



National Seminar
on
Affinities and Expansion of Prehistoric
and Archaeological Cultures in
Northeast India
with Special Emphasis on Rock Art
(10th-11th September, 2018)

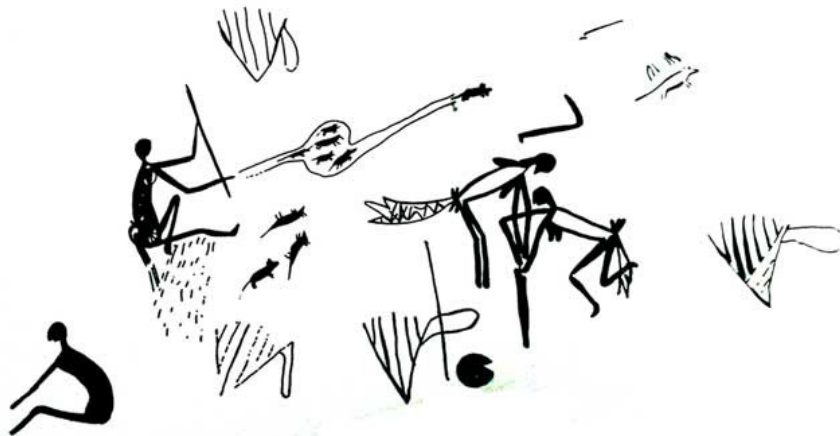


organised by
Indira Gandhi National Centre for the Arts (IGNCA), New Delhi
(Ministry of Culture, Government of India)
in collaboration with
Indira Gandhi National Tribal University (IGNTU), Amarkantak



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on
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Archaeological Cultures in Northeast India
with Special Emphasis on Rock Art**

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**INDIRA GANDHI NATIONAL CENTRE FOR THE ARTS (IGNCA)
NEW DELHI**

**in collaboration with
INDIRA GANDHI NATIONAL TRIBAL UNIVERSITY (IGNTU), AMARKANTAK
MADHYA PRADESH**

National Seminar on



Affinities and Expansion of Prehistoric and Archaeological Cultures in Northeast India with Special Emphasis on Rock Art

(10th-11th September, 2018)

This Brochure has been prepared on the occasion of National Seminar on Affinities and Expansion of Prehistoric and Archaeological Cultures in Northeast India with Special Emphasis on Rock Art

By
Indira Gandhi National Centre for the Arts, New Delhi

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Credits / Support

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2018

Organised by
Indira Gandhi National Centre for the Arts, New Delhi
in collaboration with
Indira Gandhi National Tribal University (IGNTU), Amarkantak, Madhya Pradesh





Footprint, Kabonki Dolmens, Manipur



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Indira Gandhi National Centre for the Arts (IGNCA)

The Indira Gandhi National Centre for the Arts (IGNCA), is visualized as an autonomous centre encompassing the study and experience of all the arts-each form with its own integrity, yet within a dimension of mutual inter-dependence, inter relatedness with nature, the social structure and cosmology.

This view of the arts, integrated and essential to the larger matrix of human culture, is predicated upon the role of the arts as essential to the 'integral quality of a person, at home with himself and society'. It partakes of the holistic world view, so forcefully articulated throughout the Indian tradition and emphasized by modern Indian leaders, especially Mahatma Gandhi and Rabindranath Tagore.

IGNCA's view of the arts encompasses a wide area of studies, such as creative and critical literature, written and oral; the visual arts, ranging from architecture, sculpture, painting and graphics to general material culture; photography and film; the performing arts like music, dance and theatre in their broadest connotations; and all else in festivals, fairs and in lifestyles that has an artistic dimension. It is in the Centre's agenda to explore study and revive the dialogue between India and other countries of the world, in areas pertaining to the arts.

The uniqueness of IGNCA's approach to the arts lies in the fact that it does not segregate the folk and the classic, the oral and written, the aural and the spoken, and the ancient and the modern. Here, the emphasis is on the connectivity and continuity between the various fields that ultimately relate human-to-human and human-to-nature.

IGNCA manifests its academic, research work in its publications, international and national seminars, conferences, exhibitions and lecture series. Schools and other educational institutions are within the focus of the outreach programme of the IGNCA.

To fulfill the objectives outlined in the conceptual plan of IGNCA and its principal aims, its functions are organized through five divisions that are autonomous in structure but inter-locked in programming.

The Kala Nidhi Division comprises a Reference Library of multi-media collections, which includes printed books, slides, microfilms, photographs and audiovisual material, a conservation laboratory, a multi-media unit and the Cultural Archives.

The Kala Kosha Division undertakes fundamental research and investigates the intellectual traditions in their dimensions of multi-layers and multi-disciplines. As a research and publication division, it endeavors to place the arts within the integral framework of a cultural system, combining the textual with oral, the visual with the aural and theory with practice.

Janapada Sampada Division complements the programmes of Kala Kosha. Its focus shifts from the text to the context of the rich variegated heritage of the rural and small-scale societies. Its activities focus on the lifestyle study programmes comprising the Loka Parampara, which revolves around a community, and the Kshetra Sampada, which revolves round a region.

The Kala Darshana Division provides a forum for inter-disciplinary seminars, exhibitions and performances on unified themes and concepts. The Cultural Informatics Laboratory (CIL) acts as a focal point for digitization of rare manuscripts, books, photographs, slides and audio-visual collection, not only of IGNCA but also of other organisations working in the Department of Culture.

The Sutradhara Division provides administrative, managerial and organizational support and services to all the other divisions. It has a well developed Media Centre for audio-visual documentation and film-making; Cultural Informatics Lab for production of CD-ROMs, DVDs and developing National Digital Data Bank on culture.

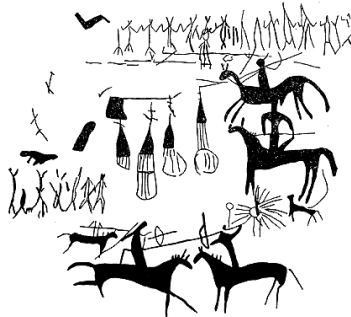
II

Indira Gandhi National Tribal University (IGNTU), Amarkantak

The Indira Gandhi National Tribal University, Amarkantak jurisdiction extends to the whole country. The university caters to the tribals' long cherished dream of higher education. In the present age of globalization the world has shrunk into a village as the society has advanced in technology. But the tribes, who are the custodians of Indian culture in real sense, are far behind in this race of advancement. In order to rescue them from the present plight, the university has put before itself the following aims and objectives : To provide avenues of education, especially higher education and research facilities primarily for the tribal population of India; To disseminate and advance knowledge by providing instructional and research facilities in tribal art, tradition, culture, language, medicinal systems, customs, forest based economic activities, flora, fauna and advancement in technologies relating to the natural resources of the tribal areas; To collaborate with national and international universities and organizations, especially for undertaking cultural studies and research on tribal communities; To formulate tribal centric development models, publish reports and monographs and to organize conferences and seminars on issues relating to tribes and to provide inputs to policy matters in different spheres; To take appropriate measures for promoting the members of tribal communities capable of managing, administering and looking after their own needs by access to higher education through a university of their own; To disseminate and advance knowledge by providing instructional and research facilities in such other branches of learning as it may deem fit and to take appropriate measures for promoting innovations in teaching learning process in inter-disciplinary studies and researches and to pay special attention to the

improvement of social, educational and economic conditions and welfare of the scheduled tribes within the Union of India.

The university is trying to achieve its objectives through the following thirty departments: Ancient Indian History, Culture and Archaeology; Applied Psychology; Biotechnology; Botany; Business Management; Chemistry; Commerce; Computer Science; Economics; Education; English and Foreign Languages; Environmental Science; Geography and Regional Development; Geology; Hindi; History; Journalism and Mass Communication; Linguistics and Contrastive Study of Tribal Languages; Mathematics; Pharmacy; Physics; Political Science and Human Rights; Social Work; Sociology and Social Anthropology; Statics; Tourism Management; Tribal Studies; Vocational Education; Yoga and Zoology.





Contributions to Rock Art Studies by IGNCA

Rock art study is an emerging discipline in India. IGNCA has initiated many projects/programmes for its study, research and its outreach. A number of Survey and Pilot Study programmes are being organised as a part of IGNCA's National Project on Rock Art of India to encourage the scholars and students to work in this emerging discipline and keep them updated on the status of rock art research in a global perspective and to encourage Indian scholars to take up this new discipline very seriously as it is directly related to the primeval vision of man and is perhaps the first creative act of human being. Its proper study can take our civilization thousands of years back.

IGNCA under its programme *Adi Drishya* (primeval vision of man) has initiated field documentation at national level for preserving the rock art sites/data, which are otherwise prone to human vandalism and natural factors beyond one's control. While recognizing the importance of rock art for the present generation and posterity, the phase wise field documentation has been planned in different States of India with rock art concentration. The main objective of the project is to make textual, contextual, video-photo documentation and communicate with people in the hinterland for archaeological research, and to build up a bio-cultural map, a mental and ecological atlas of the rock art landscape on the basis of documentation of related folklore and natural and manmade features. Based on this research and documentation etc., the publications are being brought out both in print and electronic media.

As a part of its outreach programme, IGNCA is organising different programmes for capacity building like organization of special lectures, memorial lectures and orientation workshops for researchers and university students; for creating general awareness among the school/college students and the public at large; temporary and mobile exhibitions, children workshops are being organised at the international/national/state levels. General awareness workshops are also being organised at tehsil/block levels for the local administration and for the community members around the rock art sites.

The impact of the projects/programmes launched and undertaken by IGNCA is immense and overwhelming. It can be assessed by the responses of the children, scholars and general public participating in these programmes/events throughout India. The reviews in professional journals and its wide coverage in both print and electronic media (national/vernacular) are quite encouraging. Some of the universities have started taking up the subject very seriously. Briefly, the goal to be set is not merely the development of a database and multimedia gallery/displays but also to establish *Adi Drishya* into a school of thought and research on alternate means of understanding prehistoric art. For achieving all these goals, the outreach/general awareness programmes, inventorisation and interpretation research of rock art are going on hand in hand.



Concept Note

Affinities and Expansion of Prehistoric and Archaeological Cultures in Northeast India with Special Emphasis on Rock Art

Northeast India from the perspective of geoenvironment consists of two distinct zones the Himalayan and the non Himalayan; the Brahmaputra valley forms the intermediary catchments of demarcation. The non-Himalayan region consists mainly of the hilly terrain of Nagaland, Manipur, Mizoram, Tripura, Meghalaya and broad plains of Barak and Imphal valley and which merges into the southern hill ranges. While the Himalayan region consists of the Arunachal Pradesh, and its southern periphery merging into the North bank of the river Brahmaputra and the foothills of Bhutan in Assam. The concept of Zomia developed by James Scott for great Southeast Asian massif wherein he includes the non Himalayan highland of Northeast India may be cited as an instance of relevance. He considers the Zomia as a geo-cultural unit inhabited by diverse ethnic communities having commonalities of life through ages. It should, however, be carefully noted that there are micro variations within the geoenvironmental sphere of the non Himalayan region. Considered from the viewpoint of prehistoric archaeology; the non Himalayan region has so far proven to be significant with majority of the Stone Age sites in Northeast, some with distinct context have been reported from this region such as hilly terrains of Dima Hasoa. In Assam, Manipur, Tripura and Garo Hills of Meghalaya are the broad areas where traces of prehistoric sites have been recovered. Recent explorations and excavation has also led to the recovery of prehistoric traces from Nagaland and Arunachal Pradesh which uphold human activities in the past. However the dating results from different sites indicate not a very older origin of the prehistoric cultures in this region. Compared to the prehistoric phase the findings of ancient and later historic period are enough as reported mainly from the Brahmaputra plains of Assam besides the hilly and other valley areas of the hills of the region. The neighbouring countries of Asian subcontinent as well as the territories of mainland India particularly the eastern India is congruously related to Northeastern region of the country since prehistoric past. While the existence of a palaeolithic phase in Northeastern India is firmly debated, the existence of Stone Age cultures akin to Hoabinhian akin south-east Asian territories has been accepted by many scholars. The attributes of Neolithic and later megalithic culture is peculiar and perhaps be understood in the context of the environmental and subsistence pattern of the region. An important Stone Age cultural relic of Northeast region indicating cultural lineage with Southeast Asia since prehistoric past is the Hoabinhian tradition. First reported from Northern Province of Hoa Binh in Vietnam, this is a typical late quaternary Stone Age industry of Southeast Asia. The occurrence of this Stone Age industry in Northeast India has been reported from the territories of Manipur and Garo hills of Meghalaya. The occurrence of Hoabinhian artifact from Manipur has been reported by scholars like O. K. Singh and L. Kunjeswari Devi. Commenting on the stone artifacts recovered from Napachik in Manipur, O.K. Singh writes, "Typo-technologically the cultural materials from Napachik may be divided into two phases. The small chipped pebble tools with inclined plain striking platform and edge ground knife as convex flake which are of the Hoabinhian character." L. Kunjeswari Devi

has also reported the occurrence of Hoabinhian artifacts from Tharon caves in eastern Manipur. Similarly, T. C. Sharma also reported recovery of Hoabinhian artifacts like pebble choppers, unofficial Sumatralith types of axes made on pebble on dolerite, some heavy pounders of stone, a few flakes and chips from a stratified site in Garo Hills of Meghalaya. Interestingly, the upper layer of the site also yielded Neolithic artifacts. Hoabinhian tradition with distinct regional characteristics has been recorded to have flourished in Eastern Meghalaya. Artifacts having typological proximity to Hoabinhian like chipped axes, pebble flakes, chipped knife, flakes and chips have also been recovered from Mokbolbisik in Garo Hills through excavation. Another archaeological significance of this region is the presence of numerous megalithic remains and continuation of the tradition. The megalithic remains are mainly recorded from the hilly terrain of Nagaland, Manipur, North Cachar and Karbi Anglong of Assam and Eastern Meghalaya. Commenting on the megalithic remains of Manipur, P. Binodini Devi mentions that these rude monuments are concentrated in the high hills of Chandel, Senapati, and Tamenglong and Ukhrul districts. In Dima Hasao district of Assam, megaliths have been reported from Nenglo, Bolasam, Kobak, Derebora and Kartong and megalithic remains have been recorded from Kamarpha, Rongali, Nongjrong, Mukhrow, Umcherra, Bowlagog, Habang, Umteli, Ophernala, Jorshala, Locrew and Mauslai in Karbi Anglong. It is thus clear that on the spatial plane there is a continuous tract of megalithic belt extending from Nagaland through Manipur bordering North Cachar and Karbi Anglong of Assam upto western Meghalaya. Noted scholar Haimendorf has extended this belt in the east upto mainland Southeast Asia and in the west upto East Indian territory inhabited by the Mundari speaking populations. Ethnologically, this region is the abode of diverse communities at various levels of subsistence with cultivation as the core practice. Various ethnic communities socio-culturally attached to the megalithic tradition such as different groups of the Nagas like the Aos, Angamis, Rengma, Mao and Maram, Karbis of Assam and Khasis of Meghalaya inhabit this region. Among these communities the Khasis are linguistically close to the Southeast Asian Austric speakers with conspicuous matrilineal socio-cultural characteristics.

It is in this backdrop that the origin and expansion of rock art and allied archaeological resources of the region has to be viewed. The already reported rock art forms are mainly engravings occurring in the Brahmaputra valley besides the hills of Manipur, Dima Hasao and Mizoram. Basically these belong to the early as well as late historical period. But stylistic similarities of some of the art figure with the prehistoric art forms from other regions of the country raises some questions regarding their origin. From lithological point the main rock type of the sites are grey coloured fine granite resistant to weathering are conducive for durable display of rock art in a highly volatile weather condition. The figures are basically life forms and geometrical designs, but the repeated appearance of labyrinth in some of the sites opens the clues to investigation in newer directions.

The beautiful engravings of rock art ranging from animal to symmetric geometric designs signify a high level of artisan skill of lithotechnology and metallurgy. Another aspect of the rock engravings of the region is the occurrence of the art forms in association with archaeological relics and not in isolation. From simple unitary geometric figures to life forms the engraved designs has very little to speak of the past. It is therefore necessary to

expand the intensity of research and investigation in this field keeping in perspective the prehistory and early history of the region along with an understanding of its expansion and affinities with the neighbouring territories within as well as outside the national boundaries. The proposed national seminar in Imphal is therefore considered significant for focusing on the discussed dimension of rock art and its background in Northeast India. The subthemes of the seminar may include the pattern of Prehistoric and archaeological cultures in Northeastern India; pattern of Prehistoric and archaeological cultures in eastern and south east Asian territories; affinities and typicality of the Prehistoric and archaeological cultures of Northeast India; ethnographic background of Northeast India in relation to rock art and allied areas; and ethno-archaeological dimension of rock art in Northeast India.



Programme Schedule



Affinities and Expansion of Prehistoric and Archaeological Cultures in Northeast India with Special Emphasis on Rock Art

(10th -11th September, 2018)

Venue: IGNTU Regional Campus, Manipur

10th September, 2018

Inaugural Session:	11:30 am - 1:00 pm
Chairperson:	Prof. T. V. Kattimanni, Vice Chancellor IGNTU, Amarkantak, M. P
Chief Guest:	Prof. G. B. Deglurkar, Former President, Deccan College, Pune
Welcome Address:	Prof. Alok Shrotiya
Introducing Seminar:	Dr. B. L. Malla
Keynote Address:	Prof. V. H. Sonawane
Vote of Thanks:	Dr. Ng. Ngalengnam

Lunch Break: 1:00 pm – 2:00 pm

Ist Session: 2:00 pm - 5:00 pm

From Palaeo–Art to Ethnic Art: Evidences from Eastern India and in the Northeast
Somnath Chakraverty

Rock Art of Northeast India: Context and Classification
Tilok Thakuria
Monika Kalita

Rock Art of Northeast India: Some Tips
V. H. Sonawane

Further Investigation into the Rock Engravings and Associated Evidences in Northeast India
Dwipen Bezbaruah
Sarat Phukan

11th September, 2018

IInd Session: 11:00 am - 1:30 pm

Petroglyphs of Vangchhia
Salam Shyam Singh

Archaeological Investigations in Ganol River Basin, West Garo Hill, Meghalaya
Tosabanta Padhan

A Glimpse of Rock Art in Mizoram' - A Challenge in Rewriting of History of Mizoram
Sujeet Nayan

Historical Significance of Some Few Rock Art in Jaintia Hills of Meghalaya
Evelinda Suchiang

Carving of animal figures on Mizo Megaliths
Malsawmliana

Shifting Agriculture in Northeast India – A Neolithic Tradition in Continuity
Jonali Devi

Lunch Break: 1:30 pm - 2:30 pm

IIIrd Session: 2:30 pm - 4:30 pm

Continuity of Tradition and the Role of Social Memory
Sukanya Sharma
Jitendra Kumar

Primeval Art vis-à-vis Ethnic Art
Sadasiba Pradhan

Documentation of Petroglyphs: Ladakh Experience
S. B. Ota
Minarva Sonowal

Micro structural, Elemental and Mineral Studies in Rock Art Pigment Using E-SEM, XRF and FTIR Methods and their Potential for Northeast Rock Art Studies
C. M. Nautiyal
Siva Sankar Panda
Shidharth Sankar Ram
B. V. Kharbade

Protecting Rock Arts: A Challengeous Job
Devananda Beura

Panel discussion and Valedictory session: 4:30 pm - 5:30 pm

Visit to Evening Market: 5:30 pm

I

From Palaeo-Art to Ethnic Art: Evidences from Eastern India and in the Northeast

Somnath Chakraverty

Art is popularly considered as a manifestation which has a visually describable form. Conceptually, palaeo-art of any region had gradually transformed and in course of time it has gradually developed as various ethnic art tradition enriched with discrete regional features. Rock art may be viewed as one of the expressions of the palaeo-art whereas similar other mode of expressions such as: sculptures, on various perishable and non-perishable materials, floor paintings, bark painting, metal art, musk, textile, craft materials, basketry, tools, alignment of natural stones and boulders (such as in Peru) and similar other forms.

Therefore, parallel to rock art, other art traditions had similarly developed in folk-art and among preindustrial society that are commonly found in the Northeast India and in Chhotanagpur plateau of Eastern India. It is revealed from the intensive as well as widely explorative study that in Eastern India and in the Northeast palaeo-art and rock art tradition had survived in the form of practicing mortuary rituals related to burial art which is mostly commemorative in nature. Whereas, the majority of intricate design, science and abstract symbols that are common in rock art are also expressed in the form of various textile design, weaving pattern and in bamboo craft design etc. those are common in the Northeast among different tribal communities of that region.

Somnath Chakraverty is an anthropologist and a former Fulbright fellow and faculty member of Pennsylvania and Michigan University. He also served as the university Grant Commission's National Teacher fellow in Anthropology and as the project Director, Rock Art Research programme of the Asiatic society. He was also the head of the Department of Anthropology, BEC, and University of Calcutta.

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II

Rock Art of Northeast India: Context and Classification

Tilok Thakuria
Monika Kalita

India is rich in her treasure of rock art. It was first discovered and reported by A. Carlleyle in 1867, and since then a hordes of rock art sites have been discovered in the length and breadth of the country. Northeast India, though finds place in the rock art of map of India, has less number of sites compare to the other regions of India. Until now no rock art or rock art sites have been found associated with any prehistoric context in the region. Indeed, the region yet to produce evidence of prehistoric cultures in a chronologically accepted sequence. There are, however, claims of finding Palaeolithic tools but their stratigraphy and typo-technology is in question to accept. Therefore, the region has no concrete evidence of Pleistocene human record. Absence of Pleistocene human record also put a question on the presence of early rock art in the region. The concept of pre-neolithic belonging to Late Pleistocene needs further verification on techno-typology as “Pre-neolithic” and its geo-chronological context. However, the Neolithic culture has a wide distribution in the region. Therefore association of rock art with prehistoric cultures before Neolithic is technically difficult and no claims can be made of finding rock art in Neolithic context. Most of the rock art in the region indeed has megalithic and historical context, and some without any cultural context. More so, caution need to be taken to define any work on natural or modified stone surface as “Rock Art”. The present paper, therefore, will offer discussion on context and classification on rock art of the region. The paper is based on the previously reported rock art sites in the region.

Tilok Thakuria is currently working as Assistant Professor and In-Charge of the Department of History and Archaeology in North-Eastern Hill University. His fields of specialisation are megalithic archaeology, history and technology of ornaments, ethno-archaeology and archaeology of Northeast India.

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Monika Kalita is a research Scholar of the Department of History and Archaeology in North-Eastern Hill University. She is conducting her research on History of development of archaeology in Northeast India.

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III

Rock Art of Northeast India: Some Tips

V. H. Sonawane

Among the many things that our ancestors left behind nothing is more evocative and exciting than their signatures on rock. Painted and engraved walls of caverns, rock shelters and boulders present us an avenue to walk through archaic expressions of human societies as well as their cultural traditions by use of line, form and colour. Rock is regarded as a purposeful modification of bare rock surface to produce preconceived forms and images, both in paintings and engravings. Its antiquity ranging from palaeolithic to historic period is an important evidence of human creation through the vicissitudes of time and space. The spectrum of Indian rock art is vast in terms of their thematic and stylistic contents. In magnitude, vividness and richness it is outstanding and in some respect unique in the world, forming an important cultural heritage.

My soul intention here is to clear some of the misconceptions prevailing among scholars working in various parts of northeast India to establish the presence of rock art in this part of our country. Since rock art research is in a formative stage in north-eastern states of India, IGNCA has initiated a special drive to promote rock art research in this one of the lesser known but potential regions. Therefore it is most challenging task particularly for those interested in rock studies to work vigorously to establish the presence of this earliest form of expression and share the tradition with other known regions of our country. This paper basically deals with the primary information related to rock art as some tips to look for and understand the rock art.

Vishwasrao H. Sonawane had pursued his Ph.D. from Maharaja Sayajirao University of Baroda where later he served as a professor of Archaeology and Ancient Indian History Culture and Director of Field Archaeology. In his academic service of 36 years, he has worked on prehistoric, protohistoric and Historic Archaeology besides Rock Art and has been associated with important premier academic-governance bodies of the country. He carried out extensive research work on Rock Art of Gujarat and Harappan affiliated chalcolithic settlements for the first time in Gujarat. Apart from his involvement in achieving the world heritage status for Pavagadh, Champaner, he discovered the intact zinc furnaces at Zawar in Rajasthan. He had widely travelled to different parts of Australia, France, Italy, Iran, Sri Lanka, China, Thailand, Singapore and Malaysia.

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IV

Further Investigation into the Rock Engravings and Associated Evidences in Northeast India

Dwipen Bezbaruah
Sarat Phukan

Different aspects of the rock art findings in NE India have been discussed by various scholars in the recent years. The authors have taken up pilot surveys in the territories of Tripura, Arunachal Pradesh and Manipur very recently to get a firsthand idea of the existence of the rock art in these areas. The survey was supported by the IGNCA, New Delhi as a part of its ongoing project on the rock art situation in NE India. There has been no trace of rock engravings in Tripura except the already protected site of Unakoti near Kailash sahar. The site at Chabimura locally known as Chakhrama has a number of rocks cut images of female goddesses similar to Durga on the bank of the Gomti River. The cave on a distance on the bank of the Gomti which as reported have certain pictographic images turn out to be a thick coat of lichen formation over the inner surfaces of a rock shelter where visiting folks have created certain designs. The territory of Arunachal Pradesh have reported few blocks of weathered rock engraved with footprints and related designs. The areas surrounding the monastery near Dirang in West Kameng district have many blocks of stones with numerous designs of epigraphic and related Buddhist motifs. The Tharon area of Tamenglong district of Manipur which has evidences of engravings on rock surfaces besides megalithic engravings are significant from the geological and ethnographic perspective. The paper seeks to discuss these recent findings on the basis of the primary field data supplemented by secondary sources.

Dwipen Bezbaruah is the Professor in the Department of Anthropology, Gauhati University. His areas of research are Ethno-archaeology, Stone Age Archaeology, Ethnic issues of NE India. He also has 16 years teaching experience in University. He has several articles in international and national journals to his credits. He has also attended many workshops and courses at national and international level.

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Sarat Phukan is the professor on department of Geological Sciences, Gauhati University, Assam. He has his expertise on remote sensing, geology, earth science, geological mapping and petroleum geology.

Professor
Department of Geological Sciences
Gauhati University, Assam

V

Petroglyphs of Vangchhia

Salam Shyam Singh

Vangchhia is a small village of Mizoram lying in the Indo-Mayanmar border. Many engraved menhirs have been come across at Vangchhia during the course of the exploration. Besides them, three petroglyph sites are also encountered in particular village. Though their number is very limited, they are very significant for study as they will reflect the cultural life of the people who carved these petroglyphs. In terms of subject matter they are similar in style and theme to their engraved counter parts on the menhirs found in this village. These petroglyphs are made by applying the simple methods of engraving and carving on the exposed rock outcrops lying on the hill slopes looking down the Tiau River which is flowing about kilometre in the east of these petroglyph sites. It is worth to study these petroglyphs for reconstruction of cultural history of Mizoram mainly before the introduction of Christianity in Mizoram as the Mizos stopped the practice of engraving petroglyphs on the rock surfaces after the conversion to Christianity in the 19th century. So this work has been taken up for discussion. This paper will discuss the form, subject matter and distribution of the rock art sites in this village and the probable purpose of these petroglyphs.

Salam Shyam Singh is currently working as Assistant Archaeologist, in the Guwahati Circle of Archaeological Survey of India. His areas of research interest are prehistory and megalithic culture of Northeast India. He recently obtained Ph.D. degree from Manipur University and worked on "Prehistoric Cultures of Northeast India."

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VI

Archaeological Investigations in Ganol River Basin: West Garo Hill, Meghalaya

Tosabanta Padhan

The paper briefly summarise the results of the Archaeological explorations conducted in the Ganol River and its tributaries in the west Garo hills of Meghalaya. This geographical zone played a vital in understanding the early human presence and specific technological adaptations to this unique high rainfall zone. Explorations were conducted to find new stone ages sites and to relocate earlier reported sites for a multi-disciplinary approach to peruse the long debated Palaeolithic issues in the Garo hill. The field investigation was successful in discovering new sites i.e. Kemeragre, Rongram Eli, Ronschigre, Daren Agal and Sopgre. Multiple localities were also discovered adjoining to earlier reported site; Edenbari, Mismagre and Chibagre sites, which has never been observed by previous researchers. Artefacts were collected from the newly discovered localities to study the lithic assemblages. The prehistoric population in the area have extensively utilised basalt dyke for manufacturing Neolithic Stone tool. The field investigations gave some new directions in understanding pre-Neolithic, Neolithic and post Neolithic settlements in the Garo Hills. The study area provisionally lack of typical Palaeolithic and microlithic assemblages as known from other parts of the Indian Subcontinent. However, the larger interpretative issues still exist due to lack of bigger field surveys project, current political conditions, complex geological formations, clear stratigraphic contexts and absence of chronometric dates in northeastern India.

Tosabanta Padhan, is an Archaeologist specializing in the Indian Prehistory with a particular interest in the Lithic Technology, Experimental Archaeology, Field Archaeology, Rock art and Historical Archaeology. He has published more than a dozen Research papers in reputed national and international Journals and presented 23 Research Papers in various seminar and conferences. He has received prestigious H.D. Sankalia Young Archaeologist award from Indian Society for Prehistoric and Quaternary Studies (ISPQS). He has participated fieldwork projects in Europe, Africa, and Middle East. Currently he is a Post-Doctoral fellow at Indian Institute of Science Education and Research Mohali.

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VII

A Glimpse of Rock Art in Mizoram A Challenge in Rewriting of History of Mizoram

Sujeet Nayan

History of Mizoram was first chalked down by the colonial historians, mostly by the administrators of the Lushai District that was how Mizoram was known during the British Indian rule. Most of the above records projected and highlighted the socio-culture of Lushai tribes but did not mention the history of people resided in the area before Lushai tribes' arrival. There are numbers of petroglyphs found across Mizoram State. Most of these rock arts origins are not known yet. Generally, these petroglyphs were made on Monoliths/Megaliths. In some areas rock relief were also encountered. These petroglyphs, as far as exploration and research already taken up is concerned, there are two modes of engraving, such as incised and relief. The purposes of these arts are believed to be a religious, commemoration of hero/festival etc. and interment of chiefs and alike. Erecting of headstone/monolith for various purposes is still practiced in Mizoram, this may be evolved from the past cultures of the region.

There are traces of Hinduism, Buddhism and animism encountered in these rock arts. This is an evidence of spreading of these religions in this region. As historians of the State, generally relied on oral tradition and ignored the importance of these petroglyphs. There are chance to rediscover the past cultures and history of the State by employing archaeological techniques. Systematic explorations and mini excavations in various sites were conducted to disclose the shrouded mystery of the past culture. As a result of these investigations, it is obvious that a series of cultures dating back to 1300 C.E. had flourished in the region before Lushai people arrivals. Hence, more extensive study is required in this regard.

Sujeet Nayan did Ph.D in Archaeology from Magadh University in 2010. He has explored and surveyed many Archaeological sites in various parts of India and still does. He has delivered lecture and imparted field training for the post graduate. He has written many articles and reports on excavation published in various journals. He has been selected in a 'Leadership Training program' in 2014.

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VIII

Historical Significance of Rock Art in Jaintia Hills of Meghalaya

Evelinda Suchiang

Art and human life are inseparable part of any society as it is an important aesthetic expression having multifaceted dimensions covering both material and cognitive aspects of culture. The current paper thus attempts to situate within the context of the Jaintia Hills of Meghalaya by drawing references to the rock cut art of the Pung Syiem or the kings pond (Rupasor royal bathing pool), the engraved 'Trishul' on the rocks close to Tisang river near Psadwar village in South Jaintia hills, (i.e. the War-Jaintia area), the rock engraving of 'U Khmi' (earthquake) on the banks of the Tisang river near Psadwar that is associated with an interesting oral tradition of a giant residing under the surface of the earth; the engraving or rock carving of a 'vulva' situated on the outskirts of Lum Lakhiat village (closeby Khanduli), the nude sculptures of a couple at Kseh Rynchang (also near Khanduli), and the engraving of rooster and an elephant on a monolith at Nagbah village are some of the few subjects of rock art brought under study. The paper therefore seeks to understand the historical importance of these engravings and sculptures in the light of the existing oral tradition and other historical sources of the Jaintia Hills.

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IX

Carving of Animal Figures on Mizo Megaliths

Malsawmliana

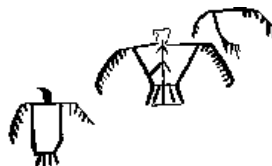
The study tries to make an indepth study of the engravings of figures on megalithic monuments in Mizoram, particularly focusing on animal figurines. Animal occupies an important place in primitive society and even among the traditional Mizo society. For instances, killing of wild animals implies the prominence in the society and there was a requisite killing of wild animals for attaining a coveted titles 'thangchhuah'. The proud title of Thangchhuah, which carries with it much honour in this world as well as the right of admission to Pialral, was much coveted by all who aspired for status in society and a secure place in the world here after. The *Thangchhuahpa* usually erects his memorial stones at the entrance of the village during his life time, on which carvings of human figures, animal figures and other precious materials are depicted. The engraving of such figures demonstrates the material achievements and status of the person in the society.

Malsawmliana is an Associate Professor of the department of History, T. Romana Government College, Mizoram. He completed Ph.D. from Department of History, NEHU Shillong and complete research project from UGC. His main interest is the study of Megalithic traditions in Mizoram and published his book titled 'Megalithic culture of Mizoram' in 2017, published by Research India Press, New Delhi. He is the President of Mizo Archaeological Society, Mizoram.

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X

Shifting Agriculture in North East India A Neolithic Tradition in Continuity

Jonali Devi

Shifting agriculture is a very ancient system of farming. This method is originated in Neolithic period and has been continuing in many parts of the world even today. It is a forest based agricultural system, characterised by clearing and subsequent burning of forest, utilising land as chief input with shorter period of use and longer period of fallow, and growing large number of crops in the same plot by use of very simple tools and technology. For most of the hill people of North East India shifting agriculture is a dominant mode of survival since long past and regarded as a way of life. There is a plethora of literature on shifting agriculture on its various issues conducted by social, environmental and agricultural scientists. However, regarding its archaeological significance there are very few references. It is in this context, an attempt has been made to present a detailed ethnographic background of this primitive cultivation system. The study is expected to reveal an ethnographic parallel for this ancient agricultural system in this region.

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XI

Continuity of Tradition and the Role of Social Memory

Jitendra Kumar
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Megalithic monuments are indeed the most attractive archaeological remains visible on the landscape and show or indicate past settlement in the region. The erecting of monuments as memorials, provide data which is used as a primary source for reconstructing the past social and cultural history of the megalithic people.

The present paper deals with the existence and continuation of erecting megaliths in the Digaru-Kolong River valley among different tribes. The Digaru-Kolong river valley is an area sandwiched between two highly potential areas for prehistoric research in Northeast India, North Cachar hills and Khaki hills. The present area is archaeologically very potential and several Neolithic sites have been reported as well as megalithic monuments are widely distributed throughout the length and breadth of this region. Several communities of this region are still practicing the tradition of erecting megaliths in memory of the dead. A large number of recently erected megalithic monuments can be seen along with the ancient monuments but it is very common or easy to identify the old and new structure. Usually they are erected beside the old megaliths. However, different or new space is also chosen at times. The type of stone used for building the megaliths consists of a memoir and an associated dolmen and their style of erecting provides information on their believe systems and the history of this tradition. They are also respected as cultural identity markers, creating an exclusive space for the erectors in the landscape.

The present paper discusses about the megalithic tradition in Digaru-Kolong River valley and presents a comparison between the past and the present tradition. Using memory to build perceptions of the past the paper uses analogies to study the continuity of the tradition.

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XII

Primeval Art vis-à-vis Ethnic Art

Sadasiba Pradhan

There is no standard or universally accepted method for decoding rock art images. Neither they are the words that can be read nor even functional sounds that one can hear. Nor are they doodling without any significance for its creators. The fact that the same designs and compositions and even styles recur repeatedly on the rock surface like the prehistoric implements in an archaeological site and sometimes such designs spread over larger regions, no wonder intercontinental, clearly shows that the makers of rock art world over had something specific in mind to communicate.

Notwithstanding the role of archaeology in interpreting rock art certain patterns and motifs including some figurative representations remain beyond recall and convincing explanation. *Hence* an attempt is made here to show how ethnographic information on the production of art as noticed in ethnic/tribal communities can be used in the interpretation of archaeological assemblages of rock art. The use and abuse of ethnographic analogy has been an area of debate between archaeologists and anthropologists. However when a group of people have no surviving counterparts, ethnographic analogies drawn from cultures that exploit similar environments in similar ways may be applied as one of the many possibilities for generating ideas for interpreting rock art.

Sadasiba Pradhan is an acknowledged scholar of History and Archaeology. He taught for more than 37 years in G.M. College, Sambalpur, P.G. Department of History, Sambalpur University and finally retired in 2015 as Professor and Head of the Department of Ancient Indian History, Culture & Archaeology, Utkal University, Odisha. He was the recipient of the prestigious Charles Wallace British Council Fellowship and the STARR Foundation Visiting Senior Research Fellowship of the National Gallery of Art, Washington D.C. (USA). His foreign visits include U.K, France, Germany, USA, China, Australia, Thailand, Cambodia and Singapore. He has several research publications besides eight books entitled i) Agrarian and Political Movements in the State of Orissa, ii) Archaeological Sites of South Kosala, iii) Orissan History, Culture and Archaeology (ed.), iv) Rock Art in Orissa, v) Art and Archaeology of Orissa (ed.), vi) Lesser Known Monuments of Bhubaneswar, vii) Lesser Known Monuments of Puri, viii) Buddhist Heritage of Odisha.

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XIII

Documentation of Petroglyphs: Ladakh Experience

S. B. Ota
Minarva Sonowal

Petroglyph as rock art is found in length and breadth of the country. Of these Ladakh in Jammu & Kashmir has the highest number of petroglyphs that have been reported by various scholars and as such northeast India is no exception though not in same frequency. During the course of prehistoric investigations carried out in the areas of Leh and Nubra valley of Ladakh in last decade, a number of petroglyphs have been studied and documented in detail. While doing so, a comprehensive documentation method for this specific art category has been developed with a view to understand the various dimensions of petroglyph that include understanding of technique of making, identifying individuals in its creations, style etc. In fact these are some of the aspects that have been hardly understood in case of petroglyph so far. It has been realised that the experience obtain from Ladakh has a deep implications and can be tested in northeast India to understand the petroglyphs beyond its form and style.

The present paper thus attempts and proposes a documentation procedure that would help in better understanding of petroglyphs of NE India beyond simple identification of the figure going much deeper into the perceptive of technique, hand movement, style and many other such features.

S. B. Ota is retired as Joint Director General from Archaeological Survey of India, New Delhi in 2017. He has also served as Director-in-Charge of the Indira Gandhi Rashtriya Manav Sangrahalaya (IGRMS), Bhopal. Dr. Ota is the recipient of "Young Scientist Award" from Indian Science Congress Association in 1987, awarded Charles Wallace Indian Trust Fellowship in 1995 and was a Short-term Visiting Fellow by Japan Foundation in 2006. Some of the main projects include salvage archaeological investigations of the submergence area of Narmada Valley Dam projects in Madhya Pradesh and prehistoric investigation in high altitude Ladakh Himalayas, Andaman Islands etc. He has a number of national and international publications on various subjects of archaeology including archaeological heritage management. His field of interest includes prehistory, field archaeology, salvage archaeology, documentation, archaeological heritage management, structural conservation etc. Presently working on two major projects in prehistory – one is the "Geo-archaeological Investigations of Acheulian Sites at Tikoda and Damdongri, District Raisen, Madhya Pradesh" and other one is the "Understanding Early Human Occupations in High Altitude Ladakh Himalayas".

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Minarva Sonowal, an Anthropologist worked extensively in Garo Hills, Maghalaya in understanding the prehistoric background of the area. Besides, she has worked in the excavations of the famous historical site of Ambari (ancient Pragjyotishpur) in Assam. Dr. Sonowal is a freelance archaeologist with interest in prehistoric archaeology in general and northeast in particular.

XIV

Micro Structural, Elemental and Mineral Studies in Rock Art Pigment using E-SEM, XRF and FTIR Methods and their Potential for Northeastern Rock Art Studies

C. M. Nautiyal
Siva Sankar Panda
Shidharth Sankar Ram
B. V. Kharbade

The study of rock art and of the colours used in drawing them reveals many aspects of early life, culture and society. While in some other parts of world, the rock art is believed to have started about 40,000 years ago (Upper Palaeolithic), and extensive analyses have been conducted in characterisation, few attempts for Indian rock art are reported. Some of the objects and scenes depicted in Vindhyan rock art in eastern Uttar Pradesh are similar to those in many other areas including the rock art sites are reported in the north-eastern belt of Garo hills of Assam. In addition to geometric figures, these figures include human figures, animals, birds, implements, marriage procession, hunting, fighting, rituals, and festivities, and also show costumes like head gear. In the Vindhyan rock art, mostly red colour alone has been used in drawing figures, indicating somewhat primitive stage for these drawing. Preliminary examination on a picture at Lekhania site (Sonbhadra district, UP) had revealed an interesting feature. It was noticed that some white material had been used as base before the final application of colour. This work is an effort to characterise the colours in terms of elements and minerals and environmental deterioration factors using modern analytical techniques like Environmental Scanning Microscopy (ESEM) and Fourier Transform Infrared spectroscopy (FT-IR). We have worked out the morphology, microstructure, mineralogy and elemental composition of the pigment. From this, the use of red ochre (hematite) has been confirmed in this site for drawing, also known to be used by pre-historic hunter-gatherers across the globe.

The underlying white material has been found to be rich in calcium (about 25 to 54%) while iron ranges from 33 to 66% in pigment. Elements like sulphur, silicon, and potassium are also found. Titanium, known to co-exist with hematite as an oxide, has also been detected. The very high presence of carbon, found through EDX analysis and confirmed by FT-IR, was intriguing but is explained as having been possibly contributed by organic matter possibly as glue added to the base material/colour as well as calcium compound in base material. Thus curiously, our results also suggest that at time when Lekhania drawing was done, people followed the practice of preparing a base before application of pigments in the rock surfaces for its durability. While the above applications are to the Vindhyan rock art, potential of application to North eastern sites will be discussed. In addition, applicability of the limited but only efforts of other workers, through

methods such as radiocarbon and uranium series decay for dating drawings and petroglyphs of the Northeast, will also be discussed.

C. M. Nautiyal, born in 1956, is an Indian scientist. He completed his Ph.D. from Gujarat University in science. He held important positions in many institutions and universities during his tenure of service. He has published one hundred twenty papers and abstracts in journals. He has received prabhashree awards.

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Siva Sankar Panda, a Material Scientist, working as a scientist at NRLC, Lucknow. He has completed his Ph.D from Utkal University, Odisha. He served ASI for 14 years. Recently he was a part of the team associated with multidisciplinary study on Rock Art in Sonbhadra district of Uttar Pradesh India. His research focuses on the study of morphology and microstructure related to art and ancient artefacts in particular.

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Shidharth Sankar Ram is working as DST, NPDF at Institute of Physics, Bhubaneswar. He works on interdisciplinary research using x-ray based analytical techniques such as EDXRF, PIXE, SEM_EDX, and XRF. His research focuses on the environmental pollution and climate change issues in particular. His Ph.D. is in Environmental Science from University of Calcutta, Kolkata.

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B.V. Kharbade, Born in Nagpur, obtained Master Degree (Chemistry) from Nagpur University (1977). Joined CFSL, New Delhi and then National Research Laboratory for Conservation of Cultural Property (NRLC), Lucknow (1980). Two books and over 50 research papers in national/ international journals/ proceedings. Rose to act as Director In-charge, NRLC (2010- 2016), Director General (2016) and continuing. An active member of New York Academy of Sciences (USA); a fellow of International Institute of Conservation (IIC), UK; Council Member of ICCROM, Rome, Italy; President, Indian Assoc. Study Conservation Cultural Property (IASC), New Delhi and editor, Journal of Conservation of Cultural Property in India and is involved in rock art documentation in Uttar Pradesh.

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XV

Protecting Rock Arts: A Challengeous Job

Devananda Beura

Rock art, the oldest and initial human expression about their socio-economic -cultural lives and practices may be considered as the key horizon in the domain of art and culture to abridge the present-past cultural co-relation. The evolutionary phases of rock arts have seen lot of changes in due course of time with respect to style, geometry, colour, visuality, superimposition and generation wise transformation. Among many challenges like exploration, documentation, dating, colour studies and stylistic interpretation etc it has witnessed in due course of time, protecting the rock arts has been emerged as a great task before human.

The rock arts that were created thousands of years back with incipient and indigenous knowledge now exist in nature under the threat of different degrading agents like sun, rain, wind, water and chemicals experiencing high degree of vulnerability with regards to their longevity, resilience, stability. Since the day of their inception the arts have been surviving against natural threats of weathering and erosion although human interference came to sight much later. Keeping in mind of the significance of rock art heritages, protection of these arts have become the most challenging job as their sustainability is highly required for the present studies and researches. Protecting and maintaining the rock arts can be outlined by different geological, geotechnical and engineering measures, but sensitizing the people with effective awareness programme will be the most efficient management plan. The paper discusses various protecting measures of rock arts, which are challengeous but essential for their futuristic existence.

Devananda Beura, Reader P.G. Department of Geology, Utkal University, Bhubaneswar, is a well known scholar. He has formulated the Integrated Rock Art Management System (IRAMS) and Rock Art Risk Index (RARI) to study the vulnerability of degrading rock arts and to suggest the protecting measures. In this regard, a scale measuring the RARI has been derived, which is known as Beura Scale of RARI to quantify the intensity range of destruction from 1 to 5. He has served as PAC member in Rock Art Division of IGNCA and actively participated in most of the activities it has organised. He has authored a book on 'Rock Arts of Odisha: Geology and Conservation'. He has contributed a chapter to the book 'Rock Art Studies', which is edited by Dr. B.L. Malla and published by Aryan Books International. He has authored 8 books and edited 4 books. He has published more than 160 research papers and articles in different journals and periodicals. He is an active member in different professional bodies, social organisations and particularly in research journals as editors or editorial board members.

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