

Reflections on Discipline Construction of Sculpture Major in Comprehensive Higher Education Institutions under Employment Pressure

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Abstract: Under the current high employment pressure faced by college graduates, the discipline construction of the sculpture major in comprehensive universities needs to make corresponding adjustments to the types of specialized courses and the number of class hours. In addition to strengthening the students' basic skills in sculpture, it is also necessary to enhance the construction of digital sculpture courses, so that graduates of the sculpture major in comprehensive universities can meet and adapt to the survival needs of social development through four years of specialized study.

Keywords: Employment pressure, Sculpture major, Discipline construction

1. Current Situation of Discipline Construction of Sculpture Major in Comprehensive Higher Education Institutions

Unlike the positioning of art schools specializing in the five-year undergraduate education for training sculptural artists, the four-year sculpture major in comprehensive institutions places more emphasis on whether graduates can face and adapt to the needs of social development. Especially in the current situation where graduates from various universities are facing unprecedented employment pressure, if no adjustments are made to the training program at this stage of the discipline construction for sculpture majors, and no courses connected to the actual needs of society are added, the sculpture major in comprehensive universities may face the risk of being eliminated in the new round of professional adjustments in higher education due to low employment rates among sculpture graduates[1].

In the current era of development, society has entered the digital age, with "digitalization," "datafication," and "digital technologies" permeating various industries and all aspects of people's lives. To some extent, these advancements have improved efficiency across industries and enhanced convenience in daily life[2]. The development of "digitalization," "datafication," and "digital technologies" in the field of sculpture is no exception. In response to the crisis in the discipline construction of sculpture studies, the digital transformation of society presents an opportunity for the field to adapt to the demands of the times and the needs of the job market. This necessitates that sculpture programs in comprehensive universities strengthen the integration of digital sculpture in their curriculum design as part of their discipline construction framework[3].

2. Employment Directions for Graduates of Sculpture Majors in Universities

Under the current training mode for sculpture professionals in universities, undergraduate graduates of sculpture majors have acquired a certain level of theoretical knowledge in sculpture art and possess general abilities to understand and create sculpture works through courses such as sketching, clay modeling, materials, and art theory. Currently, the main employment directions for undergraduate graduates of sculpture majors are as follows:

1) The main goal of sculpture majors in professional art schools is to cultivate sculptors. However, at present, it is difficult to sustain a living through artistic creation alone, so some graduates choose to apply for master's degrees to continue their artistic pursuits.

2) Sculpture graduates may work in sculpture factories, engaging in the design and production of urban sculptures as well as traditional sculptural products[4].

3) Sculpture graduates may enter traditional industries such as ceramics, jade carving, wood carving,

and figurine production, focusing on product design, production, and research and development.

4) Sculpture graduates have a certain three-dimensional thinking ability, making them potential candidates for network and gaming companies like NetEase and Tencent, where they can use 3D computer software to design and develop virtual networks, 3D games, and other related products.

5) Sculpture graduates may enter the figurine production industry for gaming or animation characters, conducting virtual 3D modeling and physical product production.

6) Sculpture graduates may work in art examination and painting training institutions, providing drawing and painting training to art examination candidates and young children.

7) Sculpture graduates may engage in other art-related industries, such as wall painting, landscape and environmental art design, and industrial design model production.

8) Sculpture graduates may change careers, pursue civil service examinations, or apply for other positions.

Overall, in terms of employment directions, sculpture graduates have relatively more employment options available based on their professional skills[5-6].

It is evident that, in line with the development of the times, especially with the integration of digital technologies into the sculpture discipline, graduates with digital sculpture production skills are not only able to enter traditional sculpture factories to apply digital sculpture technologies in designing and creating urban sculptures and sculpture products but also possess the capability to work in other industries such as online platforms and gaming companies for product design, research, and development.

3. Issues Facing the Discipline Construction of Sculpture Major in Comprehensive Higher Education Institutions

The undergraduate sculpture program in professional art academies in China is typically five years. Different major art academies have their own unique formats for discipline construction based on regional characteristics and historical development, such as different choices and allocations in the "studio system", but the internal training processes are largely similar. Generally, the first and second years focus on basic professional courses, including sketching, clay modeling, anatomy for artists, integrated design, art theory, and related courses. In the third and fourth years, as the sculpture projects increase in size, students engage in more in-depth learning based on what they learned in the first two years. While enhancing basic learning, material courses are introduced to stimulate students' thinking about sculpture creation. The fifth year is generally dedicated to graduation projects and thesis writing[7].

It is evident that professional art academies offer more in-depth content in each specialized course, allowing students to progressively solve problems encountered during their professional studies. In contrast, four-year comprehensive institutions must cover the first four years' content of specialized art academies within the first three years, aside from arranging graduation projects and thesis writing in the fourth year. Due to limited hours for specialized courses, graduates of sculpture majors must also adapt to the employment needs of society, which naturally results in a streamlined yet refined approach to setting up specialized courses[8].

It can be observed that, in addition to ensuring sufficient class hours for fundamental sculpture courses such as sketching and clay modeling, the design of some professional courses must also take into account the characteristics of multiple disciplines simultaneously. As a result, the available class hours specifically allocated for digital sculpture courses are highly limited. This necessitates the integration of digital sculpture content into other professional courses. For instance, in urban sculpture design, digital sculpture techniques can be incorporated into the existing processes of design, drawing, and sculpture production. By utilizing multiple technical approaches within a single professional course, students can effectively develop proficiency in digital sculpture technologies[9].

4. Exploration of Discipline Construction of Sculpture Major in Comprehensive Higher Education Institutions

Considering the characteristics of the current era's development and the demands of the job market, particularly the limited course hours allocated to sculpture programs in comprehensive universities, the author believes that the discipline construction of sculpture programs in such institutions can be explored

from the following aspects:

1) Cultivating Students' Interest in Sculpture and Enhancing Their Initiative and Creativity. A significant number of students in sculpture programs at comprehensive universities have limited prior knowledge of the field before enrollment. Some students are even assigned to the program as an alternative after failing to gain admission to design or animation programs. As a result, many do not initially have a strong interest in sculpture and tend to spend more time on their personal interests, such as comic illustration or painting[10].

To address this, instructors should not only teach fundamental sculpture knowledge in class but also actively guide students toward developing an interest in the discipline. Sculpture can be integrated with animation and gaming to create three-dimensional physical works. For example, students who are passionate about anime characters or sports figures can be encouraged to incorporate their interests by creating 3D sculpted figurines of these subjects. This approach can enhance their motivation to learn fundamental sculpture concepts while stimulating their imagination and creativity. Furthermore, students should be encouraged to use digital sculpture software for modeling during the creation process, which not only increases engagement and creativity but also improves their digital sculpture skills.

2) In the structural adjustment of curriculum categories, multiple specialized courses can be integrated to allocate additional class hours to fundamental courses such as clay modeling. For example, integrating the Comprehensive Composition course with the Urban Sculpture Design course allows students to address fundamental compositional issues while incorporating their works into urban sculpture design, considering environmental and multidimensional factors. Sculpture emphasizes the spatial qualities of three-dimensional forms. Compared to other fine arts disciplines, its core advantage is that it fosters a stronger three-dimensional spatial thinking ability and awareness of managing physical space. This enables students to transform two-dimensional, single-angle designs into multi-angle, three-dimensional entities. However, developing such spatial thinking and awareness is challenging, requiring significant time and effort in learning and practice. From the current perspective, increasing training in fundamental sculpture courses is essential for cultivating aesthetic perception and spatial thinking. Therefore, within the four-year curriculum framework of sculpture programs in comprehensive universities, it is necessary to reasonably increase class hours for foundational courses like clay modeling to enhance students' understanding and training in three-dimensional spatial thinking and spatial awareness. While clay modeling is not the only method for developing these skills, given the existing educational conditions of sculpture programs in comprehensive universities, it remains a convenient and effective training approach[11].

Additionally, another portion of the integrated class hours can be allocated to sculpture creation and sculpture design courses, while incorporating digital sculpture production into these courses. This approach enhances students' comprehensive abilities in sculpture production. For instance, by integrating Comprehensive Composition with Urban Sculpture Design, students can simultaneously address fundamental compositional issues and incorporate their works into urban sculpture projects. Through digital sculpture modeling, students can visualize how their sculptures would realistically appear in an environment using computer software. This method enables them to evaluate sculpture form, spatial relationships, color schemes, environmental integration, and feasibility, thus fostering a more comprehensive and multidimensional approach to sculpture design.

3) Enhancing the Development of Digital Sculpture Courses. To meet the demands of the job market, students must strengthen their learning in digital sculpture courses. In addition to integrating digital sculpture techniques into existing professional courses, it is also necessary to establish dedicated digital sculpture courses that guide students in learning 3D modeling software to master fundamental digital sculpture production techniques, such as ZBrush. With the advancement of technology, 3D modeling software is now widely applied in the sculpture industry, transforming the traditional workflow of small-scale clay modeling, clay enlargement, mold making, and final sculpture installation into a modern process of digital modeling, 3D printing, and final installation. This shift has solved a series of challenges that were difficult to overcome in traditional sculpture production. For example, in traditional sculpture making, after a student designs and creates a sculpture, they often rely on skilled mold makers for replication. This step can lead to a loss of artistic quality since the final effect is not entirely controllable. However, 3D printing technology eliminates this issue by allowing direct fabrication from digital models, ensuring higher fidelity in reproducing the original design. Additionally, students with creative ideas often require extensive technical training in sculpting skills before they can confidently execute their designs. 3D software can help address some of these technical challenges, lowering the skill threshold required for achieving high-quality results. Beyond printing in resin, modern 3D printing technologies also support wood, stone, ceramic, and metal materials, allowing students to focus more on the

conceptualization and design process rather than being restricted by material limitations. Of course, while 3D software provides essential technical support, the core elements of sculpture remain aesthetic awareness and three-dimensional spatial thinking. Once students develop a strong three-dimensional spatial sense, they can efficiently create 3D models on a two-dimensional computer interface. Thus, the sculpture discipline must establish dedicated digital sculpture courses, ensuring that students not only enhance their modeling skills but also acquire basic 3D software proficiency. This will better prepare them for future employment and help them adapt to the evolving demands of the industry[12].

4) Increasing Course Hours for Sculpture Material Creation: Comprehensive institutions can increase class hours for sculpture creation involving materials like wood, stone, and ceramics based on their unique regional characteristics, as well as the available teaching resources and faculty. Encouraging students to continually work with different materials can boost their confidence and motivation to learn sculpture.

5) Guide students to apply the learned sculpture theories and techniques in interdisciplinary exploration and research. By understanding the employment directions of sculpture graduates, it is evident that sculpture students can engage in cross-disciplinary employment and possess the ability to explore and research across different disciplines and professions. Against the backdrop of increasing infrastructure development nationwide, new ancient tombs and relics are continuously being discovered, leading to the excavation of a large number of cultural artifacts. Due to various factors, these artifacts inevitably suffer damage, with some being severely fragmented, necessitating significant manpower and material resources for timely restoration to provide a basis for subsequent archaeological research. The existing number of restoration personnel is insufficient to cope with the restoration demands of the vast number of unearthed cultural artifacts, making it possible for sculpture students to participate in artifact restoration. A considerable portion of excavated artifacts can also be classified as sculptures. Sculpture students possess fundamental skills in form and color restoration, and through coursework in traditional Chinese sculpture, they gain an understanding of the morphological evolution of artifacts and the underlying humanistic and artistic values. Additionally, courses related to wood carving, stone carving, ceramics, metal forging, and casting provide exposure to various materials. These learning experiences give students an advantage in quickly adapting to artifact restoration. Particularly, when students acquire digital sculpture modeling capabilities, they can scan artifacts with uncertain forms and restoration plans, using digital sculpture software for virtual digital restoration, thereby providing pathways for the physical restoration of cultural artifacts. At the same time, as part of the national strategy to build a culturally strong country, cultural export plays a vital role. Some Chinese online gaming companies use traditional Chinese mythological stories as a blueprint, drawing on the visual sculptural language of traditional Chinese sculpture to create new works. They employ virtual digital character and scene production techniques for game development and design, introducing game products with traditional Chinese cultural characteristics to overseas markets. This allows foreign audiences to appreciate China's traditional visual aesthetics and the underlying cultural values while enjoying entertainment. Undoubtedly, sculpture students, through their coursework, gain an understanding of the aesthetic principles behind traditional Chinese sculpture and develop expertise in using digital sculpting techniques for modeling. This provides them with the necessary skills to contribute to game development and design in online gaming companies. Additionally, in the digital age, contemporary Chinese animated films with distinctive features have gained international recognition by incorporating traditional Chinese cultural stories, compelling narratives, and digital technology for character and scene effects production. This has showcased the soft power of Chinese culture on the global stage. Due to the nature of animated film production, this process requires the participation of numerous computer animation professionals from various backgrounds to handle character modeling and scene effects. Sculpture graduates have a potential advantage in computer animation production. Through several years of specialized training, they develop skills in shaping human figures and objects. Courses on traditional Chinese visual arts, combined with theoretical study and field research, enable them to recognize the artistic characteristics of figures and objects from different historical periods, as well as understand the aesthetic principles behind these forms. The most crucial aspect of sculpture studies is developing a solid awareness and mindset for three-dimensional modeling. As they become increasingly proficient in using digital modeling techniques, they enhance their spatial awareness in translating two-dimensional screens into animated characters and models. This enables them to proactively address and creatively solve modeling challenges in both two-dimensional and virtual three-dimensional animation environments, equipping them with adaptability and cross-disciplinary development capabilities. The above cases illustrate the potential for sculpture as a discipline to intersect with other fields, particularly the advantages of mastering digital sculpture production techniques in interdisciplinary applications. This also requires sculpture instructors to not only impart professional knowledge but also guide students based on their

interests and skillsets, fostering their ability to apply sculpture expertise in interdisciplinary exploration and research.

5. Conclusion

In response to the practical needs of contemporary societal development, the discipline construction of sculpture programs in comprehensive universities must make real-time curriculum adjustments based on their faculty resources and existing hardware conditions from multiple perspectives and dimensions. This approach ensures that students not only enhance their three-dimensional spatial thinking ability but also produce more works aligned with their personal interests, thereby strengthening their intrinsic motivation and professional competence. In particular, emphasis should be placed on mastering digital sculpture production techniques to better adapt to the evolving demands of society.

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