



Cup Marks: Rock Art of Megalithic Stone Circles of Junapani

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Abstract

In India, cup marks/cupules are the earliest known form of rock art reported from various Pre-historic rock art sites. However, their occurrences have been also noticed on the megalithic tombs at various sites. Occurrence of these cup marks on the megalithic structures in Nagpur was brought to lime light as early as in 1879 by Rivet Carnac. Since then no significant systematic study was conducted on cup mark stones and their relation to the structures in which they are found. Although various scholars studying Indian rock art have systematically and scientifically studied the cupules manifested on the walls, ceilings and floors of rock shelters and caverns, as well as those exemplified on the boulders and on bed rock, they are yet to provide a convincing cultural or artistic meaning of these petroglyphs. I have studied the occurrence of cup marks pecked on the boulders of stones circles of the Megalithic burial site of Junapani in district Nagpur, India, suggests, that boulders bearing cup marks follow some directionality towards some astronomically important directions. Certain identifiable geometrical and linear cup mark patterns common in some of the burials were also discerned in the study.

Keywords

Megaliths, Stone Circles, Cup Marks

Subject Areas: Anthropology, Archaeology

1. Introduction

Cup marks/cupules are one of the earliest known forms of Prehistoric rock art. By definition, a cup mark is a hemispherical percussion petroglyph, which may occur on a rock surface [1] and possibly is one of the most common forms of cultural phenomenon practiced worldwide from Prehistoric times.

There are various views regarding the creation of cupules, some scholars suggests that these markings indi-

cate a focus of ancient earth energies, sacrificial stones, stones having cosmological significance, aboriginal sky mapping and celestial information and belief and some have associated with fertility rites [1] [2]. In Vidharbha the locals believe that these were meant for playing some sort of game similar to gamesmen.

Since the cup marks are found in various cultures across the globe, several issues about this form of art remain unanswered. Are cupules merely an esthetic exemplification of human cognition or it is more than a mere artistic manifestation? Are these marks are utilitarian and meant for symbolizing certain aspect of culture/cultural pattern/phenomenon unknown to us? These questions need to be answered scientifically in a more focused manner.

2. Cup Marks in Indian Context

In India the earliest manifestation of cupules in the world have been reported from the Auditorium Cave at Bhimbetka which is dated back to 29, 000 B.P. [3]. Similar occurrences have been reported from the sites Sohanpura, kalabhata, Banedi, Kalapahad, khola [4] [5]; Chattaneshwar, Kanyadeh, Hathikheda, Mahadev Bhata, Moda Bhata, Morajhari, Bajnibhata, Darki Chattan [6]. Most of the cup-marks discussed above are either found on the walls, floor or on naturally placed large boulders or on bedrock. These do not follow patterns and are randomly manifested on rock surface. All these cupules bearing surfaces are classed under rock art [7]-[12].

3. Cup Marks in Megalithic art of India

Apart from cupules of rock art sites discussed above, India have yet another very large set of corpus of cupules that are manifested on the stones of Megalithic monuments. In India, Megalithic phase is contemporary with the Iron Age and is dated back to as early as 1500 B.C. Thousands of architecturally varied Megalithic burials such as stone circles, menhirs, dolmens, rock cut chambers, avenues, cairns etc. have been discovered in India in the past hundred and twenty five years. The earliest discoveries of these tombs were made mainly by the British Officers who were aware of similar discoveries in Europe. These scholars have published detailed accounts of their findings regarding this cultural phase, but hardly any mention was made about the petroglyphs which were manifested on the slabs and boulders of many of the sepulchral and non-sepulchral Megalithic monuments. The first mention of these petroglyphs which are executed in form of cupules was made by Rivett-Carnac in 1879 while working at Junapani, in district Nagpur. Carnac also proposed his views on these cupules. Later, various scholars have reported cup-marks executed on these monuments and propounded various hypotheses on their occurrences. Similar cup marks are reported from various Megalithic sites of Rajasthan, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Karnataka, Tamil Nadu and Kerala.

In Vidharbha, particularly near Nagpur, cup marks can be seen at the sites of Moharjhari, Junapani, Raipur Hingna and Naikund. The important aspect about cup marks is that at all these sites they are found from one to five boulders of a few circles. Not all the circles have cup marked boulders. Even empty circles which are devoid of filling have cup marked boulders. These cup marks are generally arranged in linear patterns but on a few boulders haphazardly places cup marks are also depicted.

4. The Site of Junapani

The site of Junapani is located about 10 km NW of Nagpur city on Nagpur-Katol road near the village of Petri. To reach the site one has to get down at Hindustan Liver Limited warehouse, locally known as *godown*, and walk towards SE and take the trodden path through the shrubby land that leads towards the seasonal stream. The stone circles, cairns and small heaps of cobbles and pebbles are scattered across this land. This site has more than one hundred and fifty small and big circles and about same number of cairns which make the site one of the largest Megalithic stone circle and cairn burial sites in Maharashtra. The site is well preserved and has suffered least destruction and vandalism since the whole area is notified as reserve forest zone. Many first and second order streams flow through this forest and eventually pour into the Gorewada tank which supplies drinking water to the city of Nagpur.

5. The Stone Circles at Junapani

These sepulchral burials (as the excavations suggest) are huge circles whose diameter ranges from 6 to 18 m. The peripheral stones of these circles are undressed basalt boulders and these seem to have brought from a dis-

tant source. Most of these circles are roughly circular, although some oblong circles are also present. A few burials are double circles. The largest boulder of the circle is of the dimension of $1.5 \times 1.5 - 1.25 \times 1$ m. Cairn packing within the circles at Junapani is generally thin with the exception of a few circles which have a thick deposit of rubble and soil packing. Another noteworthy feature is that the size of the boulders seems to be proportionate to the size of the circle, *i.e.*, in the case of large circles, huge boulders have been used and contrarily, smaller circles have been constructed with relatively small boulders. Small circular pebbly features of 1 m diameter can be seen inside some of the stone circles. Besides, there are small heap of stones. There are a few “empty circles” which are devoid of cairn packing. In all possibility, this suggests that the stone circle was constructed first and then the body was buried and covered with rubble. Hence, empty circles are those graves which were constructed for future purpose by a family/clan, but never used. It also reflects that the laying of peripheral stones was the first stage of burial construction. The circles located on the slopes along the stream reflect some kind of planning and management of the burial space such as levelling of the ground which in some cases included filling up of the slope.

6. Cupules/Cup Marks Pecked on the Boulders Megalithic Stone Circles of Junapani

Cup marks are the characteristic features of this site. Such marks are also called cupules, and are mostly found on the peripheral boulders of these stone circles

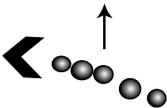
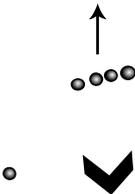
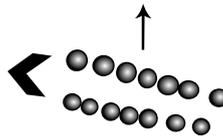
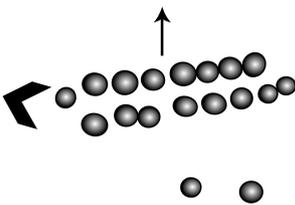
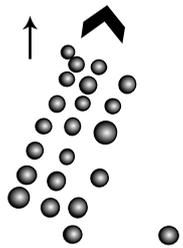
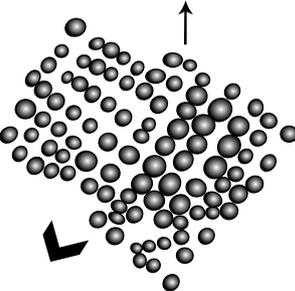
7. Analysis of Cup Marks

For the meaningful analysis of these cup marks in the first stage of analysis I chose those cup marked boulders which have not undergone any displacement from their original position as well as those cup marked boulders were not included in the study whose cupules look fresh or have been obliterated by recent pecking activity. In the next stage of analysis I studied the directionality of the boulders bearings cup marks. Then I classified the cup marks on the basis of different patterns which are as follows:

- A) T shaped (13 cases)
- B) Single Cup marks (9 cases with 2 possible displacements)
- C) Single lines (6 cases)
- D) Single line with assorted cup marks (4 cases)
- E) Parallel Lines (12 cases with 2 possible displacements)
- F) Parallel lines with additional cup marks (12 cases)
- G) Three parallel lines with additional cup marks (5 cases)
- H) Linear patterns (11 cases)
- I) Assorted Linear patterns (7 cases with 1 error)
- J) Curves or arcs or angular patterns (15 cases with 2 errors)
- K) Cross pattern (4 cases)

No	Type of Pattern	Pattern discussion	Pattern
A	T shaped (13 cases)	This is the most frequently occurring symbol and is present at all three localities. Most of the times the lower part that is the vertical stroke of this symbol is pointed either towards the centre of burial or towards the north.	
B	Single cup marks (9 cases with 2 possible displacements)	They seem to mark boulders in exact East or some other important direction.	

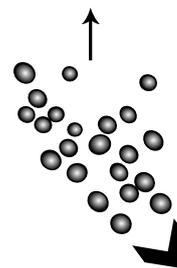
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C	Single lines (6 cases)	Most of the lines seem to point to the centre of the circle or are tangential to the circle.	
D	Single line with assorted cup marks (4 cases)	The lines seem to be tangential or radial to the circle	
E	Parallel Lines (12 cases with 2 possible displacements)	The lines seem to be tangential or radial to the circle	
F	Parallel lines with additional cup marks (12 cases)	The lines seem to be tangential or radial to the circle	
G	Three parallel lines with additional cup marks (5 cases)	The lines seem to be tangential or radial to the circle	
H	Linear patterns (11 cases)	The lines seem to be tangential or radial to the circle	
I	Assorted Linear patterns (7 cases with 1 error)	The lines seem to be tangential or radial to the circle	

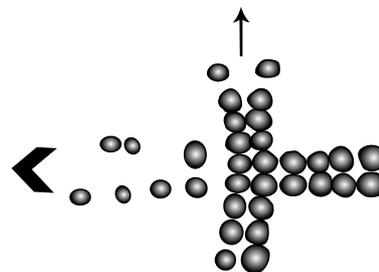
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J Curves or arcs or angular patterns
(15 cases with 2 errors)

The lines seem to be tangential or radial to the circle



K Cross pattern
(4 cases)



8. Discussion

No one knows the exact meaning behind manifesting cup marks by the Megalithic folks. Does the occurrence of cup marks signifies an important event of pre-mortuary practice such as the date/month on which the first stone of the burial was installed, or the day/month decided to bury the remains of the dead (in case of secondary burial) or some important event of post mortuary practices. They are the surviving artistic manifestations of Megalithic society exemplifying certain behavioral patterns unknown to us.

However, the patterns seem to conform to the pattern where the lines formed by the cup marks seem to be either radial or tangential. The stones themselves also seem to have preferential location. **Figure 1** shows the location of the stones with cup marks on stone circles. As can be seen from the figure, while the stones are found in most direction, their preferred location is the East with the second largest number of stones 120° from north. This is close to the direction of Winter Solstice sunrise. However, this may be a chance association.

Similarly, the fact that the cup mark patterns are not random but has clear preference for linear patterns also seems to indicate some attempts at marking directions.

Location of stones with cup marks

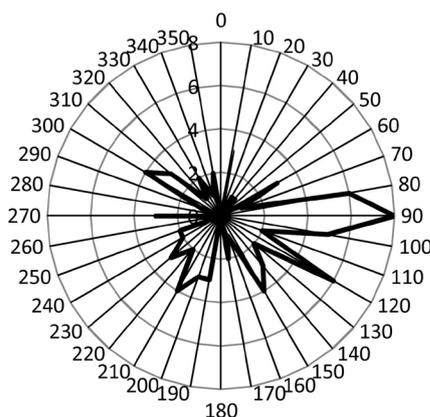


Figure 1. Angular distribution of stones with cup marks. Zero marks the northern direction.

Clearly, this aspect of the art on stone circles, whose raw data is presented here, needs more careful study.

Acknowledgements

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