

### Man and Environment ABSTRACTS Volume XLIV, No. 1 (January-June 2019)

1. Tanged Points from the Middle Palaeolithic Context at Torajunga, Bargarh Upland, Odisha, India

Pradeep K. Behera and Neena Thakur

The transition from Lower to Middle Palaeolithic phase is a hotly debated issue and linked with the emergence of modern humans and their migration. It is often claimed that handaxes were gradually replaced by tanged points during the Middle Palaeolithic/Middle Stone Age period. These points have been widely reported from Northeastern African Middle Stone Age sites by several scholars, where it is known as Aterian Technocomplex, dated to between c. 90 ka and 20 ka BP. Recently, tanged points have also been reported from the Early Middle Palaeolithic context at Attirampakkam dating back to 385±64 ka. Such points have a wider geographical context including the Arabian Peninsula and Eurasia. In our recent investigation at the site of Torajunga in Bargarh Upland (Odisha), tanged points, similar in technomorphological features to Aterian points, were recovered from stratified Early Middle Palaeolithic sedimentary context associated with small-sized handaxes and other artefacts. Though the tanged points recovered from the Torajunga site closely resemble the Aterian points of Northeastern Africa, yet the Aterian industries of the latter zone and other areas are devoid of handaxes and cleavers. The present paper intends to give a preliminary account of our investigation at Torajunga with special reference to the tanged points.

P.K. Behera and N. Thakur, *Man and Environment* XLIV(1): 1-11 [2019]. ME-2019-1A01

# 2. Evidence of Steel Making at Naikund and its Relationship with Mahurjhari, Borgaon and Khairwada, Maharashtra *Oishi Roy*

The Early Iron Age Megalithic Culture of Vidarbha dated 700 - 555 +/- 100 BCE has brought to light the evidence of earliest iron working especially smelting in India, from a site named Naikund. This is the only site that has reported an iron smelting workshop from the Early Iron Age-Megalithic level. This probably suggests the existence of a centralised production unit. However, to prove the existence of a centralised production unit, a typo-technological analysis of the artefacts recovered coupled with ethnographic survey would be required. The typological analysis of the objects shows a degree of standardisation based on the usage pattern. Wet chemical analysis gives us a clear insight to the existing technical knowledge of iron working. Therefore, the comparative analysis of objects from the excavated megalithic sites (Naikund, Mahurjhari, Borgaon and Khairwada), would aid in proving or

negating the possibility of a centralised administrative unit, if negated then the possibility of dispersed administrative units and their probable locations.

Oishi Roy, *Man and Environment* XLIV(1): 12-20 [2019]. ME-2019-1A02

# 3. A Study on the Ceramic Sequence in the Megalithic Culture of Kerala *Akinori Uesugi, C.S. Ambily, Ajit Kumar, S.V. Rajesh and G.S. Abhayan*

This paper explores the ceramic sequence of the Megalithic pottery in Kerala, especially focusing on their typology and 14C dates from the evidence found at Kuttikol and Niramakulam. Although a dozen Megalithic burials have been excavated in Kerala, absence of a plausible sequence has not yet been established in this region because of a lack of detailed excavation reports, comparative study on the artefacts and 14C dates. Ceramics that are common among burial goods in Megalithic burials are known to be a good chronological marker once their stylistic order is established with help of 14C dates to better understand the origin, dispersal and decline of the Megalithic culture. While few research attempts have been made on this issue in the Megalithic pottery of the region under study. The ceramic chronological sequence proposed in this paper is hypothetical, but it can be a basis for further examination of ceramic evidence in the Megalithic culture of Kerala.

A. Uesugi *et al., Man and Environment* XLIV(1): 21-32 [2019]. ME-2019-1A03

### Beyond the Hinterlands: Preliminary Results from the TwoRains Survey in Northwest India 2018

Ravindra N. Singh, Adam S. Green, Aftab Alam and Cameron A. Petrie

This paper presents the preliminary results of the 2018 season of the TwoRains archaeological survey in Northwest India. Between January and March, the team investigated the location of archaeological sites across approximately 3400 km2 of areas in the Sirsa, Fatehabad and Hisar districts of Haryana. A small area in the Mansa District of Punjab was also re-visited. The survey utilised the same methodology as was employed during the 2017 season, adopting a digital workflow that facilitated the extensive, systematic and comprehensive analysis of portions of Northwest India's archaeological landscape. The data collected consisted of preliminary site locations, which were collected using tabletbased AGPS, and periodisation for each location, which was ascertained by undertaking low intensity systematic surface collections. The aim of the survey was to revisit previously identified sites and improve coverage in critical parts of Northwest India's landscape, addressing challenges that had been identified in previous seasons by the Land, Water and Settlement project, and to create a dataset that would facilitate the integrated analysis of archaeological landscapes across an extensive area that includes many parts of the Indus Civilisation's settlement distributions. The survey successfully completed this goal, collecting preliminary information from 148 sites that can offer insights into settlement

distributions from the earliest period of Northwest India's occupation around 3300 BCE up to the present.

R.N. Singh *et al., Man and Environment* XLIV(1): 33-51 [2019]. ME-2019-1A04

5. Trial Excavation at Phupgaon: An Iron Age settlement, Taluka Chandur Bazar, District Amravati, Maharashtra *N. Nihildas, Prasanth Sonone, Bhenu Thakur, Gurudas Shete and Pankaj Goyal* 

The trial excavation at the site of Phupgaon was carried out to have a better understanding of the nature of the Iron Age settlement in the Purna River basin. This site is located close to the famous Chalcolithic site of Tuljapur Garhi. The cultural remains unravelled include occupational floors, burnt patches, antiquities like terracotta male torso, beads made of semi-precious stones, and iron and copper objects, etc. The ceramic assemblage comprising of Black-and-Red ware, Red burnished ware, and Black burnished wares are distinct to the Wardha and Wainganga valleys and reveals the possibility of a regional variant of ceramic manufacturing in the Iron Age realm of Vidarbha.

N. Nihildas *et al., Man and Environment* XLIV(1):52-61 [2019]. ME-2019-1A05

6. Wari-Bateshwar and Vikrampura: Successful Case Studies in Archaeobotany, Bangladesh *Mizanur Rahman, Charlene Murphy, Alison Weisskopf, Louis Champion, Cristina Castillo and Dorian Q. Fuller* 

Archaeological research in Bangladesh is a relatively new discipline with archaeological excavations beginning in the late 20th century. The first Archaeology Department in Bangladesh was established at Jahangirnagar University in 1992. As in other tropical areas, palaeo-environmental research has been slow to be adopted and investigated in Bangladesh. This article uses the excavations of Wari-Bateshwar and Vikrampura as successful case studies of the first systematic environmental archaeological recovery undertaken by a joint Anglo-Bangladesh team led by Mizanur Rahman from the Department of Archaeology, Jahangirnagar University (JU) with collaboration from University College London (UCL), Institute of Archaeology. Contrary to the long-held assumptions regarding the poor preservation and recovery of archaeobotanical remains in tropical conditions flotation, results from Wari-Bateshwar and Vikrampura proved to be successful. The recovered archaeobotanical remains suggest that the inhabitants at these sites likely practised rice and millet agriculture in permanent settlements, and importantly, further demonstrate that environmental sampling is worthwhile even in the tropical conditions found in Bangladesh.

M. Rahman *et al., Man and Environment* XLIV(1):62-71 [2019]. ME-2019-1A06

7. Archaeobotanical Investigations at Agiabir, District Mirzapur, Uttar Pradesh

Investigations of archaeobotanical remains at Agiabir (Mirzapur District, Uttar Pradesh) brought to light an advanced agriculture-based subsistence economy of various periods from the Chalcolithic, Pre-Northern Black Polished Ware with Iron Age, Northern Black Polished Ware, Sunga-Kushana, and Gupta period. This study is based on the analysis of nineteen samples of carbonized and semi-carbonized seeds and fruits of cultivated and wild plants along with a bulk of wood charcoal pieces. People at Agiabir subsisted on starch-rich cereals such as rice (Oryza sativa L.) and barley (Hordeum vulgare) supplemented with protein-rich pulses like lentil (Lens culinaris Medik.), horse-gram (Macrotyloma uniflorum), field pea (Pisum arvense), moth-bean (Vigna aconitifolia), black-gram (Vigna mungo), green-gram (Vigna radiata) and millets like Kodo millet (Paspalum scrobiculatum), Barnyard millet (Echinochloa crusgalli), Foxtail millet (Setaria cf. glauca) and Italian millet (Setaria *italica*). Besides these, the seed remains of oil-seed crop linseed (*Linum usitatissimum*); fruit seed of jujube (Ziziphus nummularia) and seeds of semal (Bombax ceiba) have been encountered at the site. Other economically important seeds of wild and weedy plants in association with these crop plants furnish information of crops grown and the ecology of ancient cultural settlements in the parts of the Middle Ganga Basin.

S.S.Naik *et al., Man and Environment* XLIV(1):73-81 [2019]. ME-2019-1A07

#### 8. A Preliminary Study of Knobbed Ware from Odisha

Sila Tripati, Girish Prabhu, Sunil Kumar Patnaik, Subrata Kumar Acharya, Uma Kanta Mishra, Rudra P. Behera, Gopal Charan Pradhan, Baba Mishra, Dibishada Garnayak, Anam Behera, Saumya Ranjan Sahoo and Sachin Vidydhar Joshi

Archaeological explorations and excavations across the length and breadth of the Indian subcontinent have revealed several distinct types of pottery which facilitated reconstruction of the past. In archaeology, research on pottery has played a key role in providing information about a period and cultural sequence of a site and its contacts with other regions, whether local or outside. Pottery like Northern Black Polished Ware (NBPW), Rouletted ware (RW) and other early historical period pottery, for instance, Knobbed ware (KW), have played a significant role in the maritime trade of South and Southeast Asia. In comparison with other pottery, distribution and studies on KW are very limited. KW has been recovered from excavations at many sites in Odisha and elsewhere in India. During recent explorations along the Odisha coast, KW sherds have been collected from several sites of Odisha. In this paper, an attempt has been made to understand the distribution of KW in Odisha, its period and role in the maritime trade of Odisha in particular and India in general.

Sila Tripati *et al., Man and Environment* XLIV(1):82-89 [2019]. ME-2019-1A08

### 9. A Site Catchment Analysis at Semthan, Anantnag District, Jammu and Kashmir *Abdul Rashid Lone*

Semthan is one of the urban centres of Early Historic Kashmir. Antiquities consisting of terracotta figurines, copper, iron and semi-precious materials have been catalogued during the various explorations and excavations conducted at the site. Semthan is the only archaeological site from the Kashmir Valley till date, from where the cultural material pertaining to the Northern Black Polished Ware culture, including the Punch Marked Coins and Indo-Greek remains, was exposed. This paper examines the possible reasons for the location of the site in a particular environmental niche, as also the provenance of the material remains that were found at the site during excavations and explorations, using 'site catchment analysis.' This helped in assessing the economic potential of the site, exploitation of natural resources, nature of interaction with the network of satellite settlements located in the catchment area of Semthan and beyond. Archaeological explorations led to the discovery of a number of new settlements of the Early Historic period and the associated material culture.

A.R. Lone, *Man and Environment* XLIV(1):90-104[2019]. ME-2019-1A09

10. Rejoinder to the 'Discovery of an Ostrich Painting in Raisen, Madhya Pradesh' S.B. Ota, Niharika Srivastava, Suman Pandey and Debashish Mishra

Rejoinder: No abstract

S.B. Ota *et al., Man and Environment* XLIV(1):105-107 [2019]. ME-2019-1N01



### **Man and Environment**

ABSTRACTS

Volume XLIV, No. 2 (July-December 2019)

# 1. Pre-Neolithic Archaeology of the Bellary-Raichur Region, Southern Deccan *K. Paddayya*

This paper seeks to highlight a major gap in the Stone Age archaeology of Peninsular India. The Bellary-Raichur region of North Karnataka, while its Neolithic and Iron Age sites have attracted the attention of many workers for the last two hundred years (and still continue to do so), hardly figures in the studies dealing with Palaeolithic and Mesolithic cultures of Southern Deccan. After a detailed consideration of various sporadic discoveries of Stone Age sites made during the last century and a half, it has been argued in this paper that there is tremendous scope for initiating fresh and planned field investigations in order to place the pre-Neolithic archaeology of the Bellary and Raichur districts on a sound footing. It is further asserted that these two districts, occupied as they are by majestic Archaean formations comprising granites and schists and characterized by semi-arid climate, have potentialities to reveal novel adaptational features of Stone Age settlement systems of Peninsular India. They are thus seen as distinct from those recorded from the so-called Purana basins made up of sedimentary rocks and recipients of high rainfall.

K. Paddayya, *Man and Environment* XLIV(2): 1-28 [2019]. ME-2019-2A01

2. Preliminary Report of the Re-excavation of Ukunju Limestone Cave in Juani, Mafia Archipelago, Tanzania: More Evidence of Ancient Transoceanic Trade Connections *Abel D. Shikoni, Giada Manzinali, Mandela Peter, Emanuel T. Kessy, Titus Luomba Ombori and Felix Chami* 

Previous phases of archaeological excavations at Ukunju limestone cave site on Juani, Mafia archipelago resulted in contrasting findings. The first excavations recovered materials that suggest ancient settlements with concrete evidence of ancient transoceanic trade connections. However, the follow-up excavations strikingly disputed such evidence by asserting that the earliest occupation of the cave site was the Middle Iron Age period and had no evidence for ancient transoceanic trade. This controversy alongside the recent reporting of underwater wall-like structures in the northwest waters of the archipelago strengthened the need to revisit the limestone cave site. The current excavation of the site involved setting and digging of two trenches. The recovered materials suggest ancient settlements and existence of transoceanic links between the coast of East Africa and regions in Mediterranean, Southern Arabia, the Red Sea and eastern Indian Ocean. Most of the transoceanic trade materials have been recovered from a context dated to the early first millennium CE. The samples collected from the lowest context date to the 4th millennium BCE associated with the lithic artefacts. We argue that Mafia Archipelago was an important hub for the ancient international maritime trade between the East African coast and distant regions. These findings, therefore, present an important basis for which the discovered underwater wall-like structures can be thought to be remains of a submerged settlement.

Abel D. Shikoni *et al.*, *Man and Environment* XLIV(2): 29-40 [2019]. ME-2019-2A02

3. Coastal Archaeological Explorations on the Eastern Margin of the Little Rann of Kachchh, Gujarat *A.S. Gaur and Sundaresh* 

A coastal archaeological exploration was carried out on the eastern margin of the Little Rann of Kachchh to document the ancient remains of coastal settlements, port installations and any other aspects related to maritime traditions. The explorations yielded two protohistoric sites at Kunwar and half a dozen sites of the Medieval period along this coast. A majority of the sites have small deposits suggesting their non-urban nature, and must have been depended on the marine resources as Rann was part of the Arabian Sea in the past. The present investigation has further endorsed the hypothesis that the Rann was navigable during the Harappan period.

Gaur and Sundaresh, *Man and Environment* XLIV(2): 41-48 [2019]. ME-2019-2A03

4. Archaeological Explorations of Kalingapatnam, Dantapur, and Salihundam on the East Coast of India *Sila Tripati, R. Mani Murali, Rudra Prasad Behera* 

There are several coastal sites along the east and west coast of India from the Harappan period onwards which served as port and trade centres. Among ancient ports along the east coast of India, Kalingapatnam, Dantapur, Dahranikota, Masulipatnam, Motupalli and Kottapatnam of Andhra Pradesh coast played a considerable role in spreading Indian culture to overseas countries. Explorations were carried out at Kalingapatnam, Dantapur and Salihundam along the River Vamsadhara. The results are dicussed in this article. The ceramics found include Knobbed ware sherds, Red Polished ware, dish-on-stand, incense burner, hopscotch, legged saddle quern, and pestle.

Sila Tripati *et al., Man and Environment* XLIV(2): 49-57 [2019]. ME-2019-2A04

# 5. Faunal Remains from the Peats at Baghia-Chanda *Beels* of Gopalganj and Khulna Districts of Bangladesh *Seema Pawankar Hoque*

Archaeological remains in Bangladesh have been found from the Prehistoric to the Colonial period. Among these, the architectural remains of the Early Medieval period are the most predominant. In Bangladesh, although a number of sites have been excavated since the beginning of the last century to the present day, a majority of them were monumental sites. The flora and fauna from the archaeological sites were never collected by archaeologists due to the lack of awareness about their potential. Another reason often cited is the acidic deposit which makes preservation of biological remains difficult. Nevertheless, a decade ago faunal remains were found from the Bengal Delta. With changes in the archaeological perspective, these remains have gained much prominence. This paper mainly focuses on the faunal remains recovered from the peat deposit of Khulna-Gopalganj beels. In this peat deposit remains of wild animals like elephant, gaur, wild buffalo, deer have been found. Elephant and gaur are now extinct from this area, and wild buffalo is completely extinct from Bangladesh. Available palynological data helped in reconstructing the past environment as pollen are preserved better in acidic deposit, and the radiocarbon dates of the peat deposit dated these faunal remains to the Early Medieval period. Historical evidence of Gupta and post-Gupta period like copper plate inscriptions and gold coins were also found.

Seema Pawankar Hoque, *Man and Environment* XLIV(2): 58-66 [2019]. ME-2019-2A05

#### 6. An Ancient Burial Culture discovered in Sri Lanka Raj Somadeva, AnushaWanninayaka and Dinesh Devage

After the Mesolithic burial practice of flexed positioned inhumations, a new way of burying the dead has been reported from several locations in Sri Lanka, of which the oldest goes back to the early part of the third millennium BCE. The disintegration of the Mesolithic culture in Sri Lanka has been assigned to the early second millennium BCE, and the new thinking on funerary practice emerged alongside at the terminal phase of the previous culture. The latter is represented by freestanding, oblong-shaped earthenware structures (that appear as boat-shaped and hence called as canoes in this paper); human corporeal remains inside clay vessels were interred. Contrary to the general Mesolithic practice of burying the deceased singularly in cave interiors, the new way stands as graveyards containing several individual burials. These cemeteries represent symboliccum-ritualistic behaviour of the community who succeeded the Mesolithic hunter-gatherers. The geographical distribution of the identified cemeteries shows a sharp contrast with their chronologies. Eleven cemeteries are reported from three physiographic zones and six have been excavated during the last 10 years and have been scientifically dated. This paper discusses this new burial practice through a wider socio-political perspective with reference to their chronological framework.

Raj Somadeva *et al.*, *Man and Environment* XLIV(2): 67-83 [2019]. ME-2019-2A06

7. Preliminary Report of the Excavations at Khapura, District Ambedkar Nagar, Uttar Pradesh (2017-18 and 2018-19)

Pushp Lata Singh, Prabhakar Upadhyay, Anoop Kumar, Chandra Bhushan Gupt, Upendra Singh, Mohd. Afroj, Dipak Kumar Shukla, Rajnath and Pratibha Dwivedi

The site of Khapura is located on the right bank of River Tamsa, in Tehsil Akabarpur, District Ambedkar Nagar, Uttar Pradesh. The excavation conducted in 2017-18 and 2018-19 revealed cultural assemblage from the pre-Northern Black Polished Ware culture with iron right up to the Gupta period. The Pre-NBPW with iron phase has been identified for the first time in this part of the Ghaghara-Tamsa region. The ceramic and other material remains show that Khapura had cultural contact with the settlements of Saryupar region (i.e. Narhan, Sravasti, Imlidih Khurd, Sohagaura, Lahuradeva and Khairadih) and also with the sites such as Rajghat and Agiabir, located on the River Ganga.

Pushp Lata Singh *et al.*, *Man and Environment* XLIV(2): 84-95 [2019]. ME-2019-2A06



# Man and Environment ABSTRACTS Volume XLV, No. 1 (January-June 2020)

## 1. An Ethnoarchaeological Study of Mortuary Practices and Megalithic Traditions of the Mundas of Jharkhand

#### Himanshu Shekhar

Death rituals are one of the most important rites of passage for an individual. Rituals performed after death are supposed to help the soul in its journey to its final heavenly abode. Therefore, it is important to perform various rites and rituals for the deceased person. This paper is an attempt to study the funerary rituals and associated Megalithic traditions practiced by the Mundas of Jharkhand. The paper deals with different steps taken during funeral ceremonies of the Mundas (including both primary and secondary funeral practices), which have been associated with the Megalithic tradition. This ethnographic data can be used to infer different aspects of Megalithic archaeology of the region by using both direct historical and general comparative analogies.

Himanshu Shekhar, Man and Environment XLV(1): 1-12 [2020].

ME-2020-1A01

2. Recent Discovery of an Acheulian Locality near Khaksar Lake, Aurangabad District, Maharashtra

#### Jayendra Joglekar and Sharad Goswami

The present communication is about a recent discovery of an Acheulian locality in the Aurangabad District of Marathawada region of Maharashtra. References to Acheulian finds in this region are negligible. Therefore, the latest finds are important to understand the spatial distribution of the Acheulian sites especially in the Deccan trap region. The discovery of Acheulian artefacts within a regolith context away from any river is a rarity in the Deccan trap region. This paper briefly describes the geomorphic context and typology of these Acheulian artefacts.

J. Joglekar and S. Goswami, Man and Environment XLV(1): 13-17 [2020].

ME-2020-1A02

3. Geo-archaeological Explorations in Tripura (2018-2019): A Report

# Manjil Hazarika, N.R. Ramesh, B.C. Poddar, Salim Javed, Y.S. Sanathana and Hemant Dalvi

This paper presents the results of the incisive geo-archaeological explorations carried out in parts of the Khowai, Hoara and Sonai river valleys in Tripura. This was undertaken as part of the Field Trip Project of the 36th International Geological Congress (IGC). Extensive and systematic Quaternary mapping in the 1980s by the Geological Survey of India, using a morphostratigraphic approach generated multi-disciplinary data on Quaternary geological history, besides establishing the presence of prehistoric human cultures in this part of Northeast India. After a gap of some three decades, the present research group with multi-disciplinary backgrounds undertook some extensive geological traverses and archaeological mapping across some of the well-mapped Quaternary fluvial sequences in the intermontane valleys of Khowai and in West Tripura districts to understand the context of the Stone Age sites. The Quaternary deposits significantly host stratified records of prehistoric artefacts made exclusively of petrified fossil woods of Neogene origin. The in-depth survey strengthens our understanding of the vertical and horizontal continuity of the Stone Age materials in certain areas of the Sonai Valley, which appears to be the most widespread prehistoric site covering an area of approx. 0.256 km2. The study opens up vistas for further research on the chronology and cultural affinities with the neighbouring regions of Myanmar and Bangladesh.

M. Hazarika et al., Man and Environment XLV(1): 18-38 [2020].

ME-2020-1A03

# 4. Techno-typological Analysis of Surface Microliths from Ichhapadar Site in Bargarh Upland, West Odisha

#### Sudam Deep

Microlithic sites, especially in eastern India are distributed over a wide area across the states of Bihar, West Bengal and Odisha. Archaeological fieldwork and excavations carried out by various scholars have widened the understanding of prehistoric human behaviour in this part of the country. During the last few decades, a number of Palaeolithic, Mesolithic and Neolithic sites have been reported from Odisha. The discovery of Microlithic sites in the Jira Valley, western part of Odisha, is of fundamental importance to understand the Early Holocene communities that inhabited this region. The present paper is based on the surface exploration made by the author in 2012-13 in the Jira River system of the Bargarh Upland. It mainly illustrates and discusses the Microlithic site of Ichhapadar discovered during this exploration. An effort to analyse the lithic artefacts in terms of tool types and raw materials has been made.

S. Deep, Man and Environment XLV(1): 39-46[2020].

ME-2020-1A04

5. Archaeological Explorations of the Sorath Harappan Settlement at Nadapa in Kachchh District, Gujarat

S.V. Rajesh, G.S. Abhayan, M. Vishnu, Bhanu Prakash Sharma and Anil Chavan

This paper presents the results of the explorations carried out at Nadapa in Kachchh District, Gujarat. The study brought to light a settlement with characteristic Sorath Harappan features (Urban Harappan and Post-Urban Harappan phases) which was later occupied during the Medieval period. The site also yielded other regional ceramic types like Gritty Red Ware of Anarta tradition and Reserved Slip Ware. Like many other Sorath Harappan sites, it was protected by a massive stone fortification wall though the surficial evidence for industrial production of craft items is scanty.

S.V. Rajesh et al., Man and Environment XLV(1): 47-56 [2020].

ME-2020-1A05

6. Recent Archaeological Investigations in Coorg District, Karnataka

D.M. Chandan Kumar and V. Sobha

Despite its rich heritage, the district of Coorg (Karnataka) is not well explored archaeologically. Recent explorations in Coorg, with a focus on Megalithic sites, have led to the emergence of new sites as well as interesting burial features in this hilly region. Presence of circle slabs with a head-like circular feature, perhaps symbolizing an anthropomorph, is among the uncommon features noticed at some of the sites. Isolated occurrences of menhirs in sacred groves, coffee plantations and thick forests are enigmatic. A few stray Neolithic celts were also identified in the course of explorations in this region where Neolithic history is little known.

Chandan Kumar and V. Shobha, Man and Environment XLV(1): 57-65 [2020].

ME-2020-1A06

7. Preliminary Report on Excavations at Sakas, District Sasaram (Rohtas), Bihar (2018-19)

Vikas Kumar Singh, P.P. Joglekar, Manisha Singh, A.K. Pandey, Ratnesh Tripathi, C.L. Pandey, Gargi Chatterjee, D.P. Singh, Sudarshan Chakradhar, Aftab Alam, Sunil Kr. Singh, Brij Mohan, Dhananjay Kumar, A.P. Singh,

U. Singh, A. Singh, Veena Mushrif-Tripathy and Ravindra N. Singh

The site of Sakas is located in Sasaram (Rohtas) District, Bihar at the foothills of the Vindhyan-Kaimur Range, on the ancient trade route connecting Kashi with Pataliputra. The site excavated in 2019-20 by the Banaras Hindu University revealed rich cultural assemblages from the Early Farming Period to the Chalcolithic Period including the inbetween transition phase. The cultural remains comprised of circular mud structure, hearths, mud walls, post holes, and different floor activities. Besides, many microliths

made up of chert, agate, and chalcedony, were recovered. The evidence of eight human burials is noteworthy. Several antiquities recovered from the excavations include beads made of semi-precious stones and terracotta, bone points, hop-scotches, terracotta wheels, and an ear ring made of copper. Biological remains include animal bones, charred grains, and tiny pieces of charcoal collected through flotation. This article describes the preliminary results of the excavation conducted during 2018-2019.

V.K. Singh et al., Man and Environment XLV(1): 66-77 [2020].

ME-2020-1A07

8. Continuity and Change in Animal Exploitation at Kantipuleswar, an Iron Age Site in the

Middle Mahanadi Valley of Odisha

#### Pankaj Goyal, P.K. Behera and Sakir Hussain

Kantipuleswar, an Iron Age site in the Middle Mahanadi Valley, is located in Angul District, Odisha. A small-scale excavation at this site was conducted by the Post Graduate Department of History, Sambalpur University, Odisha. The excavation at the site revealed three broad phases of Iron Age occupation, *viz.*, Phase I (Early Iron Age), Phase II (Middle Iron Age) and Phase III (Late Iron Age). Animal remains were collected from all the three phases. These remains were studied using standard method of archaeozoology developed at the Archaeozoology Laboratory, Deccan College, Pune. The present paper presents the results of this analysis. A total of 1042 skeletal elements were studied. The faunal assemblage revealed the presence of six domestic species (cattle, buffalo, sheep, goat, pig and dog). The wild mammals identified at the site include nilgai, sambar, swamp deer, spotted deer, barking deer, blackbuck and porcupine. In addition, two species of reptiles and one molluscan species were also recorded from the site.

Pankaj Goyal et al., Man and Environment XLV(1): 78-91 [2020].

ME-2020-1A08

9. Observations on the Faunal Remains from Early Historic Site of Kholapur, Vidarbha, Maharashtra

#### Kanchani Prova Koch, Arati Deshpande-Mukherjee and B.C. Deotare

The site of Kholapur, an Early Historic site in the region of Vidarbha, is located on the right bank of the Purna River in Amravati District, Maharashtra. Excavations at the site were conducted in 2007-08 and 2008-09. These excavations revealed a large number of animal skeletal fragments. These fragments were analysed by using modern archaeozoological methods at the Archaeozoology Laboratory, Deccan College, Pune. The analysis of these bones revealed the presence of 24 species of mammals, 5 species of

birds, 2 species of reptiles and 11 species of the molluscs. In addition to domestic mammals, a number of wild animals were utilized by the inhabitants of the site. Some of the characteristic features of this assemblage were the presence of a large number of bones of common house rat and exploitation of a variety of molluscan shells.

K.P. Koch et al., Man and Environment XLV(1): 92-112 [2020].

ME-2020-1A09



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1. Acheulian Assemblage at Damdongri-2, Madhya Pradesh, India: Preliminary Observations

Niharika Srivastava, S.B. Ota, Sushama G. Deo and Suman Pandey

The present communication is about Damdongri-2, an Acheulian locality situated in the Raisen district of Madhya Pradesh, India. This locality has thrown light on a rich Acheulian assemblage, dominated by an unusually high frequency of bifaces, quite a good number of bolas within a limited area, and recycling activity of unusual nature. It is also important to note that despite being away from the raw material source area, a high density of large-sized finished artefacts has been found on quartzite and quartzitic sandstone in the basaltic zone. A brief preliminary observation on the lithic assemblage has been discussed in this paper.

N. Srivastava et al., Man and Environment XLV(2): 1-6 [2020].

ME-2020-2A01

2. Soil Micromorphological Analysis of Sediments from Cave and Rock Shelter Sites, Kiphire District, Nagaland

#### Sean Taylor, Sayantani Neogi, Tiatoshi Jamir and David Tetso

This paper presents the initial findings of the geoarchaeological investigation of four caves located in the Kiphire District of Nagaland, India. This is a region characterised by limestone karst, and steep hills are dissected by deeply cut stream valleys. The vegetation is dominated by tropical and sub-tropical evergreen forests. This makes the region challenging for communication and mobility not only in the present but also perhaps in the past. Prehistoric research in Nagaland is focussed on gathering archaeological data, understanding the timing of human occupation, and determining the influence of Quaternary global climate oscillations to prehistoric cultural developments in the region. Caves are one of the best sources of information as their sedimentary sequence contains often well-preserved cultural and associated environmental data within a dateable matrix. In this study, the stratigraphic contexts are described using soil micromorphology.

S. Taylor *et al.*, *Man and Environment* XLV(2): 7-14 [2020]. ME-2020-2A02

3. Preliminary Results on the Palaeovegetation Reconstruction during the Holocene from Bari Lake, Lucknow, Uttar Pradesh

#### Anjali Trivedi, M.S. Chauhan and Anupam Sharma

The preliminary palynological analysis of 25 samples from 0-125 cm depth from a 210 cm in-depth sediment profile from the Bari Lake, Lucknow District, Uttar Pradesh has been completed. The study revealed that at 0-55 cm, the region supported open grassland vegetation mainly comprising grasses with scanty trees of *Holoptelea* sp., *Symplocos* sp. and *Acacia* sp. under a cool and dry climate. From 55-125 cm depth, the immigration of more trees viz., *Shorea* sp., *Holoptelea* sp., *Acacia* sp., *Bombax ceiba*, and *Aegle marmelos*, etc.and groves of forest interspersed with grassland got established due to amelioration climate. The increment tree taxa suggest a warm and humid climate in the region. Interestingly, the retrieval of Cerealia and other cultural pollen taxa reveals the evidence of agricultural practices since 7500 yrs BP in the region.

A. Trivedi et al., Man and Environment XLV(2): 15-19 [2020].

ME-2020-2A03

4. Formation Processes and the Problems of Interpretation of the Human Skeletal Record in Archaeology: A Case Study with reference to the Deccan Neolithic-Chalcolithic Perspective

#### S.R. Walimbe

The taphonomical approach in the study of accumulation and modification of osteological assemblages from a site formation perspective takes into account the role of physical, chemical, geological, and biological surroundings in the patterning of the evidence. These agents and causal mechanisms influence the lifeways to a great extent and probably accelerate the development of cultural patterns. The present study deals with the postmortem fate of human bones in the archaeological context with special reference to the Deccan Neolithic-Chalcolithic cultural phase. The formation process of the human skeletal record has been discussed in two phases. The modifications of the surfaces and internal structures of bone are briefly mentioned, followed by the issues related to the interpretation of the decomposed burials in the archaeological context. The Deccan early agro-pastoral communities followed the custom of burying the dead within habitation. This custom must have had large-scale consequences on the prevailing cultural and environmental systems. The archaeological approach in interpreting the evidence seldom takes into account the basic taphonomical issues and its impact on the life of the surviving population.

S.R. Walimbe, Man and Environment XLV(2): 20-33 [2020].

ME-2020-2A04

5. Preliminary Report on the Excavations at the Chalcolithic Site of Asuradhipa, Kanchilo Village, District Khurdha, Odisha

Shantanu Vaidya, Rabindra Kumar Mohanty, Sunil Kumar Patnaik, Sushama G. Deo, Varad Sabnis, Jayendra Joglekar, Pankaj Goyal, Kunil Kumar Behera, Saumyashree Moharana, Rahul Kumar Verma, Himanshu Shekhar, Prasanta Kumar Jena, D. Chandan Kumar and P.P. Joglekar

The excavations at the site of Asuradhipa in Odisha proved fruitful, as it brought to light some unknown aspects of the Neolithic-Chalcolithic period in the region. The excavations also proved useful in understanding how human adaptations to the local ecology and landscape processes underwent changes over a period of time. The site yielded a number of grounded and polished stone tools and a few bone tools, ceramics and faunal remains along with dwellings and activity areas.

S. Vaidya et al., Man and Environment XLV(2): 34-42 [2020].

ME-2020-2A05

#### 6. Excavation at Nokpu: A Naga-Ahom Perspective

#### Aokumla Walling

The excavation carried out at abandoned old village Nokpu, District Mokokchung, Nagaland has brought to light new features on the Naga-Ahom contact during the Ahom rule in the Brahmaputra Valley (1228-1826 CE). The village is located on the border between the plains of Brahmaputra and Naga Hills and the excavations yielded a good number of hand-made wares along with wheel-made wares. The recovery of beads and other botanical remains are also significant towards authenticating the history of contact between the plains and the hill people during the pre-colonial period. This excavation, together with the use of the oral narratives and literary texts gives ample scope towards working with an interdisciplinary approach to understanding the archaeology of the Naga-Ahom relationship.

A. Walling, Man and Environment XLV(2): 43-57 [2020].

#### ME-2020-2A06

7. Beads from the Excavated Site of Deltihuda, Talagarh, Odisha

Umakanta Mishra, Subrata K. Acharya, Patitapaban Mishra, Rabindra Kumar Mohanty, Shibanarayan Bihari and Kunil Kumar Behera

The third season of excavation at Deltihuda mounds in Talagarh village in 2016-17 revealed a bead manufacturing workshop with remains of a partially exposed furnace, bead debitage, polishers, and a number of finished and unfinished beads. This is the first evidence of a bead manufacturing centre found in any of the excavated settlements belonging to the Early

Farming Culture/societies in the eastern part of Odisha. The paper describes the variety of beads found, and also throws light on the possible manufacturing process through XRD and poly-section analysis under stereomicroscope. Micro ring and disc beads which appear to be steatite to the naked eye revealed quartz alone in XRD analysis, while the drum-shaped beads and ear studs showed quartz with low cristobalite. This raised questions about the manufacturing methods. In addition to these micro-beads, beads of different sizes made using agate, chalcedony, jasper, and of other material were also found.

Umakant Mishra et al., Man and Environment XLV(2): 58-67 [2020].

ME-2020-2A07

8. Preliminary Findings of the Exploration in Baraut Tehsil of Baghpat District, Uttar Pradesh

#### Rahul Kumar Verma, Saumyashree Moharana and S.K. Manjul

This paper deals with the explorations that had been carried out in the Baraut Tehsil of Baghpat District, Uttar Pradesh in the year 2018. The explorations aimed at locating archaeological sites with a specific focus on Painted Grey Ware (PGW) and Kushan period sites. This work was conducted when the excavation at Barnawa by the ASI was in progress. The findings from the stratified contexts at Barnawa were used to assign cultural contexts to the archaeological material observed/recovered during explorations.

R.K. Verma et al., Man and Environment XLV(2): 68-75 [2020].

ME-2020-2A08

9. Stone Jars of Assam: Recent Discoveries

#### Tilok Thakuria and Uttam Bathari

The stone jars of Assam are a unique piece of archaeological evidence from India that were first reported in 1929 by J.P. Mills and J.H. Hutton. The sites from where they are located lie in the Dima-Hasao District of Assam. The present paper reports new discoveries of stone jar sites in the district along with previous documented reports of the stone jar sites. This paper highlights the pattern of distribution, morphology and attributes of the jars. It also carries a report on the newly discovered engravings at Hojai Dobongling

T. Thakuria and U. Bathari, Man and Environment XLV(2): 76-86 [2020].

ME-2020-2A09

10. Understanding Ancient Zinc Technology: An Experimental Study

Alok Kumar Kanungo, K. Raviteja, Oishi Roy and Jeewan Singh Kharakwal

The ancient zinc furnace at Zawar was excavated in December 1983, and since then, there have been a number of publications on the same. With these, the antiquity of zinc mining in the Zawarmala has been traced back to 5th century BCE, and the production of metallic zinc to 9th century CE. It has been further postulated that the method of zinc extraction has been a downward distillation process. The furnace, the retorts and the pyrotechnology that has been recorded is one of its kinds and thus a local innovation. Based on the findings, archaeometallurgical investigations were carried out and, on the basis of derived data, the furnace which was probably used for zinc smelting was conjecturally recreated. Bringing the raw material from the original source and following the published literature, the authors carried out an experimental zinc extraction at Indian Institute of Technology, Gandhinagar. Following which, they analysed both the retorts and zincs from Zawarmala, and what they obtained in their experimental study under XRD. The present paper is an outcome of this experimental study.

A.K. Kanungo *et al.*, *Man and Environment* XLV(2): 87-94 [2020]. ME-2020-2A10



### **Man and Environment**

### **ABSTRACTS**

### Volume XLVI, No. 1 (January-June 2021)

#### 1. Koloshi – A Newly Discovered Prehistoric Cave Site in the Konkan Region, Maharashtra

Tejas Garge, Parth R. Chauhan, Sudhir Risbud, Rutwij Apte and Snehali Kulkarni-Khadke

The Konkan region, along the western coast of India, was an important biogeographic zone for human and faunal adaptations, especially given its proximity to the nearby areas of high biodiversity and rainfall. While it is best known for its post-Chalcolithic multi-cultural records, recent evidence has shed light on prehistoric adaptations in the region. The oldest known archaeological evidence is that of Acheulian artefacts in a cave context, while other prehistoric occurrences have also been reported from several localities. Most of this record is dominated by microlithic assemblages in open-air contexts and a few reported cave sites; all of these remain undated and poorly understood. One of these includes the cave site of Koloshi which is being archaeologically investigated over the last two years. Situated relatively close to the coast, this cave is represented by a large cavity formed through weathering by various processes in the lateritic bedrock. Based on the typo-technology of the lithic assemblages recovered thus far, the site appears to represent occupation by prehistoric Homo sapiens group(s). The cave preserves (typologically) later Palaeolithic and microlithic assemblages, including hammerstones, anvils, choppers, core scrapers, flake scrapers, tanged points, microblade cores, bladelets, and debitage, all in surface and buried contexts. Such well-preserved caves are extremely rare in the Konkan region and one with prehistoric evidence, even more so. This work at Koloshi represents the first systematic multidisciplinary investigation into the prehistoric archaeology of the Konkan region by the Directorate of Archaeology and Museums (Government of Maharashtra).

Garge et al., Man and Environment XLVI(1): 1-7 [2021].

ME-2021-1A01

#### 2. A Note on the Palaeolithic Finds from Bajpur, Khurda District, Odisha

#### Jayendra Joglekar

The Khurda District is well known for its Neolithic-Chalcolithic settlements that are sequentially followed by sites of the Early Historical period. A recent exploration in the Mandakini river basin brought to light a Late Palaeolithic artefact-bearing locality at Bajpur. The present communication is a brief description of the context of the artefacts and

an analysis of the assemblage. This is the first report of a Late Palaeolithic locality in this part of Odisha.

J. Joglekar, Man and Environment XLVI(1): 8-12 [2021].

ME-2021-1A02

3. Late Pleistocene Environments of South Asia: A Review of Multidisciplinary Research and Relevance for Understanding Hominin Environmental Adaptations

#### Shashi B. Mehra and Parth R. Chauhan

Palaeoenvironmental studies in relation to prehistoric hominin dispersals, adaptations and cultural transitions have been frequently applied to data from Europe, Africa and the Levant. In South Asia; however, very few studies have been carried out to test comparable hypotheses of hominin ecological adaptations. The region's geographical location suggests a corridor for hominin expansions towards Southeast Asia, making it relevant for palaeoanthropology. The Late Pleistocene archaeological records of South Asia have been increasingly studied over the last two decades in relation to the number of sites, chronological information, and contextual palaeoenvironmental data available, especially in India and Sri Lanka. This paper presents a general summary of Late Pleistocene environmental studies done till date in South Asia and associated implications derived from different proxies, i.e. sediment, carbonate, ostrich eggshell, pollen, speleothem, and multi-proxy approaches, including some archaeological sites. The records tentatively show that the period from 125-80 ka is predominantly characterised by humid environments and was followed by varied results/changes in climatic conditions at 79-70 ka and arid environments at 69-60 ka. Between 59 ka and 30 ka, South Asia's environmental conditions were again generally humid. The period from 29-20 ka (LGM) again represents varied results, which was later followed by arid conditions from 19-11 ka, i.e. following the Last Glacial Maximum. Studying archaeological and palaeontological records within environmental contexts will help to understand past human-environment relationships and associated behavioural transitions as well as explain specific faunal speciation and extinction events. This general review also demonstrates that many more Quaternary studies are required to fill major geographic, chronological, and methodological gaps in Late Pleistocene environmental research.

Mehra and Chauhan, Man and Environment XLVI(1): 13-44 [2021].

#### ME-2021-1A03

4. Analysis of the Microlithic Assemblage from the Late Mature Harappan Site of Kotada Bhadli, Nakhatrana Taluka, Kachchh District, Gujarat *Riza Abbas, Sitaram Toraskar, Prabodh Shirvalkar and Yadubirsingh Rawat* 

The lithic assemblages of various Harappan sites such as Shikarpur, Banawali, Bagasra, Mohenjo-Daro, Dholavira and other Indus Valley sites have evidenced a sizeable percentage of Rohri chert blades. In contrast, the analysis of the microlithic assemblage

recovered from the excavations of the Late Mature Harappan site of Kotada Bhadli indicates that the production of tools was on high quality white translucent chalcedony sourced from a nearby source. Among the finished tools, backed and modified pieces, and burin dominate the assemblage. The high percentage of burins reflect that the majority of tools were used to perform activities such as groove making on material like wood or bone. A sizeable presence of backed and modified pieces indicates that they were probably used to serve some purpose concurrently with the burins. The high percentage of blade cores and near absence of blades shows that they were used and discarded away from the site. The core reduction sequence shows that knappers were aware of the various techniques used in the manufacture of different types of microlithic tools but, at the same time, the assemblage also shows that they were not at all heavily reliant on siliceous stone as compared to the Mesolithic populations.

Mehra and Chauhan, Man and Environment XLVI(1): 45-56 [2021].

ME-2021-1A04

5. Recent Radiometric Dates and Their Implications in Understanding the Early Writing System and Early Historic Archaeology of Tamil Nadu *K. Rajan, V.P. Yathees Kumar, M. Rajesh, R. Sivanantham, J. Ranjith and J. Baskar* 

In Tamil Nadu, nearly 1571 Tamil-Brahmi inscriptions were documented till date from 79 Early Historic sites. Of which nearly 1464 specimens are of Tamil-Brahmi inscribed potsherds recovered from 41 archaeological sites. Irrespective of a large number of Tamil-Brahmi inscriptions, the earliest date could not be assigned to the Tamil-Brahmi script due to the non-availability of the scientific dates. The date of the Tamil-Brahmi script was generally determined based on stratigraphy, palaeography, orthography, linguistic features, internal historical evidences, and other external cultural/trade contacts. The recent archaeological excavations conducted at Iron Age and Tamil-Brahmi yielding Early Historic sites such as Porunthal, Kodumanal, Keeladi, Alagankulam, Adichchanallur and Thelunganur provided 45 radiometric dates. Of the 45 AMS dates, 39 dates belongs to Early Historic sites and remaining 6 are from Iron Age sites. Of the 35 samples (4 contaminated out of 39), 14 dates are assigned to pre-Ashokan (i.e., before 268 BCE) and the earliest date goes back to the sixth century BCE. The metallographic analysis carried out on the sword collected from an Iron Age grave at Thelunganur revealed that it was made of ultra high-carbon steel and yielded two calibrated dates (cal. 1334 BCE and cal. 2742 BCE). Even if one considers the lowermost date as the possible date of introduction of steel, it could be placed around the mid-part of the 14th century BCE. The AMS dates obtained from samples collected from the sites such as Raja Nala-Ka-Tila, Malhar, Lahuradewa, Watgal, Gachibowli, Bukkasagara, Thelunganur and Mangadu placed the manufacture of the iron in India somewhere around the second millennium BCE and steel around the 13th/14th BCE. Thus, the introduction of iron in South India goes back to as early as the second millennium BCE and the beginning of Early historic period, and could safely be placed around the sixth century BCE as the evidence stands today.

Rajan et al., Man and Environment XLVI(1): 57-86 [2021].

ME-2021-1A05

6. The Significance of Recent Research in Megalithic Cairns and Cists at Pallavaram, Tamil Nadu

A.M.V. Subramanyam, C.R. Gayathri, R. Ramesh and S. Vetriselvi

Pallavaram is the celebrated site where Robert Bruce Foote found the first Palaeolithic artefact in India in May 1863. The megaliths at Pallavaram were first noticed and excavated by Alexander Rea in 1888. His finds were subsequently deposited at the Government Museum, Chennai. In 1946, the site was declared as a centrally protected site. Due to the rapid urbanization of recent years, many archaeological sites within the city limits have either been destroyed or encroached upon. Pallavaram is one among them. In order to know the present status of the site, explorations followed by a trial excavation were undertaken recently by the Chennai Circle of the ASI almost 125 years after the initial discovery. Excavations led to the finding of a terracotta sarcophagus with a lid that throws light on burial practices at this site.

Subramanyam et al., Man and Environment XLVI(1): 87-91 [2021].

ME-2021-1A06

7. Rice Production in the Early Iron Age of Vidarbha: Archaeological and Archaeobotanical Evidence from Rithi Ranjana, Maharashtra *Nihildas N., Anil K. Pokharia and Himani Patel* 

The Early Iron Age settlements in the Vidarbha region of Maharashtra have given evidence on the well-settled protohistoric lifeways sustaining on agro-pastoral economy, craft production, and the hinterland trade and commerce. The archaeobotanical evidence comes from sites like Naikund, Khairwada and Bhagimohari where a number of plant species were identified as part of people's diet with rice being dominant among them. The recent excavation conducted at Rithi Ranjana, near Nagpur, brought to light added archaeological evidence related to food production and its surplus storage. At this site, the evidence of rice at all levels indicates that it was an essential item of consumption; and production continued throughout the Early Iron Age in Vidarbha. This paper focuses on the subsistence strategy adopted by the Early Iron Age people at Rithi Ranjana, and its archaeological significance in the context of protohistoric archaeology of the Indian subcontinent.

Nihildas et al., Man and Environment XLVI(1): 92-100 [2021].

ME-2021-1A07

8. Explorations of Lesser Known Old Port Sites along the Eastern Saurashtra Coast, Gujarat *A.S. Gaur, Sundaresh and Pramod K. Maurya* 

Explorations were carried out along the shore from Khambhat to Jafrabad along the Saurashtra coast during the 2018-19 and 2019-20 seasons. The main objective of these

explorations was to locate ancient ports along this coast and to document the present condition of the coastline. The ports surveyed include Dharabandar, Jafrabad, Mahuwa, Pipavav, Victor port, and Dholera, besides a few Medieval period sites at Babarkot and Gogha. The investigation revealed that these ports which have played a significant role in trade and commerce are now abandoned due to siltation; and also help to trace the emergence of new ports where modern facilities are available. Though a few fishing boats still visit these ports, it is not to the extent that one can call these fishing harbours.

Gaur et al., Man and Environment XLVI(1): 101-105 [2021].

ME-2021-1A08



# Man and Environment

### ABSTRACTS

Volume XLVII, No. 2 (July-December 2021)

1. Towards a Holistic Understanding of the South Asian Palaeolithic Record: The Role of Core and Flake Elements in Interpretations of Lithic Techno-complexes *Akash Srinivas* 

The South Asian Palaeolithic, following the characteristic three-fold division of the Lower, Middle and Upper phases, covers not only a vast temporal and spatial expanse, occurring almost throughout the entire Indian Subcontinent, but has also been the subject of a long and continuous historiography. More than 150 years of research has gone into defining its various characteristics – the lithic technology, stratigraphy and chronology, among others. Despite the long history of research, the South Asian evidence rarely features in global discussions of problems and issues related to the Palaeolithic. After an initial phase where research was primarily focused on identifying and discovering Palaeolithic localities, research turned towards the understanding of the nature and characteristic of the lithic archaeological records. Guided by the then trends in prehistoric lithic studies, researchers followed a typological classificatory approach, with a focus on bifaces and other diagnostic morpho-types, which continues (with a few notable exceptions) till this day. Drawing from technological and reduction sequence parameters, in line with current research trends the current work calls upon, and outlines a new methodology for studying, and reinvestigating, the lithic archaeological record of the Indian Subcontinent. Thus, this paper proposes a new methodological paradigm in conducting research into lithic assemblages and technocomplexes of the Indian Subcontinent, which would enable a more than ready assimilation of the South Asian Palaeolithic record into current global discussions.

A. Srinivas, *Man and Environment* XLVI(2): 1-15 [2021]. ME-2021-2A01

2. Landscapes, Land Use and Settlement Pattern of the Multi-Period Sites in the Raichur Doab, South India *R. Arjun* 

This paper is based on research that was conducted in the western part of the Raichur Doab (Northeast Karnataka) during 2014-2017. Detailed field reconnaissance of multi-period sites was the main focus. Middle Palaeolithic, Mesolithic, and Early Historic sites were also studied for spatio-temporal contexts in reference to the early agro-pastoralist settlements of the Neolithic and Iron Age. The landscapes, land use patterns/site space and resource management, settlement systems and chaîne opératoire with geo-references recording of the archaeological features and cultural material distributions are the major outcomes of this study.

### R. Arjun, *Man and Environment* XLVI(2): 16-40 [2021]. ME-2021-2A02

 Late Pleistocene Lithic Utilisation Pattern from the Middle Brahmani River Valley, Odisha Subodha Mendaly

Almost all the major river systems of the state of Odisha have provided information on the Pleistocene Hominine adaptation in a varied geomorphic context. The present study of the Middle section of the Brahmani Valley has brought to light nineteen prehistoric sites both at the foothills and river bank context, with a majority of them found at the foothills. The systematic study of raw material i.e., opal, chert, quartz, and quartzite, reveals information about tool production. Of these, opal has been known to be highly used for tool production. The analysis of different attributes of lithic artefacts collected from this region suggests that these sites were occupied by hominine during the Late Pleistocene and the tool tradition represents a flake-blade culture with the dominance of flake tools.

S. Mendaly, *Man and Environment* XLVI(2): 41-50 [2021]. ME-2021-2A03

4. Archaeobotanical Investigations at the Chalcolithic Site of Deltihuda, Talagarh, Odisha

Eleanor Kingwell-Banham, Umakanta Mishra, Rabindra Kumar Mohanty, Subrata Kumar Acharya, Kunil Kumar Behera and Siba Narayan Behari

Recent excavations of Neolithic-Chalcolithic settlements in Odisha warrant an overview of material cultures, including the beginning of agriculture and farming in the region. Archaeobotanical remains found from phytoliths, flotation of soils to obtain grains and seed leaves, absolute dating of botanical remains, including that of stable isotope analysis, have enriched our understanding of early farming in Odisha. This paper describes analysis of the archaeobotanical remains found from flotation at Deltihuda (Talagarh village, District Cuttack). The analysis of 61 samples from one trench (DLT B-1) points out that rice and pulses – C3 diets – constituted the main plant source of energy and proteins.

E. Kingwell-Banham *et al.*, *Man and Environment* XLVI(2): 51-56 [2021]. ME-2021-2A04

5. A Note on Megalithic Burials from Sidumanahalli Village, Dharmapuri District, Tamil Nadu *Mutharasu Anbalagan and Don Wesley*  This note reports the discovery of megalithic burials from Sidumanahalli village of Pennagaram Taluka in Dharmapuri District, Tamil Nadu. It also provides typology and the present state of destruction of megalithic monuments.

M. Anbalagan and D. Wesley, *Man and Environment* XLVI(2): 57-62 [2021]. ME-2021-2A05

6. Further Excavations at Khapura, District Ambedkar Nagar, Uttar Pradesh (2019-20 and 2020-21) Pushp Lata Singh, Prabhakar Upadhyay, Anoop Kumar, Chandra Bhushan Gupt, Upendra Singh, Mohd. Afroj, Dipak Kumar Shukla and Rajnath

The site of Khapura is located on the right bank of River Tamsa, in Tehsil Akbarpur, District Ambedkar Nagar, Uttar Pradesh. The excavation conducted in 2017-18, 2018-19, 2019-20 and 2020-21 revealed cultural assemblages from the Pre-Northern Black Polished Ware (Pre-NBPW) culture with iron to the Gupta period. The Pre-NBPW with iron phase has been identified for the first time in this part of the Tamsa-Ghaghara region. The materials of the Shunga-Kushana and Gupta periods have been traced in the recent excavations at the site in sessions 2019-20 and 2020-21. The present paper discusses the important findings of Khapura and its correlations with other sites of the region.

P. Singh *et al.*, Man and Environment XLVI(2): 63-75 [2021]. ME-2021-2A06

7. Ceramic Assemblage from the Site of Chatrikhera, Rajsamand District, Rajasthan *Prabodh Shirvalkar, Esha Prasad, Amit Ranjan, Teresa Raczek and Lalit Pandey* 

Under the project Mewar Plain Archaeological Assessment (MPAA), Sahitya Sansthan, JRN, Rajasthan Vidyapeeth, Udaipur; Deccan College, Pune and Kennesaw State University, USA worked on the archaeological sites of Chatrikhera, Jawasiya and Pachamata. At the beginning of the project, the site of Chatrikhera, located on the Mewar Plain of south-east Rajasthan, was selected for the archaeological investigations within which two field seasons were carried out in the year 2009 and 2011. This paper deals with the analysis of the ceramic assemblages excavated from different cultural periods at Chatrikhera.

P. Shirvalkar *et al.*, *Man and Environment* XLVI(2): 76-87 [2021]. ME-2021-2A07

8. Archaeological Investigations in the Coastal Region of Ganjam District, Odisha Saumyashree Moharana, Shantanu Vaidya and Rahul Kumar Verma

Since the 1950s, sporadic archaeological investigations have been conducted in the coastal regions of the Ganjam District, Odisha. This article presents results of the archaeological

investigation conducted during February-March 2021. The archaeological exploration aimed to document the remnants of ancient settlements in the coastal regions and in the interior regions of the Eastern Ghats. The exploration yielded evidence of settlements of Neolithic-Chalcolithic, Chalcolithic, Iron Age, Early Historic, Historical, Early Medieval and Medieval periods.

S. Moharana *et al.*, Man and Environment XLVI(2): 88-99 [2021]. ME-2021-2A08

### 9. Evidence for Subsistence Activities on the Ancient Coast of East Africa *Felix A. Chami, Abel Shikoni, Ernest Moronda and Giada Manzinali*

For a long time since the colonial period, it was thought that the people of the East coast of Africa were hunter-gatherers before Islam defused in the area at the end of the first millennium CE. By the 1960s very few archaeological sites of the pre-Islamic period on the whole coast were known. Thus, it was easy to argue that all domestication activities must have had been brought there by foreigners who came to East Africa in the wake of Islamic trade activities after 900 CE. This kind of conjecture set an academic problem to be dealt with since the 1990s. Did the people of the coast of East Africa who had been in contact with people of other civilizations (who were domesticating before the advent of Islam) remain hunter-gatherers until the arrival of Islam? Researches on the coast of East Africa after the 1960s that reported finding evidence for domestication before the advent of Islam were put into question.

Recent archaeological researches have continued to demonstrate that domestication occurred on the coast of East Africa after the Late Stone Age from about 400 BCE and probably before. Historical records from the Egyptian time provide similar evidence. The available evidence shows that domestication activities went hand in hand with hunting and fishing activities. Domesticated plants were both those of African and Asian origin. A similar case is with domesticated animals. Radiometric dating of the periods known as the Neolithic and the Early Iron Age is used to support archaeological evidence for subsistence in ancient times. Both archaeological and historical evidence suggests that the people of the East African coast were involved in different subsistence activities particularly domestication since ancient times. Doubts and denials of recent evidence of domestication and trade activities of Ancient times on the coast of East Africa are discussed.

F.A. Chami *et al.*, *Man and Environment* XLVI(2): 100-114 [2021]. ME-2021-2A09