

# The Way of the Craftsman to the Truth

Tianshu Hou<sup>1,\*</sup>

<sup>1</sup>Northeast University, Shenyang, China

**Abstract.** Skilled workers and craftsmen are the basis of industrial production activities. The lack of skilled workers means the lack of industrial production. Driven by the tide of anti-globalization, it has further become the lack of national power. This article will explore how skilled workers and craftsmen acquire skills and knowledge through methods other than basic education, so as to find a way to quickly train skilled workers and expand the skilled worker group. At the same time, it also discusses the epistemological approach of how human beings acquire knowledge in the post-industrial age.

## 1 Introduction

Artisans are skilled producers who are personally involved in the practice of production and are the main practitioners of the handicraft industry before the industrial age. The Latin root of craftsman is *ars*, which refers to art and craftsmanship, so the word artisan(and craftsman) generally refers to a person who masters skills. The spirit of craftsmanship, as a spiritual symbol abstracted by the labour form of the artisan group, is also praised by the public today, and it has a lot of respect. It is also an important spiritual force that supports artisans to acquire knowledge through channels other than education.

The respect of the craftsman spirit in the new era, in the understanding of the current era, to a certain extent reflects the resistance and resistance of human beings to the alienation caused by industrial technology and machines under the main production mode of today's large-scale machine industry. The craftsman spirit of the new era has the characteristics of dedication, leanness, concentration and innovation.[1]The interpretation of the characteristics of the craftsman spirit in the new era also shows the expectations of human beings for the future development of industrial technology, as well as their desire for the comprehensive and free development of human beings.

Among the existing studies, the research on the spirit of craftsmen in the new era mostly focuses on the exploration of the historical dimension. On the one hand, through the historical reasons for the emergence and development of the craftsman spirit in Japan and Germany, it explores the method of building and developing the craftsman spirit in the new era[2]. On the other hand, looking for clues of craftsman spirit from traditional culture, exploring the historical inheritance of craftsman spirit, and providing theoretical basis and strength for the construction of craftsman spirit in the contemporary new era. In addition, in response to the revival needs of the craftsman spirit in the new era, the main research direction of the existing research is to explore the driving force behind the revival of the

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\* Corresponding author: hideyoshidd@foxmail.com

craftsman spirit in the new era, focusing on analyzing the changes in social needs and the comparison of the craftsman spirit in the new era with the traditional craftsman spirit. In order to grasp the deep logic of the phenomenon of the revival of craftsman spirit in the new era. [3]

## **2 The spirit of craftsman brings skilled workers closer to virtue**

From ancient times to the present, although the labour forms of artisan groups have been quite different due to the high degree of division of labour in modern society, they are both purposeful and skilful behaviours. The purpose of artisan labour is to manufacture products. Artisan is a person who masters skills. Skills are very important to the artisan group, and it can be said that it is an important factor that distinguishes the artisan group from other forms of labour. The formation and display of skills are both a form of embodied cognition. We can find that the formation and display of craftsmanship cannot be achieved independently of labour activities. There are also animals in nature that can create some simple tools, but only humans are "tool-making animals". This is because only human beings have a picture in their minds before production activities, and then create them through labour activities. As Wittgenstein said, "the human body is the projection of the soul"[4], which is exactly what human beings have the unity of mind and body enables the formation and display of skills, and also makes the essential difference between humans and animals.

Plato subdivides craftsmanship into virtue (knowledge) and skill, craftsmanship is not limited to craftsmen, but shared by everyone. [5] Polanyi in turn divides the skills into the articulate and the inarticulate, the latter, which he calls tradition, is more important than the articulate, and even the teaching of skills depends on it.[6] For craftsmen, knowledge is diverse, including virtue, knowledge that can be expressed, and knowledge that cannot be expressed. Among them, the knowledge that can be expressed can be obtained through the teaching of others, such as the production rules under the conditions of modern large-scale industry, the rules of natural materials, and so on. But the remaining two kinds of knowledge, virtue or virtue, and unspeakable knowledge (tradition), are to be displayed in the activities of labour, they are integrated in the whole process of activities, and cannot be taught through language. Among them, virtue is a kind of transcendental ideal knowledge. In the context of Plato, virtue or virtue has moral significance, which makes it completely different from technical knowledge. It should be conscious ability through ontology. It is communicated and practiced, not acquired. For craftsmen, labour activities are a means of practicing virtue, allowing individuals to realize the existence of virtue. Unspeakable knowledge (tradition) is closer to the knowledge that can be spoken. It is technical knowledge, but the characteristics of unspeakable knowledge are that it cannot be accurately described by language. Such knowledge cannot be accurately expressed by teaching, and craftsmen can only experience and grasp this knowledge through their own labour activities. Knowledge is an important factor in supporting the craftsmanship. The mastery of knowledge by craftsmen is generally also reflected in the progress of craftsmen's skills, but this does not mean that knowledge equals skills. In fact, the composition of craftsmen's skills is quite complex, and knowledge is only a very important part of these components. But not all.

### 3 Knowledge anxiety of skilled workers

The labour activity of craftsmen is different from the researcher of mathematical knowledge, it is a kind of skill behaviour, in the labour activity of craftsmen, it is inevitable to be in the position of "the goal of skill behaviour is achieved by following a set of rules, but following this The people who know the rules don't understand the rules." [7] In fact, both the traditional handicraft craftsmen and the manufacturing practitioners are all faced with this dilemma of knowing it, not knowing why. The difference is that the craftsmen in the pre-industrial era mainly relied on the accumulation of experience and lacked a systematic and scientific summary; on the contrary, in modern standardized production, the main participants in production activities can grasp the knowledge through education. It is then applied to its own production activities, but due to the high degree of division of labour in modern production activities, the knowledge that participants master is often limited to knowledge of a certain issue, rather than more holistic knowledge. We can notice that in the process of labour activities of artisans, artisans are undoubtedly the unshakable subjects. The subject's attention is focused on the process itself, but the rules that need to be followed in this process are beyond the focus of awareness, just as a medieval blacksmith would not understand modern metallurgical metallography, the action of swinging a forging hammer The objective laws to be followed did not form a mathematical understanding, but this did not prevent him from building high-quality weapons. The objective law does play its role in this labour process, but the subject of labour does not pay attention to it, but only indirectly understands that it participates in the labour process in front of it. In this process, the objective law is actually a relationship of reverse restraint on the labour activities of the craftsman. A craftsman may have unrestrained creativity when realizing his creation, but in the end, he still has to follow the objective law, pursue his own and The unity of objective laws is required by the pursuit of "goodness" in the craftsman's spirit, and it is also an inevitable choice under the objective material environment. In order to meet the needs of goodness, craftsmen often have to cut down the creativity that does not conform to objective laws. This kind of helpless giving up is obviously not completely happy, and it will make the individual craftsman feel lost. It can be said that the labour and objective laws of craftsmen (which often means knowledge)are extracted as simple elements, and Exploring the relationship between them is actually contradictory and opposite. This opposition is also traceable, because the object we know from what we know to how is generally the object of focal awareness, not the object outside this, and the same is true for craftsmen. This also verifies a premise mentioned at the beginning of this section: the goal of skilled behaviour is achieved by following a set of rules, but the people who follow the set of rules do not understand the set of rules. Now we know that the source of this incomprehension is that the object of understanding is not in the focus of the craftsman, so that the craftsman can only perceive it indirectly. This indirect awareness means a lack of mastery to the craftsman, and this lack of mastery will cause the craftsman's anxiety, which is also a way of existence of the opposition between the artisan's labour activity and knowledge.

With the technological leap forward and the change of production mode brought about by the industrial revolution, the production mode that ancient artisan groups depended on for survival has gradually been replaced by the mode of industrialized mass production. The executors of production and labour activities in the new era are also very different from the ancient craftsmen. In fact, modern industrial workers have generally experienced standard basic education. Mathematical knowledge. This also means that, compared with the ancient craftsmen's lack of grasp of mathematical rational knowledge and objective laws, modern industrial workers have already mastered a part of mathematical knowledge before engaging in labour activities. This difference also leads to the difference between

ancient craftsmen and modern Industrial workers use knowledge in a completely different way. If the mastery of knowledge in ancient artisan labour activities is the use of a negative way, then the mastery of knowledge by the craftsman spirit of the new era is famous, conscious, active, and plays a leading role. For the participants of engineering, technical and industrial labour in the new era, the contradiction between labour activities and knowledge lies mainly in the difference between the whole and the individual, because the contemporary division of labour, the focus of labour subjects and the ancient Different artisans are not the whole of a project. This creates a cognitive difference and hinders labour activity. "...the worst architect is better than a bee from the beginning; he has built it in the beeswax before he builds it." [8] And this obstruction destroys the hive in the labourer's mind. This also means that the contradiction that prevents artisans from acquiring knowledge from labour in the new era has changed from "the goal of skilled behaviour is achieved by following a set of rules, but those who follow the set of rules do not understand the set of rules" to For the mismatch between the rules understood by the executors of skilled behaviour and the goals of the behaviour, the overall goal is too large and complex, and the difference between the main body of labour activities is too subtle. Therefore, it is difficult for the labour subject to grasp a complete object, but only a part of it. This incomplete grasp can easily lead to a kind of confusion, and in the face of the objective difference between the whole and the part, this kind of confusion is difficult to be ignored. Solution, but also caused anxiety to the participants, but the anxiety of the new era does not arise from the opposition between workers and knowledge, but the opposition between knowledge and goals.

#### **4 Intrinsic drive to acquire knowledge from labour**

But we know that the labour activities of ancient craftsmen can obtain knowledge. Even though the form of this knowledge may be different from that of modern scientific laws, its essence is the same. Of course, modern labour participants can also acquire knowledge from labour activities. Unlike ancient craftsmen, this is a form of acquisition in the form of the unity of knowledge and action. It is the extension of the individual's will through the grasp of the goal in labour activities. and rich manifestations. This is because the artisan, as the main body of labour, as a human being, has the "primitive desire"[9] to grasp everything that is perceived. This original desire urges the craftsman to grasp this lack of mastery, but unfortunately, the objective laws of physics are not in the focus of the craftsman. These skills can help craftsmen to better follow objective laws, which are reflected in the specific labour process, that is, to produce better products, or to make technological progress. This process of acquiring "knowledge" is long and spreads throughout the entire labour activity, which means that in the long process of labour activities, the individual craftsman must always be accompanied by "anxiety", which is obviously a concern to the individual craftsman. A kind of mental torture. Although libido is shared by everyone, not everyone can have the result of stepping through the trap called empirical tradition, gaining further knowledge and improving skills. For example, the labour activity of weaving has almost run through the entire human history, but in the long history of thousands of years, the great changes produced by the textile process are only concentrated in the hands of a small number of people relative to this long history. Even in Chinese traditional culture, craftsmanship is a derogatory term, and it often describes a work that is inflexible, works in details but lacks aura. Corresponding to ingenuity is "ingenuity". The word ingenuity is undoubtedly a compliment, and it is often used to describe creative works. Obviously, there are many people with craftsmanship, and few people with ingenuity. In terms of the meaning of the word, ingenuity is a partial phrase, which means exquisite mind. In this word, the word "craftsmanship" refers to the meaning

of dexterity and ingenuity; in Chinese, the heart has the meaning of thinking, nature, and conduct. In this word Take the meaning of thinking. We can see that the difference between craftsmanship and ingenuity lies in this "thinking". Because of thinking, the craftsman who refers to the rigid becomes the craftsman who refers to the dexterity and ingenuity. This kind of thinking is a typical knowledge-seeking activity, because with this activity, we can get rid of the rigidity of craftsmanship and have an ingenuity that is appreciated by others.

From the perspective of promoting change and developing innovation, we should think about this kind of achievement that enables individual craftsmen to transcend "anxiety", cross the traps of experience and tradition, and finally reach "knowledge" and satisfy their desires. On the surface, this kind of activity is a spontaneous and individual behaviour of the individual craftsman, but in fact, after the analysis above, we will find that it is a deeper force that drives this behaviour. This kind of power is the side manifestation of the craftsman's spirit at the level of seeking knowledge, and it is the power of seeking knowledge in the craftsman's spirit, which enables the craftsman to overcome the contradiction between labour activities and knowledge, realize the integration and unity of the two, and finally surpass the experience and traditional knowledge.

## 5 Epilogue

Through the discussion of the ways for skilled workers and craftsmen to acquire knowledge outside of education, we can understand that the cultivation of skilled workers needs to pay attention to the following three points in addition to education: pay attention to the maintenance of the spiritual tradition of craftsmen, such as workers The ancient traditions and living habits of the community; pay attention to the treatment of skilled workers and craftsmen, including material treatment and social status; cultivate a scientific atmosphere from the social level, and establish an overall technical view from an early age, which is more conducive to cultivating the spirit of craftsmen and further It is easier to acquire knowledge through labour activities.

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