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REVIEW ARTICLE

ARCHAEOLOGICAL TYPOLOGY ANALYSIS OF YINSHAN PETROGLYPHS

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ABSTRACT

The accurate classification of petroglyphs plays a pivotal role in determining their age, organizing them into chronological stages, and investigating the evolving patterns of ancient social structures. Establishing a scientific, standardized, and locally relevant method for classifying petroglyphs is essential for contemporary research in this field. Within the rich cultural tapestry of Yinshan and its environs, Yinshan petroglyphs, alongside other cultural heritage sites, contribute significantly to the historical and cultural narrative of the region. This study proposes an exploration of a classification method that aligns with the cultural nuances of Yinshan petroglyphs, utilizing a well-established archaeological chronology scale. By considering the developmental sequence of archaeological cultures from the middle to late Neolithic Age through the Iron Age in the Yinshan Mountains and its northern and southern regions, we aim to develop a preliminary archaeological typology scale for Yinshan petroglyphs, integrating it with established archaeological typology methodologies.

KEYWORDS

Petroglyphs classification, Archaeological typology, Chronological scale

Functioning as a vital component within the cultural ecology of a specific region, petroglyphs, in conjunction with other cultural heritages, contribute substantially to the historical and cultural fabric of that locality. This paper focuses on Yinshan petroglyphs as a crucial element in the cultural ecology of the Yinshan Mountains and its northern and southern regions. Leveraging the well-established archaeological chronology framework and the outcomes of the archaeological cultural development sequence in this area, this study initiates a preliminary exploration into the classification of Yinshan rock paintings. Additionally, the delineation criteria for establishing the archaeological typology scale of Yinshan rock paintings are examined.

1. OVERVIEW OF CURRENT RESEARCH ON DOMESTIC PETROGLYPH CLASSIFICATION

Currently, in China, the classification methods for petroglyphs primarily fall into two categories. The first method involves considering all petroglyphs within a specific region as a unified entity and categorizing them based on their ontological and cultural attributes. Ontological attributes encompass factors such as distribution area, preservation, production method, and the characteristics of the rock. This approach is

frequently employed in various petroglyph survey projects and research reports. For instance, Gai Shanlin incorporated petroglyph field survey registration forms and the Yinshan petroglyphs survey special record form from the third national cultural relics survey in the initial section of the first chapter of *Chinese Petroglyphs* (Gai, 1995). These forms address aspects like petroglyph preservation, production methods, rock characteristics, hardness, and image superposition phenomena.

Cultural attributes of petroglyphs include subject matter, ethnic origin, social life, science and culture, composition modelling, and primitive ideology. The classification method of cultural attributes is widely used, and there are many articles and monographs classified by this method. For example, Wang Xiaokun and Zhang Wenjing classified Yinshan petroglyphs into various types such as animal, grazing, hunting, vehicle, footprint, human face, character, symbol, graphic and text, scene petroglyphs based on themes and content in *Yinshan Petroglyphs Research* (Wang & Zhang, 2012). In *Yinshan Petroglyphs*, Gai Shanlin categorized Yinshan Petroglyphs based on various criteria. According to ethnic groups, the classification included Huns, Turkic, Uighurs, Tangut, and Mongolia. Regarding social life, petroglyphs were grouped into eight types: hunting, animal husbandry, archery, combat, knights,

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Figure 1: Banpo Type Painted Pottery Basin [1. Painted Pottery Basin with Human-Faced Fish Pattern (Source: National Museum of China); 2. Frog and Fish Ornamentation on Painted Pottery Basin (Source: Ren, S. N., & Wu, Y. L., 2010. *Chinese Archaeology · Neolithic Volume*, China Social Sciences Publishing House, Pp.5-2)]

camels, horses, and hunting dogs. The classification based on science and culture comprised ten types: vehicle, yurt, celestial, quantitative symbol, pictorial record, national character, tattooed face, deer chess, humanoid with tails, and dance. Furthermore, Gai Shanlin classified petroglyphs according to original ideology into eight types: snake-shaped, reproductive, fantasy animals, natural scenery, handprints and hoof prints, human and animal, human (animal) face type, and sun god petroglyph (Gai, 1986).

The second classification method involves selecting a specific theme or a similar type of image and using archaeology, semiotics, art, and other methods to refine the classification. This method is employed in thematic research articles focusing on specific themes and images such as animals, vehicles, hand and hoof prints, human faces, squatting human figures, and bird-headed beast bodies. For instance, Zhang Jianlin classified vehicle petroglyphs in the Durijian area into six categories: two-wheeled axle vehicle; two-wheeled single shaft vehicle; two-wheeled, shafted, single-shafted, balanced vehicle; two-wheeled, square carriage, single-shaft, balanced vehicle; two-wheeled, square carriage, single shaft, balanced, double-horse vehicle; two-wheeled, square carriage, single-shaft, balanced, two-horse, with a driver's carriage, based on

archaeological methods in the article "The Shape and Related Issues of Newly Discovered Vehicle Petroglyphs in Western Tibet" (Zhang, 2020). Similarly, Zhu Lifeng, in *Human Face Rock Art in Northern China from the Perspective of the Pacific Rim* divided human face petroglyphs in the Pacific Rim into four periods and further classified each period into different types (Zhu, 2017). For example, in the first period of the human face, petroglyphs are categorized into two types: concentric circles eyes (+ conterminous arched eyebrow) and skeleton type. The petroglyphs of the second phase were classified into seven types, which include the curved face style, the swirling style, the awned outline, the heart shape, the "conterminous arched eyebrow and longitudinal nose + double eyes" structure, the "three-pointed structure," and the tear-eyed style, among others. Liu Ying, in the doctoral dissertation "Image Modeling and Cultural Implications of Petroglyphs in the Inner Mongolia," utilized art anthropology to classify deer horn images into five types and horse-related images into five types as well: single-horned tree type, double-horned tree type, fan-shaped expansion type, brief type and omitted type (Liu, 2012). Additionally, Wang Yang, in "Research on Bird-Head Beast Body Modeling in Northern Grassland Nomadic Culture", categorized bird-head beast body models into four categories: bird-head and deer-body, bird-head and tiger-body, bird-head and horse-body, and bird-

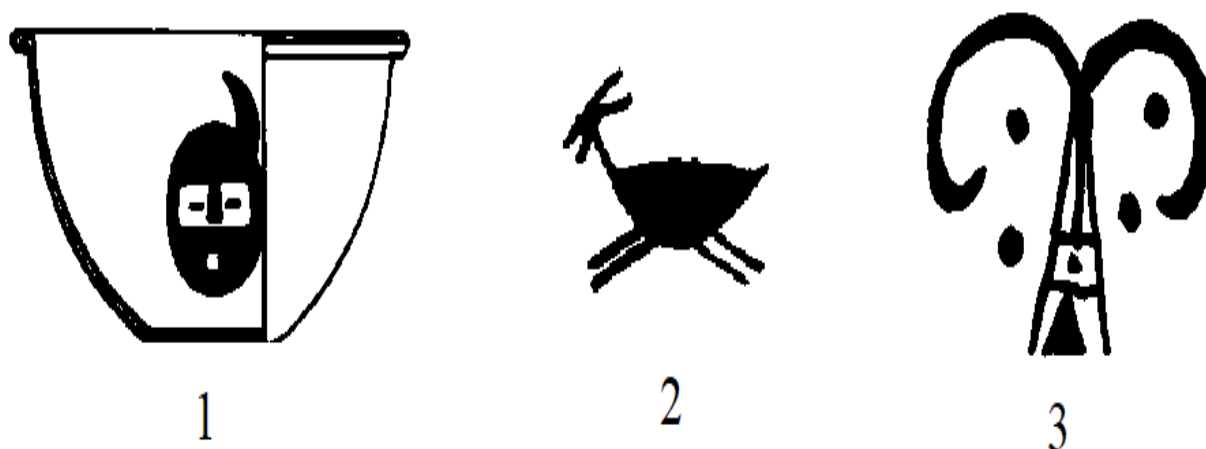


Figure 2: Painted Pottery from the Hejiawan Site [1. "Human Face" on the Pottery Basin (Source: Ren, S. N., & Wu, Y. L., 2010. *Chinese Archaeology · Neolithic Volume*, China Social Sciences Publishing House, Pp.246, Fig.20); 2. "Deer" figure on Pottery (Source: Ren, S. N., & Wu, Y. L., 2010. *Chinese Archaeology · Neolithic Volume*, China Social Sciences Publishing House, Pp.245, Fig.6); 3. "Goat" figure on Pottery [(Source: Ren, S. N., & Wu, Y. L., 2010. *Chinese Archaeology · Neolithic Volume*, China Social Sciences Publishing House, Pp.245, Fig.10)]

head combined with other animals (Wang, 2017).

2. OVERVIEW OF THE HISTORICAL AND CULTURAL HERITAGE OF THE YINSHAN MOUNTAINS AND THE NORTHERN AND SOUTHERN REGIONS OF THE YINSHAN MOUNTAINS

The Yinshan petroglyphs are distributed across the Yinshan Mountains,

situated in the central and western regions of Inner Mongolia. The area to the south of the Yinshan Mountains forms part of the Hetao Plain, while the region to the north is characterized by the semi-desert steppe zone. This paper establishes a correlation between the Hetao Plain and the Yellow River Basin in central and southern Inner Mongolia, including the Daihai area, in archaeological contexts. The Neolithic culture in this region is predominantly linked to the Yangshao and Longshan cultural

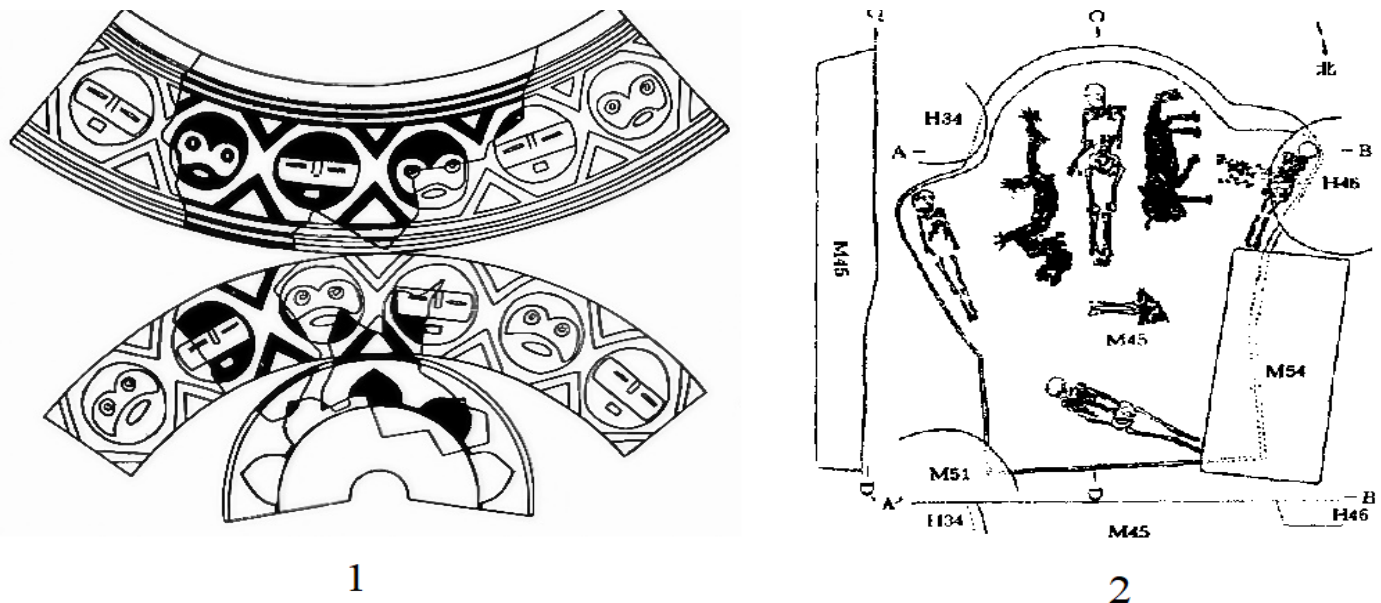


Figure 3: Human Face Image on a Painted Pottery and the plain section diagram of Tomb 45 at Xishuipo site [1. Human Face Image on a Painted Pottery Pointy-Bottomed Jar Unearthed at the Longgang Temple Site (Source: Ren, S. N., & Wu, Y. L., 2010. Chinese Archaeology · Neolithic Volume, China Social Sciences Publishing House, Pp.246, Fig.21); 2. The plain section diagram of Tomb 45 at Xishuipo Ruins (Source: Liu, J., 2021. Livelihood and Civilization: A Comparison of the Evolution of Social Organizations in Southern and Northern China and Ancient West Asia, China Social Sciences Press, Beijing).]

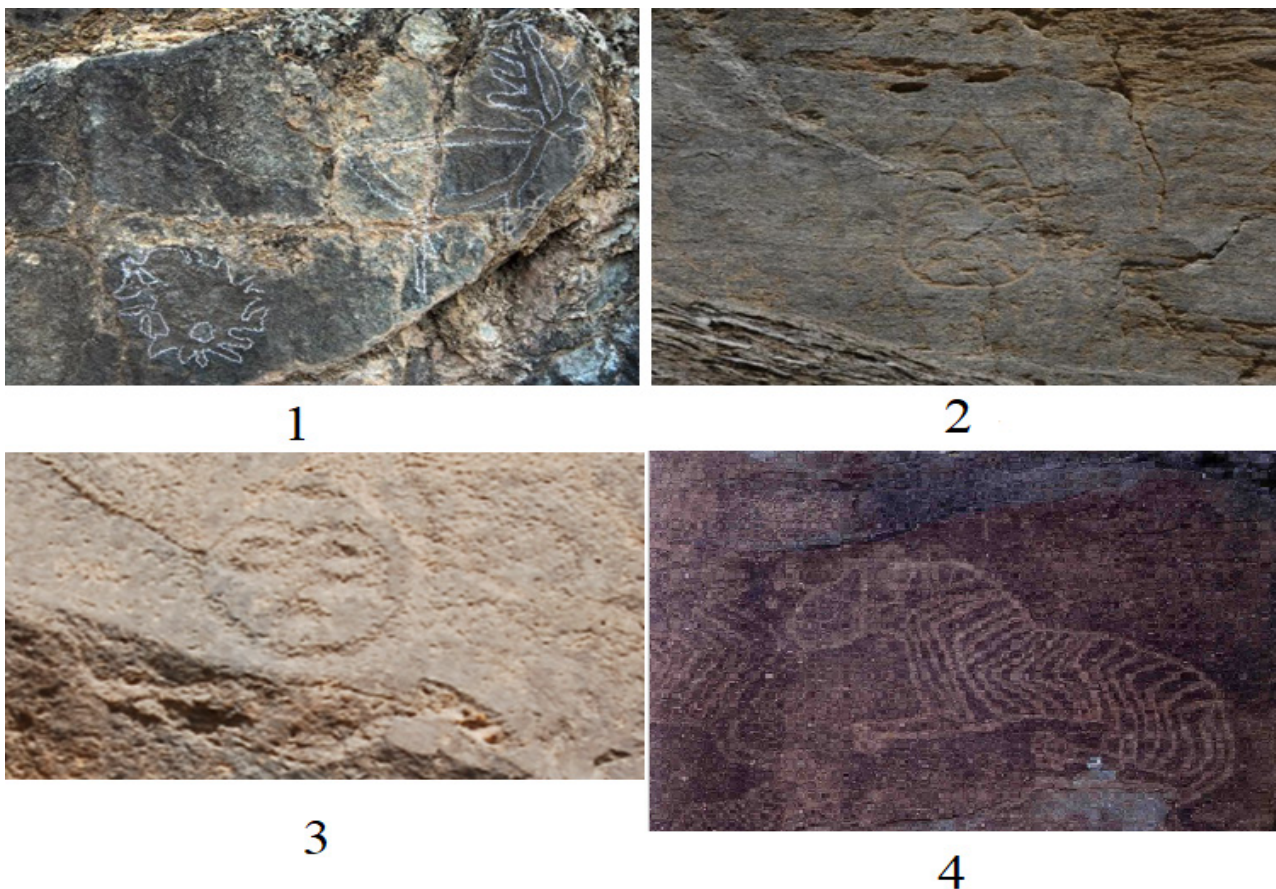


Figure 4: Yinshan Petroglyphs [1. Banpo type semi-circular body outline deer (Molehetugou, Dengkou County); 2. Banpo type pointed crown human face image (Tuolingou, Dengkou County); 3. Banpo structure human face image (Tuolingou, Dengkou County); 4. Tiger images (Source: Chen, Z. F., 2006. Complete works of Chinese art classification: Volume 1 of complete works of Chinese rock arts: The Northern rock arts, Liaoning Fine Arts Publishing House, Pp. 92.)]

sequences in the Central Plains. Specifically, it aligns with the early and middle Yangshao cultural remains, exemplified by the Bainiyaozi remains, dating back 5,800 to 7,000 years before the present. The late Yangshao period is represented by Miaozigou culture and its successor, the Ashan cultural relics, dating from 5800-5000 years ago and 5000-4500 years ago, respectively. Furthermore, it corresponds to the cultural remains of the early and middle Longshan period, represented by the Laohushan Culture and the Yongxingdian Culture, spanning from 4,600 to 4,300 years before the present.

In recent years, the excavation of Neolithic archaeological sites in the Northern Foot of Yinshan and the grassland area has led to the establishment of a new archaeological culture known as the Yumin culture, with an age ranging from 8,400 years to 7,600 years before the present.

Currently, the middle-south region of Inner Mongolia has essentially developed a relatively comprehensive archaeological culture lineage from the Bronze Age to the early Iron Age. Coexisting in the north and south are two bronze cultures: the Dakou Phase II culture and the Zhukaigou culture. The "Xicha Culture," a Bronze Age culture succeeding the Zhukaigou Culture, is also present. The age of the Dakou Phase II culture corresponds to the Xia Dynasty, Zhukaigou culture spans the Xia Dynasty to the Shang and Zhou Dynasties, and the Xicha culture aligns with the late Shang Dynasty to the early Zhou Dynasty. The Maoqinggou culture and Taohongbala culture belong to the early Iron Age culture. While scholars have extensively studied the Bronze Age culture in the north of Yinshan Mountain, encompassing the origin of animal husbandry and nomadism, primitive culture in the ecological transition zone (agriculture and animal husbandry), the bronze culture in the Great Wall area, Ordos-style Bronze, and Bronze Age culture in the Eurasian Steppe to the Iron Age culture, these perspectives are more mature. The Bronze Age culture in this region spans from no earlier than the third phase of the Zhukaigou culture to no later than the third century AD. It exhibits indigenous characteristics and elements from the widespread "Karasuk" and "Scythian" cultures in the Eurasian steppe zone.

Research outcomes regarding the archaeological culture of the north and south of Yinshan and the history of the northern nomads in the Iron Age are relatively rich, with clear cultural types and contexts, and are not enumerated in detail here.

3. INTERRELATION OF YINSHAN PETROGLYPHS WITH ARCHAEOLOGICAL CULTURES FROM THE MIDDLE-LATE

NEOLITHIC TO THE IRON AGE IN THE YINSHAN AND NORTHERN AND SOUTHERN REGIONS OF THE YINSHAN

As the central and southern parts of Inner Mongolia entered the middle Neolithic Age, the expansion of the Yangshao culture from the Central Plain northward led to the gradual formation of the Bainiyaozi culture, corresponding to the early and middle Yangshao culture. This culture exhibits distinct elements of the Banpo type, Hougang phase stage type, and Miaodigou type during the Yangshao period. Banpo-type painted pottery showcases intricate ornamentation featuring human faces, fish, deer, frogs, and birds (Figure 1).

At the Hejiawan site, a prominent human face is centrally painted on unearthed pottery, surrounded by four smaller human faces. The central human face features a structured depiction with two eyes and a rectangular mouth, extending from the upper right side of the head (Figure 2, 1). Pottery ornamentation at the site includes "deer" (Figure 2, 2) and "goat" figures (Figure 2, 3). The "deer" figure has a semi-circular body contour, and it can also be found in the Yinshan petroglyphs (Figure 4, 1). As the "goat" figure, it is non-contour and can be identified by the horns.

A painted pottery jar with a pointed base discovered at the Longgang Temple site depicts two rows of 12 human faces on its belly (Figure 3, 1). These humans display varying appearances and can be categorized into two types: one with concentric circular binoculars and an elliptical mouth, and the other with rectangular binoculars and a rectangular mouth. The Miaodigou-type painted pottery exhibits a higher degree of maturity, featuring distinct "yin and yang ornamentation" characteristics. In this ornamentation, yang elements are painted, while yin elements constitute the background color of the pottery. This artistic technique effectively outlines images and symbols, producing a pronounced pattern effect. An illustrative example is found in Tomb 45 at the Xishuipo site in Nanpu, Henan Province, of the Hougang Phase I type. Shell-molded dragon and tiger images are placed on the left and right sides of the male burial owner, with the dragon image positioned on the right and the tiger image on the left (Figure 3, 2).

Simultaneously, the human face images in Yinshan petroglyphs are distinctive, featuring a common human face composition characterized by a Banpo-type core-shaped crown, circular eyes, and an elliptical mouth (Figure 4, 2-3). This type of human face petroglyph is predominantly created using grinding, presenting a unique image style. The "Yin and Yang ornamentation" style during the Miaodigou period is



Figure 5: The Human and Human-face Artifacts from the West Liaohe River Basin in Eastern Inner Mongolia [1.The whole body pottery portrait of Hongshan Culture at the second site of Xinglongwa Ruins (Source: Hongshan Culture Museum); 2. Hongshan Culture clay sculpture head portrait found in the first site of Niuheiliang Site, "Goddess Temple" (Source: Niuheiliang Site Museum); 3. Jade statue of Hongshan Culture at Niuheiliang Site (Source: Liaoning Provincial Institute of Cultural Relics and Archaeology); 4. Stone statue of Hongshan Culture at Niuheiliang Site (Source: Bahrain Right Banner Museum of Chifeng City)]



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Figure 6: The Painted Pottery of Majiayao Culture [1. Shizhao Village (Source: Ren, S. N., & Wu, Y. L., 2010. *Chinese Archaeology · Neolithic Volume*, China Social Sciences Publishing House, Pp. 22-2); 2. Yuanyangchi site (Source: Jinchang Museum)]

collectively called “Yin carving” in the rock art community. While Yinshan petroglyphs lack images of left dragons and right tigers, numerous tiger images exist (Figure 4, 4).

Some scholars believe that the Miaozigou culture, which corresponds to the late Yangshao culture, is a new archaeological culture developed based on inheriting the Miaodigou cultural factors from the Yangshao period of the Central Plains and absorbing the Hongshan culture and the Majiayao culture. The human portraits, faces and heads of the Hongshan culture are more distinctive. The whole-body pottery figurine unearthed at the second site of Xinglongwa Site in Aohan Banner and the clay figure of a human head unearthed at the first site of Niuheliang “Goddess Temple” Site both emphasize the eyes and contain jade beads (Figure

5, 1-2). Except for the jade carving portrait of Hongshan Culture unearthed from N16M4 of Niuheliang Site, the other human faces were engraved with headwear and hair ornamentation (Figure 5, 3). In addition to the Hongshan Culture unearthed from the Nasta site in Balin Right Banner, there are many patterns of kneeling stone statues (Figure 5, 4). The portraits, faces, and head portraits of the Hongshan culture referred to in this article all have facial features.

The painted pottery art of the Majiayao culture is mostly the expression of characters and animal images. A painted pottery jar with human figures was unearthed from the Shizhaocun site. The head of the human portrait is made of floating, and the top of the head is shaped in a conical bun. Other parts of the pottery jar were painted in black color, and

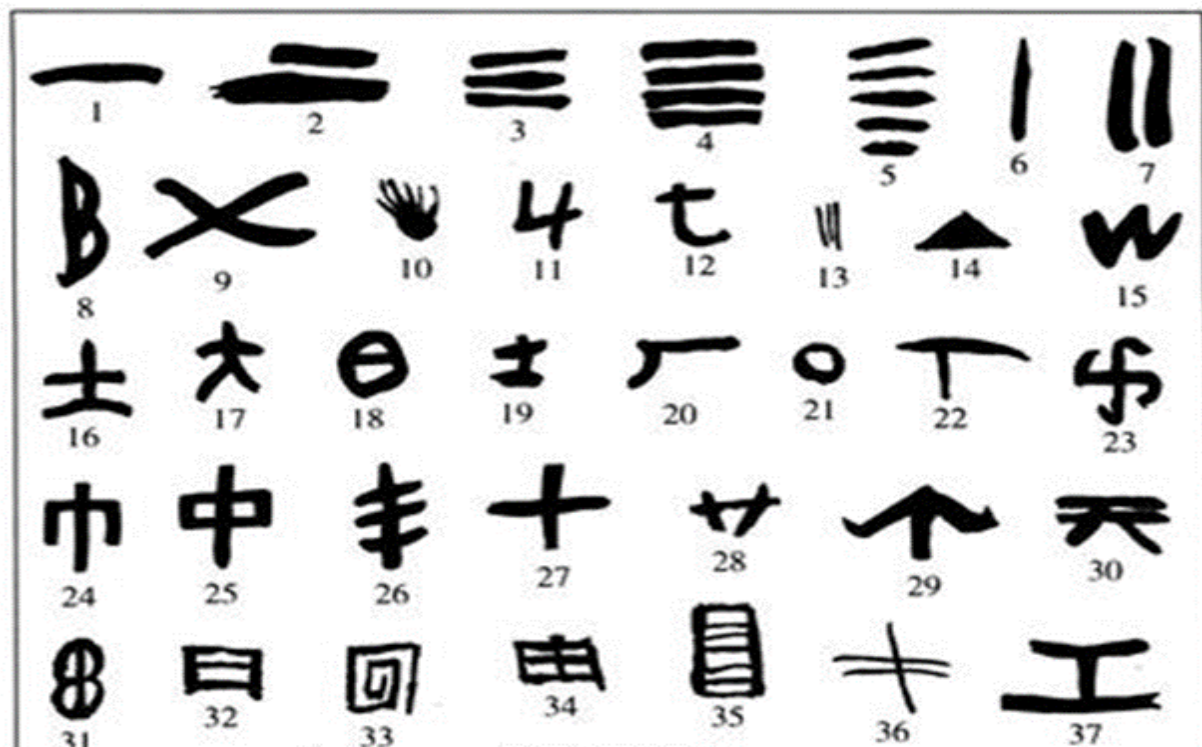


Figure 7: The Painted Pottery of Majiayao Culture in Liuwang Site (copy) (Source: Ren, S. N., & Wu, Y. L., 2010. *Chinese Archaeology · Neolithic Volume*, China Social Sciences Publishing House, Pp.627.)

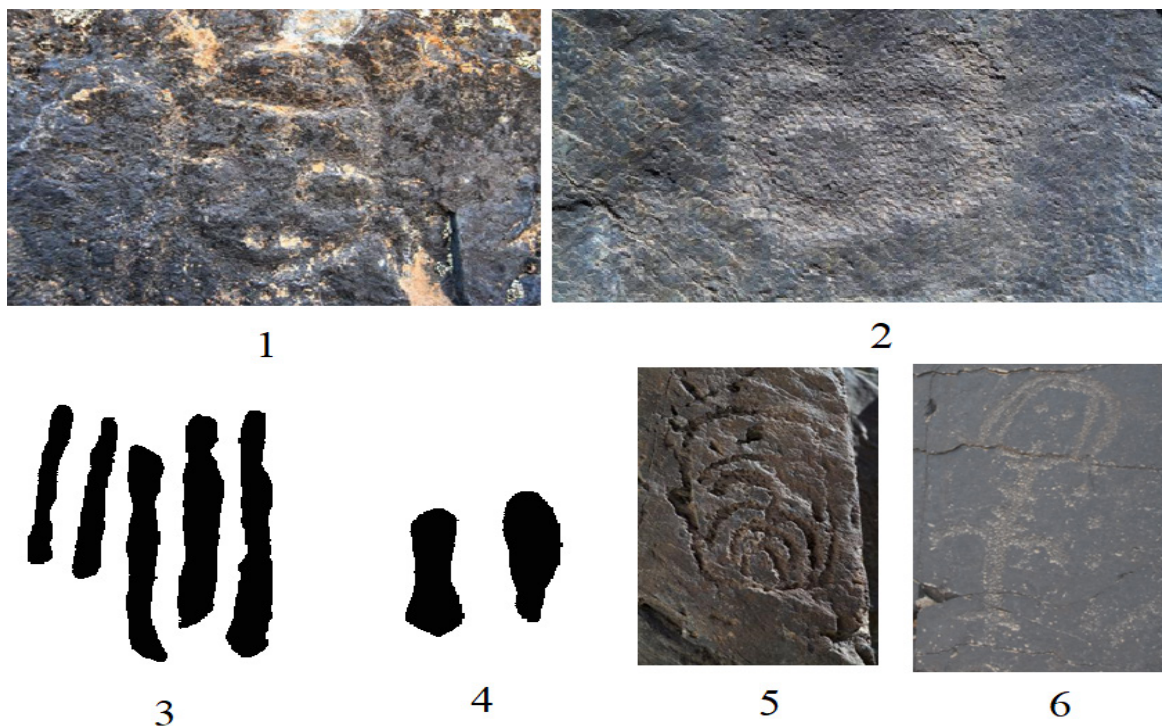


Figure 8: Yinshan Petroglyphs [1. A human face image with the style of Niuheliang and Shizhaocun (Molehetugou, Dengkou County). (Source: shot by Wang Jianping); 2. A human face image (Molehetugou, Dengkou County). (Source: shot by Wang Jianping); 3. Image of symbols in Yinshan petroglyphs (Molehetugou, Dengkou County). (Source: Gai, S. L., 1986. *Yinshan Rock Art*, Cultural Relics Publishing House, Pp. 238, Fig. 946.); 4. Image of symbols in Yinshan petroglyphs (Molehetugou, Dengkou County). (Source: Gai, S. L., 1986. *Yinshan Rock Art*, Cultural Relics Publishing House, Pp. 238, Fig. 947.); 5. A human face image of Nasitai whole body kneeling stone carving portrait style (Molehetugou, Dengkou County). (Source: shot by Wang Jianping); 6. The whole-body portrait of Yinshan petroglyphs (Geeraobaogou, Dengkou County). (Source: shot by Wang Jianping)]

the body of the jar was covered with jagged patterns and "+" patterns (Figure 6, 1). A single-ear cup with a human face button was unearthed from the Yuanyangchi site. There is a round button on the belly of the cup. The button is painted with a human face pattern. The surface of the object is painted with a deformed back pattern and corrugated pattern, etc (Figure 6, 2). A stone statue with a human face was also unearthed from Yuanyangchi, with its eyes, nostrils, and mouth inlaid with small white bone beads.

The lower bellies of Liuwan cemetery painted pottery pots are also commonly painted with a variety of painted symbols. 679 pieces of pottery with painted symbols have been found in Liuwan, including 139 different forms of symbols, with more than 10 common ones such as "+", "—", "1" and "0" ⑪ (Figure 7). Some images in Yinshan petroglyphs are similar to them (Figure 8, 3-4).

Upon observing the early human face images found in the Yinshan



Figure 9: "Double Gods Picture" (Molehetugou, Dengkou County). (Source: shot by Wang Jianping)

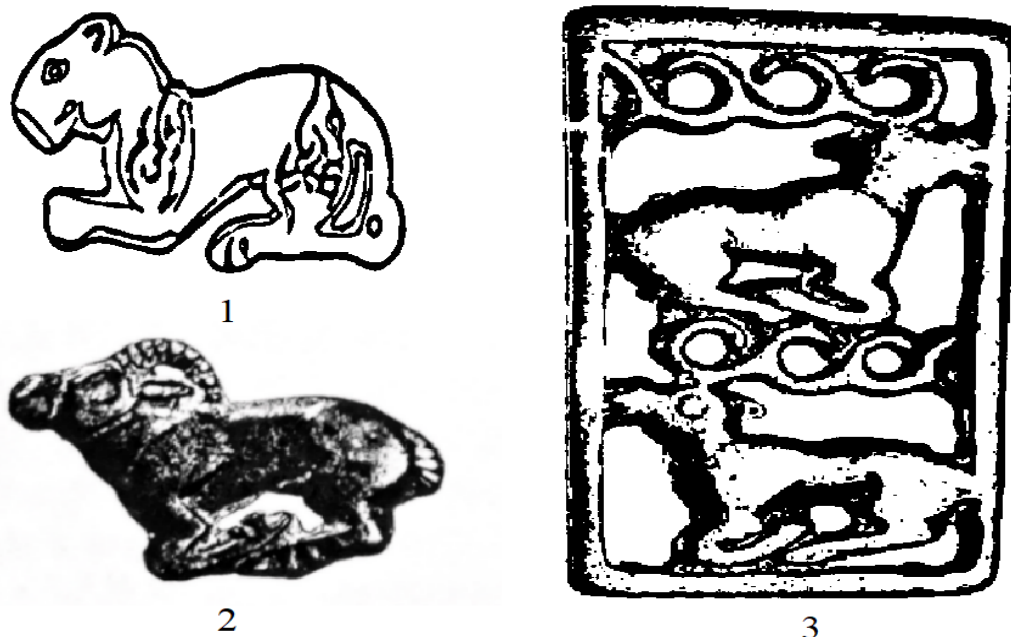


Figure 10: “Beast Pattern” Style Artifacts [1. Image of tiger in northern China and the late Bronze Age of Mongolia. (Source: Wuenyuesitu., 2008. Comparative Study of the Northern Grasslands Archaeological Culture, Science Press, Pp. 99); 2. Image of lying sheep in the early iron age of northern China. (Source: Wuenyuesitu., 2008. Comparative Study of the Northern Grasslands Archaeological Culture, Science Press, Pp. 230); 3. Image of group beast pattern in the Early Iron Age of northern. (Source: Wuenyuesitu., 2008. Comparative Study of the Northern Grasslands Archaeological Culture, Science Press, Pp. 234.)]

petroglyphs, it becomes apparent that they share the same style as a small number of human face images from the Hongshan culture. This patterned style emphasizes the eyes and the five senses (Figure 8, 1-2, 5-6). The early human face images found in the Yinshan petroglyphs are also characterized by the conical hairdo of the Majiayao culture. The human face images and symbols are presented in a group style, while

the painted pottery showcases human faces without head ornamentation patterns. At the same time, there are also a large number of symbols in Yinshan petroglyphs.

It is widely acknowledged in the academic community that the Ashan, Laohushan, and Yongxingdian cultures, as well as the Zhukaigou culture

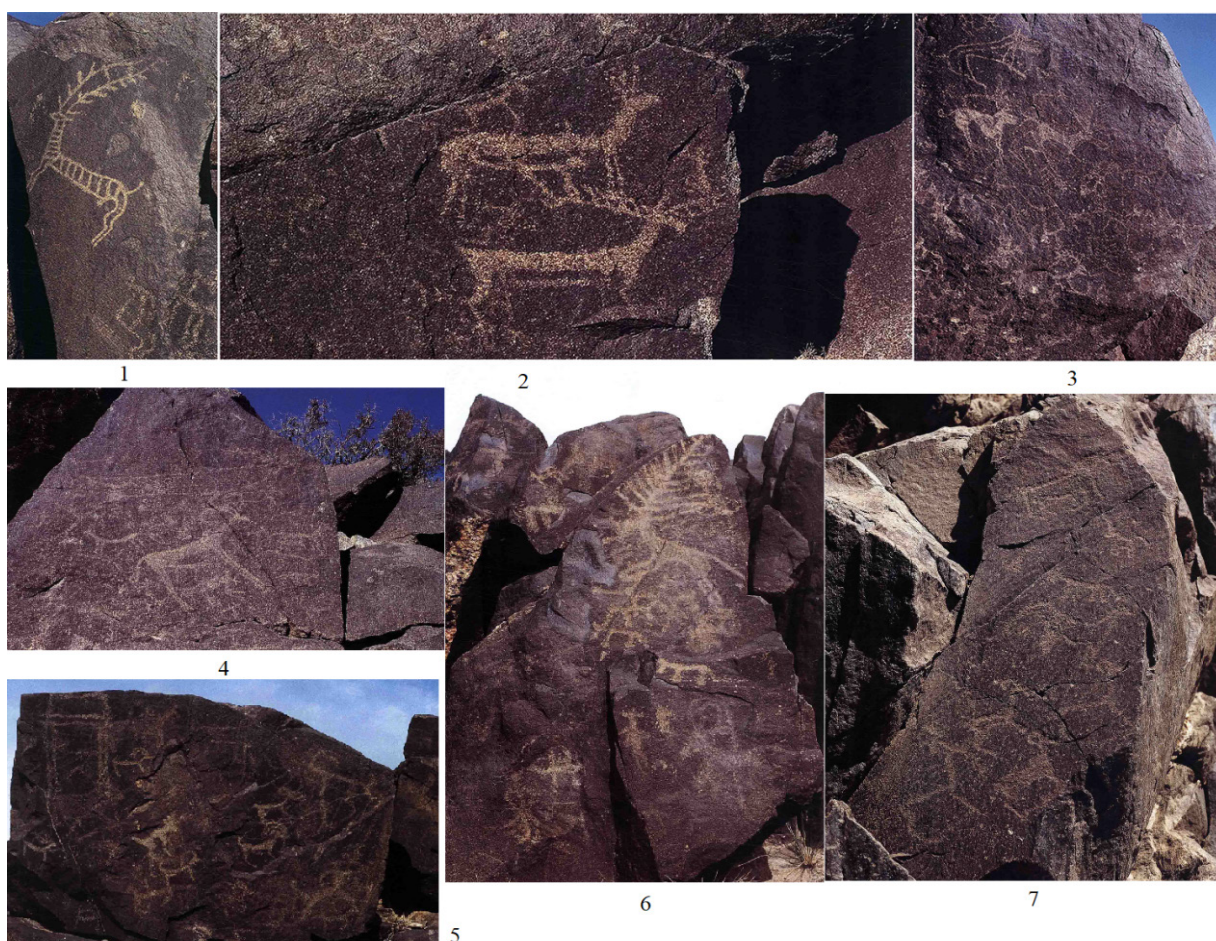


Figure 11: Yinshan Petroglyphs with “Beast Pattern” Style (Source: Chen, Z. F., 2006. Complete works of Chinese art classification: Volume 1 of complete works of Chinese rock arts: The Northern rock arts, Liaoning Fine Arts Publishing House, Pp. 55-67.)



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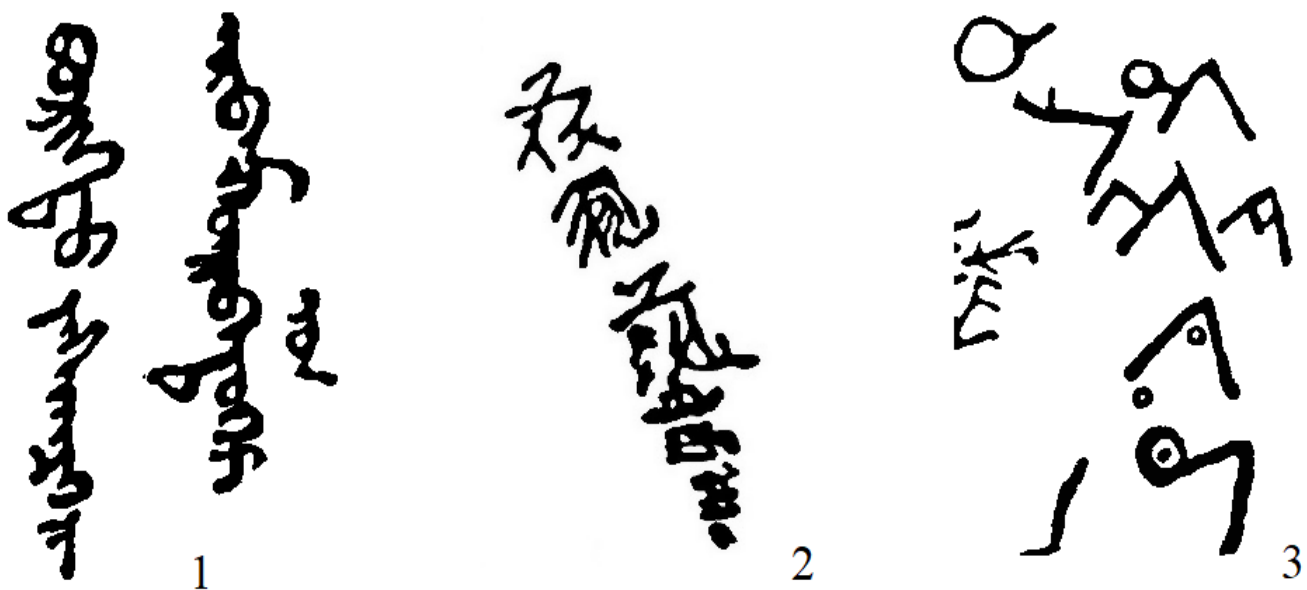
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Figure 12: Yinshan Petroglyphs with Nomadic Styles [1. Herdsmen transfer pastures (Tuolingou, Dengkou County) . (Source: shot by Wang Jianping); 2. Rider (Tuolingou, Dengkou County, reflecting the stirrup line). (Source: shot by Wang Jianping)]

of the early Bronze Age, may have developed from local cultures in south-central Inner Mongolia. During the Ashan period, south-central Inner Mongolia entered an agricultural economic model dominated by hoe farming, and a large number of stone castles appeared for military defence. During the Laohushan period, settlements were distributed on high-altitude slopes and near gullies on both sides. Defensive stone walls and mountaintop observation facilities suggest that wars and resource competition among settlements were frequent and intense. During the Laohushan period, archaeologists discovered pottery sculptures with bird-headed human faces. During the Zhukaigou period, ritual vessels such as ding and jue emerged, and animal husbandry and early nomadic lifestyles began to take shape. The archaeological record reveals that the patriarchy in south-central Inner Mongolia began to establish and strengthen during the Ashan period to the Zhukaigou period, leading to the emergence of social classes and differentiation. At the same time, significant changes have occurred in the settlement and architectural structure, as well as advancements in the economic and technological fields. It can be said that this region began to gradually move towards the dawn of civilization. Among the Yinshan petroglyphs, the most representative picture of this social change is the "Double Gods Picture", which has a strong symbol of rights and status. It has a strong symbol of power and status, surrounded by many human and animal images, and is very similar to "burial" and "entombment" scenes (Figure 9). The

pottery sculpture with a bird-head human face shaped in Laohushan could have influenced the creation of the picture, or both works could be from the same period. From this point of view, this picture has witnessed the social and economic changes from the late Neolithic Age to the early Bronze Age in the south-central Inner Mongolia region.

The Yinshan petroglyph contains images that correspond to the middle and late Bronze Age culture in the Yellow River Basin and the Daihai rim region in south-central Inner Mongolia, as well as the prehistoric archaeological culture of the Eurasian steppe. These images are mainly dominated by tigers, deer, sheep, horses, bird-heads beast bodies. The chronology spans from the Middle and Late Bronze Age to the early Iron Age. The period of Maoqinggou culture and Taohongbala culture is the early Iron Age. They and the Bronze Age archaeological culture in the Yellow River basin and the Daihai area in the south-central region of Inner Mongolia were influenced by the "Karasuk culture" and the "Scythian culture" in the Eurasian steppe area, and a large number of "beast pattern" artistic style weapon handles and bronze decorations appeared (Figure 10). The main feature of Yinshan petroglyphs in this period is that they are extremely consistent or identical in shape and artistic style to the animal images that appeared in relief and roundel carving on bronzes in the same period (Figure 11).



1

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Figure 13: Alphabetic Writing Patterns in the Yinshan Petroglyphs [1. Mongolian (Source: Gai, S. L., 1986. *Yinshan Rock Art*, Cultural Relics Publishing House, Pp. 276, Fig. 1108.); 2. Xixia characters (Source: Gai, S. L., 1986. *Yinshan Rock Art*, Cultural Relics Publishing House, Pp. 198, Fig. 784.); 3. Turkic letters (Source: Gai, S. L., 1989. *Ulaantsav Petroglyphs*, Cultural Relics Publishing House, Beijing, Pp. 113, Fig. 509.)]

Since the Warring States, Qin and Han Dynasties, there were many ethnic groups in ancient northern China that China alternately appeared in Yinshan and Yinshan North and South regions, such as Shanrong, Guifang, Weifang, Xian Yun, Di, Hun, Wuhuan, Xianbei, Lin Hu, Wusun, Rouran, Gaoche (Tiele), Turk, Huihe, Khitan, Dangxiang, Mongolia and other ethnic groups appeared in Yinshan and Yinshan north and south regions. In rock art, there are also images of ancient nomadic styles (Figure 12), the most typical of which are alphabetic writing patterns, such as Turkic, Tangut, Mongolian and so on (Figure 13).

4. CLASSIFICATION OF YINSHAN PETROGLYPHS AND THEIR ARCHAEOLOGICAL TYPOLOGY SCALE

The Yinshan petroglyph is divided into four major types based on the development of archaeological culture from the middle Neolithic to the Iron Age. This classification is based on the petroglyphs' distribution area and the surrounding region. These four types are the types of cultural factors from Bainiyaozi to Ashan period, the types of cultural factors from Ashan to late Zhukaigou period, the types of cultural factors from late Zhukaigou Culture to Maoqinggou and Taohongbala, the types of cultural factors in the Iron Age or the types of cultural factors in the historical period. The article explores an archaeological typological scale for classifying petroglyphs in the Yinshan, following the mature archaeological chronological scale.

4.1 Types of Cultural Factors from Bainiyaozi to Ashan

This type of petroglyph is influenced by many cultural factors, including the Banpo type of Yangshao Culture in the Central Plains, the type of Hougang I culture and the Miaodigou type, the Majiayao culture in the upper Yellow River valley, and the Hongshan culture in the Liaohe River Basin. As a result, this type of petroglyph mainly reflects the primitive religious beliefs. The archaeological typology classification scale for Yinshan petroglyphs includes early human faces depicted separately, as well as combinations of human faces with groups of symbols and primitive symbols. Furthermore, the petroglyphs do not depict the "beast style" deer shape, which features branched horns. Additionally, petroglyphs were created using the "Yin carving" technique and mainly employed the grinding technique.

4.2 Types of Cultural Factors from Ashan to Late Zhukaigou

This image primarily depicts the development of the Yinshan area from hoe-based agriculture to the emergence of animal husbandry and early nomadic. It also shows the establishment and strengthening of patriarchy, as well as the resulting class differentiation and social stratification. Additionally, the petroglyph reflects significant changes in settlement patterns and architectural structures in the Yinshan area, as well as advancements in economic and technological fields. According to the archaeological typology, the classification scale of Yinshan petroglyphs is "Double Gods Picture". The picture is located in the center of the stone surface, surrounded by several human faces and animal images, which is very similar to the scenes of "accompanying funeral" and "accompanying funeral" after the emergence of class. The pottery sculpture with a bird-head human face shaped in Laohushan could have influenced the creation of the picture, or both works could be from the same period.

4.3 Types of Cultural Factors from Late Zhukaigou Culture to Maoqinggou and Taohongbala Culture

The petroglyphs primarily depict hunting scenes from the early animal husbandry economy. According to the archaeological typology, the classification scales of Yinshan petroglyphs are as follows: a) the hunting object must be wild animals, and no domesticated animals are found; b) if the hunter appears in the form of a rider, the stirrup is not shown in the picture; c) the animals in the picture have the early "beast style"; d) the hunting object and the human face are combined into an image

4.4 Types of Cultural Factors in the Iron Age or Historical Period

This petroglyph type primarily depicts the aspects of the nomadic economy. Based on archaeological typology, the classification scales of Yinshan petroglyphs are as follows: a) various text images, such as Turkic and Mongolian images; b) felt tents, herdsmen transfer pastures, livestock (cattle and sheep) foraging arrangement diagram, for example, in the *Yinshan Rock Art*, Mr. Gai Shanlin described the distribution of livestock in two forms: "a whip" and "the sky was covered with stars"; c) in the late stage, fully structured vehicle images appeared.

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