the missing.

5 Conclusions

The teaching mode of "studio" can base on the practical problems faced by the inheritance of manual skills, in order to cultivate talents who can adapt to the market demand and inherit skills, and help to integrate the education mode of "teacher and apprentice transmission" into the higher education system. Through the studio mode, the practical

teaching of mentoring system has been integrated into the professional construction of jade carving, requiring higher vocational colleges to adjust the discipline construction, personnel training mode curriculum system, and teaching content. By deepening the depth of the integration of production and education, and constantly improving the school-enterprise cooperation model, we can effectively solve the problem of inheritance. This is of great theoretical and practical value in the study of handicraft inheritance system.

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