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Analysis on Value Rationality of Traditional Farm Tools in the Taomin Area

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Abstract This paper introduces the types of traditional farm tools, and analyzes the value rationality of these traditional farm tools: on the one hand, these farm tools have witnessed the farming culture, and they are also a manifestation of local culture in the Taomin area, representing the cultural characteristics and civilization progress of this area.

Key words Taomin, Farm tools, Value rationality

1 Introduction

The general geographical range of Taomin area can be considered as Lintan, Zhuoni and Maqu in Gannan Tibetan Autonomous Prefecture today, Minxian County and Lintao County in Dingxi City, Tanchang County in Longnan City and other administrative areas. Located in the transition zone from Qinghai – Tibet Plateau to Loess Plateau and Longnan Mountain, this area has an elevation of about 2 200 – 4 500 m. Due to the huge altitude difference, the climate in this area is cold and the temperature difference is huge. In the *Investigation of Southwest Border Region in Gansu Province* by Mr. Wang Zhiwen during the period of the Republic of China, it was recorded during the investigation of the physical and geographical conditions of Tibetan areas in southwest Gansu, including Minxian County, Lintan County, Zhuoni County and Xiahe County: "The area to the south of Lintao is about 1 900 m above sea level, gradually rising to the southeast along the watershed. The terrain in Minxian County is 2 287 m high. We walked from Minxian to the southwest to Lintan and Zhuoni on the left of Tao River, the elevation here is about 2 439 m; then we walked from Lintan to the west, via Gaijiashuang, Wanluoluo and Meiwu. The terrain is getting lower, reaching about 2 900 m near Heicuo."^[1]

The Taomin area is an arid and semi-arid area with frequent natural disasters and fragile ecology. The farming culture in this area has a long history, and traditional farm tools and traditional farming civilization go hand in hand. Farm tools have also become an important part of "family property" in people's daily life in traditional farming society^[2]. In the Taomin area, there are different types of farm tools. With the continuous development of farming society, these farm tools have been constantly improved and widely used.

2 Traditional farm tools in the Taomin area

Great difference in altitude and low temperature are the cli-

matic characteristics of this region. In a year, the temperature is not high for a long time, and the temperature is relatively low in other seasons except summer. Taomin area also has different landforms, such as mountains, river beaches, dense forests, terraces, basins, hills and grasslands. In densely populated villages and towns, there are many mountains, few flat lands, and even less lands that can be cultivated. Frequent natural disasters such as drought, hail and frost, coupled with the lack of agricultural knowledge of local people, have seriously affected the growth of local crops and the development of agricultural economy.

As far as farming methods are concerned, today, in the rural areas of Taomin, due to the limitation of geographical environment, traditional farm tools and traditional farming civilization still go hand in hand. There is no relatively wide flat terrain for farmers' cultivated land, and most of the cultivated land is halfway up the mountain. When farmers go to the cultivated land, they walk along narrow paths, where only animals and people can pass, making it impossible for some large agricultural motorized equipment to reach. At the same time, the farming economy in the Taomin area is basically a self-sufficient small-scale peasant economy. Without the mode of centralized production, each family has land of a little over an acre, and centralized sowing and irrigation cannot be realized^[3]. Under the harsh climatic conditions and poor soil, the agricultural production in the Taomin area can not even achieve self-sufficiency. All modern modes of production, tools of production and modes of production seem to be useless there. Judging from the current farming procedures, everything is still very old and not modern. In Taomin area, farmers face the loss with their backs to the sky, and have been with the land, farm tools and nature for generations. Farm tools are also important "family property" in Taomin people's daily life^[4-5].

In the Taomin area, there are many kinds of farm tools as follows:

2.1 Planting farm tools Planting is a key step in agricultural production. Planting farm tools are rich in variety, including the tools in different forms for land preparation, sowing, intertillage

and so on. Traditional planting farm tools in the Taomin area include iron plows, step plows, hoes, drill barrows, spades, shovels and so on; plough is an important tool for ploughing, which is fitted with ropes, splints and other accessories on animals, and can be used for turning over soil continuously. The plough used in the Taomin area is simple in structure and small in size, and it is suitable for the use in the cultivated land with small area in the Taomin area, and also meets the demand of transportation in the areas with many mountains and narrow lands. Plough, ox yoke and ploughing disc work together to carry out normal farming activities. Hoe, spade and shovel are the tools with head and handle. Spade can be used for weeding and small plant cultivation, and can also be used for small plots of land where it is difficult to use plows. In addition to turning over the soil, the shovel is also a very convenient short-distance transfer tool which is used for digging and filling.

2.2 Harvesting farm tools Harvesting farm tools are the tools that farmers use in the process of harvesting and collecting grain products after the crops are ripe, mainly including sickle, stone roller, basket, dustpan, flail, wooden shovel, *etc.* Wheat planting in the Taomin area is used as an example. After wheat matures, the sickles, hoes, *etc.* are used to cut off the connection between crops and land, they are loaded to truck with fork, and then flail, stone roller and other farm tools are used for threshing. After threshing, wooden shovel and other tools are used to screen crop grains. Sickle is one of the most effective farm tools in wheat harvesting, and it is simple in structure and easy to use. In addition to harvesting crops, sickle can be used for weeding in the field. Stone roller is a kind of animal-drawn farm tool used for rolling. It is generally similar to a cylinder, slightly larger in the middle and slightly smaller at both ends, and is suitable for rotating around a center. The stone roller in the Taomin area is widely used in threshing grain on the ground. A flail is a tool which consists of a piece of wood or metal that can swing freely from a handle. It is used to beat crops such as corn in order to separate the grain from the rest of the plant. Basket, dustpan, *etc.* are generally hand-woven with rattan, and they are used for transportation and holding during harvest. Wooden shovel is used to lift the ground grain into the air, and blow off the straw and skin with the help of wind to make the grain clean. There are wooden shovel and iron shovel, which have the same function.

2.3 Transporting farm tools Transporting farm tools include shoulder poles, baskets, pack baskets, carts, *etc.* The shoulder pole usually consists of a cross bar and accessories at both ends. With a hook hanging from each end of the cross bar with a rope or chain, plus two baskets, it is a typical human vehicle. Although the structure is simple, it also contains the principle of mechanics. Baskets, pack baskets, *etc.* can be used for transporting or holding. Carts mainly rely on two-wheeled and one-compartment vehicles drawn by animal and human, with obvious advantages. Compared with farm tools such as shoulder poles and pack baskets, carts save more manpower, and the amount of crops carried

is dozens or even hundreds of times that of tools such as shoulder poles, which greatly improves the efficiency of production and transportation.

These production tools of ancient farming society with a sense of history and age are still used and preserved in modern farming society, playing the same instrumental function as any historical period. They do not disappear and die out in the modern society of mechanized production, but survive through the changes of its functions, and are passed down in the modern society and continue to play an instrumental role. This is the emotional function of traditional farm tools in modern society that we can't ignore, and it is its value rationality.

3 Value rationality of traditional farm tools in the Taomin area

In the Taomin area, farm tools are not only production tools, but also bear people's emotions, sustaining farmers' memory of tradition, ancestors, awe of nature, and even the common life memory, cultural memory, collective memory and inheritance and preservation of collective culture of people living here. In the Taomin area, there are some special customs that come from farm tools and agricultural production methods.

In the traditional Shehuo performance in the Taomin area, it is inseparable from traditional farm tools, including shovel, spade, basket, pack basket, *etc.*, which are all equipment used by "witch" in Shehuo performance. In addition, cattle, horses, mules, *etc.* will also appear in the traditional Shehuo performance. Cattle and plows appear at the same time, with one person controlling plow and then two cows pulling plow forward, which is a working scene of "a yoke of two cattle for tilling". Dressed children will ride horses and mules led by adults. Some horses lead a cart on which various dressed characters give a performance. Farm tools and farming scenes will be reproduced in Shehuo in Taomin.

On New Year's Eve every year in Galutian Village, Lintan County, there is a peculiar custom of paying New Year's greetings to cattle. As an important means of production for farmers, cattle play an extremely important and irreplaceable role in traditional agricultural production. Therefore, farmers' feelings for cattle are also pinned on the yoke made for cattle, which is used to protect cattle from injury during work, and neck bells are used as decorations, carrying people's trust and gratitude for cattle.

In addition, in the Taomin area, people find a good tomb called Goufen for the dead. Obviously, in the ceremony of Goufen, the action of one person holding plow and two people pulling plow forward is to imitate tillage. Here, the plow for cultivated land is no longer an ordinary traditional farm tool, but a sacred symbol with a special function and meaning. It can be seen that traditional farm tools are not merely ordinary meaningless objects in Taomin society, on the contrary, under the traditional farming mode and in the long and ancient customs, traditional farm tools have already been endowed with people's emotions.

The traditional farm tools in the Taomin area embody the

spirit and temperament of "people" who lived here for generations and struggled with the harsh natural conditions. The natural conditions are extremely terrible. If they want to achieve self-sufficiency in such a geographical environment, they have to "suffer" and "depend on weather for sustenance". Taomin people living in this barren land are hardworking, tenacious and optimistic, and take root in the land. They lead not only a "very hard" life, but also a hard-working, brave and optimistic life.

In modern society, the change and disappearance of "instrumental rationality" of traditional farm tools is obvious. However, in the Taomin area, in a relatively closed regional space, the "instrumental rationality" or "value rationality" of traditional farm tools appear in a brand-new cultural ecology, which is a clever combination of tradition and modernity, urban civilization and farming civilization, function and aesthetics and many other factors. Here, traditional farm tools are full of historical

memory and store rural cultural information. They contain the simplest and most sincere emotion, embody identity and maintain homesickness.

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after weaning of sows have been significantly improved. Besides, it increases newborn litter weight, average individual weight, and weaned litter weight, decreases repeat rate, and shortens estrus interval and gestational days. In addition, the silage fermentation feeding technology improves the water retention performance of pork and the quality of local pig pork, increases economic benefits, and achieves the purpose of saving costs and increasing efficiency.

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