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## An Approach to Rock Art Research and Documentation in North East India

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### Abstract

*The present concern of all the rock art researchers is to explore the 'future of the past' and to look beyond the duty of discovering, protecting, and educating about archaeological treasures. Everybody is very curious to know that in which direction the discipline of archaeology is going, because the philosophy of research and technology/science is fast changing. The concern for exploring new ways and means for rock art research and for deciphering rock art opened a new chapter in the history of research in prehistoric and tribal art, with new scope from the collaboration of archaeology with anthropology, art history, philosophy, semiotics, psychology, psychiatry, history of religion and cultural history. The new multidisciplinary approach aims at a global view of culture and of the very essence of the spirit of our species (Homo sapiens). In the past, the rock art research has coupled archaeology and anthropology with the aesthetics and art history. By this approach a common research ground has been established between the prehistoric art and the history of religion. In this direction investigations have been made on the signs of myths and shamanism, logical and cognitive functions as revealed by art, and paradigms of semiotic and graphic art, etc. But the present challenge is to widen the scope of multidisciplinary involvement, in order to understand human and his epic... that is, our epic. The need is to look beyond the context and read the messages. Because, prehistoric art narrates a piece of life, a thought or an emotion which has been a part of our tradition. It reveals changes in people's way of thinking, feeling, and sentiments, which can express at the same time the wish and the need for self-punishment. Such need allows to reduce sense of guilty, by using an expressive mean which can be, only formally, compared to the one used by primitive man in ritual and by the child in concrete logic stage. It seems that there is an immediate need to study further psychology of iconicity; and to make distinction between 'mental and artistic representations'. It is believed that the 'abstract art' comes from the mind but 'representational art' comes from the natural forms. It is clear from the above discourse that the need of an hour is to study palaeoart in holistic perspective while applying multidisciplinary approach. It is to be investigated as one of the greatest bio-cultural experiments of humanity. Even we would have to develop a formal grammar and united theory for palaeoart studies.*

### 1. Backdrop

The present concern of all rock art researchers is to explore the 'future of the past' and to look beyond the duty of discovering, protecting, and educating about archaeological treasures. Everyone is very curious to know the direction in which the discipline of archaeology is heading as the philosophy of research and technology/science is fast changing.

The concern for exploring new methods for rock art research and for deciphering rock art opened a new chapter in the history of research in prehistoric and tribal art, with new scope from its collaboration with archaeology, anthropology, art history, philosophy,

semiotics, psychology, psychiatry, history of religion and cultural history. The new multidisciplinary approach aims at global perspective of culture and of the very essence of the spirit of our species (*Homo sapiens*).

In the past, the rock art research has coupled the archaeology and anthropology with the aesthetics and art history. By this approach a common research ground has been established between the prehistoric art and the history of the religion. In this direction, investigations have been made on the signs of myths and shamanism, logical and cognitive functions as revealed by art, and paradigms of semiotic and graphic art, etc. But the challenges at present are to widen the scope of multidisciplinary involvement, in order to understand human and his epic... that is, our epic. The need is to look beyond the context and read the messages. Because prehistoric rock art narrates a piece of life, a thought or an emotion which has been a part of our traditions. It reveals changes in people's way of thinking, feeling, and sentiments.

North east India is a lesser-known area for archaeological research. The archaeological evidences from this enormous, and one of the most strategic regions of India, are still so meagre that any attempt to trace the course of human history, especially of the vast unrecorded prehistoric past becomes a difficult task. Therefore the study of the prehistory and rock art of the region is very essential from the holistic point of view to address the issue.

## **2. Rock Art Analysis**

The analysis of the rock art elements are usually done in three tiers:

2.1 In **stylistic analysis** the graphical and technical characteristics, concept of impression, prevalence or lack of certain subjects, and the motivation behind the figures are usually discussed. The significant variables are identified, and a time consuming process of considering hundreds of details which experience has shown not to be particularly relevant are ignored.

2.2 The **chronological analysis** is aimed at summarizing the considerations, which helps determining first, the relative chronology and then the absolute chronology of the various phases. For the study of relative chronology, the superimposition of each rock is very important. The case of superimpositions are analysed in their order of distribution on the rock; groups of engravings are classified according to their degree of preservation and possible differences of patina existing among the engraved figures on the same surface are established. The data obtained are subsequently compared and the succession of

engraving phases existing on the same rock determined. Any stylistic differences among the recognized phases are noted for possible clues to determine chronological placement. The stylistic successions of the numerous rocks are further examined and compared so that common and repetitive characteristics in the entire could be defined. A note must be taken of the possible chronologically valuable elements in each group that could contribute to the dating of the phase.

2.3 The **ethnological analysis** should result in a summary for each phase represented, of these data which contribute to the reconstruction of the daily life, the activities, the economy, the socio-political structure, the beliefs, the mythology, the patterns of symbolism and the contacts and affiliations of the people who made the engravings/ paintings.

While dating rock art it has been related to stratigraphy. The style also has been used as a formal, denominator. As the comparable contexts too have a rather unprecise dating precise age is very difficult to identify. But the relative age is often easier to reach. Besides, a detailed chronology seems impossible to construct. However, some of the recent advancements in scientific dating methods has given absolute dates in a few cases.

### **3. An Approach to Rock Art Research**

#### **3.1 Psycho-Analytical Approach**

Under this method of research, the psychiatrists are exploring the minds of the prehistoric artists. While starting from the concept of sublimation in relation to creativeness and artistic production, the scholars followed a psychiatrist, micropsychoanalyst point of view and fork into consideration some common elements between art and psychosis, psychosis and infantile thought, infantile thought and art.

Some scholars believed that inside the human mind (conscious, preconscious and unconscious) we could find (metaphorically speaking) traces similar to those of the prehistoric incisions engraved on rocks. It is not the formal similarity among the traces but the fact, they try to represent independently from epochs, the inner affect which animates them. It has been observed that the affect linked to at least four variables – nourishment, sex, territory and death does not change. It is the pattern of representations, which changes into stages of psycho sexual development and the passing of centuries and millenniums. The

development, as we intend, happens only on the level of representations; the affect does not change. It is the form of the traces, which changes together with the way to use the defenses.

Besides, the images, which appear in myths as well as in the rock art pictures, may contain the echo of the process that generated them and it may give us a sign about their construction. Cosmos representation seems to be constructed through several condensations and displacements, which form similar but not identical images: the course of the sun, the journey of dead spirits and the trip of dreams.

Some considerations have also been made upon analogies between tribal rituals and obsessional ceremonies. They assume that during ontogenesis the human being passes through phylogenetic development stages and in particular that the child in evolutive age uses the design and gestures to express his psychic life, since he is still unable to use a linguistic code. Similarly to what happened to our ancestors in prehistoric era in rituals and in graphic representation of them.

In obsessional neurosis ceremonials have an important function, in relation to the need for lowering tension. Through the gesture that the neurotic compulsive repeats during his ceremonials, he tries to find a system, which can express at the same time the wish and the need for self-punishment. Such need allows to reduce sense of guilt, by using an expressive means which can be, only formally, compared to the one used by primitive man in rituals and by the child in concrete logic stage.

It seems that there is an immediate need to study further psychology of iconicity; and to make distinction between 'mental and artistic representations'. It is believed that the 'abstract art' comes from the mind but 'representational art' comes from natural forms.

It is clear from the above discourse that the need of the hour is to study palaeoart in holistic perspective while applying multi-disciplinary approach. It is to be investigated as one of the greatest bio-cultural experiments of humanity. Even we would have to develop a formal grammar and unified theory for palaeoart studies.

### **3.2 Ethnographical Approach**

Another important aspect for deciphering rock art is the ethnographical approach for studying rock art. It is suggested to find out the temporal spectrum of both rock art and tribal art. By this exercise, the upper and lower limits of both the sets of art may be identified. The processes are to be carried out (carefully/logically/scientifically) for understanding the genesis of rock art and the development of tribal art and to determine the spectrum of continuum.

In ethnographical study, two main aspects emerge; one is direct relationship between tribal native groups and the rock art in their habitat. And another is the interference, which can be extracted from the cognition of the natives about this art. It does not matter if they did not rate it or if it belongs to another age and precedence. The first addresses/undertakes ethnic and ethnological studies of the techniques of conservation (facing tourism and the cultural changes). This is an urgent task. But the approximation to the problem must be synchronic and phenomenological.

At the same time, an archaeology claiming to be cognitive, aiming at how a culture is understood need tautegoric ethnography to plan its interfaces. The true understanding cannot come by imposing the pre-concerned, uni-dimensional models of the cognitive development of the human language or through artificial order or data. We would have to understand the circular movement of our past and present, regional and global, part and the whole, self and the other, surface and the context in the rock art traditions of the world. It could help in making clear the meaning of the rock art depictions; why some and not others are ruled by the fixed laws, why is not possible to generalize when dealing with different people. The native of today, as that of yesterday, is a free being, who select the motives that his cosmology dictated or by imperative shamanism or by the effect of drugs. The other factors, which could be investigated by ethnoarchaeology, include– abrogation, superimposed drawings, destruction, and changing of sites.

The rock art images should be treated as a source for cultural communication with the past, present and the future. The past to celebrate remembrance, memory and legacy. The present to confirm and legitimize the culture and the future as an expression for the cultural and human fear of death.

### **3.3 Rock Art Documentation**

Cognitive mapping is central to research on human spatial orientation. Maps are the primary mechanism in human for storing information about spatial locations, for determining one's location at a particular time, for planning routes, for monitoring the process of way finding, and for realizing the successful attainment of one's goal. The acquisition by environmental knowledge through explorations and the solution of spatial problem are the two fundamental functions of the cognitive mapping process.

The single figure and the arrangement of figure into compositions is a central theme in rock art research. Firstly, there are some sorts of images, which have to be identified, named and known to varieties of formal expression. There is always a rest product here, which later on may be identified. Often there are images with no identification at all and they are reduced to be used as signs in the scientific analysis. Some motives seem to be very long-lived, others are accidental. Some are used together and some are never seen in the same image? For the iconic motives it is of interest which part of reality is used in the picture world, and what quantities, scales and designs are used.

### **3.3.1 Manual Recording**

The models of rock art documentation vary and mostly depend on the feasibility of any, or combination of the following specific image recording techniques: photographing, videotaping, sketching, tracing, or more technical approaches such as stereophotogrammetry, holography, etc.

Rock art has to be drawn and photographed. Modern technology can help here; the laser scanner shows each motif clearly and presents a colour picture of the rock, including the varying depths of the grooves. This can certainly be done now with panels that are accessible, and the others may follow later. As laser scanning is expensive and not applied universally, other methods of recording are still used and can be very accurate. Wax-rubbing, in which black wax is rubbed on the surface of thin, strong newsprint, is one such method. But this method needs experience/acquired skill.

Many systems of recording suffer from the operator making assumptions about the way the pattern is developing and may not be correct. Even with the most careful rubbing on paper over a clean surface, the result must be checked against photographs taken in strong, oblique light, preferably not at one time or season only.

Another method is to cover the rock with a sheet of polythene and use a test pen to draw the design. This sounds satisfactory, but is less objective than a rubbing. Motifs cannot be easily seen under plastic unless they have been filled in with some substance beforehand; this reads the pattern decided by the eye into the tracing. Corrections can be made, however, to the final drawing in the light of good photographs and through selective rubbings of difficult areas.

There are many methods of drawing. Some use dark grooves against a white background; others use white grooves against a stippled or shaded background. Some put in a sharp edge to the cups and rings; others a fuzzy edge. There is as yet no agreed single method.

Modern technology allows colour prints/photographs to be turned black and white, and colour itself can be enhanced and adjusted. Digital images are particularly useful in close-up and do not require a great deal of light, although oblique sunlight shows details better. There is a standard scale now accepted, produced by IFRAO, that shows not only centimeters but colours also.

The above discussion regarding rock art documentation is mainly confined to rock engravings. One of the methods of recording rock paintings could be taking photographs of the different selected compositions and then tracing these photographs on cellophane sheets. While tracing, they should be compared with the original paintings. These drawings are then enlarged and again compared with the original paintings to ensure that every detail is filled in these drawings. Then these transparencies are made and projected on walls and actual size drawings made. With the help of laser theodolite (with remote control) the different dimensions of the painted figures are recorded in a floppy. These paintings are then processed in the computer and the complete map of rock shelter with the exact location of paintings in it is acquired. It is possible to make a replica from this map.

Some other recording methods include tracings on oil paper, metal foil; water colour reproductions (eye-copies); models in different materials, etc. Another traditional technique is the making of copies by casting of original rock panels. In many cases the surface to be copied will be so porous and brittle that traditional copying cannot be carried out without

damaging the rock, in which case a non-tactile copying technique must be used. Previously, the most frequently used technique was stereophotogrammetric registration of the surface from which a three dimensional copy could be produced.

### **3.3.2 Digital Recording**

The present stress is in the development of new digital recording techniques and in the modernization and refinement of existing ones. The laser scanning is currently a fast growing and a powerful copying technique. The aim is to develop a high-quality, cost-effective and non-tactile documentation method with the aid of CD-ROM/ DVD/USB flash drive technology that would result in accurate copies. The records of this kind have been produced by the help of a digital scanner and a CD-writer using original rubbings and tracings produced.

The developing methodological considerations for recording petrographs on medium and large surfaces is based on photometric recordings of defined zones by means of a metric grid, taken from a fixed point with oblique lights from different angles. The images are then transferred to the computer, the measurements are corrected and the single images of superimposed to obtain a final image that emphasizes the incisions. This method, despite its apparent simplicity, has revealed various problems, principally of these types (1) The recording is subject to mental process of the individual. Above all, the choice of perceptive may be determined by preconceptions and thus the recording risk may being an interpretation rather than documentation (2) During the photographic reproductions process and the acquisition of images with the scanner, minor distortions due to errors or insufficient equipment and programmes often occur, requiring corrections.

The digitization enhances the possibility to study and distribute the records. This recently developed method is capable of manipulating digitized records of rock art and other surface features to recover original colour information from them. Photographic records are assigned a new role that of provisional, uncalibrated data which, before it is incorporated in archival records or used for scientific purpose or publishing applications, is corrected by colour re-constitution. The term “Pulizia Elettronica” (or P.E), in English “electronic cleaning” refers to an image processing system that enables us to make suppositions about certain areas of rock paintings and carvings which otherwise would be invisible or scarcely discernible to the naked eye.



## Rock Art Field Investigation Inventory

### I

## Rock Art Data Collection Inventory

### Rock Art Site Inventory/Conservation Status

1. **Name of the Hill/Site:**  
Present Name –  
Any other Name –
2. **Location & Extent:**  
**Physical Setting –**  
**Approach –**  
**Coordinates –**  
Village –  
  
Mandal –  
  
District –  
  
State –
3. **Geo-Cultural Set up:**
  - a) **Shelter** ---- Painted and Engraved
  - b) **Site** ----
  - c) **Materials:**
    - (i) Base-surface:  
Rock Type – Quartzite
    - ii) Colorants, if identifiable:  
Accessory minerals like opaques,  
hornblende, garnet, epidote, zircon  
etc.
    - iii) Colour:
  - d) **Ownership Details:**
  - e) **Use Description:**  
Past –  
Present –
4. **Type of Rock Art:**
  - a) Pictograph:  
Petroglyph:  
Combination:
  - b) Superimposition:
5. **Rock Art Motif**  
Anthropomorphic  
  
Zoomorphic  
  
Geometric  
  
Indeterminate  
  
Others
6. **Age Description:**

7. **Area Quantification:**
    - a) Area/Site/Block L x B
    - b) Orientation
    - c) No. of Blocks
    - d) No. of Stories
    - e) Any other
  8. **Significance, if any:**
  9. **General Description, inter-alia:**  
**Archeological depositions in and around the site –**  
**Environs –**  
**Flora and Fauna –**  
**Population Characteristics of the immediate neighbourhood –**  
**Geology –**
  10. **Status of Conservation**  
SSD – Showing Signs of Deterioration
  11. **Perceived Threats:**  
Both Natural and Manmade
    - Natural
    - Human
  12. **Causes of Deterioration**
    - A) Natural :
    - B) Human:
  13. **Annexure:**
  14. **Remarks:**
  15. **Reference:**
- Instructions:**

## II

### Ethnographical Data Collection Inventory

#### Inventory of Ethno-Archaeological Study

##### (I) Village Location and Extent

- *Village Name* –
- **Other Name** –
- **Physical Setting** –

**Village Type** –

**House Type** –

**Social Set-up** -

**Economic System/ Status** –

**Belief System- Shrines, Deities and Festivals** –

**Approach** –

- **District** –
- **State** –

##### (II) Village Creativity Forms

- **Painting** -
- **Embossing**
- **Carving**

- **Performing Art**
- **Any other form**

**(III) Classification of Village Art**

- **Theme**
  - *Cosmic/ Human/ Symbolic*
- **Artist/ Painter**
  - *Social group, Gender, Specialists*
- **Associated Myths & Rituals**
- **Associated Dreams/ Trance**

**(II)**

- **Materials –**
- **Colours-**
- **Location -**

**(IV) Geo- Cultural Set- up of a Village**

- **Name of Rock Art Site nearby –**
- **Site History –**
- **Use Description**
  - *Past –*
  - *Present –*
    - **Archaeological deposition in and around the Site –**
    - **Forms of Rock Art**
      - *Pictographs –*
      - *Petroglyphs - No*
    - **Superimposition:**
    - **Materials Used -**
    - **Age Description –**
    - **Preservation Status - Showing Signs of Deterioration**
    - **Perceived Threats - *Both Natural& Human***

A) Natural :

B) Human:

- **Ownership Details -**

**(V) Tracing similarity/ variation in Form and Content of both Rock Art and Village Art**

**(VI) Notes and General Observations**

**(VII) References**

**(VIII) Annexure**

#### 4. Conclusion

Rock art research in North east India is in its formative stage. To have a better understanding of the existence of rock art tradition in this part of the country, it is imperative to view it in the broader context of the Indian subcontinent. North east India, being a contact zone of South Asia, Southeast Asia, and East Asian Countries, has a great diversity of cultural material dating from prehistoric times. A fresh approach with archaeological, linguistic and ethnographic evidences is to be adopted and applied in order to understand the North east India in its proper context.

A proper survey, documentation and study of rock art of the North east India may also greatly contribute in this effort. It may help in the long run in establishing a chronological framework pertaining to the prehistoric and historical times that prevailed in this region.

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