

Man and Environment ABSTRACTS

Volume XLI, No. 1 (January-July 2016)

1. **Vedic Culture: Epic and Pauranic Phase and Further. Based only on Iconography**

G.B. Deglurkar

No abstract

G.B. Deglurkar, *Man and Environment* XLI (1): 1-4 [2016]
ME-2016-1A01

2. **Malaria and the Harappan Civilisation**

Robert Arnott and Eva Dumann

Of the many diseases that would have affected the Harappan Civilisation through all its phases, among the most serious is thought to be malaria, credited with having a major social and environmental effect on any society it infects. According to our knowledge of the ecology and demography of the Harappan Civilisation, it would have offered ideal conditions for malaria, particularly falciparum malaria, to achieve both prevalence and virulence. With malaria being first introduced into the Indus Region in approximately 4000 B.C., leads us to question its effect on the Harappans and poses the question whether it inhibited the civilisation's growth, particularly in the period that ended with the transition to the Mature Harappan Phase. It is conclusive that in the Pre-Harappan Phase, when environmental factors were conducive to the spread of both the vector and the disease, its depressive effects meant that the expansion that occurred in the Mature Harappan Phase might have happened earlier. By the time the Mature Harappan Phase evolved, because of ecological and geographical changes and human intervention like improvements in farming techniques, malaria would have been reduced to a manageable level. Malaria, however, may have inhibited the growth of the Chalcolithic cultures peripheral to the Harappans that were, unlike them, prevented from emerging from an earlier stage of development. This article examines how malaria has been identified in the archaeological record, its method of transmission to the Harappan heartlands and its clinical and social impact on the Harappan population.

R. Arnott and E. Dumann, *Man and Environment* XLI(1): 5-16 [2016].
ME-2016-1A02

3. **Lesser-Known Buddhist Monasteries: Tilaḍhaka and Yaśovermapura**

Bijoy Kumar Choudhary

This article seeks to reconstruct the history of lesser-known Buddhist monasteries in the region of Magadha on the basis of archaeological evidence. Several smaller monasteries are mentioned in the Pāli literature and in the accounts of Chinese travellers, but no serious attempt has been made to trace their history. This exercise is needed not only to fully unravel the rich Buddhist heritage, but also to understand the dynamics of mega-monasteries such as Nālandā Mahāvihāra. The current work mainly focuses on two smaller monasteries, namely, Tiladhaka and Yaśovermapura, but the evidence from other neighbouring monasteries has been used to illustrate the relevant issues. There is a rich corpus of data available at the sites related to these monasteries in form of sculptures, inscriptions, coins, structural remains, and potsherds. With the help of this data, the article addresses several questions such as the possible dating of these monasteries, their architecture, resource base, patronage, the kind of engagement they had with different contemporary religious forms, and their relationship with Nālandā Mahāvihāra.

B.K. Choudhary, *Man and Environment* XLI(1): 17-28 [2016].
ME-2016-1A03

4. **A Study of the Ancient Iron Workings in the eastern fringes of the Chhotanagpur Plateau, West Bengal**

Dipsikha Acharya

The present paper attempts to elucidate the nature of iron working activities as practised in the eastern fringes of the Chhotanagpur Plateau particularly in the western-south western parts of modern West Bengal, on the basis of the published excavated data. In addition, preindustrial iron working traditions remembered by the modern descendants of the skilled iron workers such as the Asura-Birjhia people has been documented.

D. Acharya, *Man and Environment* XLI(1): 29-43 [2016].
ME-2016-1A04

5. **Stone Jar Burials in North Cachar District, Assam**

Tilok Thakuria, Tiatoshi Jamir and Milan Kumar Chauley

This paper is based on the recent archaeological exploration carried out in North Cachar District of Assam. The exploration aimed to locate areas with stone jars along with habitation deposits. It was possible to find five such localities along with the evidence of habitation deposits; dolmens and menhirs too. The stone jars, built as ancestral bone repositories, are seen in Southeast Asia. The evidence for such jars in India is found only in North Cachar District of Assam. The present paper discusses morphology and function of these jars, origin, ethnographic parallels, and explores possibilities of the authors of the jars as being the Mon-Khmer speaking people.

T. Thakuria *et al.*, *Man and Environment* XLI(1): 44-51 [2016].
ME-2016-1A05

6. **Archaeological Reconnaissance in Garbhanga Reserve Forest, Assam**

Manjil Hazarika

This paper is the result of explorations carried out at the Garbhanga Forest in Assam. The survey has resulted in the discovery of a stratified archaeological deposit with pottery, iron and stone objects, faunal remains and megaliths at a locality known as Bargaon. Besides, there are other localities with megalithic remains and stone tools. For interpreting the archaeological record, ethnographic data among the resident Karbis was collected in order to draw 'direct historical analogies'.

M. Hazarika, *Man and Environment* XLI(1): 52-63 [2016].
ME-2016-1A06

7. **Recent Archaeological Investigations in Mid-Tel River Valley, Odisha**

Nalinikanta Rana

This paper is based on recent archaeological investigations in the mid-Tel river Valley, Odisha. It describes the location of 50 discovered sites and the associated finds. The artefacts found at these sites range from the Palaeolithic tools to the Early Historic ceramics and other material.

N. Rana, *Man and Environment* XLI(1): 64-74 [2016].
ME-2016-1A07

8. **Exploration of a Shipwreck off the coast of Konark, Odisha**

Sila Tripathi, Sabir Bux and Rudra Prasad Behera

Archaeological findings suggest that ports of Odisha were well connected with other ports of the Indian subcontinent and Persian Gulf, Red Sea and Southeast Asian countries. In the course of maritime trade, many vessels get wrecked due to various causes, but information on shipwrecks was available only from the 16th century onwards in the archives and libraries of India and overseas. CSIR-National Institute of Oceanography, Goa, has undertaken shipwreck studies in Indian waters since 1988-89. In the recent past preliminary explorations of shipwrecks were carried out off the coast of Odisha. This paper deals with the results of the preliminary exploration of a shipwreck off the coast of Konark.

Sila Tripathi *et al.*, *Man and Environment* XLI(1): 75-81 [2016].
ME-2016-1A08

9. **A Maritime Archaeological Exploration along the Narmada Estuary, West Coast of India**

A.S. Gaur and Sundaresh

A coastal exploration along the estuary of the River Narmada yielded the evidence of a port in Bharuch. Several early historic sites are noted along the down- stream of the River Narmada. Interestingly, there is a temple dedicated to Shikotara Mata near Dahej where navigators and fishermen worship. To the south of Narmada a protohistoric site, Bhagatra (also called Bhagatrav), situated on a small creek known as Kim, was investigated in detail. The paper discusses the findings of the maritime archaeological investigations conducted (2013) along the lower Narmada region.

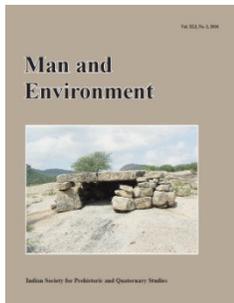
A.S. Gaur and Sundaresh, *Man and Environment* XLI(1): 82-87 [2016].
ME-2016-1A09

10. **Absolute Chronology of the Quaternary Period from the Deccan Trap Region, Maharashtra**

Shreyas Jagtap and Sushama G. Deo

The absolute chronology of archaeological and non-archaeological sites (locations devoid of cultural material) from the Deccan Trap region, Maharashtra, have been compiled in a systematic way. Out of 264 absolute dates compiled in this paper, majority are ^{14}C dates. A few dates are obtained by Potassium Argon (K-Ar), Argon-Argon (Ar-Ar), Uranium Thorium (U-Th) and palaeomagnetic methods. The data demonstrates that the Deccan Trap region was occupied by early humans since Early Pleistocene period.

S. Jagtap and S.G. Deo, *Man and Environment* XLI(1): 88-113 [2016].
ME-2016-1A10



Volume XLI, No. 2 (July- December 2016)

1. **Quaternary Fauna from the Kapileshwar Locality in Purna Alluvial Basin, Maharashtra**

G.L. Badam, M.P. Tiwari, N.G. Thakur, A.P. Bejalwar, P.D. Sabale, S.P. Khadse and Abhay M. Varade

The comparatively lesser known Purna Basin of Central India has, in recent years, brought to light extensive faunal data of the Quaternary period thus highlighting important chronological data (Youngest Toba Tephra, paleomagnetism and Ar-Ar dating) that pertains to the problems of correlation of its geological units with those of the other Central Indian basins. The four formal stratigraphic formations in the valley (the Purna, the Kural, the Kodori and the Vaghoi) have been thoroughly studied and dated in relation to the tephra marker horizons in the Kodori and Kural Formations.

The valley has yielded, what could be, one of the richest Quaternary animal habitats in Central India. Mammalian fossils belonging to *Equus namadicus*, *Equus* sp., *Bos namadicus*, reptilian fossils belonging to *Trionyx gangeticus* and invertebrates belonging to molluscan shells (*Lamellibranchs*) have, so far, been identified in the present survey. These findings throw important light on the migration and distribution pattern of the animals in the past and their palaeoenvironmental implications.

The taphonomic processes in the valley were predominantly controlled by natural factors and are devoid of human interference. The available faunal material has preserved evidences of erosion, abrasion and breakages. Skeletal response to riverine situations, features of fossil assemblages on the main channel and those from the abandoned palaeochannels, have thrown enough light on the taphonomy and palaeoecology of the valley.

Badam *et al.*, *Man and Environment* XLI (2): 1-17 [2016]
ME-2016-2A01

2. **New light on Acheulian Artefacts made on Basalt: A Case Study of Urmodi River Assemblage**

Jayendra Joglekar

After the discovery of the Acheulian site at Atit on Urmodi River (2015), it was decided to carry out further explorations in the Urmodi river basin. During these explorations, Acheulian artefacts

were reported from 6 sites (8 localities), across different geomorphic contexts. The results of the explorations are presented in this paper. Earlier research on Acheulian culture in Deccan Trap region of peninsular India yielded few important Acheulian sites like Gangapur, Chirki, Nevasa, Morgaon, and Bori. Although there was hardly any substantial evidence of Acheulian presence, an exception was the site of Yedurwadi, in the upper Krishna basin. One of the reasons for this could be difficulty in identifying the artefacts made on basalt. The problem has been addressed in this paper using a new method for identification of flakes. The results of this method if tested elsewhere, where basalt has been used as raw material, could lead to a better understanding of artefacts made on basalt. Also characteristic features observed on basalt flakes are shown through photographs. The paper also addresses the problem of cleaver flakes and raises few questions as well. Attempt has been made to look into the cognitive behavior of the Acheulian hominin in this region.

Jayendra Joglekar, *Man and Environment* XLI (2): 18-31 [2016]
ME-2016-2A02

3. **Phytolith Analysis and the Indus Civilisation: A Review**

Jennifer Bates and Cameron A. Petrie

This paper presents a review of the application of phytolith analysis to the archaeology of the Indus Civilisation (c. 4000-1300 BCE) of South Asia. Phytoliths are microscopic silica casts of plant cells formed during the life of the plant through the uptake of monosilicic acid from groundwater. The phytolith studies that have thus far been carried out on Indus settlement sites are reviewed, and the range of issues to which phytolith analysis has been applied to Indus archaeology are also outlined here. This paper argues that phytolith analysis holds great potential for gaining alternative views on age-old archaeological questions relating to the Indus Civilisation. It concludes that although understudied at the moment, there is much to be gained by employing phytolith analysis systematically during archaeological studies in this region and time period.

Bates and Petrie, *Man and Environment* XLI (2): 32-49 [2016]
ME-2016-2A03

4. **Archaeology of Vellore Region, Tamil Nadu**

K. Kumar and K. Rajan

Recent explorations conducted in the Vellore region on the banks of the River Palar yielded more than 350 archaeological sites ranging in age from the Lower Palaeolithic to the Early Historic. The field survey offered considerable evidence to understand cultural features of Lower, Middle, Upper Palaeolithic, Microlithic, Neolithic, Iron Age and rock art sites. The discovery of Upper Palaeolithic tools and rock art sites could be considered as one of the significant contributions of the present study. The documentation of a large number of Iron Age sites has contributed to the understanding of the ancient settlement pattern of this region.

K. Kumar and K. Rajan, *Man and Environment* XLI (2): 50-84 [2016]
ME-2016-2A04

<http://www.manandenvironment.org/images/ispqs/pdf/kumar-rajan-table.pdf>

5. **Iron Age-Early Historic Archaeology of the Lower Periyar Valley, Kerala**

C.M. Jaseera

James Babington's excavation of the Chattaparamba megalithic burial in 1819 initiated the study on the megaliths of Kerala. Since then, numerous researches on different aspects of megaliths have been carried out. The available published archaeological-environmental data, exploration undertaken by the author from 2013 to 2015, and personal observations are presented in this paper. Here an attempt has been made to understand the distribution pattern of Megaliths of the Lower Periyar Valley in relation to the landscape. The article also intends to provide an overview of the Iron Age-Early Historic sites of the Lower Periyar Valley.

C.M. Jaseera, *Man and Environment* XLI (2): 85-101 [2016]
ME-2016-2A05

6. **Burials and Settlements of the Early Iron Age in Vidarbha: A Fresh Analysis**

Shantanu Vaidya

The megalithic culture is mostly known by the burial remains. There has always been an impression among research scholars that the megalithic people were pastoral in nature. The main reason for this has been the lack of sufficient evidence of settlement sites. Moreover, the region of Vidarbha has also not yielded many settlement sites. In Vidarbha, however, settlements of the Early Iron Age without burials, as well as sites having both settlements and burials are found. The recent settlement found at Mahurjhari by Mohanty (2015) have opened up new research avenues which have led this author to continue the search for many new settlements, thereby bringing a change in the approach towards the Early Iron Age and its contribution to the development of urbanism in Vidarbha.

Shantanu Vaidya, *Man and Environment* XLI (2): 102-113 [2016]
ME-2016-2A06

7. **A Note on Fluorine Analysis of Elephant sp. Remains, Kalabarwa Forest Area, District West Champaran, Bihar**

Manoj Kumar, Pushp Lata Singh, Sachin Vidyadhar Joshi

Explorations carried out in the Kalabarwa Forest Area in District West Champaran, North Bihar brought to light important archaeological sites and yielded prehistoric animal fossils. The main focus of this note is to report and provide dates of the elephant fossils recovered from the alluvium soil using the fluorine-phosphate method.

Manoj Kumar *et al.*, *Man and Environment* XLI (2): 114-116 [2016]
ME-2016-2N01