

The Characteristics of American Craftsmanship Spirit and Its Enlightenment to Chinese Craftsman Education

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Abstract: The craftsmanship spirit has different manifestations in different countries. The craftsmanship spirit of the United States with innovation as the core feature is a prominent representative of the craftsmanship spirit of developed countries. This paper deeply analyzes the characteristics of American craftsmanship spirit, and puts forward the enlightenment and reference of American craftsmanship spirit to Chinese craftsman education for China's pursuit of high-quality development. Craftsman spirit has different characteristics in different times, but the specific connotation of craftsman spirit remains unchanged. Its essence is to guide the development of human society through its spiritual connotation, and at the same time, it can promote social progress. In the development of China's practice, various artisan spirits have emerged. These artisan spirits are the essential spiritual connotations for countries to stand in the world forest. In this paper, the craftsman spirit is discussed, so that we can better understand and study the characteristics and values of the craftsman spirit.

Keywords: American craftsmanship spirit; Characteristics; Chinese craftsman education; Enlightenment

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1. Introduction

Craftsmanship spirit refers to the excellent spiritual quality expressed and transmitted by workers with certain technical expertise and their groups in the process of production and labor. It is not only a professional value orientation and behavior performance of practitioners, but also a comprehensive reflection of professional ethics, professional ability and professional quality. It is also a vivid reflection of the national spirit with patriotism as the core and the spirit of The Times with reform and innovation as the core.

2. Characteristics of American craftsmanship spirit

2.1 Innovation based on knowledge

(1) the long-term accumulation of advanced basic science knowledge provides a fertile soil for innovation, breeds a large number of innovation possibilities, and creates a broad space for innovation; (2) The innovation generated by basic scientific knowledge is often a breakthrough innovation, which often triggers a revolution in the industrial field and is of great significance; (3) The innovation guided by basic knowledge is original innovation, which is difficult to be copied and surpassed, and it is the "superstar" that entrepreneurs dream of. Therefore, the importance of innovation based on basic knowledge can be seen.

2.2 "Great" craftsman view

Generally, we think "ingenuity" to refer to the pursuit of perfect craft level and quality. The pursuit of exquisite craftsmanship is the embodiment of the spirit of "small" craftsman, and the opposite is a spirit of "great" craftsman that pursues continuous innovation and self-realization. This "great" craftsmanship spirit not only pursues the perfection of things, but also includes the continuous transcendence of oneself and the change of the world. Americans think that the craftsman is not simply a craftsman or a highly skilled

mechanic, but a kind of “great” craftsman, a group of people who change the world by pure will and hard work, such as Edison, Franklin, and even Washington are regarded as excellent craftsmen. The “great” craftsmen are responsible for making the United States a world leader in innovation.

2.3 Craftsmanship spirit as “group collaboration”

We know that the United States is a country that advocates individual heroism, and promotes and embodies it throughout its literature and cultural products, such as movies, books, and more. In the field of innovation, the U.S. has also long promoted the idea that great ideas that change the world are destined to come from the brains of certain individuals. But in fact, the United States also focuses on teamwork and pursues the power of team innovation. The American craftsmanship spirit is not only reflected in the individual, but also in the process of group cooperation. Collaboration has gradually become a crucial factor in the spirit of craftsmanship, and the organization of smart people with different skills has become the main force of innovators. Edison’s invention of the light bulb was not done by a single person, but by the combination of multiple inventions of a group of people, and this group of people also constituted the first true cooperative research team (Alec Fach, 2014).

2.4 Containing both practical and transcendental meanings of innovation.

Pragmatism is the American spirit, and it has cultivated the pragmatic, action-oriented spirit and forward-thinking consciousness of the American nation. The development of the philosophy of pragmatism also provides the theoretical basis for the practice of craftsmanship spirit. As pragmatism prevailed, the United States became a pragmatic country, emphasizing that craftsmen should solve practical problems through innovative practical activities. American craftsmen invented electric lights, televisions and washing machines, which were highly integrated into people’s daily life and made great contributions to the development of modern human life. But at the same time, Americans also emphasize the spirit of innovation, advocating that craftsmen should have the spirit of innovation to break through autocracy and bondage, actively explore, and strive to realize their own value and transform the world. There is a saying in American science that “the United States can afford to fund the craziest research”. Unless it is so dangerous that it is prohibited by law (Alec Fach, 2017).

Among these four characteristics, innovation in knowledge is the cornerstone of all development, and only continuous innovation based on the original knowledge structure can lead the better development of the field to which it belongs.

3. Educational enlightenment of American “craftsmanship spirit”

3.1 Improve the self-identity of craftsman talents

Influenced by the traditional notion of “separation of four kinds of occupations among people” --scholars, farmers, workers and merchants, the status of Chinese craftsmen has always been low. Even to this day, craftsmen are still regarded as manual laborers who lack knowledge and skills and “make a living” by only relying on one craft. This perception is a narrow thinking of classifying occupations, which is not only biased against manual workers, but also ignores the labor skills and spiritual temperament of the craftsman group. In the United States, “craftsmen” are respected and recognized as well as other workers, and even “heavy manual workers” are more likely to be respected and recognized by people and society than “President of the United States”.

3.2 Cultivate the “great” craftsman view of craftsman talents

Intelligent manufacturing is the main direction of “Made in China 2025”. Developing intelligent equipment and intelligent products, promoting the intelligent production process, cultivating new production methods, and comprehensively improving the intelligent level of enterprise research and development, production, management and service need not only lean and focus on skills of small craftsmen, but also need to be based on human nature exploration, the world pattern, the courage to innovate the great craftsmen. “craftsmanship spirit” not only reflects the concept and pursuit of carefully built products, precision production, but also to constantly absorb the most cutting-edge technology and create new results (Liu Wentao, 2016).

3.3 Making industry associations, enterprises and other organizations play their roles and promoting craftsman education by classification

The training and employing of craftsmen cannot be separated from specific industries and enterprises. The connotation of “craftsmanship spirit” is unified, but the specific performance in each industry and enterprise is tailored to local conditions. In the United States, the industry association system is mature, and the professional norms of the industry are formulated by the industry association.

3.4 Strengthen the general education of craftsmen

While most innovations occur in the technology space, if a person or group focuses too much on one technology, they would

lose the ability to think in a broader space. If a society neglects generalists, it will bury true artisans. Therefore, in the education of craftsmen, it is necessary to strengthen the general education of them. At present, vocational education in China is emerging as an important place for cultivating craftsmen, but there are problems such as poor quality of students, low level and over-specialized education content which disconnected with practice. And outside of vocational education, there is a lack of content related to artisan education.

3.5 Make students fully aware of the relationship between clumsiness and efficiency

Some scholars believe that the United States is a nation of artisans built by “dumb” people(Duan Yuhong,2017). The “dumb” here describes the spirit of American craftsmen who work hard to accomplish their work according to the rules and procedures, unlike the “smart” people who seek shortcuts to reach the destination quickly, but are willing to make great efforts to achieve the goal. They are willing to make great efforts to achieve their goals, and have the determination and will to “sharpen a sword for ten years”. This is a kind of “clumsy” spirit, doing things in a practical manner, not to sacrifice the root and pursue the end, not to be in a hurry. This is an extremely important quality in some major projects, especially in research projects, and it is the right thing to do in artisan education.

4. Conclusion

In today’s world, the competition for comprehensive national power is ultimately the competition for talents and the competition for the quality of workers. The importance of cultivating and promoting craftsmanship for national economic development and social progress is becoming more and more prominent, and all countries in the world have strengthened the interpretation and cultivation of craftsmanship. For China, entering a new stage of development, implementing a new concept of development, and moving from a large manufacturing country to a strong manufacturing country, it is inseparable from the support of more skilled craftsmen and great artisans. Studying and learning from the characteristics of craftsmanship spirit and the advanced experience of craftsman education of developed countries in the world is a necessary path for China to further strengthen the cultivation of craftsmanship spirit, improve craftsman education and cultivate more great craftsmen.

Innovation is the core of American craftsmanship spirit. Under the cultivation and support of American unique history and culture and system, American craftsmanship spirit is characterized by knowledge-based innovation, “great” craftsman notion, group cooperative, as well as practical and transcendental connotations. Drawing on the spirit of craftsmanship in the United States, China needs to promote the social custom of respecting craftsmen, create a cultural atmosphere that encourages innovation, give full play to the role of industry associations, enterprises and other organizations, strengthen the education of craftsmen, foster the spirit of craftsmanship, and cultivate a large number of “great” craftsmen who meet the needs of high-quality development, so as to promote Chinese manufacturing to be “Created in China” and “Made with Wisdom”.

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