



KEYWORDS: *Rock art survey – Research history – Interpretation – Tibetan Plateau – China*

## REVIEW OF TIBETAN ROCK ART RESEARCH

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**Abstract.** The academic investigation of Tibetan rock art began in 1985. To date, rock paintings have been discovered in nearly 20 counties or cities in the Tibet Autonomous Region, including 150 rock art sites containing more than 1000 individual panels and nearly 10000 single motifs. In parallel with these discoveries, domestic and foreign research efforts in Tibetan rock art study have increased significantly, yielding impressive results. Consequently, not only has it formed its own theory but has also established its unique research method.

In 1902, August Hermann Francke, the German scholar devoted to Tibetology, discovered many zoomorphs in Kalatse and other places in Ladakh. Although Francke believed these paintings were nothing more than productions of The Dards more than 800 years ago (Francke 1998: 24–27), his discoveries and recordings marked the origin of Tibetan rock art research.

Despite his notable findings, investigation and research of rock art in Tibet remained weak and almost non-existent through most of the 20th century. There were very few subsequent discoveries that attracted any attention. This trend shifted in the mid-1980s when Francke's findings began to echo and resonate throughout academic circles, drawing attention to the need for further exploration. In the spring of 1985, the National Cultural Relics Bureau of China held rock art meetings in five provinces and autonomous regions throughout north-western China. As an outcome of the meetings, it was decided to conduct comprehensive rock art surveys in Xinjiang, Qinghai, Ningxia, Inner Mongolia and Gansu. Additionally, Tibet was targeted for the surveys, marking the first time the region was included as a focal point for comprehensive study. In the following decades, Tibetan rock art investigations and research have yielded considerable results. This paper will summarise them and provide commentary on the achievements of Tibetan rock art research in three areas, categorised as follows: investigation and discovery, classification studies, and theories and paradigms of rock art research.

### 1. Investigations and discoveries of rock art

The academic investigation of Tibetan rock art began in 1985. That year, the Tibetan Cultural Relics Department conducted research studies on rock art in Tibet, particularly in western Tibet, with the cooperation and support of the Shaanxi Archaeological

Institute. Initially, three rock art sites at Lurilangka, Renmudong and Qiaksang were discovered in Rutog County. In 1987, two special survey and research briefs on these three rock art sites were published in the second issue of *Wenwu* (The Investigation Team of the Cultural Relics Management Committee of Tibet 1987; Zhang J. 1987). Simultaneously, news of additional rock painting discoveries at Jialin Mountain in Naqu's Wenbu township and other places also appeared in newspapers. In 1990, the investigation team, which was still composed of the Tibet Cultural Relics Management Committee and the Shaanxi Archaeological Institute, discovered two additional rock painting sites in Menji, Tingri County, southern Tibet (The Investigation Team of the Cultural Relics Management Committee of Tibet 1991); in 1991, they discovered 12 pictogram sites on the island of Zhaxi in Namtso (The Investigation Team of the Cultural Relics Management Committee of Tibet 1994).

In the early 1990s, the Department of Archaeology at Sichuan University also emerged as a new and active force in Tibetan rock art research. Their team initiated rigorous study and examination of the rock art, and their subsequent discoveries and contributions throughout the decade led to the overall prosperity of research efforts. From 1992 to 2001, archaeologists discovered 22 rock art sites in four counties, namely, Rutog, Zanda, Gê'gya, and Gêrzê in the Ngari Prefecture (Suolang 1993; Li Y. 2007). Fourteen rock art sites are concentrated in Rutog County, four in Zanda County, one in Gê'gya County and one in Gêrzê County. Rock art has also been found in Shenza, Baingoin, Sog, Damxung and other counties in the Naqu region of northern Tibet, as well as four counties in the eastern and southern parts of Tibet, including Konggar County in Shannan and Medog County in Linzhi. By 2010, more than 40 'rock art remains' (as per original



Figure 1. Map of rock art distribution in Tibet. Courtesy of Li Yongxian.

reference) of rock art, including more than 60 sites and 300 panels (National Cultural Relics Bureau 2010: 10) had been discovered and documented.

Additionally, it is necessary to mention the contributions of John Vincent Bellezza, a researcher at the Tibetan Research Center at the University of Virginia and the Italian Moliga Zhang Zhung Research Center. In 2002, he carried out the so-called 'Upper Tibet Circuit Expedition' in the Ngari and Byang-thang of northern Tibet (Bellezza 2002). Over two years, he travelled from west to east in the region, a journey of nearly 50000 km, of which he walked on foot more than 5000 km. During his travels, he discovered and recorded a large number of cultural relics that included numerous rock art sites that are mainly concentrated in Namtso in northern Tibet, and the Rutog area of western Tibet. Until that time, only 12 pictogram sites had been found on Zhaxi Island. During his expedition, however, Bellezza discovered 33 further pictogram sites there (Bellezza 2002). According to his description and numbering, he discovered 106 panels across the 33 sites (Bellezza 2001). In an article devoted to Namtso's rock art, Bellezza said that he found six rock art site complexes there based on his criteria and measurement, including 33 caves and shelters with rock paintings, containing 450 identifiable motifs. In total, he discovered more than 2000 motifs (Bellezza 2000). Additionally, Bellezza found more than 50 rock art sites in Rutog County within Ngari Prefecture (Bellezza 2008: 683–686). To date, 70 rock art sites have been discovered in Rutog County alone, including the original 12 sites.

It was the coordinated and successive works of these three main forces that contributed to the dis-

covery and inventory of Tibetan rock art by the end of the 20th century. Due to the vastness of the Tibetan Plateau, there have been only intermittent discoveries since then, such as the gSer vod petroglyph site in Gongbo'gyamda County (Cultural Relics Protection Institute of Tibet Autonomous Region 2014), the petroglyph site in Gêrzê County (Zhang X. et al. 2018), and some discoveries of rock art during the third national cultural relics survey from 2008 to 2010 (Zhang J. 2017).

Based on the findings mentioned above, I roughly estimate that rock art has been found and documented in nearly 20 counties or cities in the Tibetan Autonomous Region, comprised of approximately 150 rock art sites containing more than 1000 individual panels (Li Y. 1998; 2001) and nearly 10000 single motifs (Li Y. 2014) (Fig. 1).

## 2. Classification studies of rock art

### 2.1. Divisions of area and type

Academic circles have categorised Tibetan rock art by region, taking into consideration factors such as geographical distribution, technology, artistic style, chronological order and theme. The earliest classification study came from Li Yongxian and Huo Wei's *Art of Tibetan rock paintings* (1994), which categorises Tibetan rock art into four regional areas, namely, western Tibet, the northern plateau of Tibet, the southern valley of Tibet and south-eastern Tibet. Rock art in the western area has two distinct characteristics and styles: one features paintings and poundings on the surface of natural cliffs and rockshelters, and the other features poundings on a relatively flat surface of an individual rock in the terrain. Most of the rock paint-

ings of Tibet's northern plateau are painted in caves and rockshelters, and a few are carved on monoliths and cliffs. Petroglyphs in the southern valleys and south-eastern parts of Tibet are pounded on rock cliffs and feature presumed agricultural themes, of mainly settled and established communities (Li Y. and Huo 1994; Li Y. 1998). In contrast, rock art in the western region and the northern plateau of Tibet is assumed to have been produced by a nomadic, transient culture. Based on the above-mentioned regional classifications of rock art, the findings represent nearly all of the Tibet Autonomous Region. Rock paintings that are mainly distributed throughout Namtso and Rutog have their special features, and their styles differ: Rutog rock art features zoomorphic petroglyphs, while coloured animals and other symbols characterise the rock art in Namtso.

Rock art classification studies are more frequently carried out according to artistic image and style type. On the one hand, this is due to the influence of art iconography; on the other hand, and more importantly, it is influenced by the archaeological school of cultural history which believes that different styles of rock art are products of different cultures and their corresponding ethnic groups (Childe 2008: 7-9; Trigger 2010: 212-215).

Zhang Yasha believes that Tibetan rock art can be divided into four style types: A, B, C and D. The A-type features a silhouette-like petroglyph produced by the method of pounding the rock surface. Based on 'yak' motifs, it is also called 'yak style'. A-type petroglyphs are the earliest and most widely distributed and are the more common form in the whole of northern and western Tibet. The B-style, also known as the 'beautiful style' or 'deer style', represented in the No. 12 panel at Renmudong, features images of beasts chasing their prey. Compared with A-type, the B-type rock art features the contours of the animals drawn by lines, which are beautifully shaped and elaborately decorated. This kind of style only appears at Qinghai Lake and the Rutog area and features the style of the Mongolian steppe. The C-type also depicts the outline of the animal's body with lines. It differs from the B type in that there are no S-shaped, spiral or other ornamentations inside the body, and it appears in the western part of Tibet. D-style features pictograms and is mainly found in western and northern Tibet (Zhang Y. 2006).

While classification based on style is a method of art history, archaeologists pay more attention to identifying different cultural factors through perceived styles. As an example, Zhang Jianlin concluded that the images in the Renmudong No. 1 panel, containing more than 100 sheep heads arranged in a row and as contoured single-line motifs, represent scenes of sacrifice. Relevant literature describes this type of scene as Bonism ritual, and so it is believed that this petroglyph panel reflects the cultural connotation of local Bonism (Zhang J. 1987). In analysing the Rutog rock art, Tang Huiheng believes that the animal styles

of 'leopards' with spiral ornamentations or transverse S-shaped ornamentations, deer standing on their toes appearing suspended in the air with elaborate horns, including the later-discovered chariot motifs, are all themes from the northern steppes. In addition to reflecting Scythian culture, they were influenced by Siberian culture such as Okunevo and Andronovo (Tang and Zhang 2001). Bellezza also believes that the patterns of the chariots in the petroglyphs found in Rutog came from northern steppe culture (Bruneau and Bellezza 2013). H. P. Francfort, a French scholar devoted to rock art research, also pointed out that the northern steppe cultural factors in the petroglyphs of Ladakh and western Tibet originated from Andronovo and Scythian culture (Francfort 1992).

Furthermore, in 2010, Lv Hongliang wrote an article devoted to the Eurasian steppe cultural factors inherent in Tibetan rock art. He defined the 'mace-heads', 'shields', 'masks' and zoomorphs with the transverse S-shaped ornamentations and the spiral ornamentations in the Rutog rock art as having cultural elements that are characteristic of the Eurasian steppes. The mace-head is believed to be related to Okunevo and Andronovo culture. The shield, reflected in the figure holding a large circular or square object in a rock painting, is believed to have originated from Iranians in the central Asian Turkic region. The masks came from the Indo-Pakistan subcontinent (Lv 2010).

## 2.2. Periodisations and dating

Scholars of various disciplines (art history, anthropology and archaeology) divide periods of rock art and date them according to their professional standards and criteria. For example, as an anthropologist, Bellezza summarised the basis of rock art age estimation in his book *Byang-thang antiquities* as follows:

- (1) The physical evidence inherent in the rock art, that is, the colour and texture of the pigment, the degree of corrosion, the formation of mineral deposits, the technique of making, the relevance of position, the relationship of overlap, and other factors.
- (2) The relevance found in the context of Tibetan historical literature.
- (3) Comparisons with rock art in central Asia and northern Asia in terms of style, theme and technical tradition (Bellezza 2001).

Archaeologists, on the other hand, generally follow the practice and tradition of archaeological typology, using the method of 'cross-dating' to divide the period of rock art-making and date motifs accordingly. In other words, they compare the rock art patterns with the archaeological data of known age, and thereby determine the age and periodisation of the rock art.

Two-period theory: Li Yongxian and Huo Wei divided Tibetan rock art into two periods, early and late. The early petroglyphs, generally attributed to the early metal ages before the Tubo dynasty, are in the north and west regions of Tibet. The late rock paintings, gen-

erally attributed to the Tubo dynasty and later periods, feature images such as the swastika, the pagoda and the suparna (Li Y. and Huo 1994).

**Three-period theory:** in his paper, *Preliminary study of Rutog rock art*, Zhang Jianlin compares the rock art at sites in Renmudong, Lurilangka and Qiakesang in Rutog County with similar patterns in the surrounding area according to the production method and style. He believes that the rock art can be divided into three periods: early, middle and late, and they are considered to be works that were produced between the pre-Tubo period and the early Tubo dynasty. After comparing Tibetan rock art with archaeological findings, Tang Huisheng similarly divided the rock art into three periods. However, his division is slightly different from that of Zhang Jianlin. Tang Huisheng believes that the early period is represented by three petroglyph sites at Jialin Mountain, Menji and Lurilangka. He estimates that their ages range from 1500 BCE to 500 BCE. The middle period is represented by the No. 12 and No. 13 panels in Renmudong. Their ages range from 500 BCE to 300 BCE. The late period is represented by pictograms on Zhaxi Island, the Renmudong No. 1 panel, the Qiakesang rock art, Baxiu rock art and others. Their ages range from 7th to 9th century CE (Tang and Zhang 2001). Bellezza also divided the rock art of the *Byang-thang* area into three periods: pre-Historic period (ending 700 CE; Tang 2011; Mark and Zhang 1950), early Historic period (also known as the 'Bonismo period', up to the 10th century CE), Historic period (also known as the 'assimilated Bonismo' period, after the 10th century CE).

**Four-period theory:** in the process of dividing periods of Tibetan rock art and providing age estimates, scholars of art history or anthropology will apply a comprehensive approach as often as possible. In addition to archaeological typology and cross-dating, they believe the rock art developed in an evolutionary way that ranges from simple to complex. All research foundations should be built on the search for various relationships where the various sub-factors exist within the group of rock paintings (Zhang Y. 2016). Zhang Yasha's four types A, B, C and D, are not only the division of space but also the division of time. Among them, type A (around 1200 BCE) is the earliest, and type D (after the establishment of the Tubo dynasty) is the latest (Zhang Y. 2006).

**Six-period theory:** Bellezza divided the Rutog rock art into six periods, covering a longer time span and a more detailed division of the periods: Neolithic (roughly 1500 BCE), Bronze Age (roughly 1500 BCE–900 BCE), Iron Age (roughly 900 BCE–100 BCE), proto-Historic period (roughly 100 BCE–650 CE), imperial and post-imperial period (650 CE–1000 CE), and Buddhist florescence period (1000 CE–1300 CE) (Bruneau and Bellezza 2013).

Beginning in the 21st century, archaeologists adopted a new approach in estimating the age of rock art. Rather than studying the rock paintings in a standalone

manner, they began to correlate archaeological remains that were synchronic with the rock art. They recognised that the rock art coexists with other archaeological remains dating from 3000 years ago to Tubo dynasty (such as castles, tombs and large stones), thereby indicating that Tibetan rock art is not an isolated cultural phenomenon. Rather, it has a certain relationship with ancient cultures in neighbouring regions. Scholars have even developed a three-part archaeological theory based on cultural elements such as rock art, ruins and tombs (Ren and Wang 2013). The best verification of this theory is represented by the geometric design of the rock art, and the pattern of stone placement discovered in the archaeological site (Zhang J. 2017).

In summary, periodisation provides relative ages, while direct dating techniques seek to supply absolute ages. Although the above divisions of periods also use archaeological methods of cross-dating to try to confirm the absolute age of rock art, this traditional method of comparison is no longer applicable when the study of rock art develops into an independent discipline. At the end of the 20th century, Tang Huisheng used the microerosion analysis to date the three petroglyph sites of Yeniugou, Tianpeng and Lushan in Qinghai, suggesting the Yeniugou petroglyphs dated back to 3200 years BP, the Tianpeng petroglyphs to 2300 years BP, and the Lushan petroglyphs to 2000 years BP (Tang and Zhang 2001). This is the only direct dating data for the entire Tibet region currently available. There are a large number of pictograms on limestone in northern and western Tibet, and the use of U-Th for minimum-dating them is possibly feasible. The next step is to conduct direct dating of rock art (Bednarik 2007).

### 3. Theories and paradigms of rock art research

Two articles published in 1987, *Brief report on the investigation of ancient rock art in Rutog County of Tibet* (The Investigation Team of the Cultural Relics Management Committee of Tibet 1987) and *Preliminary study of Rutog rock art* (Zhang J. 1987), not only mark the beginning of systematic recording of Tibetan Plateau rock art, but also the rise of contemporary scholarly rock art research on the plateau. As a result of these articles, researchers of Tibetan rock art have followed the archaeological research models and standards of investigation, recording, periodisation and age estimate in their approach. First, they use the scientific approach of separating research from the reporting. The objectivity and accuracy of the reporting must be separated from the research. Second, Zhang Jianlin's research articles also reflect contemporary academic norms involving cross-dating methods for dividing periods, while using the method of mutual identification of documentary materials and archaeological material for rock art interpretation. This method is also often used in rock art research. It is not only a methodology but also a theory because this is an application of positivism of Sinology or Qianjia school in archaeology (Tang 2014). Zhang Jianlin interprets the 'sacrificial



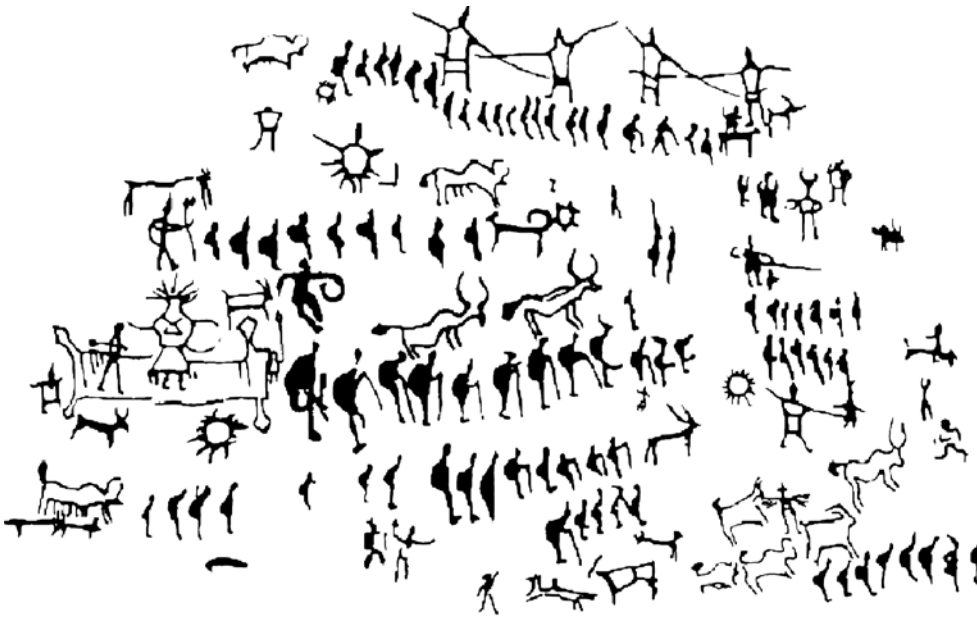


Figure 2. Tracing of the petroglyphs at the Takangba site, Ritu, Tibet. Courtesy of Li Yongxian.

scenes' in Renmudong's petroglyphs according to the Bon classic *Klu'bum po*.

The most famous example of the mutual identification method used in Tibetan rock art is the 'weight-bearing walking team' images of the Takang-



Figure 3. Tracing of a presumed scene of 'leopards' chasing 'deer', Ritu, Tibet. Courtesy Tang Huisheng.

ba pictograms (Fig. 2). From northern and western Tibet, Wang Xiaofu believes that there was a 'salt road' in ancient times. According to historical records, the *btsan po* of the Tubo *gnam-risrong-btshan* acquired the salt from the northern Turkut land and walked this road. Wang Xiaofu believes that this is 'the earliest road known by the Tubo people towards the Western Regions', specifically through the Nvngu/Dayangtong (now Ngan Prefecture of Tibet), from Aksai Chin between the Kunlun Mountains and the Karakoram moun-

tain to Xinjiang, which is roughly the same as today's Kunlun highway. The archaeological data used by Wang Xiaofu is the ancient rock art discovered in the area of Sangzhugu about 26 km SW of Sangzhubazar in Pishan county, Hotan Prefecture, Xinjiang (Wang X. 1992: 42). Huo Wei strongly supports this view and believes that the image of queue-like crowds who seem to walk in a file on the mountain trails in the Takangba pictogram may depict the migration of people between the two places (Huo W. 2007). Some scholars further describe these queues as depicting people carrying salt bags on their backs and leaning forward, consistent with historical literature describing 'the Nvngu is rich in salt and sells it to Thindu, which is amazingly profitable' (Zhang Y. and Zhang, X 2017).

In addition to the literature, many scholars interpret rock art by religion, mythology and folk customs. This is also an extension of the mutual identification method. For example, Bellezza advocated the use of 'thokcha' (Bellezza 2004) and Bon rituals (Bellezza 2017) to estimate age and interpret rock art.

However, the availability of relevant literature is limited, and the folk customs are difficult to verify. Most of the rock art studies make it difficult to use the mutual identification method, so scholars have to resort to untestable theory. In the book *Qinghai rock art*, Tang Huisheng uses the theory of binary opposition to explain Tibetan rock art under the influence of structuralism. For example, he thinks that the scene of a leopard chasing deer in the No. 12 petroglyph of Renmudong typically reflects the thinking and concept of binary opposition (Fig. 3). The leopard symbolises the affirmative factors such as good, strong and gods. The deer symbolises negative factors such as bad, weakness and devils. The cultural symbols of the deer chased by a leopard mean that the affirmative factor

defeats the negative factor. In other words, the scenes portray the cultural concept of avoiding disaster and praying for positive outcomes (Tang and Zhang 2001).

#### 4. Conclusion

Based on the developmental history of rock art studies, there are three stages: art (grand narrative), humanities (positivism) and science (verification) (Bednarik 2007: 1–7). We can summarise the rock art development course of the plateau based on them. After more than 30 years, Tibetan rock art research has made great progress and achieved remarkable results. However, according to statistics, while the number of rock art sites and published results rank high in the country, the Tibetan Plateau poses challenges to further research. Its vast territory, high altitude and dangerous roads make it difficult to access. There are still many places where rock art investigations are not conducted. Besides, many of the original surveys were carried out rigidly, without systematic investigation and GIS, so the investigation of rock art in Tibet has broad room for development. The means of age estimate still mainly rely on the traditional research methods of comprehensive analysis, so that many chronological issues have become the bottleneck for further study of Tibetan rock art. In the future, we should actively use various modern scientific methods such as U-Th, carbon-14 and microerosion analysis to conduct direct dating, and provide a solid foundation for the development of rock art consistent with a scientific approach. Finally, in the interpretation of rock art, multiple theories should be used. The theory of pluralism is not the theory itself, but the open attitude of pluralism.

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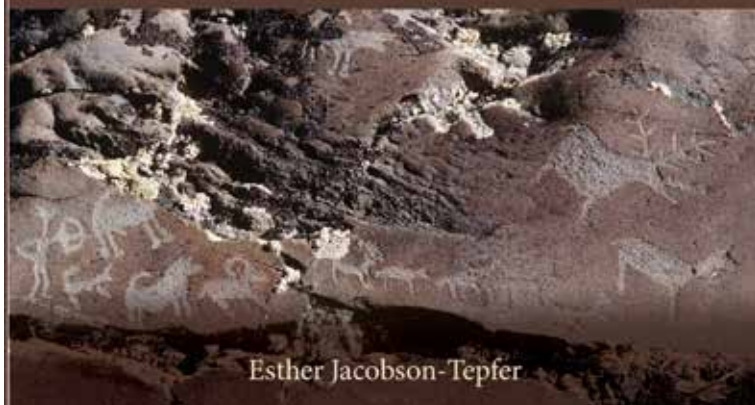
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