

Discussion on the modeling and decorative design principle of jade sword in Han Dynasty

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Abstract. Ancient China was the age of cold weapons, in which the sword was an important component. With the development of society, the sword has evolved from a simple and sharp tool to a function of decorating identity. The change of function also brings about the follow-up in form. At this time, the sword has derived the form of jade sword. Through the study of jade sword, it is found that as a practical and decorative tool, because it has both functions and aesthetic significance, its shape and materials are limited to a certain extent. With the fixation of its shape, the decorative patterns on it also show aesthetic laws. In addition to the modern characteristics, these patterns are more important to the aesthetic laws under their patterns: overall unity, decoration follows the physical characteristics, and decoration follows the function, Balanced change of decoration rhythm.

Keywords: Jade sword; Global and local.

1. Historical origin and development history of jade sword

It can be said that the emergence of jade sword is mainly due to the prosperity of its carrier "sword". Therefore, the history of jade sword can almost be said to be synchronized with the rise and fall of "sword". Sword originated in the late Shang and early Zhou Dynasties and prevailed in the Eastern Zhou and Western Han Dynasties. After the Eastern Han Dynasty, it gradually withdrew from the field of actual combat. Before the Eastern Zhou Dynasty, the whole of China was in an era of strict etiquette, so although jade and copper were combined, most of them were non sword weapons such as GE, which were made with jade as the main body and metal as accessories. In the Western Zhou Dynasty, jade was mainly used for ritual activities such as sacrifice, so the combination of jade and metal was of no practical significance at that time. With the demise of the Western Zhou Dynasty, the "rites and music" of the Eastern Zhou Dynasty in the spring and Autumn period and the Warring States period had already collapsed. The role of jade in etiquette and education had been greatly weakened. The number of ritual vessels also decreased, and jade gradually began to be used to decorate daily wear. During this period, there was a wave of ideas of a hundred schools of thought, and the jade loved by the Chinese nation naturally began to develop rapidly. There were major breakthroughs in design, such as the appearance of the square hook cloud pattern. At this time, the casting and application of iron began to emerge. The emergence of these new production tools also led to a significant improvement in the production process of jade, such as the emergence of the technique of shallow relief and line carving. At the same time, during this period, many heroes competed with each other and wars occurred frequently. As a weapon with good lethality, the sword also got full development in this period. Therefore, the comprehensive emergence of these reasons led to the emergence of the jade sword as a sword attached to the sword in the Eastern Zhou Dynasty.

As mentioned above, the jade sword appeared in the Eastern Zhou Dynasty. However, according to the quantity and quality of cultural relics unearthed at present, the most prosperous time for the development of jade sword was in the Han Dynasty (according to the census data of cultural relics in the national collection, the cultural relics related to jade sword include 220 sword heads, 227 sword grids, 352 sword ridges, 226 sword ridges and 174 sword decorations. 1025 pieces were summarized, and 513 pieces were in the Han Dynasty with a clear age, accounting for more than 50 percent). The reason why jade swords developed so well in the Han Dynasty was directly related to the opening of the Silk Road and the construction of the western regions in the Han Dynasty. The Silk Road and the Han Dynasty's management of the western regions expanded the source of raw materials for jade products in the Han Dynasty, especially Hetian jade and sapphire. At the same time, the people's love for jade in the Han Dynasty reached a peak in Chinese history. During this period, great progress was

made in jade culture, jade modeling and jade decoration. For example, various kinds of jade carvings with exaggerated and expressive shapes appeared. The daily and diversified use of jade naturally affects the decoration of the sword, as well as the modeling and decoration of the jade sword. At the same time, according to Jia Yi's new book, cited in Volume 22 of beginner's notes, in ancient times, the emperor carried a sword twenty times, the princes thirty times, and the doctors forty times, With the official end of the Eastern Zhou Dynasty, the people of the Qin and Han Dynasties set off a wave of sword wearing in all classes of society in order to pursue a higher class life. Many pottery figurines unearthed in the Han Tombs also have many swords. For example, the stone FIGURINE of a farmer holding a sword unearthed in the Eastern Han Dynasty cliff tomb in Leshan has a spike sword on his chest. All these show that in the Han Dynasty, the sword can be said to be a national ornament, so the jade sword, as a supporting object of the sword, also received great welcome, and its decoration also developed rapidly due to the demand. In particular, the agate sword case and the sword case were unearthed in tomb No. 1 of heitoushan, Xuzhou. The appearance of these non-traditional jade sword tools indirectly proves the vigorous development of jade sword tools in the Han Dynasty. The jade sword of Han Dynasty can be said to be the peak period of the development of jade sword.

As the sword gradually withdrew from the practical category after the Eastern Han Dynasty, the development of jade sword also gradually declined, and even almost disappeared in the Tang Dynasty, because more jade was used to make other jewelry in the Tang Dynasty. In particular, with the emergence of the social trend of emphasizing literature over martial arts in the Song Dynasty, the sword basically withdrew from the stage of life, so even after the Wei and Jin Dynasties, the jade sword was mostly imitated and had no other meaning and function.

The name "jade sword" was once mentioned in Liu Xiang's "Shuoyuan counter pledge" that "when the Marquis went to the prince of Wei, he left the feather jade sword". In previous studies, it was mostly defined as four parts, namely, the head, the case (Sword AR), the nose and the case. The head and the case are placed on the body of the sword and are usually immovable, while the case and the case are placed on the scabbard, so the case can have a certain range of activities. In detail, the head of the sword corresponds to the top of the sword. It is often inlaid on it. Only when you look down can you see the whole picture of the device. It usually changes according to the shape of the head of the sword. Most of them are in a round cake shape, and a few are in a square shape. The lattice is decorated at the junction of the handle and the body. It is often determined by the shape of the blade. Because flat stem swords were popular in the Han Dynasty, the hollow part in the middle is often a diamond. The Jian Yu is usually located in the upper third of the scabbard. Some Chinese and foreign Yu Peijian use this place to link clothes with the sword. The dagger is mounted at the bottom of the scabbard, mostly wide at the top and narrow at the bottom, and the lower part is mostly flat cut.

The emergence of jade sword can be said to be a collection of the simultaneous development of sword and jade. Its emergence not only satisfied people's love for jade at that time, but also included their love for sword at that time. It can be said that the combination of jade, a gentle thing, and sword, which has a strong attack atmosphere, is a perfect combination of physical needs, spiritual needs and social needs.

2. Analysis on the decoration of jade sword in Han Dynasty

The Han Dynasty was an era when Confucianism was widely recognized. The prevalence of the idea of jade as a symbol of virtue greatly promoted the development of decorative jade. Both the types of decorative jade and the patterns on various decorative jade have made full progress, such as bracket cloud, valley pattern, spiral pattern and so on. Under this social atmosphere, the jade sword decoration naturally evolved. Many scholars had studied the jade sword decoration before, but most of them stayed in talking about what kind of decoration to use, rather than the decorative principle of decoration.

Based on the summary of the general survey report of cultural relics in the national collection, it is found that there are mainly five kinds of decorative patterns, such as cloud pattern, animal face

pattern, dragon pattern and grain pattern, supplemented by phoenix pattern, dragon pattern, crouching tiger pattern, silkworm pattern, persimmon base pattern, geometric pattern and Ruyi pattern.

2.1 Overall Unification

As mentioned above, the jade sword is mainly composed of four parts: the head of the sword, the case of the sword, the blade and the blade. Although the jade sword appeared as early as the spring and Autumn period, no complete set of four pieces has been unearthed. At present, the earliest complete set of four pieces has been excavated in the Han Dynasty. However, all the unearthed jade swords have one feature: overall design, change and unity. A complete set of jade swords unearthed in M13, Rongyuan, Changsha City, Hunan Province in 1995, in which the head of the sword is in the shape of a round cake, the center of the cake is slightly raised with a concentric circle, forming a circular arc, and the cirrus pattern is carved around the central arc. The front view of the sword case is an asymmetric diamond, with an elliptical pair of perforations in the center of the diamond. Looking down, you can see a lying dragon, whose limbs are curled and lying down. Although the head is missing, you can see that the fracture is upward, It can be inferred that the dragon head is separated from the main body of the sword case, which seems to have a take-off shape. The back surface is polished smooth. A closer look shows that there are Yin carved animal face patterns. The dagger is a wide square from top to bottom and narrow square from top to bottom. Both ends of the square are bent downward, and a swinging dragon is carved on it. Its limbs are powerful, and its head and tail are hollowed out on the main body of the dagger. It looks like a dragon flying in the sky. Its back is smooth without other decorations. The dagger is narrow from top to bottom and wide from top to bottom. It looks like a trapezoid from top. A hollowed out dragon is carved on it. Its body is outlined with Yin carved lines, and its back is deformed cloud patterns, The rest of the parts are carved with animal face patterns, and the decorative lines are very exquisite. On the whole, we can find that the sword lattice, the sword shell and the sword shell are all three-dimensional carved with dragon shapes, which is visually unified. However, when we observe carefully, we can find that the three dragon shapes are different, and each of them has different states and shapes. The Dragon at the sword lattice creeps on it, only the dragon head is suspended in the sword lattice, and the Dragon at the sword shell is bent into an S shape and placed on it, Compared with the sword case, it is more energetic, and its tail and head are suspended on the whole jade surface, while the Dragon at the last sword case is a circling dragon with a curly body. Although this group of dragon decorations can be divided into three sets at a glance, a closer look shows that their shapes have different changes, so that they won't feel boring when watching. "The tiger pattern of the Han Dynasty is one of the most distinctive patterns of the Han Dynasty. The tiger pattern of this period is more dynamic than that of any other era.", This statement is clearly displayed in this set of jade sword. The animal face pattern on the back of the sword case echoes the animal face pattern on the body of the sword dragon, which also makes the decoration of the whole set of appliances fuller and more vibrant. In the Han Dynasty, jade ware was mainly used for decoration, and jade swords often appeared at the same time as suit decoration. Therefore, assuming that the patterns of each part of a set of jade swords were consistent, the decorative effect would be too rigid.

The overall unified design, with slightly changed main body decoration and distant echoing detail lines, makes the design not only maintain unity, but also bring vitality and make the design more attractive.

2.2 Shape Following Function

Another feature of jade sword decoration is that the shape is designed to follow the function. The Jade Valley pattern sword head collected by Xuzhou Museum in 1993 is a flat circle as a whole. The front view can be divided into two areas: the inner circle and the outer circle, which are concentric circles. The edges of the outer circle are slightly raised. Valley patterns are carved between the outer circle and the inner circle. The inner circle is decorated with three groups of vortex patterns. The back is flat and unpolished. There are also two concentric circles inside and outside, and two holes are

opened in the middle for fixation. It can be seen from the following picture of sword wearing in the Han Dynasty that during the Qin and Han Dynasties, the head of the sword was inclined to the front, and it needs to be seen by others in daily wearing, so its shape should not be too complex, and it should be decorated with plane decoration. In addition, there is a circle of bulge on the outer ring edge, which can also be used to protect its inner decoration from damage in addition to its decorative function. The softness of jade is the main reason why Chinese people like it. Therefore, in addition to showing the social status of jade wearers, these sword heads are also used for jade wearers to touch and play. Therefore, they are often decorated with convex patterns, such as the small valley pattern in the picture and the height difference between the bulge of the middle inner circle and the outer circle. In this way, people who are equipped with jade and sword will have richer hand changes when playing.

The Warring States jade animal face pattern sword lattice, which is now stored in the Palace Museum, was originally stored in the Palace Museum. Its front view roughly forms a "concave", with two ends raised upward and the middle concave. The cross-sectional view shows a diamond shape, with thin ends and thick middle, and a pair of perforations in the middle. The most familiar shape of the sword is flat stem, that is, the blade is extremely thin on both sides and the middle sword bone is slightly thick, which can ensure that the sword has enough toughness and rigidity when it has enough lethality. The design of the sword case is to enlarge this image. The middle bulge just reserves space for the sword to pass through. The lower part of the bulge can also increase the contact area between the sword case and the sword, so that it can better fix the sword and make the fixation of the sword case and the sword more compact. The two ends of the grid exceed the width of the sword. This design can also effectively prevent the sword from scratching itself when attacking with the sword. Similarly, the concave design on both sides of the bulge at the lower part of the grid can also remove the enemy's attack when being attacked by the enemy.

It can be said that the sword is designed for practical use. According to research, this shape was first designed and used in China, and later spread to other countries. The main function of the sword is to wear it on the body of the wearer. This wearing method is called the sword wearing method. At present, the more recognized wearing method is that the completely closed square shaped hole in the middle is connected with the scabbard through a cloth belt, and then the rope is passed through the semi closed channel at both ends to fix the sword on the waist of the saber through the rope, so that the sword can be fixed at the waist. The main function of the semi enclosed part protruding from both ends is to hide the insertion of the rope, making the whole saber posture more neat and natural.

It can be said that the design of the jade sword reflects its function except for its decorative function and status symbol.

2.3 Decoration Follows The Shape

In addition to the design of its shape, the decorative design of each part of the jade sword is also very brilliant, which can be called keeping the function to make it wear the most suitable and beautiful coat.

"Central symmetry and clear contrast" can be said to be the most obvious generalization of the head decoration. The White Jade Valley head of the Western Han Dynasty unearthed in tomb No. 1, Heishantou, Shangdianzi village, the eastern suburb of Xuzhou City in 2007, is divided into two inner and outer circles, the inner circle is convex, the center of the inner circle is carved with an arc edge rhombic pattern, surrounded by four groups of double helix patterns, and the outer circle is circular. It can even be said that removing the inner circle and the outer circle is a shape, on which the valley pattern is decorated, and the whole is inclined to the center. Almost all the patterns carved in shallow relief are around the center of the head, It clearly highlights the central role of the whole sword head in the sword. The changes of decorative elements on the inner circle are in contrast with the valley patterns on the outer circle. At the same time, the changes of decorative density between the inner circle and the outer circle are also in contrast. These comparisons also coincide with the contrast between the inner circle bulge and the outer circle depression, so that the three-dimensional sense of

the whole shape is strengthened. This contrast also appeared in the Warring States period persimmon stem grain glass sword head unearthed outside the South Gate of Changsha City in 1957. The whole sword head is in the shape of a round cake, which can also be divided into inner and outer circles. There is a grain in the middle part. Then it is decorated with a pair of concentric lines and decorated with two groups of persimmon stem patterns on the outside. The outer circle is arranged with three rows of grain patterns on the inside and outside. The four petal persimmon stem pattern has the meaning of stability in ancient times. The four petal persimmon stem pattern in the inner circle of the sword head is called central symmetry, However, the valley pattern of the outer circle is not arranged in any way, so that the chaos of the outer circle is in sharp contrast to the stable symmetry of the inner circle, and the symmetrical shape of the center of the whole circle is quickly displayed incisively and vividly.

The words "proper density and prominent center" can be said to be an important feature of the jade sword lattice. This feature is clearly shown in the Han Dynasty animal face jade sword lattice now stored in Nanyang Institute of cultural relics and archaeology. The shape of this sword lattice is symmetrical left and right, prominent in the middle and slightly thin on both sides. The animal face pattern is carved on it. The fierce teeth of the animal face pattern are exposed and the look is fierce. The decoration of the animal face pattern is also symmetrical like a sword lattice. The animal face is completely depicted in the five senses area of the fierce animal. The whole sound and color is very clear. The depiction in other areas outside the five senses is relatively simple. Only a few lines are used for depiction. This treatment technique makes the five senses area of the animal face form a dense contrast with the surrounding areas, Make everyone focus on the center of the sword case, and show the sharpness of the sword. Another example is the jade sword case with bear tiger pattern unearthed from the Nanyue King's tomb in Guangzhou, which can better show this decoration. This bear tiger pattern has a sword case. The main carving technique is high relief. There is a tiger pattern on the right side of the sword case and a bear pattern on the left. The head of the tiger pattern is on the high point of the sword case. This shows that the tiger is facing each other on the high ground, showing its king style, while the bear on the other side is looking back, showing that our territory is inviolable. On the right side, the tiger has a long body shape, with a horizontal blank on the right, and the bear on the left has a huddled body. The body shape is thick, with a vertical blank. It seems to be an arbitrary carving. When you look at it carefully, there is a sense of balance. In particular, the tiger lies in the middle of the sword lattice, and the bear's color looks into the middle of the sword lattice, which makes the viewer focus on the high point of the sword lattice, directly showing the ferocity of the sword wearer. It perfectly shows the feeling of density, balance and outstanding center.

"Free and powerful" is the main expression of Jian Yu. The craftsmen changed the symmetrical and steady style of the sword head in the carving of the sword. They mostly chose high relief, hollowing and other techniques to show the vitality and momentum of the carved objects. Because the sword is at the highest point on a sword, its shape is usually long and square, and because of the popularity of the sword wearing method, the direction of the sword is mostly inclined upward, which means that it is soaring to the sky. Therefore, when craftsmen design the sword, they mostly adopt two strategies, one is the high floating dragon pattern, and the other is the simple and atmospheric flat carving pattern, because these two patterns can be well used in the long shape, The dragon is in the shape of a long strip. The dragon pattern that is difficult to spread on the head and grid of the sword can well hover over the sword. In ancient times, the dragon has the power to fly to the sky, and the direction of the sword is just facing the sky, which can also bring a beautiful meaning.

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