

# A Piece of Human Skull Fossil Carved with Prehistoric Figure and Micro-figures Found in Northeast of China

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**Abstract:** A piece of human skull fossil with 10 cm in height, 11 cm in width, 0.6-2.2cm in thickness and 231.0g in weight was found in recent years in the site of Paleolithic and Neolithic times in northeast of China, which was deemed to be a part of the frontal bone of the skull in the age ranged from 1700 thousand years to 40 thousand years before. The ancient people of China carved pictures of human heads in different sizes on its double surfaces with the techniques of micro-carving and micro relief carving. The micro-carved figures had different posture and vivid expressions, and they were arranged in order, which was to tell their inner relationship properly. Surface information including figure and micro-figures and their expressions, wearings and posture left on the skull fossil was a clue to detect the era of the carvings in Neolithic times, and the state of the fossil may help to know the year of the owner of the skull in Paleolithic times or even earlier. A man wearing a crown was located on one surface, who was the main god or master, surrounded by hundreds of micro-carved man or woman, young or old, who was his offspring or liegemen; while on the other surface, a young man with a human face and a snake body was carved, together with his head bowed and his arms raised in the form of a strong man holding the sky, which might be connected with a mythologic story of Nvwa Patching Up the Heaven in ancient China.

**Keywords:** Human Skull Fossil, Micro-figures, Hongshan Culture, Northeast of China, Neolithic Times, Surface Informatization, Father Society

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## 1. Introduction

Hongshan Culture, belonged to Neolithic times, was a prehistoric culture located in northeast of China, which could be dated back to almost 8000-5300 years before [1], and prehistoric relics could be found and collected occasionally on its site by the resident. At the same time, the territory of Hongshan Culture was also the living land of far ancient people, and their relics were discovered by the Hongshan people and became a part of their daily lives. Therefore, these cultural traces combined together on the relics.

The site of Neolithic times was derived from Paleolithic times in northeast of China, thus formed Hongshan Culture, which was passed down directly to nowadays as a whole. There were several Paleolithic sites located in northeast of

China, such as Jinniushan (Golden Buffalo Mount) site at the age of 260 thousand years [2] and Gezidong (Cave of Pigeon Holes) site at the age of 50-70 thousand years [3] in Liaoning Province. The fossil relics left by them was of the most importance to confirm the existence of ancient people, and their living states could also been known after a careful study.

The skull fossil of mankind was first-hand material in paleo-anthropologic research, which carried a lot of scientific and cultural information from the ancient people. For example, it could show the level of their brain and intelligence development. However, their remains was rather rare and became very precious, and each piece of skull fossil should be entirely examined, analyzed and studied [4].

## 2. Human Skull Fossil Found in Northeast of China

A piece of human skull fossil with 10 cm in height, 11 cm in width, 0.6-2.2cm in thickness, and 231.0g in weight, which was deemed to be a part of the frontal bone of the skull in the age ranged from 1700 thousand years to 40 thousand years before was found in recent years in the site of Paleolithic and Neolithic times in northeast of China, and it perhaps was the earliest human skull fossil ever found in northeast of China (Figure 1 & Figure 2).

The skull bone had completely developed into stone after a long time of Earth physical and chemical action. About 5000 years ago, Hongshan people found the fossil and utilized the fossil as a special material to make into a plate hanging around waist or neck for decoration or amulet.



Figure 1. Outer surface of the fossil.



Figure 2. Edge of the fossil.

### 2.1. Basic Morphology and Thought of Design

The fossil piece was in square shape. One of the four corners was in its natural state with an angle nearly 90°, and the other three corners were cut off and grinded smoothly, so it could be worn on neck or waist in safety without hurt (Figure 3).

The sheet of skull fossil was 0.6-2.2cm in thickness, more pachyptic than the skull bone plate of modern people, which was usually 1.0-1.5cm in thickness, and it was undoubtedly adaptive to the environment of their ancient lives.

Somewhat pitifully, its lower edge of the back side was slightly damaged because a farmer, the first discoverer, filled with curiosity, tried to find out what it was made from (Figure 4).

The thought of design was from a traditional Chinese theory Round Sky and Square Earth (*Tian Yuan Di Fang*), which told the Heaven was round and the Earth was square. However, Chinese knew about that the Earth was round thousands years before, why they still told the Earth was square?

In Chinese ancient memory, land of the Earth was composed by six square mountain lands, whose square frames were just like a Chinese character Ya (𠄎), so the land was called six Ya (𠄎) standing for the Earth, from which the name of Asia was derived. For example, Sichuan Basin of western China was one of the six Ya (𠄎). As remembered, the six square mountain lands were the primitive land of mankind, so the Earth was called Square Earth, which was quite different from the saying of Round Earth. Therefore, the fossil plate was designed into a square shape to tell the land was square.

In the other hand, because the right angle was grinded off, the square plate had no sharp angle, the principle of which was recorded in Chapter 41<sup>st</sup> of Laozi (Dao De Classics) 2500 years before as great square had no corners (*Da Fang Wu Yu*). This was the land doctrine of traditional Chinese theory, showing the Earth was round shape [5, 6].



Figure 3. Grinded edge.



Figure 4. Damaged edge.

### 2.2. Areas Division on Both Surfaces

In the middle upper part of the fossil, there was located a round hole to tie rope for hanging. Because of long-term usage and abrasion, the round hole had already changed into an upright oval shape.

The plate was derived from a piece of fossilized ancient human skull, and the surface had not been in its natural state because of the necessity of decoration, thus formed the failure surface on both sides of the fossil.

The skull fossil was deemed to be the frontal bone of ancient human beings, and ancient people carved pictures on its double surfaces. Pictures there was carved with the techniques of micro-carving and micro relief carving into human heads in different sizes, and the micro-carved figures had different posture and vivid expressions.

On the outer surface, it can be divided into three parts,

including left, right and lower part. The left and right part was micro-carved relief ancient figures, mainly head portrait, including man and woman, young and old, king and liegeman, husband and wife. The lower part was grinded smoothly without any ornament. Moreover, it seemed that the surface had been color-painted in its primitive states.

On the inner surface was only one part, and the decoration was united as a whole. Because the inner surface was relatively flat, when it was used, the surface near to the brain was set outwards while the surface close to the air was set inwards.

### 3. Surface Information and Cultural Context

Surface informatization was drawing and processing pictures on valuable historical relics, which referred to the gorgeous patterns and decorations, specifically, formed by various processes such as embossing, painting, micro-carving, gilding, making them an effective carrier of history and culture. In the Hongshan cultural area, northeast of China, the vessels of stone, jade, pottery, bone, meteorite and bronze had been found traces of surface processing. Moreover, the phenomenon of surface informatization was found in various historical and cultural systems in ancient China [7].

#### 3.1. Logic Relationship Between the Micro-carved Figures

Decoration of the fossil included micro-carving and micro relief carving of human heads in different sizes. The big-sized person was the main god or master, and the small-sized person was offspring or liegeman of the main God or master.

In ancient time of China, the facial features of eye, ear, mouth, nose, tongue (sometimes the body) were called Five Officials, which stood for five types of official of government to rule the society. In that time, there was no modern system of administration and the facial features were symbolized as departments of administration to deal with daily affairs of the tribe or country.

Therefore, the main god or master had eye god, ear god, mouth god, nose god, tongue god or body god around the head, which showed small-sized person was established on the big-sized one. The outlines of the big-sized person became unclear, needing a careful examination and outline drawing.

Eye god was a person located in the eye, whose function was to see and discover.

Ear god was a person located near the ear, whose function was to listen and learn.

Mouth god was a person located near the mouth, whose function was to tell and order.

Nose god was a person located on the nose, whose function was to smell, and the identity of whom was usually the elder son or daughter of the main god or master.

Tongue god was a person located near the mouth, whose function was to taste. Or to say, the body god, who was located on the shoulder, he was shoulder god, whose function was just like shoulder and arm;

when located on chest or abdomen, he was heart god, whose function was just like heart; when located on leg, he was leg god, whose function was just like leg; when located on foot, he was foot god, whose function was just like foot.

Moreover, the person located on head was of the most importance, whose identity was parents or forefather of the main god or master. Occasionally, the person on head served as hair god, whose function was to brush or beautify the hair of main god or master.

Sometimes, the person located near the moustache was moustache god, whose function was to treat the long moustache of main god or master [8].

This principle of arrangement had not only appeared in the relics of ancient art, but also the human-shaped mountains in historic geography [9]. The so-called human-shaped mountain was the mountain outline was like a human being, man or woman, young or old, king, queen or liegeman, wife or husband, father or son, and so on, which combined together and formed a complex system, showing the social features of ancient time [10, 11].

#### 3.2. Outer Surface of the Fossil

On the outer surface of the fossil, there was micro-carved hundreds of ancient figures in different sizes. The biggest one was located left to the hanging hole, who was an adult man wearing a crown with a look of angry, showing his teeth, seemingly a king of that time. On his head, there was several small heads, who were his parents and forefathers. On his moustache, there was a man with smile, who was his waiter as moustache god to treat his moustache. There was several heads on his facial features at the same time as Five Officials (Figure 5).

On the outer surface, there micro-carved young man (Figure 6), old man (Figure 7), or woman, and they should belong to a big family (Figure 8). Members of the family was arranged in order and their Ethical relationship was clear. According to their features, wearings and relationship, the age of history could be deduced that it should be from the father society 5000 years before and told some truth of their life and thought of that time.



Figure 5. Micro-carved a man wearing a crown.

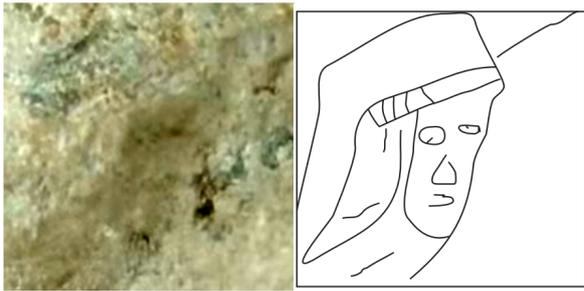


Figure 6. Micro-carved a young man.



Figure 7. Micro-carved an old man.



Figure 8. Details of micro-carved family.

### 3.3. Inner Surface of the Fossil

On the inner surface, there was carved a young man with a human face and a snake body, together with his head bowed and his arms raised in the form of a strong man holding the sky (Figure 9).

In the opinion of ancient Chinese people, the heaven was a huge stone, which was recorded in Chong Wang's Lun Heng (On Balance) of Eastern Han dynasty about 2000 years before, which told that the heaven was a type of jade or stone [12].

About 10000 years ago, an asteroid fell down to the Earth and its pieces struck into the Pacific Ocean and northeast of China, and the mankind was almost wiped out and suffered a lot. Because the stone was fallen from the heaven, it was deduced that the heaven was made from stone in ancient opinion of China, and a part of heaven was still lying on the land of northeast of China [13].

Thereafter, Mythology of Nwua Patching Up the Heaven

was born and spread out. The subject of this fossil plate was perhaps connected with this affair, and the strong man was holding up the heaven to stop the stone falling down.

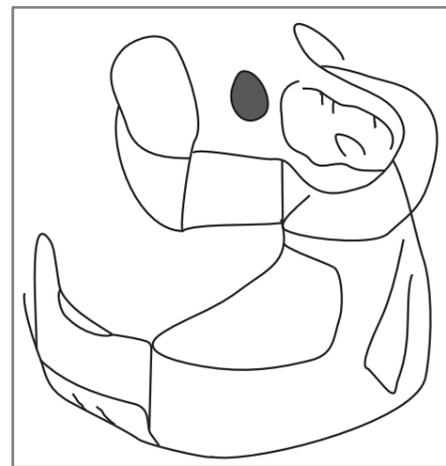


Figure 9. Picture on the inner surface of the fossil.

## 4. Conclusion

Skull fossil was very precious relics left by the ancient people, which was awared by the Hongshan people and shown by their means 5000 years before, and they used the skull fossil as a part of their daily lives.

In ancient times, paper was not invented, and the surface of ancient vessels carried knowledge and information as paper. The micro-carved pictures left on the skull fossil were records of ancient life, just like today's photos or videos, and it was a way to tell their history, which meant we could discover other important findings like this on the stone, jade, agate, gold, silver, bronze or pottery vessels of ancient time. Therefore, this finding could give instruction to other delicate studies on the surface of ancient vessels, which was a new direction of anthropologic research and indicated a very fine future.

Micro-carved figures reflected the features of ancient history, but the picture was not widely noticed, and its value was not well known in ancient time. Yuan Qu, a litterateur of Warring State said in his poem Huaisha of Jiuzhang that the picture was clear when it was in an enlarged vision, but the blinded man said it couldn't be seen [14].

In traditional Chinese culture, the head meant the Heaven, which was the organ nearest to the Sun [15]. Therefore, the skull fossil stood for the Heaven and Sun. Skull fossil also stood for ancestor or God in ancient times. The fossil plate combined natural science and social sciences together, showing the ancient opinion of harmonious relationship between the human and nature, and it was a small window to make clear about the passing ancient world.

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