

Riza Abbas, Jason Hawkes and Michael Willis

***The Archaeology of a Hindu Kingdom in Ancient Vidarbha***

The INHCRF with the British Museum are exploring the history, archaeology and architecture of ancient Vidarbha in central India. The project, entitled *The Archaeology of a Hindu Kingdom in Ancient Vidarbha*, is collecting and analysing data pertaining to the Vākāṭaka kingdom and its historical and archaeological contexts.

The scope of the work includes a) preparing a census of sites in ancient Vidarbha; b) locating these sites with co-ordinates and other relevant topographical, environmental and geographical data; c) locating material from excavated and explored sites and ascertaining if the materials are accessible and suitable for reference and study; d) preparing lists of the coin hoards in the study area and mapping them; e) identifying and defining sites for further study; and f) contributing to the development of storage for collected material and documentation at the INHCRF.

In this paper, the authors will introduce their recent findings, focussing particularly on the copper-plate charters of the Vākāṭakas and the archaeological contexts in which they have been found. The authors will also present some newly discovered sites, their significance and their relationship in the landscape of ancient Vidarbha.

P. Ajithprasad, Y.S Rawat, H. Teramura T. Kishida and S. Pratapachandran

***Cenotaphs of Dhaneti, Kachchh and their Cultural Context***

A number of burials showing megalith-type architecture, spread over two hectares, has recently been reported from Dhaneti in the Bhuj taluka of Kachchh, Gujarat. The site is not associated with any regular habitation remains in the vicinity. The burials have an oblong pit and are associated with capstones and probably orthostats of large limestone slabs. Occasionally, the burial is marked on the surface either by a cairn or a stone circle. The stones used for this purpose are of laterite and limestone. No skeletons are found in the burials; but they contained several pottery vessels. Other artefacts such as metal implements or ornaments are not found in the burial.

The pottery collected from the burials is unique. They show little resemblance either to the Harappan Chalcolithic or to the Early Historic pottery reported from Kachchh/Gujarat. The bowls and bowl/dish-on-stand from the burials and the rim features of the medium size jars do have some resemblance to the Early Harappan Kot-Dijian pottery. These, however, are different from the Kot-Dijian type pottery reported from the Early Harappan burials in North Gujarat and Kachchh. The chronological position of the burials therefore needs careful consideration of other factors. There is a cluster of iron slag found at the site. The significance of this and its relationship with the burials is also not clear. The large limestone slabs used in the burials were quarried from a nearby source and transported to the site. The paper discusses the economical and technological investment of the society in creating a distinct burial architecture and a cemetery having several such burials.

Antonio Amato, Fabrizio Sammarco

***The Archaeological Gazetteer of Gandhāra: A New Tool to Share Archaeological Knowledge***

The aim of this paper is the presentation of the Archaeological Gazetteer of Gandhāra, a new work tool for sharing knowledge about the archaeological heritage of the ancient region of Gandhāra. With this paper we would like to encourage experts and scholars to collaborate actively on the project, so as to make the Archaeological Gazetteer of Gandhāra as complete and up to date as possible.

The Archaeological Gazetteer of Gandhāra is a database of archaeological sites available on a website, enhanced with GPS tracking and bibliographical updating. The focus of this project is ancient Gandhāra, a region that included part of northern Pakistan (the Peshawar Valley and Western Punjab) and part of eastern Afghanistan. At present the chronological range of the database is from the Achaemenid period until the Islamic conquest. In the future we plan to expand the database by adding data about prehistoric cultures and other periods that throw light on Gandhāra.

The Archaeological Gazetteer of Gandhāra is hosted on a website using CMS (content management system) technologies, taking into account three requirements: simplicity, ease of use and customisation. Each archaeological site has a record sheet with various information: site name, a brief description of the site, georeferentiation (location, city, region/province, state, GPS coordinates, satellite map), chronology and periods, bibliography and photographic documentation. Each record has keywords and tags, so as to make it possible to search within the database. The input of the first data has allowed us to create maps of archaeological areas of Gandhāra, available for export even on user-friendly softwares and services as Google Earth and Google Maps.

The aim of this project is the beginning of a new way of sharing knowledge and research results through the Internet, open data and a scientific collaboration network.

Marta Ameri

***Defining Visual Vocabularies: Iconographic Variability in the Image-symbols of the Harappan World***

The iconography of the Harappan world, particularly as seen in the seals, sealings, and moulded tablets found at sites in the Indus Valley and beyond, includes a number of iconic characters and scenes that have, to date, defied interpretation. While there is no question that these figures played an important role in the visual codification of Harappan culture, the variability among the figures themselves has at times made it difficult for scholars to classify the figures into coherent groups, much less to interpret their possible meanings. Using methodologies often applied in the study of early Christian art, this paper examines some of the most variable motifs of the Harappan figural lexicon as part of a larger semantic system in which standardized characters and scenes play the role of mnemonic devices to remind the viewer of a story with which they are already familiar and poses the question of how much specificity is necessary in order for these image-symbols to function.

Numan Anwar

***Terrorism and Tourism in Gandharan Buddhist Heritage in Khyber Pakhtunkhwa, Pakistan***

The present Khyber Pakhtunkhwa province of Pakistan (ancient Gandhara) is known to the

world due to its rich cultural and archaeological heritage, especially in the relics of Gandharan civilization. Because of its strategic location, the fertile land of Khyber Pakhtunkhwa played a major role as a crossroads and melting pot of different cultures. Until modern times it was the principal point of encounter of the Indian world to the east with the Iranian world to the west, and thence with the ever shifting cultural mosaic of central Asia.

From the early 19<sup>th</sup> century onwards, archaeological explorations in this area have brought to light thousands of antiquities in which the Buddhist stupas, monasteries, sculptures, coins etc., are the most noteworthy. On one hand these findings provide opportunities for expanding scholarship and on the other hand the sites become a tourist spot for the locals and a source of excursion and enjoyment. However, at present the Khyber Pakhtunkhwa province is passing through a very difficult period. It is facing numerous challenges including terrorism, natural calamities and other crises. The Buddhist sites and museums are being threatened and are subject to encounter by armed extremists. Despite these overwhelming challenges the Provincial Department of Archaeology and Museums is still busy in promoting the cultural heritage of the area through archaeological excavations, cultural tourism, seminars, and by involving the community in the management of cultural heritage.

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Serena Autiero

### ***Yakṣa and Bes Terracotta Figurines in the Indian Ocean Network***

This paper aims to widen the perspective on the study of global interaction through a specific category of objects: terracotta figurines. A new type of terracotta figurine arose in the Deccan area in the period of greater development of transoceanic trade with Roman Egypt. The adoption of foreign elements in the Sātavāhana terracotta production can be read as an indicator of increasing external contacts, and as the output of a stronger presence in the trade and cultural networks of ancient globalisation.

The case study I will focus on is a peculiar type of Yakṣa figurine dated to the Sātavāhana period. A link can indeed be traced to the Egyptian representation of Bes. An important area of distribution of Bes iconography is the Iranic area. Apart from actual Bes representations, there are significant Iranicised Bes images. Indeed, Bes was adopted as a counterpart for local iconographies in the Achaemenid Empire. This widespread diffusion of Bes and Bes-hybrid images strongly supports the later diffusion and adoption of Bes iconography also in the Indian subcontinent.

Indo-Roman trade is the most well-known aspect of a wider phenomenon of ancient globalisation. The active parties in this trade route were Sātavāhana India and Roman Egypt. With a multidisciplinary approach it is possible to detect the long lasting outputs of trade contacts in local cultures. Most of all, it is possible to identify the fundamental contribution of apparently unimportant objects like terracotta figurines for personal devotion. From Egypt they reached India and became widespread; their iconography then merged with pre-existing local cults, iconography and rituals. A similar phenomenon is also visible in the diffusion of the figurines of the Egyptian Baubo, a popular character linked to the Eleusinian Mysteries. These figurines represent a crouched woman that shows her privates. In India Baubo has been translated into the personification of the Yoni, the vagina, also called Yoninilaya or Lajja Gauri.

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Shivakant Bajpai

### ***Missing History of Chhattisgarh Revealed in Damroo Excavation***

Damroo is one of the important hinterland township settlements in the Balodabazar-Bhatapara District, Chhattisgarh. This mud fort site was excavated by the Culture and Archaeology Department of Chhattisgarh under the direction of Dr. Shivakant Bajpai.

The excavation yielded a number of inscribed terracotta seals from stratified layers belonging to the pre-Satvahana and Gupta periods. An important circular terracotta sealing bearing the legend *Jamdasya* along with the auspicious swastika symbol in early Brahmi characters, may be assigned to the Sunga period. The evidence of Satvahana and Magha rulers has come from a sealing bearing the legend “*Rayon Achantdasas youge*” in characters of 1st or 2nd century Brahmi. This Brahmi legend is inscribed around the central monogram of the Malhar symbol which is denoted by the Brahmi character Ma or developed Nandipada, while some scholars refer to it as synonyms for Malhar or Mallaripattan.

The excavation at Damroo expands our understanding about the Satvahana and Magha settlements in South Kosala. Of note are a good number of terracotta seals in early Brahmi characters, including typical box headed found during excavation which pertains to the Gupta - Vakataka period. The box headed Brahmi epigraphs are commonly available in the region.

There are number of terracotta seals which have been revealed during excavation at Damroo along with Brahmi inscriptions from 2<sup>nd</sup> century BC to 5<sup>th</sup> century AD. These shed a new light on the ancient political history and archaeology of the region in what is known as the Dark Age. Decipherment of the sealings sheds fresh light on the ancient political history of South Kosala or Chhattisgarh. The earliest reference to this region and king is found in the Prayag *prasasti* of Samudragupta. The pillar inscription mentions a Kosalak Mahendra and scholars believe that this refers to South Kosala and that Mahendra was their king. It would be very interesting to know how and when this region was established as South Kosala because to date no archaeological evidence in this regard has been found but it is unanimously accepted that it was a part of Kosal Mahajanpada and was known as Dakshina Kosala.

Keka Banerjee

### ***Art on Illustrated Manuscripts - Asiatic Society Museum - A Case Study***

The art of manuscript illustration in India started in the 10th century AD. In Eastern India the art of illustrating manuscripts developed under the strong patronage of the Pala rulers. Taranath, the Tibetan Lama, has mentioned the evolution of Indian Painting where two artists, Dhiman and Bitapala of the Pala period are also mentioned. It has been observed that a classical East Indian style developed which may be compared with the Nepalese style. Later on, besides the classical style an indigenous style of painting developed, especially in the case of Tantric Hindu manuscripts.

The Asiatic Society, Kolkata, is a good repository of illustrated manuscripts of various types. Even illustrated Burmese manuscripts on Hindu themes, i.e the stories of the Ramayana epic, throw light on the cultural co-relation with South-East Asia. Some of the important illustrations showing different styles of art will be discussed in detail, and by doing so a continuous development of Indian manuscript painting from the 10<sup>th</sup> century onwards can be observed. The *Astahasrika*, *Prajyaparamita*, *Pancaraksa*, *Devimahatmya*, *Vivekapancamrita* and *Lalitavistara* are among the rare collection in the Asiatic Society Museum that will be discussed in this presentation. The style of art depicted in these manuscripts has rarely been explored. The paper will also focus on the indigenous style that evolved out of the classical style.

Asmita Basu

***Tribal Art of Birbhum – Sustainability of Tangible and Intangible Aspects***

The district of Birbhum in West Bengal has a long history of cultural heritage and is home to indigenous people, their history, art and culture. The district is one of the important seats of the indigenous inhabitants and their unique cultural and historical background distinct from the other populations of the region. The Puranic texts mention a group of people who seem to be the aborigines belonging to this region. According to O' Malley "...large proportions of the population are of aboriginal descent... and during the last century the immigration of Santhals has largely increased the aboriginal element." The Santhals are one of the major tribes or groups of indigenous people housed in this district. They have their own remarkable cultural traits which include songs, music, arts and crafts. The Santhals have indigenous forms of beliefs and worships. Among their artistic creations are wall paintings (*deol chitra*). The *sohrai* paintings are significant and reflect various social, religious and cultural aspects of the tribe. It has been observed after an extensive survey of this indigenous community that their art forms are often the manifestations of the intangible aspects of their religious beliefs. Paintings on the clay walls of village huts reflect not only their daily customs, rituals, perception regarding nature but also their religious beliefs, traditions and cultural heritage. Many of these themes are created on certain festive occasions. It is significant to note that in Birbhum district this community has varied artistic persuasions which portray their distinct identity and culture.

The present study was taken up after an extensive field survey of the Santhal villages. This study will highlight the unique art forms of the Santhal people emphasizing the *sohrai* paintings, their themes and significance and how tribal paintings can demonstrate the heritage of this community and the region. It is also important to sustain the cultural heritage and the visual art forms of this indigenous population involving an inter-disciplinary approach which will also be a part of the present study.

Durga Basu

***Rare Images of Lalita in the Art of Bengal: An Icono-plastic Study***

Bengal is considered as one of the greatest seats of *Sakti* worship. Different forms of *Sakti* manifested in the early medieval period, either in terrific or benign forms. While studying the various images of *Sakti* we come across Lalita, a benign form of *Sakti* and her consort Siva. It is believed that she is the embodiment of Siva and *Sakti coupled together* in one form. During the ninth and tenth century worship of Lalita was very popular in Bengal, although her worship was also prevalent in South India. The Puranic texts and Tantraraja Tantra are explicit about the origin of goddess Lalita. The texts give detailed descriptions of the iconographic features of the goddess and also of the many stories associated with her. According to the Puranas she is the very abode of the sole sentiment of love. She is the embodiment of Brahman, the soul of elegance and beauty of Brahman. In Bengal, some rare images of the goddess Lalita have been discovered. These images have distinct iconographic features and style. According to the descriptions in the Brahmanda Purana, the image of Lalita is usually adorned with attributes such as a noose, goad, bow and *sakti* in her four hands. But sometimes deviations from the textual references are also noticed and some unique attributes are seen to be associated with her. The present paper will highlight the icono-plastic features of these images and will compare their features with those found in other regions of India.

J. Bates, C.A. Petrie, K.D. Thomas, R.N. Singh

***Identity in the Indus Borders Project: Diet, Agriculture and Social Interactions with the Indus Civilisation, South Asia (c.3000-1500 BC).***

Food is a crucial part of social life. The acts of acquiring, preparing and eating food go beyond simple sustenance to make statements about identity and shape interactions on a daily basis. This is especially important during periods of social change and when different societies make contact and interact. Despite a century of research, the Indus Civilisation (c.3000-1500BC) has generally been treated as a monolithic, unilinear and isolated culture, with little discussion of how this extensive Bronze Age society fitted into the broader landscape of South Asia. However, in more recent years, through reanalysis of the ceramics, artefacts and archaeobotanical data it has become apparent that the 'similarities' across the Indus are part of a 'veneer of Indusness' masking great variability in both material culture and social structures. The idea of the Indus as a veneer has implications for models of social interaction with bordering cultures, and for how daily markers of identity such as food may have been exploited. The aim of this project is to reconstruct the dietary and agricultural activities of people on the borders of an urban civilisation to further expand knowledge about 'peripheral' societies and how their daily lives were affected by social change. This paper will introduce the project, preliminary data analysis, and discuss how it intends to progress over the next three years.

Priyanka Benille

***Recent Observations on the Symbolic Nature of the Indus Script***

Some iconographic correlations can be observed between the signs of the Indus script and the signs of the round stamp seals of the Dilmun civilization (2000-1800 B.C.). Also some Indus script signs provide iconographic clues to understand the symbolic meaning of such Indus signs themselves. It appears that the majority of Indus signs symbolically represent Indus divinity, numerous trees, guardians of plants and trees, shrines, seated worshippers or priests engaged in ritual, and other agricultural, fertility and ritualistic meanings. It also appears that applying the rebus principle to the Indus signs and inscriptions in order to identify an underlining language may not be a promising way to decipher these inscriptions. It is true that a considerable amount of identical or quite similar sign sequences are found in various Indus inscriptions. This has led to the belief that similar sign sequences could be used as evidence for an underlining language. On the contrary, these Indus signs and identical sign sequences etc. could simply be religious, ritualistic and fertility related symbols and symbol sequences which were familiar to Indus inhabitants providing pictographic narratives with no underlining language. Brevity of these inscriptions comprising of single to a few signs may also be an indication for the symbolic nature of the signs in these inscriptions with no underlining language. Such symbolic nature may be a reason that even some of the signs resembling the Indus could have survived to be observed among the later megalithic signs.

Deeksha Bhardwaj

***Tiny Terracotta Tales: Versions, Veracity and Viewership***

Terracotta statuettes are a ubiquitous feature of archaeological sites across the world. Their human-ness has invited continuous scrutiny and attempts at interpretation from the moment of their initial discovery. The medium of manufacture - baked clay - along with detailed descriptions of features, anatomy, costume and headgear find mention in all excavation

reports. What is only alluded to is the context. Given the exactitude in reporting and the variety that consequently becomes apparent, it is surprising that in terms of classification, a singular ‘Mother Goddess’ type dominates the academic discourse revolving around them.

This paper will begin by giving an overview of the scholarship on the subject and by doing so it will look at what has been learnt and what perhaps needs to be unlearned. An assessment of the Mother Goddess debate will help uncover the biases that have become embedded within it by the sheer dint of repetitive usage over a long time. Any tangible material object is a product of its time and equally, contains within itself contemporary patterns of usage, both prosaic and symbolic. Do the terracottas give us any indication of their coeval production and consumption? Moreover, the ritual use imbued in the term ‘Mother Goddess’ begs the questions of context ascertainment and consensual academic agreement as to the ritual markers. Can social relations be unambiguously inferred from artefacts in the absence of relevant literature and ethnographic parallels? Shall the distant past forever remain an inescapable conundrum of presentation, representation and misrepresentation?

These are some of the questions that this paper will grapple with through a study of terracottas obtained from two sites in north India – Harappa in Punjab and Mathura in Uttar Pradesh. Both sites have long periods of occupation, and well-documented finds of terracottas. Through a close examination of the evidence, the paper aims to touch upon issues of gender and ritual as they may be manifest in this artefact type and thus unveil the multiplicity of meaning and usage that may be derived instead of trapping them in monolithic and rigid categories.

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Cristina Bignami

***Peculiar Iconographies of the Hoysala Dynasty: Sculptures as a Trademark of Sovereignty***

Among the various sculptures created by the Hoysala artists between the twelfth and thirteenth centuries, is a curious iconographic couple: a man wearing a long robe and an unusual headdress together with a woman, completely naked, with sandals on her feet surrounded by snakes. Both of these figures hold a stick. The recurrence of this subject in many temples, and the important position in the register of sculptures suggests that this iconography was already codified in the early twelfth century in the early days of the dynasty. The focus of my presentation is to analyse the development of these representations in correlation with the religious and political context: at the beginning the two iconographies that have been sculpted together while in the course of time they have been carved separately.

In addition to iconographic analysis, epigraphic sources will be studied with the aim of relating the artistic production with the construction and legitimation of the dynasty. Controversial interpretations of the meaning of these representations open up the lively debate around the local cults in medieval Karnataka and at the versatile royalty of the Hoysala dynasty.

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Swati Biswas

***The Unresolved Questions of Timurnama - the First Historical Mughal Project***

The undated manuscript, *Timurnama*, was illustrated at Akbar’s atelier probably at Fatehpur Sikri in the 1580’s. Today it is preserved in the Khudabaksh Public library in Patna, Bihar. The intriguing part of this manuscript is the amount of violence depicted in it.

From the 1580's Akbar commissioned some historical works like the *Tarikh i-Alfi*, *Baburnama* and *Timurnama*. The *Timurnama* was the first work to be completed. This work covered the history of Timur up to the time of Akbar. Thus Akbar's enthusiasm - like his father and grandfather - for having ancestral lineage to Timur became very obvious. This project was therefore not a casual choice and hence the 'literary references and visual images of Timur became profuse.' The manuscript is the precursor to all the later historical manuscripts. The book contains one hundred and thirty-three illustrations of which eighty-three are devoted to Timur's life and only the last eight to Akbar. This arrangement again is very strange. The work due to its sheer amount of illustration is distinct in the genre of historical work in the Islamic world of Asia. Again this kind of organised presentation of any historical scenes was a new venture in a Mughal atelier.

Akbar from the initiation of his atelier insisted to move away from the usual display of West and Central Asian violence. The paper will try to probe as to why he shifted from his position. Was it for the depiction of reality as it was a historical account? Was the ideology of the Mughal Empire shifting? Was the Emperor now mature enough to tackle visual violence in his atelier's illustration? A comparative study of few earlier illustrations along with some contemporary illustrations can possibly give a suitable answer. Again in spite of being a unique project the treatment and effect is rough. 'The scenes seem completely indifferent to those subtleties of design of which the painters of the *Hamza-nāma*, the first project of Akbar's atelier, were still vitally aware.' Therefore it is also important to find an answer to this. If activities in Akbar's atelier were the face of his empire then does the treatment of this particular manuscript gives some major information about the history of the empire? The paper wishes to probe these questions through the analysis of this manuscript.

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J. Blinkhorn, H. Achyuthan, P. Ajithprasad and A. Mukherjee

***The Gateway of South Asia: Archaeological and Palaeoenvironmental Evaluation of Modern Human Expansions in Western India***

Throughout the Late Pleistocene, South Asia has offered suitable habitats for human occupations that stands in contrast to the Saharo-Arabian desert belt immediately to the west, in which short pulses of humidity opened corridors of expansion that were repeatedly and dramatically closed by extreme aridity. The transition from the Saharo-Arabian desert belt to the monsoonal mosaic ecologies of South Asia marks a critical tipping point in the earliest dispersals of modern humans and it is across this threshold that we took the key steps to successful global colonisation, removing the threat of extinction but necessitating engagement with new climates, ecologies and landscapes. In this presentation, we will briefly set out alternate models for the earliest human expansion into South Asia, before synthesising the results of recent interdisciplinary fieldwork activity undertaken in Rajasthan and Gujarat that has been conducted since 2010. By setting analyses of Late Acheulean, Middle Palaeolithic and Upper Palaeolithic stone tool technology within an environmental and chronological framework we are able to both explore which technologies may have been critical in successful expansion and test the predictions of the alternate models to evaluate their (current) validity. These results will then be situated within an inter-regional perspective, first through comparisons across South Asia and subsequently by incorporating recent evidence from South-West, Central and South-East Asia. In the face of a rapidly changing archaeological record, our support for any particular model may be tentative, but ultimately this presentation will highlight the key role South Asia played in the global expansion of modern humans

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Osmund Boppearachchi, Sanjyot Mehendale and Nuwan Abeywardana.



### ***The Avalokiteśvara Survey Project: Buddhism and Maritime Trade in Ancient Sri Lanka***

This paper aims to present the preliminary results obtained from the *Avalokiteśvara Survey Project* launched by the Center for Buddhist Studies, UC Berkeley and the National Center for Scientific Research (CNRS-ENS) in Paris, in collaboration with the Department of Archaeology in Sri Lanka. Using GIS mapping software to uncover spatial and temporal patterns, this project's aim is to investigate the relationship between Buddhism and maritime trade in Sri Lanka and beyond. Archaeological data on the distribution of the most important ancient ports and emporia of the island provide clear evidence for international contacts established among merchant communities across the Indian Ocean littoral, as well as for the regional trade network between South India and Sri Lanka. As revealed by epigraphic and literary evidence, among the earliest donors and important patrons of Buddhist establishments in South Asia were caravan merchants and wealthy seafaring traders. The spread of Buddhism from South Asia to Southeast Asia is also closely connected with the growth of a trading network that facilitated the movement of Buddhist merchants, travelling monks and teachers. Most importantly, in the course of this research, a pattern emerged in the distribution of early Buddhist monastic institutions in relation to the main loci of mercantile activities. The Mahāyānist images erected in sanctuaries built at the mouths of rivers or bays facing the sea or inland along the navigable rivers are those of Avalokiteśvara in his role as the patron of mariners confronted by the inevitable perils of distant voyages.

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Natasja Bosma

### ***Doorway Iconography of Śiva's Abodes in Sirpur, Dakṣiṇa Kosala***

Both from a devotional and an iconographical point of view, the doorway of a temple is of great importance. Entering the temple is a transition from public to divine space: the doorway leads the devotees to the heart of the temple, the place where they can meet and communicate with their god, manifested in the sanctum image. Therefore, to stress its importance as a religious threshold, the temple doorway is commonly adorned with beautiful images and representations of the residing deity. Especially in the case of Śaivite temples, these images are important, because they show Śiva in his iconic forms, whereas the central image in the sanctum is usually a *linga*, Śiva's aniconic manifestation. Thus, the choice of the particular representations used in the doorway iconography can inform us about Śiva's manifestation in the temple, and, based on that, may say something about the specific cult that was present at the time. Also, on a more general level, the doorways provide insight into the iconographic motifs that were known to the area at the time the temple was constructed.

To put this information in context, I will focus in this presentation on the doorway fragments of Sirpur, the ancient capital of Dakṣiṇa Kosala, where king Śivagupta Bālārjuna ruled at the end of the sixth and the first half of the seventh century ce. At an excavation site as extensive as Sirpur, where a staunch supporter of Śaivism held sway for nearly sixty years and numerous temples from this period have been unearthed, one would expect to find at least a few Śaivite doorways. The result is therefore disappointing, for Śivagupta's heritage did not yield even a single intact doorway of a Śiva temple. The only material to work with consists of a few loose doorjambs and some doorway fragments scattered over the site. Notwithstanding their limited number, however, they certainly add to our knowledge of the preference of certain iconographic types in the doorway iconography of Śiva's abodes in Dakṣiṇa Kosala.

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Pia Brancaccio

***Rock-cut Monumental Images in Sri Lanka: Preliminary Surveys and New Interpretations.***

By the eighth century colossal images carved in the living rock punctuated the Buddhist landscape from Central Asia to China, to Western India and Sri Lanka. The diffusion of monumental rock cut images constitutes a significant yet overlooked chapter in the art historical tradition of Sri Lanka where a few impressive icons still stand today. The Gal Vihara at Polonnaruwa is the best-known example of a constellation of sites associated with the phenomenon of Buddhist monumentality on the island. The paper will discuss the preliminary results of surveys conducted at the sites of Avukana, Dova, Sasseruwa, Buduruwagala and Maligawila where Buddhist images of colossal sizes were carved in the living rock and will attempt a reconstruction of the physical and devotional contexts associated with the colossal images, as well as the cultural atmosphere associated with their creation. Moving away from discussions dealing with chronologies and iconographies of the monumental icons, the paper will suggest an alternative framework of image analyses that explores issues related to patronage, placement in the territory, functions of icons in the landscape, and association with long distance trade. I hope to show that monumentality is interwoven with ideas of kingship, and with the formation of a transnational Buddhist collective memory; ultimately I believe that it is possible to relate this Sri Lankan artistic phenomenon to the wider diffusion of monumental images across South and Central Asia.

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Gudrun Bühnemann

***Hanūbhairava in Nepal***

Hanumān emerged as an import deity in seventeenth- and eighteenth-century Nepal. The kings of the late Malla period placed statues of the deity as gatekeepers in front of the entrances to their palaces. Hanumān was featured on royal banners and his effigy was placed on columns set up on roofs. The five-headed Hanumān, locally known as Hanūbhairava, became especially important. The deity came to occupy the important position on lintels of entrances leading to temples and is seen at the apex of tympana above temple doors. In this paper I will examine representations of the five-headed Hanumān from Nepal, based on published and unpublished sculptures, paintings and line drawings.

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Anne Casile, Jason Hawkes, S.B. Ota, Claudio Rubini

***Changing Cultural Landscapes and Climate in Late Medieval Times: Introduction to the Mandu Project and Preliminary Investigations***

Society in “late medieval” South Asia experienced some major developments through a series of sociocultural and political changes - as earlier Hindu kingdoms gave way to new Islamic states -, and extreme climate events and “anomalies”. Traditional histories have not investigated the complex relationships between these developments, meaning that our understanding is still and largely limited to sectarian narratives of conquest and invasion.

The Mandu project seeks to investigate this topic by focusing on Mandu, the ancient capital of the Malwa Sultanate, and its region in Central India (District of Dhar, Madhya Pradesh).

Mandu is one of the most remarkable archaeological cities that has remained relatively untouched by the recent and rapid pace of urbanisation. Perched on an outcrop of the Vindhyan Range, overlooking the Nimar Plains of the Narmada River basin, the site developed as a major population, trade, military, political and religious centre. Shaped by centuries of occupation, its archaeological landscapes preserve numerous remains and markers from past human and environmental activities. These form a unique and rich sample universe to explore society/environment/climate interactions, the transformations of cultural landscapes (along with the rise of Islam), and the relationships between societal changes and climate “anomalies” in late medieval times.

How did people and society live in and transform the environment to adapt to hydro-climate variation and risks, and sustain a large and diverse population in a semi-arid environment? How did socio-cultural and political transformations and environmental exigencies fashion the use of the landscape and (re)shape the built environment? How were changes in the cultural landscapes related to climate anomalies? What role, if any, did climate and environmental disasters play in these transformations?

These are some of the questions which the Mandu project seeks to address. For the time being, this presentation will introduce the project’s objectives, research design and methodological issues, and provide insights into the significance of Mandu, its cultural landscapes and built environment.

Alessandro Ceccarelli

***Indus Civilisation and the Protohistoric Ceramic Industries in North-Western India: a Compositional and Technological Reassessment.***

Since Painted Grey Ware (PGW) was first identified in Northwest India in 1945, our knowledge about this ceramic ware and the communities that produced and made use of it has developed only marginally. Archaeologists still struggle to fill the gap between the decline of the Indus Civilisation and its ceramic industries (c. 1600 BC), and the appearance of PGW pottery (tentatively dated around 1200 BC), which has been often associated, in keeping with the prevalence of Culture-History models in South Asian archaeology, with the movement of ‘Aryan peoples’, and the subsequent re-emergence of urban sites in the Upper Gangetic valley. This obscure period (1600-1200 BC) took the label of ‘Dark Age’, and a number of controversial hypotheses have been put forward in order to better understand the spread of PGW: the theory of an Aryan invasion is just one example.

Moving away from Culture-History models, comparative ceramic analysis may provide an empirical basis for assessing whether the production of PGW was an autochthonous phenomenon; in fact, PGW can be understood as closely related to wares of the Late Harappan phase: either it was initially produced in the same period of the Indus Post-Urban phase, or it emerged independently after its decline. Traditional and scientific analysis of Harappan pottery and PGW will result in a major reassessment of production, use and distribution of Indus and other regional wares, and the lower chronological limit of the PGW will be reconsidered. In this presentation, seventy years of archaeological research on the topic will be reviewed, and preliminary results of petrographic analysis of ceramic materials from Alamgirpur, Uttar Pradesh, and Bahola, Haryana, will be considered in order to present a more nuanced approach to the study of ceramic industries in Bronze Age North-Western India.

Brad Chase, David Meiggs, P. Ajithprasad, Prabodh Shirvalkar, Lalit Pandey, Teresa Raczek

***Livestock and Landscapes: Searching for Migratory Pastoralists Using Biogenic Isotopes from Harappan Gujarat and Adjacent Regions***

Migratory pastoralists loosely modelled after historically and ethnographically known communities in South Asia and elsewhere have loomed large in the development of explanatory hypotheses regarding the emergence, economic organisation, and decline of the Indus Civilisation. In Gujarat, for example, migratory pastoralists have been integral to explanations of the initial settlement of the region by Indus peoples during the Regionalisation Era (3500-2600 BC), the maintenance of interregional trade connections during the Integration Era (2600-1900 BC), as well as shifts in settlement associated with the transformation of Indus society during the Localisation Era (1900-1300 BC). Few studies, however, have specifically addressed the ways in which ancient Indus pastoralists actually raised their livestock. Biogenic isotopes incorporated into the teeth of domestic animals consumed as food at ancient archaeological sites provide an ideal source of data offering detailed insights into patterns of pastoral land-use through time. Specifically, ratios of different isotopes of strontium and carbon in the tooth enamel of ancient domestic animals' teeth provide information regarding their geographic mobility and diet, respectively, during the first year of their lives. Over the last several years, our team has collected isotopic data from a large sample of individual animals from a series of archaeological sites spanning the Regionalisation, Integration, and Localisation eras in Gujarat as well as the recently excavated Ahar-Banas site of Pachamta in adjacent Rajasthan. Here, we use this data to specifically explore the evidence for migratory pastoralism in the context of the Indus Civilisation.

P.J. Cherian

***The Material Culture as Reflected in the Architecture Features of Pattanam (Muziris?) Port Site, India***

*“It was the work of the best craftsmen from the cool Tamil country, together with sculptors from Magadha, skilled in working rare stone, goldsmiths from Maratha country, blacksmiths from Avanti, and Greek (Yavana) carpenters. The tall columns were fashioned of blocks of coral, their wooden capitals supporting beams encrusted with precious stones from which fringes of white pearls hung here and there. The dais was of cloth of gold, magnificently worked. The floor was not as usual covered with a layer of cow dung, but had been lined with gold plates”.*

On the craftsmanship of a South Indian port-city, from the Early Historic Epic *Manimekhalai* by Merchant-Prince Shattan. Translated by Alain Danielou (1989) p. 81.

Architectural interpretation of archaeological sites is critical to understand the character and material culture of the society under study. Built environment is capable of expressing and structuring social interactions. Functional considerations, spatial planning, building materials, building styles, etc., can reflect the technological and creative aspirations of the society.

The substantial quantity of non-Indian artefacts at the Pattanam site lays stress on its commercial interface with the Indian Ocean, Red Sea and Mediterranean littoral during the early historic period (3<sup>rd</sup> c BCE to 5<sup>th</sup> c CE). The Roman trade influence (1<sup>st</sup> C BCE to 4<sup>th</sup> c CE) at Pattanam is conspicuous and reveals its critical role in the first trans-oceanic exchanges in human history.

The architectural features at the Pattanam site reflect the urban or planned lifestyle. Remains of the built structures are indicative of the residential, commercial, maritime and industrial characteristics of the settlement. There were post-holes, a variety of brick walls, floors, platforms, pavements, tanks, a wharf and a kiln or furnace context. The associated finds were wattle and doab parts, toilet features, drainage contexts, ring-wells, storage jars, roof tiles and iron nails. A large quantity of potsherds, brickbats, laterite crumbs and tile fragments suggest their use as reinforcements or fillers. Toilet features reflect the concern for hygiene, respect for privacy (emanating from self-respect) and technological acumen in designing sanitary provisions. The amount of planning, organisation, time and labour which went into the making of “Muziris Pattanam” is impressive. Building materials are predominantly local. One striking aspect of the architectural features of Pattanam is the “human-scale dimension” compared to the imperious or mighty architectural dimensions elsewhere in the same period.

Mehreen Chida-Razvi

### ***Re-evaluating the Building Programme of the Royal Tomb Complex of Shahdara***

The Royal Mughal Tomb Complex of Shahdara, outside the city of Lahore, Pakistan, today consists of the funerary gardens of the Mughal emperor Jahangir (r. 1605-27), his wife, Nur Jahan, and her brother, Asaf Khan. These three burial gardens are exceptionally important, being described as ‘the last examples of early Mughal tomb garden design’ (Westcoat et al., ‘The Shahdara Gardens of Lahore: Site Documentation and Spatial Analysis,’ 1990), referring to gardens that were constructed as square enclosures with a tomb at the centre. As the construction of Asaf Khan’s and Nur Jahan’s tomb gardens at Shahdara were a direct result of Jahangir’s already being located there, these three funerary spaces must be discussed as a unit, referred to here as the Royal Tomb Complex of Shadara.

It is known that the first of the three mausoleums to be constructed was Jahangir’s; his tomb complex was completed in 1638. Due to the layout of the Royal Tomb Complex, in which Asaf Khan’s tomb garden is directly west of and on axis with Jahangir’s, it has been accepted that Asaf Khan’s was the secondary funerary complex to be completed, followed by Nur Jahan’s. Hers is constructed southwest of the others, creating a spatial arrangement which is incongruous with what would be expected of a royal architectural complex. While indisputable that Jahangir’s tomb complex was the first of three to be constructed, the order of the construction for Asaf Khan’s and Nur Jahan’s tomb gardens is actually unclear.

This paper will argue that Nur Jahan’s funerary garden was in fact begun before Asaf Khan’s and that the latter was a later addition which disrupted the original layout of the Royal Tomb Complex of Shahdara, initially intended to be the funerary site solely of the royal couple - Emperor Jahangir and his Queen. My contention is based upon satellite imagery and site examination, by taking into account the political and personal circumstances of Nur Jahan at the death of Jahangir, and by considering earlier research on spatial analysis of the Shahdara gardens.

Elisa Cortesi

### ***Sohr Damb/Nal: Preliminary Results from Typological and Archaeometric Studies of Pottery***

Nal pottery represents one of the most impressive prehistoric ceramic traditions of Baluchistan. The site where it was found is located near Khuzdar, Sohr Damb/Nal, and was excavated by the German-Pakistani Mission to Kalat between 2001 and 2007. As a result, a

sound stratigraphical system and a large amount of artefacts enable a more comprehensive study of the ceramic assemblage of Period II (ca. 3100–2800/2700 BCE). Questions on variety, diachronical distribution and evolution of pottery types, as well as function and craft specialization can now be properly addressed. New results from archaeometric analyses on pigments of painted ceramic samples provide a clearer picture of the raw materials and pyro-technologies used for crafting the Nal polychrome pottery.

This paper will deal with the preliminary interpretations of these on-going studies and will focus on the regional and supra-regional interactions of the reference corpus about to be completed.

Madhuri Desai

### ***Archaic Knowledge and the “Benares Temple”***

Although temples constructed across South Asia after the twelfth century have received recent scholarly attention, their role as mediators in shaping and enhancing political and social identities has been less thoroughly explored.- Such considerations are evident in the temples built at the Hindu pilgrimage city of Banaras between the seventeenth and nineteenth centuries. Across South Asia, political consolidation by various Indo-Islamic (Sultanate and Mughal) regimes was accompanied by a preference for novel as well as archaic forms on the part of patrons who were intent on making visual statements of cosmopolitanism, conciliation and even resistance.- Besides their roles as shrines for significant deities, temples in Banaras also anchored the city’s recently refurbished pilgrimage landscape. The desire of aspirational patrons to fashion social roles and identities ensured that parochial, yet time-honored, formal preoccupations flourished alongside more contemporary options. Mughal-inspired vaults, late-Mughal domes and archaic *shikhara* forms variously marked cosmopolitan or authentic Hindu identities as newly-minted aristocrats successively addressed knowledge circuits in the Islamic and colonial worlds. Such confluences baffled colonial historiographers who viewed them as “inauthentic” and gave them a pejorative label, “Indo-Saracenic.” The desire to seek and define authenticity, however, was shared by Indian historians who contrived to present the eighteenth and nineteenth - century “Benares temple” as a natural successor for “classical” temples built during the eleventh and twelfth centuries. Using key examples, this essay explores the relationship between politics, architectural form and shifts in architectural knowledge making through three centuries of temple construction in Banaras.

Aurore Didier, Pascal Monge and David Sarmiento-Castillo

### ***New Light on the Beginning of the Indus Occupation at Chanhu-daro. Results of the 2015-2016 Fieldwork in Southern Sindh by the Pakistani-French Archaeological Mission in the Indus Basin***

This paper presents the results of the 2015-2016 fieldwork in southern Sindh by the French Archaeological Mission in the Indus Basin in cooperation with the Culture, Tourism and Antiquities Department, Government of Sindh, and with the support of Department of Archaeology and Museums of Pakistan.

Through new surveys, excavations and environmental studies, along with a systematic comparison with the data collected by the French Missions in Balochistan, the objectives are to re-examine the chrono-cultural sequence in the Lower Indus Valley and provide a new insight on the transitional phase between the pre-Indus and the Indus periods. Besides explorations in Sindh-Kohistan, the team resumed excavations at the site of Chanhu-daro

(Shaheed Benazirabad District) in 2015. This site, previously excavated by N.C. Majumdar (1931) and E.J.H. Mackay (1935-1936), was interpreted as an important Indus craft production centre. The chronological frame of Chanhu-daro was recently updated from comparative studies with the stratigraphy, pottery and artefacts discovered, for instance, at Kot-Diji, Amri, Harappa, Miri Qalat or Nausharo (Quivron 2000) showing the existence of remains dated to the first period of the Indus Civilization (2500-2300 BCE). However, the architecture corresponding to that period was little-documented during the previous excavations at Chanhu-daro. The aim of our current fieldwork is to collect more data on this very important phase of the Indus Civilization, and better characterize developments and changes in architecture and material culture.

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Anna Filigenzi, Zafar Paiman and Michael Alram

***Afghanistan's Pre-Islamic Archaeology: Vulnerability, Resilience and Perspectives***

The resurgence in Afghanistan of never-ended conflicts, especially from 2004 onwards, and the general disarray of the logistics related to cultural heritage have noticeably reduced, if not suspended, the possibility for international teams to carry out long-term projects such as archaeological excavations and the associated procedures of documentation, conservation, restoration and musealisation that are inseparable from a correct practice of archaeology. At present, very few excavations are being carried out by the Afghan National Institute of Archaeology, and these are mainly at Buddhist sites: Tepe Narenj and Qol-i Tut in the area of Kabul (excavations directed by Zafar Paiman), and the large scale but problematic 'rescue excavation' at Mes Aynak, in Logar province (40 km southeast of Kabul).

Thanks to a specific agreement with the Afghan National Institute of Archaeology, the Italian Archaeological Mission in Afghanistan is lending support to the excavations at Tepe Narenj and Qol-i Tut. The collaboration (which also includes the numismatic expertise provided by Michael Alram) aims at promoting an effective exchange among different research units which may help to establish correspondences between new and old archaeological documentation, appraise fresh additions and outline new research lines.

This paper will briefly illustrate the preliminary results brought by cross-comparison of different archaeological contexts, also including Mes Aynak, although information on the latter is of a purely random nature. The main focus will be on the little-known system of art-making in ancient Afghanistan, and on the circulation and trajectories of artistic models, most probably involving mobilisation of artisans as well. Some specific issues will be examined with regard to the media and polychromy of the clay sculptures, in particular the use of red clay and the apparently incongruous use of blue colour for hair and eye contour.

The numismatic evidence from Mes Aynak, Tepe Narenj and Qol-i Tut is also exceptional. Especially in Tepe Narenj and Qol-i Tut the coin finds are perfectly documented according to their archaeological stratigraphy. The chronological framework of the coin finds stretches from the Kushanas to the Sasanian, Hunnic, Turkic and Islamic periods and provides an insight into the regional and supra-regional monetary circulation of the area.

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Anaïs Da Fonseca

***Beyond Temple Paintings: Towards an Alternative History of the Telangana Scroll***

In the Southern Indian state of Telangana, itinerant storytellers narrate genealogies of the local castes using long scroll paintings on cloth as a visual aid to their performance. The oldest scroll collected dates back to 1625 and belongs to Jagdish Mittal, a major collector and

scholar of Telangana paintings. In his writing, J. Mittal compares the scrolls to the 16<sup>th</sup> century painted ceiling of the Veerabhadra temple at Lepakshi in Andhra Pradesh and sees them as a continuity of the Vijayanagara and later Nayaka tradition of long painted narratives on temple walls and ceilings. This paper challenges J. Mittal's linear view that the Telangana scrolls originated in the courtly arts of the 16<sup>th</sup> century South India. Instead, I propose an alternative approach to the history of these paintings in adding to my consideration other folk art forms that developed in parallel over time. These may have influenced the Telangana scrolls as much as the already acknowledged references to courtly paintings and should be treated equally. To support this methodology, I will present scrolls from J. Mittal's collection and the British Museum, ranging from 1625 to the 19<sup>th</sup> century. In the first part, I will re-examine J. Mittal's comparison between the earliest scroll and the paintings at Lepakshi, and take it further to later temple paintings such as those at the Virupaksha temple in Hampi. In the second part, I will introduce several other painting practices of the Deccan and South India, which show similarities with the Telangana scrolls, either in their storytelling function or in their materiality. For instance, the South Eastern Kalamkaris share technical features and format with the Telangana scrolls, while the Pinguli paintings indicate stylistic resemblances. I will also look at the Rajasthani Phad paintings for their materiality, style, and function. The variety of possible interactions between the Telangana scrolls and both courtly and folk art forms makes it difficult -and perhaps redundant too- to search for a single hypothetical origin for these paintings. As a response, this paper aims to present a more organic understanding of the region's cultural developments between the 17<sup>th</sup> and 19<sup>th</sup> centuries.

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Dennys Frenez, V.N. Prabhakar, R.S. Bisht

***Administrative Clay Sealing Technology from the Indus Site of Dholavira (Gujarat, India).***

The paper presents the recent morphological and functional study of the clay sealings and terracotta tokens found at Indus Civilization (or Harappan) Bronze Age sites, with specific reference to the administrative indicators of these types found at Dholavira (Gujarat, India). Dholavira, being the largest multi-walled site in the region of Gujarat, adds important information to our knowledge of the administrative system adopted at Indus sites. Earlier studies of Indus bureaucratic procedures and technology were based on the analysis of clay sealings from much smaller sites, such as Lothal, Gola Dhoro, Kalibangan and Shikarpur, which had subordinate and specialized roles in the social-economic hierarchical organization of the region.

In the Indus Civilization, sealings and tokens were produced by stamping one or more seals on a lump of wet clay to close containers for administrative purposes or to create moveable impressions of a seal. After opening a certified container, the unfired sealing was either discarded in the trash or deposited in an area where it could be accessed as a record of the transaction. Tokens were instead fired and circulated as a record of transactions or to delegate specific information originally conveyed by the seal used to create the token. Clay sealings and terracotta tokens are relatively rare at the Indus sites but, when preserved by unique depositional processes, they provide an important source of information on the nature of the local administrative management of economic activities.

In ancient state-level urban societies, administration became the main instrument to further expand the economic control beyond parental groups, with the bureaucratic formalisation of multi-tiered transversal alliances. Administration was probably a fundamental aspect in the complex system of shared rules and beliefs that allowed the cultural and social-economic integration at the base Indus phenomenon, and also sustained its geographic expansion and chronological extension for more than six centuries.



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Marion Frenger

***The Bearded Sun God in Mathura and Beyond - On the Sources and Implications of a Rare Feature in Surya Iconography***

Images of Surya with a beard are scarce; while the beard is a regular feature of Pingala, one of his attendants, only a few examples of the sun god himself with a full beard are known. Among them is, however, the well-known red sandstone sculpture of the seated Surya now in the Ashmolean Museum Oxford. Why such images were created has not been fully understood. The fact that this feature was even adapted in one of the earliest images of the sun god from Mainland Southeast Asia indicates that it must have been more than just the whim of a few sculptors or donors.

This paper will re-examine the extant examples of the bearded Surya before a new possible source for this particular feature will be suggested focussing on the Oxford Surya. Furthermore it will be shown how even such seemingly marginal features can add to our understanding of the particular position the sun cult held in the religious landscape of North India during the 5th-7th century A.D.

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Amna Saeed Gillani

***Water Architecture in Mughal Lahore: A Deviation from Architectural Convention***

During the Mughal rule (1526-1857 CE) there were no boundaries between the present day region of India and Pakistan and apparently the architectural representation in all the three Mughal capitals i.e. Delhi, Agra and Lahore refers to the same tradition. Though this idea prevails widely, a closer analysis of the water structures leads to a different interpretation. This paper argues that in the case of water structures a rather varied approach is observed in Lahore and the similarity of fountains and pools is by no means to be taken as a similar water architectural tradition in all three cities.

The first instance is the absence of step wells or Baoli (many other indigenous names like vāv, baori and bawdi etc) in the region of Lahore. Numerous step wells dating from the pre-Mughal as well as Mughal period are extant in Agra and Delhi, as well as at Fatehpur Sikri but it is almost impossible to find a counterpart in Lahore. These findings are based on the field research and meticulous study of some contemporary texts. The only step well found in Lahore essentially dates from the later Mughal period (second half of 18th century) but an overall rejection of this form is evident from the historical facts of Lahore.

Another striking exception can be seen in the less known tomb of Nadira Begum (d. 1659 CE), wife of prince Dara Shikoh, heir-apparent of Shahjahan. It is the only Mughal imperial tomb to be built in the centre of a large water tank. Though certain tombs were found in other preceding dynasties like those of the Tughlaqs and Suris, it is hard to find any similar tomb in Mughal convention. Little is known about the background of Nadira Begum's tomb but its setting presents yet another questioning representation of water in the city of Lahore.

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Suchandra Ghosh

***Studying the Port of Barygaza/Bharukachchha Through Text and Archaeology (1<sup>st</sup> Century CE to 12<sup>th</sup> Century CE)***

Barygaza/Bharukachchha functioned as one of the most important ports on the west coast of India, upstream from the north of the Narmada River in South Gujarat. In spite of its ubiquitous presence in almost all books and essays on Indian Ocean trade network, the history as well as dynamics of this port remains to be fully explored. This presentation is thus a desideratum to holistically study this port town which is also described as *emporion nomimon* which according to Lionel Casson is a legally “limited port of trade”. The entry point to the study of this port is obviously the Periplus of the Erythraean Sea where Barygaza is mentioned twenty eight times, an indication of its popularity and importance. It was not only a landing place for cargoes but also a market centre. But beyond Periplus, the Indian textual sources including the Jatakas often refer to this port in the context of movement of merchants and merchandise. Recent reading of the inscriptions, datable to the early centuries of the common-era, at the Hoq cave in Socotra by Ingo Strauch also throws light on the fact that there were people from Barygaza who frequented or stayed in that cave as they mention that they were the residents of Barygaza.

An attempt would also be made to look at its hinterland and foreland matrix and it is within the twin contexts of these interlocking relationships that rise, consolidation and fall of this port would be studied. Here the hierarchical or rival relationships between ports become important as it raises certain questions like the decline caused by the rise of another port. The role of political authority is another area to be looked into. Archaeological findings from Hatab (Periplus’s Astacapra) would be used for understanding the environs. There were lulls in the life of this port but it never went into complete oblivion and the Geniza mentions a Jewish merchant at Broach indicating that it was active in 11<sup>th</sup>/12<sup>th</sup> century CE even though Cambay was the premier port. Thus a ‘combined’ method would be used to understand the nature of Barygaza/ Bharukachchha.

Aurora Graldi

### ***Cast in India and Donated in Nepal? The Case Study of the 591 AD Buddha in the Cleveland Museum of Art***

A metal image depicting a standing Buddha Śākyamuni in the collection of the Cleveland Museum of Art (1968.40) is generally acknowledged as the earliest metal image from Nepal on the basis of paleographic evidence (Slusser and Vajracharya, 1975/76; von Schroeder, 2001; Pal, 2003). There is, indeed, an inscription on the pedestal supporting the statue that provides precious information: it is dated to 313 of the Śaka Saṃvat, corresponding to 591 AD, and tells that the statue was commissioned by a Nepalese nun who resided in the Kathmandu Valley and was meant to be donated to a monastery situated nearby.

In this paper, I challenge the assumption that the CMA Buddha originated in Nepal and contend that it was cast in a center of Northeastern India and then brought to the Kathmandu Valley for the purpose of donation. The constructing and decorating methods employed by the artists to produce this image proves to be crucial to uncover the geographical provenance. The medium matters and metal images carry out through their material presence historical and context-bound information. Then, I draw the attention to a cluster of related portable metal images. Among them stands out a Buddha kept in the collection of the Metropolitan Museum of Art. It looks virtually identical to the CMA Buddha and offers not only a rare term of comparison but allows for further considerations on the production and consumption of metal images in ancient times.

The main issues addressed above, i.e. the transfer of an image from one cultural region to another by a pious donor and the existence of a copy, are complementary and have far-reaching implications. Can they help in identifying a popular image-type, highly requested

and recognised in different regions?

Within this argumentation, the concept of cultural mobility represents an effective theoretical framework for interpreting the phenomena of production and patronisation of portable religious icons at the very end of the Gupta period.

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Laxshmi Rose Greaves

### ***A Hoard of Gupta Period Terracottas from Katingara, Uttar Pradesh***

Ajai Shankar drew attention to a site near the village of Katingara in District Etah, Uttar Pradesh, where Gupta period moulded bricks and panels were illegally removed from twin mounds by local villagers in connivance with antiquities traffickers (Brodie and Renfrew 2001, pp. 33-37). The terracotta panels were said to have been inscribed and to have depicted scenes from the *Rāmāyaṇa*. What became of the panels in the aftermath of their removal from Katingara was never established. Since terracotta panels bearing Brāhmī inscriptions are rare among the surviving terracotta plaques of the Gupta period, with plaques from the Jind District in Haryana being the exception, it seemed plausible that a number of inscribed fifth-century panels in North American museum collections might hail from Katingara. In addition, based on an idiosyncratic style, several further panels without inscriptions in museum collections in Europe and North America could also be considered as originating from the same source as the inscribed plaques. Recently this theory was confirmed. The Gurukul Museum in Jhajjar houses several terracotta plaque fragments which are recorded as hailing from Katingara. These match in style and theme the panels I have collated from international museum collections and sales catalogues. This presentation will introduce these fascinating panels from the lost brick temples of Katingara and will also explore the locality and environs of the site.

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Krista Gulbransen

### ***Inscribing and Circumscribing the Portrait: A Case Study in Mughal-Rajput Artistic Exchange***

During the reign of the Mughal emperor Akbar, gifted royal portraits became essential tools of political diplomacy between the imperial court and neighbouring Rajasthani states. Given his interest in *firasa* (physiognomic divination) and his recognition of *darshan* as central to Hindu devotion, Akbar considered portraits of himself to be extensions of his royal body and, therefore, particularly potent pieces of political capital.

This paper aims to shed light on the importance of gifted portraits in Mughal-Rajput artistic exchange in the sixteenth and seventeenth centuries. While the relationships between Mughal and Rajput patrons may have had some impact on the formation of “Mughalised” Rajasthani painting styles, as is emphasised in the scholarship, I argue that Mughal portraits collected at Rajput courts were at least partly responsible for the introduction of a new portrait genre, recently redefined and produced at the Mughal court. Moreover, Rajput patrons and artists have often been portrayed as passive mimickers of imperial painting styles, an assumption disputed in this paper.

In order to argue for this shift in approach to the issue of Mughal-Rajput artistic exchange, this paper focuses on a late sixteenth century portrait of Akbar. The portrait’s style, multiple inscriptions, and painted additions reveal that it was produced at the Mughal court and was

subsequently collected in Rajasthan. I argue that the appended devanagari inscription, which incorrectly identifies the subject as Raja Jagannath of Amber, was added later in an attempt to assign the subject an identity. Engaging with the literature on pre-Mughal portraiture, I suggest that this relationship between image and text continued to shape indigenous, Rajput conceptions of portraiture, despite encounters with Mughal examples of the genre. The painting's most unusual characteristic is a narrow band of red pigment circumscribing the image of Akbar, as no other surviving Mughal portraits display this feature. I argue that this curious addition is further evidence of artists' experimentation with the aesthetics of portraiture. Thus, I read this portrait of Akbar as not only a transmitter of imperial portrait conventions to Rajasthan, but also as a site on which different notions of the portrait genre were mapped.

Nadeesha Gunawardana

### ***The Statues of Goddess Tāra in Sri Lanka and their Relevance to the Sea Trade.***

The influence of the Mahāyāna encouraged the practice of worshipping Bōdhisattvas within the Sinhalese Buddhist ritual. Information with reference to this cult can be seen in the *Mahāvamsa* as early as the time of Jetthatissa II (328-337 C.E.). Mahayāna Buddhism believed that the Bōdhisattva Avalōkitesvara was venerated as a protector of mariners. He also protected people from the eight perils.

In the year 1983, when the Department of Archaeology undertook an excavation at Tiriya, several Tara statues were discovered. The fact that Tiriya is situated on the right bank of the Yān Oya, one of the main openings to the sea routes of the East, may be the reason why souvenirs of mariners and merchants who were the frequent visitors to the Tiriya Buddhist shrine were left here. The Avalōkitesvara Buddha's as well as the Goddess Tāra's statues can be found in most of the ancient ports in Sri Lanka such as Muhudu Mahāvihāra and Mahatitta.

Tara is considered as the Buddhist saviour Goddess. She is also popular in Tibet, Nepal and Mongolia. The most widely known Tāras are Green Tāra, White Tāra, Red Tāra, Black Tāra, Yellow Tāra and Blue Tāra. The goddess Tara probably entered Buddhism around the sixth century C.E. The objective of this research is to identify the connection between the goddess Tāra and sea trade.

John Guy

### ***Tulu Nadu and the Enigma of the Buddhist Bronzes of Mangalore***

In the Saiva Manjunatha temple, Kadri, Mangalore are housed three spectacularly large and exemplary bronzes of major Buddhist deities, an enthroned teaching Buddha, a seated Manjusri, and an enthroned Lokeshvara with attendants. The latter image is importantly dated 968 CE, and none of these works would be out of place if discovered in a Chola setting with imperial associations. That they have been accommodated for much of their history in a Saiva shrine in the west coast city of Mangalore, in Tulu Nadu territory, therefore demands investigation.

These three bronze sculptures are the single most important corpus of early to mid-Chola Buddhist bronze preserved. The quality is akin to the finest imperial commissions recorded, and the Lokeshvara is dated a mere fifty years after the first recorded dated Chola bronze, the Parvati-Sivakami under worship in Karaivriam, Thanjavur district, dated 917 CE., a keystone in establishing the chronology of early Chola bronzes. If these three bronzes are indeed the

products of imperial Chola workshops, which seems highly probable, then their preservation and worship in far off Mangalore sets in motion a series of important questions about the political and diplomatic relations between the Chola court and the ruling Alupa clan in Tulu Nadu.

This paper sets out to examine the relationship between Chola Tamil Nadu and Alupa Tulu Nadu that these bronzes witness, in an attempt to better understand the nature of the Tulu Nadu polity. The Alupas appear to have been in a feudatory relationship with a succession of more powerful dynasties who ruled neighboring Karnataka at various times, most notably the Kadambas, Chalukyas, and Rastrakutas. Their relationship to Pandyan and Chola territories is less clear, and warrants investigation, if only to hold the promise of explaining the presence of these three masterpieces of Chola Buddhist bronzes sculptures in Mangalore.

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Muhammad Hameed

***Life Story of the Buddha as Depicted in Buddhist Diptych Type Portable Shrines from Gandhāra: An Introduction***

Gandhāran sculptors made small sized stone objects, alongside large sculptures and reliefs, for illustrating the life story of Buddha Śākyamuni. These tiny pieces, mainly in the form of diptychs, are referred to as Buddhist diptychs type portable shrines. These have carving on both sides. We also have some fragments of the Buddhist diptychs with plain exterior. Based upon their external carving, these shrines are divided into following four types:

Elephant and Rider Type  
Basket Man Type  
Brahmana Type  
Plain Exterior Type

The shrine interiors represent different life episodes of the Buddha and there are a couple of fragments which illustrate the entire life of the Buddha. In most cases, fragments of these diptych type portable shrines represent popular scenes whose parallel can easily be found in the general sculptures and reliefs from Gandhara. Some of these shrines repeatedly illustrate a couple of events, which were hardly known to the Gandharan sculptors but were very popular among the artists manufacturing the Buddhist diptychs. Study of these diptychs is vital in order to widen our scope of understanding the Buddhist art of Gandhāra. In this paper, an attempt has been made to introduce these objects and to highlight different aspects related to the iconography, function and origin of these miniature portable shrines.

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Adam Hardy

***Intertextuality in Vastushastras: Proliferation of the Kesari Series of Nagara Prasadās***

It is well known that canonical Sanskrit texts commonly incorporate earlier material, and develop through successive accretions. Architectural treatises, Vastushastras, are no exception. The sections on temple architecture in the eleventh-century, central Indian *Samaranganasutradhara* bring together texts from various regions and traditions (see Adam Hardy, *Theory and Practice of Temple Architecture in Medieval India*, New Delhi: IGNCA and Dev Publications, 2015). Chapter 56 of the *Samaranganasutradhara* is itself a collage of different texts on Nagara temples, the designs of which, if drawings are made from the textual prescriptions, prove to be tenth-/early-eleventh-century in character. Within that chapter, one

series stands out: twenty-five progressively proliferating prasadas beginning with one called Kesari and culminating in the complex Mehru type. This series seems to have had a long life, passed down through Vastushastras created at various moments of florescence in the Nagara tradition's history.

This paper presents work in progress for a project entitled *The Nagara Tradition of Temple Architecture: continuity, transformation, renewal*, funded by the Leverhulme Trust, exploring northern Indian temples across a millennium and a half through the monuments themselves, texts, and (contemporary) architectural practice. Western Indian texts on which we have begun to work range from the *Aparajitaprccha* (c. twelfth century) to the 1939 *Shilparatnakar* compiled by N M Sompura on the basis of a variety of surviving Vastushastra texts. With Sanskrit passages incorporated, and translated into Gujarati and into drawings, the *Shilparatnakar* gives us both access to otherwise unpublished Vastushastras, and insight into a twentieth-century scholar-practitioner's way of interpreting them. The Kesari series presented in the *Shilparatnakar* is a case in point. Its basis is a text called the *Vastushastra* (twelfth-century according to Dhaky, and a forerunner of the *Aparajitaprccha*). This swiftly departs from the equivalent series in the *Samaranganasutradhara*, conceiving of Nagara temple designs in a different way, and covering the entire range of Nagara temple types that had developed by the twelfth century. Teasing out the designs from the text independently of N M Sompura's drawings allows one to discover the extent that the text can be interpreted differently.

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Julia A. B. Hegewald

***Pādukās: Venerated Foot Imprints in the Jaina Art of India***

This paper will examine sacred footprints (*pādukās*) in the art of the Jaina community in India. Foot imprints of enlightened teachers and gods are honoured by most religious groups in Asia. There are Buddha-*pādas*, Viṣṇu-*pādas* and the revered footprints of Mary and the Prophet Muhammad. The particular appeal of venerating depictions of feet lies in the inherent contradiction that feet are considered impure in Asian cultures. The feet of an enlightened teacher or divine being, however, are believed to be so much purer than mortal beings that one touches the feet of these lofty creatures with reverence and by acknowledging one's own spiritual impurity.

Footprints are particularly widespread and popular in Jainism. This presentation will examine the earliest Jaina foot imprints from Mathura and trace the development of this genre over the centuries. Their height in popularity can be found under Muslim rule in the north of India, as the footprints were evidently considered non-figural by the Islamic forces and were usually spared, whereas statues of Jinas were regularly desecrated and destroyed. But what are the Jaina foot imprints really? Are they symbols of an absent presence, do they show the last contact of the feet of saints with the soil before enlightenment or are they in fact figural in so far that they show part of a body? Most *pādukās* are in actual fact not imprints but positive, high relief forms, refashioning the soles of feet and toes.

Another fascinating dimension of Jaina *pādukās* is that they offer both major groups of Jainism, Śvetāmbaras and Digambaras, the opportunity to venerate the same objects. With statues this is not possible due to disagreements about dress conventions. Foot imprints have a close relation to figural representations, but they are abstract enough not to show sectarian divisions. As such, *pādukās* represent a bridging element between diverse Jaina groups as well as between different world religions. The present paper will examine the widespread appeal of depictions of footprints and their varied meanings.

This paper presents so far unpublished, newly discovered research material from recent

fieldwork carried out in a number of Indian states.

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Megha Chand Inglis

***Partnerships with Technology: Transcultural Contexts of Western Indian Temple Traditions***

This paper pays attention to the variety of processes, knowledges and affects in relation to labour and technology involved in the production of temples by architects from the Sompura community of western India. By looking at the densely knitted hand intensive and machine oriented practices behind their temples, the paper queries the notion of decline that the Sompuras' conceptions are often represented as in relation to a long architectural regional lineage of temple architecture.

Are architectural aesthetics related to editing commands in computer drafting better seen as a struggle within late capitalist contexts or as a force of stagnation? Does the craftsman's work disappear with industrialised processes performed in various scales and types of factory work? How do we view the taking over of the human body by automated machines in pursuit of precision and profit? Are ongoing practices of the Sompuras and the networks of labour they are tied into best seen as fossilisations of grand traditions, pale imitations of the past, or are they better thought of as re-imaginings which breathe life with possibility and relevance through an ever emerging present?

Rather than treat their conceptions as sterile conclusions, as often posited, through evolutionary historical frameworks vested in the architectural object alone, the paper turns to the struggles, ingenuities and expediencies in the offices, work yards and factories of the Sompuras. Focussing on one recent case study in West Bromwich, UK, and its production in a 'CNC' factory in Ahmedabad the paper argues that the Sompuras are continually transforming and displacing their practices into new kinds of social practices and architecture. These have a profound relevance not only to the makers and users themselves, but play a role in understanding the different vantage points the community occupies in its relations with the past, querying the certainties of chronology.

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Shahnaj Husne Jahan

***Archaeological Exploration in Panchagarh District, Bangladesh***

Panchagarh (literally the 'five forts') is the northern most administrative district of Bangladesh and one of the eight districts of the Rangpur division. At present, it is bound on three sides by India: Darjeeling district on the north, Jalpaiguri and Cooch Bihar districts on the northeast and North Dinajpur district on the west. Thankurgaon and Dinajpur districts of Bangladesh are bordering Panchagarh on the south and Nilphamari district on the southeast. The soil is sandy, alluvial and bears close affinity with the soil of the old Himalayan basin. Underground layers of pebbles exist on the northern part of the district. Panchagarh district is divided into five upazilas. These are Panchagarh Sadar, Boda, Debiganj, Atwari and Tentulia. A village-to-village exploration was conducted by the author in all five upazilas along the rivers Karatoya, Atrai, Tista, Mahananda, Tangon, Dahuk, Pathraj, Bhulli, Talma, Nagar, Chawai, Kurum, Versa, Tirnoi and Chilka to document the archaeological heritage of the district and assess the archaeological potentials of the sites. The exploration has revealed eighty-six archaeological sites and monuments in the form of fortified cities, temples, mosques, tombs, mausoleums, mounds with structural ruins along with hundred ancient tanks roughly dating from the 6<sup>th</sup> to the early 19<sup>th</sup> century CE. The present author is also carrying out excavation at Bhitargarh, the largest fortified settlement in Bangladesh, in Panchagarh Sadar

upazila since 2008. This paper wishes to illustrate the findings of these explorations and highlight the archaeological details of the district to understand the distribution pattern of ancient settlements as well as their shapes and sizes.

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Michael Jansen

### *'Forma Urbis Mohenjo-Daro' - The Story Goes On*

Since digging commenced at Mohenjo-Daro under Sir Mortimer Wheeler, further questions regarding the urban form of the ancient site have been raised. While most scholars have repeated the standard description for 'cities' consisting of a western higher 'citadel' and an eastern 'Lower City' as first observed at the 'twin cities' of Mohenjo-Daro and Harappa, patterns found at Lothal, Surkotada and, recently in Dholavira seem to show variations in this trend.

It seems that the majority of Indus settlements have been placed within the alluvial context of the Indus regime and along the coast of the Indian Ocean. With Mortimer Wheeler's deep dig west of the 'citadel' in Mohenjo-Daro a new perspective was brought to light regarding the 'vertical' extent of the site. While Ernest Mackay thought he had reached the lowest levels of the site in DK-G south, Wheeler's deep dig went down for at least another 7 meters below the present surface (47mamsl).

George Dales' research in Mohenjo-Daro in 1964-65 was influenced by Robert Raikes' and Dales' 'dam theory', based on observations in the Khirtar mountains and of multiple mud brick platform constructions observed in the site. First drilling was carried out by Raikes to better understand the hydrological situation of the site. In addition Dales cut the slope of the 'Lower City' west of the HR area in search of the harbour.

Due to the Pakistan-Indian war, continuing this exciting dig was not possible. In 1979 George obtained permission to re-work the archaeological material in the Karachi reserve collection, the results of which were published jointly with Marc Kenoyer in a first volume (pottery) in 1987. The second volume on the architecture was not published till today. In 1979-1980 the author had the chance to meet with George and to discuss the setting of Mohenjo-Daro. As a result, he was asked to re-document the excavation remains of 1965. In 1979 the site was already in a deteriorated but original state. A re-measurement and a re-documentation were carried out by the Jansen team. The results, handed over to George, are still unpublished; a copy is kept with the German Research project Mohenjo-Daro (GRPM), now integrated with the Research Center Indian Ocean, RIO, Muscat).

During almost ten years of German research at Mohenjo-Daro it was decided to explore Wheeler's excavations of 1950 which have never been published. Special attention was given to his 'deep dig', west of the 'granary'. The cross section, published by him in 1966 shows a massive retaining wall down to at least seven meters below the surface. After locating his sondage and after careful studies of the satellite images it was decided to trace the continuation of this 'wall' around the citadel. Under joint supervision with Ute Franke, then a member of the German team, a survey around the 'citadel' was carried out, based on several hundred drillings by a Pyrkhauer hand drill and by more than 40 trial trenches. The still unpublished results show the continuation of this 'retaining wall' all around the 'citadel'.

Further drilling profiles were conducted to establish more than 30 pumping tube wells for the UNESCO campaign, Save Mohenjo-Daro (1979-1997). Along with the surface surveys, together with the Italian team led by Maurizio Tosi and Maro Cucarzi (Lerici Foundation), drillings were initiated between the 'citadel' and the 'Lower City'. All sub-soil investigations



show similar results: the vertical continuation of the city for at least 8-10 meters! They were published in our Interim Reports 2,3 and 4.

Finally, in 2012 the World Heritage Committee UNESCO (25Com 7B), demanded that drilling around Mohenjo-Daro identify the extent of the city beneath the current surface level (47m amsl). This was prompted by German research which was shown in a film by the Second German television (ZDF and Arte, filmed 2008, sent 2010). In April 2016 more than 50 drillings were completed, revealing an impressive extent under the recent alluvial surface of the site. The interpretation of the drilling cores will still take some time but provisional results will be presented.

Amna Javed

### ***Rock Carvings and Cup Marks in Azad, Jammu and Kashmir, Pakistan***

Kashmir is a unique region due to its historical and geographical background. It comprises of mountains and plains. Moreover, the unique cultural outlook of Kashmir enhances its importance throughout the world. Historically, Kashmir had remained a hub of Aryans, Buddhists, Hindus, Muslims and Sikhs. Hindus had settled in Kashmir before the Christian era and established their rule for twelve dynasties. The most famous of them were the Karkota, Utpala and Lohara dynasties.

The world is well aware of the rock art in the northern areas of Pakistan, where thousands of boulders with rock carvings or rock art have been documented so far by German and Pakistani scholars. Azad Jammu & Kashmir is situated on the north side of the Potohar Plateau, north of the river Jhelum and North West of Taxila and to the east of the ancient silk route. The Rock art and Cup marks, which have been documented recently in Azad Jammu and Kashmir include Chitarpari, Koi Kotli Saula, Sharda and Pir Chinasi. The rock carvings have been classified as *religious, hunting scenes and animal depictions, giant or demonic dancing figures, geometric shapes and human impressions on boulders*. This presentation will draw attention to the importance of rock carvings and cup marks.

Klaus Karttunen

### ***Soqotra Between East and West***

The island of Soqotra, now belonging to Yemen, is situated in the Indian Ocean, 240 km east of the eastern extremity of Africa (Cap Guardafui) and 300 km south of Arabian coast. The location is very favourable for sea-faring and from Greek sources, such as the *Periplus Maris Erythraei*, Ptolemy and Cosmas Indicopleustes, we know that Soqotra at least temporarily had an important role in ancient international trade. Nevertheless, the archaeological evidence for this for a long time remained extremely meagre. The situation was drastically changed in 2000, when the Belgian Socotra Karst Project under Peter De Geest examined the Hoq Cave. The cave contained some archaeological remains and a rich harvest of epigraphy: no less than 193 Indian inscriptions in Sanskrit and Middle Indo-Aryan, some South Arabian and Aksumite inscriptions, three in Greek, one in Bactrian and an important Palmyran document. The material has been edited and analyzed in a splendid volume *Foreign Sailors on Socotra*, edited by Ingo Strauch (Bremen 2012). In my paper I discuss this material in relation to written sources trying to shed some further light to the history of ancient Indian Ocean trade.

Jonathan Mark Kenoyer

***Stone Bead Production and Trade of the Indus Civilization: Experimental and Scientific Analyses***

This paper will present the results of recent studies of stone bead production and trade from major sites of the Indus Civilization and adjacent regions. Comparisons will be made between the production of beads at larger Indus sites such as Harappa and Dholavira, with those produced at smaller regional sites such as Shikarpur, Gholadoro, and Chanhudaro. The stylistic and technological patterns of beads from Indus sites will then be compared with the Indus style beads recovered from sites in Oman, Kuwait, and other regions of ancient Mesopotamia. The mechanisms for trade and for local production of Indus style beads outside of the Indus Valley Region will be discussed along with new evidence for the presence of Indus or Indus trained bead specialists in regions outside of the Indus core area. Finally, the geological sourcing of carnelian and agate using Laser Ablation Inductively Coupled Mass Spectrometry (LAICPMS) will be presented to demonstrate the utility of this method for studying ancient bead trade networks. Analysis of geological source areas in India, Pakistan, Afghanistan, Arabia, Egypt and other regions will be compared with archaeological samples beads and bead manufacturing debris from sites in the Indus Valley and adjacent regions. Preliminary results indicate that multiple sources of carnelian were available to the craftsmen of the Indus and adjacent regions. The use of raw materials from specific sources at different times may relate to chronological changes in trade networks, as well as to specific socio-political or economic networks.

Fawad Khan

***Reused Hindu-Buddhist Panels in a Muslim Graveyard in Dir, Pakistan***

The Khyber Pakhtunkhwa Province of Pakistan is fortunately very rich in archaeological remains and very often one hears about the chance discovery of underground structures, sculptures, pottery, coins etc. This abundance of cultural assets is slowly and gradually disappearing due to various reasons of which the clandestine diggings and illegal occupation of ancient sites are the most noteworthy. In every exploration report of the archaeologist we see that certain Hindu and Buddhist period abandoned sites are presently occupied by the construction of modern houses, mosques, community graveyards and others. In this connection the Muslim graveyard of the Ziarat village in the Dir (Lower) District is one of the best examples. The present paper treats with the preliminary survey report of the documentation of some graves in the said graveyard which have been decorated with the extracted stones from the Buddhist stupa and Hindu temples and still possess the original carvings of floral and architectural representations. The presentation also will discuss ancient Hindu-Buddhist remains in the vicinity and similarly the chronology on the basis of the Persian dates found on some of the graves.

Rafiullah Khan

***Sikandar/Yunanis and Folk Memory in Pakistan: How History Takes up Mythical Characters with Concern for Moral Implications and Native Personality Constructions***

Alexander (locally called Sikandar) left the East for his hometown at the same rapid pace as he had arrived. But cultural and political changes which his arrival ushered here have left behind not only material forms and classical accounts but a folk memory as well. It has been

western, and perhaps some indigenous scholars and writers who have brought the multifaceted legacy, as preserved in written records and archaeological remains, to the fore. Historical reconstructions in a South Asian context can safely be traced back to the early 19<sup>th</sup> century and they continued all through the 20<sup>th</sup> century up to the present day. As a result, all that we find is an almost complete picture of what role the Greeks played in northern India. However, beside all this encompassing activity and great scholarly achievements, still there are prospects to explore more about this historical interaction between east and west.

One such field is that of folks and their memories, tales and lore. This aspect of the Alexandrian story has not yet attracted scholars' attention. The present study is an attempt in this direction. It focuses on folk memory, axiomatic statements and folk representations vis-à-vis the Greeks with special focus on Alexander. The data tells us that Alexander's legend has found appropriation in local contexts such as stories of a vernacular heroic-cum-national character and, more importantly, representations showing instability and ephemerality of the world and human existence. It shows that all forms of folk representations in relation to Alexander in Pakistan signify moral implications, experiential lessons and existential considerations. The study also shows how history gets turned into mythology and historical protagonists into mythical and semi-mythical characters when (1) human memory fails, as it no doubt fails, to recall the real events and great agents in historical developments and (2) historico-cultural processes put local and non-local matters into fusion and hybridity.

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Samra M. Khan

***Truck Art and its Transformations in the 21st Century from Popular Culture to High Culture.***

Truck art is an artistic expression of the popular culture of Pakistan, which is practiced in many regions ranging from the Khyber Pukhtoon-khawa (K.P.K) in the North West to the Punjab and south to the cities of Sind. The trucks decorations include paintings, ornaments, hammered metal fittings, woodcarving, *chamakpatti* and chains etc. Each truck is an individual design which carries its driver's cultural expressions and world view. Truck art is deeply connected to the identity of the community and an important expression of indigenous culture and heritage. It is also a unique mobile art gallery which travels throughout the region.

The paper is based on field studies undertaken in K.P.K., and F.A.T.A. (Federal Administrated Tribal Areas) and areas of the Punjab from March 2013 till September 2014, to document this craft heritage. This was part of a larger UNESCO funded project which documented the intangible cultural heritage of the region. The study and further research showed that the craft of truck art has evolved and changed throughout its history, moving from decoration of trucks and buses to vans and rickshaws, to carts and now to furniture, apparel and everyday items. The paper discusses how the images and symbolism of truck art has successfully changed its traditional modes of communication to more modern forms to retain its appeal. It also studies its development as a credible source of expression for communities, its transmission from indigenous culture to high culture, and its transformation as a popular contemporary art form. The paper concludes that truck art is a rare example of a traditionally practiced craft that has evolved over time but sustained its appeal.

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Deborah Klimburg-Salter

### ***What do we Learn from a Study of the Techniques of Clay Modeling: The Case of Shahi Period Sculpture***

An objective study of the technique of manufacture, allows us to understand how a sculpture was made, and decorated. The technique of manufacture also conditions to some degree the style and occasionally also the iconography. And, within the context of the comparative method of analysis central to the western discipline of Art History, a precise understanding of the techniques of manufacture allows one to define an homogenous group of sculptures. Ideally, this group, by reference to archaeologically secure examples could then be geographically situated.

This discussion will demonstrate that this deceptively simple model only yields reliable results when each step is objectively and adequately executed. And indeed, ultimately the reliability of the conclusions is directly related to the size of the sample of reliably excavated archaeological objects. Thus, the smaller the number of excavated objects, the greater is the latitude for hypothesis and conjecture.

This discussion will center on the clay sculptures attributed to the Shahi period in Afghanistan and Pakistan, a category of sculpture which appears to be particularly problematic. Despite the long existence of the Shahi Empire ca. 7<sup>th</sup> to 11<sup>th</sup> century and its extensive territory, at its height the Kingdom was bordered on the west by the Abassid Caliphate, on the east by the Tibetan Empire and on the Southeast by the Pala Empire and the South by the Pratiharas (see Map 2, Klimburg-Salter 2010), the excavated evidence for their visual artistic culture has *not* received adequate attention.

This paper will review the evidence for clay sculptures found in geographically clear contexts, although not always scientifically excavated, from Afghanistan and Pakistan and attributed to the Shahi period. I will then consider the objective criteria used to categorize the material in question – clay or terracotta; and to identify the technique of manufacture. Based on this evidence it will be possible to propose a profile for clay sculpture of the Shahi period within specific geographic and temporal contexts and organized according to the techniques of manufacture.

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Ayumu Konasukawa

### ***The Seals of the Pre-Indus Period in Light of the Seals Discovered at Kunal***

In this paper, the author discusses the distribution pattern, the manufacturing technique and the significance of seals of the Pre-Indus period in light of the seals excavated at Kunal in Haryana. Through the analyses of this paper, it has become evident that seals of the Pre-Indus period consist of stamp-type seals and button-type seals typified by common motifs such as geometric designs or concentric circles, and that among these, steatite seals are concentrated specifically in the northern area, including the Gomal, Punjab, and Haryana regions. As far as the manufacturing technique is concerned, as the analyses through SEM (Scanning Electron Microscope) and PEAKIT (3D) images describe, it has become evident that seals of the pre-Indus period are characterized by various carving techniques and tools. Furthermore, in order to consider the significance of seals of the Pre-Indus period, their distribution is compared with that of specific pottery types and the functions of Indus seals, and their carving techniques are compared with those of Indus seals. This paper concludes that it is likely that before the Indus seal was developed in the formative phase of the Indus period, in the northern area where seals with common motifs such as geometric designs or concentric circles were used, there was a functioning system that controlled the flow of merchants, goods, and much information, a cultural exchange that operated over a wider area than regions united by a specific pottery type. And it can be pointed out that some of the carving

techniques of seals of the Pre-Indus period were passed on to those of Indus seals and gradually evolved into those of the seals.

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Manoj Kumar

***Terracotta Sealing of Goddess, Representing Harmony Between Saiva and Vaishnava Cults (Hari-Hara) During the Gupta Age, from Kuruksetra, Haryana***

This paper is based on the discovery of new evidence in favor of harmony between *Saiva* and *Vaishnava* cults during the Gupta period from Thanesar, Kurukshetra, India. Evidence was found in the form of a terracotta sealing which was recovered by the author during the scientific clearance work at a mound on the North-Western bank of the *Brahmsrovara*, Kurukshetra. The archaeological investigation was conducted by the Department of Archaeology and Museums, Haryana. A concept exists in Hindu mythology, which is known as *Hari-Hara*. It came in to existence after the conflict of *Saiva* and *Vaishnava* cults as both cults belongs to *Hinduism*. For the synchronization among these sects, a new icon of divinity was developed by diplomats. Hari-Hara is a composite form of Siva and Vishnu along with their devices. Several examples of such evidences (*Hari-Hara*) have also been reported from many sites. But the present sealing is a unique substantiation of sect harmony. The reported sealing is round shaped which and bears an anthropomorphic figure resembling a female deity with an attractive getup and ornaments. Devices of *Siva* and *Vishnu* appear on either side of goddess. A two line legend is also depicted below the Goddess in the *Brahmi* Script that gives the sense of *Devi*. In this paper the author tries to prove that the current sealing shows the composite figure of *Lakshmi* and *Parvati*. This sealing along with other excavated remains suggests that there may have once been a temple dedicated to *Hari-Hara* on the bank of holy tank *Brahmsrovara* in ancient times. Kurukshetra has been a major religious centre from the *Vedic* age, having been the location of the great war of the Mahabharata, so it adds to the evidence that proves the probability of *Hari-Hara* temple in the past.

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Carla Lancelotti, Marco Madella, P. Ajithprasad, Francesc C. Conesa, Juan José García-Granero, Andrea L. Balbo, Charusmita S. Gadekar, S.V. Rajesh

***Peopling, Resources and Environment in Arid Lands: The North Gujarat Archaeological Project (NoGAP)***

North Gujarat, in northwest India, is one of the most arid areas of South Asia and it is extremely sensitive to environmental changes caused by the variability in monsoon rainfall. The NoGAP (North Gujarat Archaeological Project) is a multidisciplinary collaborative project between the Spanish National Research Council, The Universitat Pompeu Fabra and the MS University of Baroda, which has explored the settlement and livelihood strategies of hunter-gatherer and agro-pastoral communities inhabiting this territory during the Holocene. In this presentation we would like to discuss the final results of the project in terms of: 1) The Holocene landscape reconstruction; 2) The settlement patterns during the early and mid-Holocene in relation to resource exploitation; 3) The evidence of North Gujarat as a centre of domestication for both plants and animals; 4) The endangered situation of most these sites due to agricultural mechanization and construction works.

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Randall Law

***The Art of the Harappan Microbead - Revisited***

Few items in the corpus of Harappan material culture reflect the technological prowess of Indus Civilization craftspeople and their penchant towards miniaturization as much as the steatite "microbead." These sub-millimeter sized ornaments have amazed and confounded scholars going back to the first to study them in detail, Ernest Mackay and Horace Beck. Over three decades ago, K.T.M. Hegde wrote the groundbreaking and influential article *The Art of the Harappan Microbead*, which detailed his observations and analyses of microbeads recovered from the Harappan site of Zhekhada in northern Gujarat. It was then his conclusion that these ornaments were fashioned from a steatite-clay paste, which he posited was first extruded through a specialized bead-forming device and then hardened by firing at an extremely high temperature. Hegde, however, never successfully replicated his proposed process and some scholars (such as Mark Kenoyer and Massimo Vidale) have since argued that microbeads, like steatite beads of larger sizes, were actually made through a reduction process involving the cutting, drilling and grinding of solid stone. The paste vs. reduction debate continues to confuse many scholars today.

Recently, new observations of the steatite microbeads from Zhekhada have been made as well as of similar beads from several other sites such as Chanhu-daro in Sindh and Harappa in the Punjab. The techniques employed include scanning electron microscopy (SEM), X-ray diffraction (XRD) and electron microprobe analysis (EMPA). A range of experimental studies were also conducted including an attempt to replicate Hegde's "plausible" paste bead-forming device and procedure. This study concludes that the Harappan microbeads discovered at multiple sites were made using a reduction process and so far there is no credible evidence to support the model of "paste" bead production. The most compelling evidence for reduction comes in the form of minute sawn steatite chips that are of the same average thickness and have perforations of the same diameter as finished microbeads. Many questions remain, however, and will be discussed including - what types of tools were being used to cut and drill these extremely tiny ornaments and what type of fiber were they being strung upon?

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Vincent Lefèvre and Coline Lefrancq

***The 2013-2015 Excavations at Mahasthan, Bangladesh: Preliminary Results of the Third Phase of the France-Bangladesh Cooperation***

Since the 19th century, especially after Alexander Cunningham's tour in Bengal, the archaeological site of Mahasthangarh has been identified as the ancient Puṇḍranagara, the "capital" of the *Puṇḍravardhana-bhukti*. Founded at the end of the 4th century BCE, the city started its decline around the 12th century but remained important until the 13th-14th centuries and was never totally abandoned afterwards. Its archaeological significance thus cannot be missed.

Though some excavations were conducted in different parts of Mahasthan and its surroundings during the 20<sup>th</sup> century, a comprehensive and long-standing approach only started in 1993 with the creation of the France-Bangladesh archaeological team which has now studied the site for 23 years. Till 1999, the excavations—now completely published (two volumes)—focused on an area on the eastern rampart. Between 2001 and 2011, research was shifted to the south, to the so-called Mazar area, and the publication of these excavations is being prepared.

Thus, in 2013, a new phase was launched. It aims at investigating the urban organisation along the north-south axis that runs on the eastern side of the citadel. The first two campaigns have led to the discovery of new structures, the interpretation of which is unclear for the moment, but which were neither religious nor military. Moreover, subject to further investigation, they might fill a chronological gap in the history of the site.

The aim of this paper is to introduce this new phase in the archaeological investigation of Mahasthan and to present the first preliminary results.

Tiziana Lorenzetti

### ***Religion and Art as an Aspect of Statecraft Under the Nayakas***

The paper throws new light on certain peculiar and lesser-known aspects of religious and artistic expression under the Nayaka kingdoms, in what is present day Tamil Nadu.

The rich artistic production of the Nayakas, originally governors on behalf of the Vijayanagar empire and then, after its dissolution, autonomous sovereigns, deserves an in-depth interdisciplinary study, both from the historical and the political perspective.

What should particularly engage our attention are the religious and cultural innovations that the Nayakas undertook. It becomes quite clear, upon analysis, that these novelties had a very focused scope: to advance the political agenda of the Nayakas. This undeniably political function, essentially, opens up a whole new window for the re-evaluation of Nayaka art, as will be documented in the course of this paper. The present investigation will demonstrate how, driven by the necessity to unify and strengthen their autonomous rule, possibly with the intent to assert their right to govern in virtue of royal descent or identification with a deity (as was common practice in ancient times), the Nayakas served themselves of religio-artistic motifs to attain their political objectives.

The paper will identify a number of iconographic and artistic elements, and variations thereof, as well as ritualistic innovations and structural changes in architecture that were employed by the Nayakas as instruments for the advancement of their political projects. It is a particularly complex and interesting subject, which has never been analysed before in sufficient detail.

Susmita Basu Majumdar

### ***Ritual Deaths in Jainism and Ajivikism: Sites, Texts and Contexts***

Self-inflicted death was practiced in India by Jainas, Ajivikas and even some Brahmanical religious sects. This practice, however, gained a special ritual status among the Jainas and probably also among the Ajivikas. Jaina pilgrimage centres were of four types of which one was *siddhakshetra* where the Jaina monks went to perform ritual death. The *Bhagavati sutra*, a Jaina religious scripture, mentions forty-eight types of death which were practiced by the Jainas in order to attain siddhahood. This paper will focus on three sites, that of Barabar-Nagarjuni in Bihar, Udayagiri in Odisha and Chatargarh in Chhattisgarh where such practices were performed. The geographical and cultural context of these sites will be taken into consideration and the psyche behind the practice of self-inflicted death or ascertaining the time of one's death will be critically analyzed in the light of epigraphic and literary textual data.

Recent researches conducted by us at the site of Barabar and Nagarjuni which have seven caves bearing several inscriptions including the Mauryan inscriptions of c. 3<sup>rd</sup> century BCE has led us to reconsider the context of these inscriptions. A re-reading of these inscriptions

has led us to associate them with the death rituals and practice of self-inflicted death by the Ajivika monks. The caves have excellent polish and are magnificent yet were used for such practices. This paper will discuss this critical issue. We would also like to identify Udayagiri in Odisha as one such site where the Jainas performed the ritual death. Hence it was a *siddhakshetra* and at the same time the presence of other ornate architectural establishments at the site makes it a *kalakshetra*. This site has a eulogistic inscription i.e. *prasasti* of a ruler of Kalinga named Kharavela (c. 1<sup>st</sup> century CE) which mentions this practice and the erecting of memorials at the site by the ruler for Jaina *arhats*. The third site, i.e. Chatagarh, has yielded two inscribed memorial stones which help in associating this site with such practices and these inscriptions also provide vital information in interpreting the rest of the sites.

Basudeb Malik

***Sculptures of Malinithan, Arunachal Pradesh - a Study Based on the Assimilation of Brahmanical and Indo-Mongoloid Cultures***

Arunachal Pradesh or the land of dawn-lit mountains is situated at the northeastern tip of India having an area of about 84,000 sq. kms. Arunachal Pradesh is home to more than 30 tribal groups which belong to the Indo-mongoloid race. Waves of hill tribes have migrated to this region since time immemorial. According to renowned linguist and Indologist Prof. Suniti Kumar Chhotopadhyay, references in *Yajur* and *Atharva* Vedas tell us about the *Kiratas* as Mongoloid people who came to the Himalayan stretches a long back and settled down on the slopes of the hills and valleys of this region. 'Kiratas' is a generic name for all the Himalayan tribal groups of North-East India. They have a common cultural pattern which is Indo-mongoloid in origin. Though they were racially and culturally different from the Indian mainstream culture, acculturation took place between the hill and the plain peoples.

Archaeological evidence from Arunachal has shown that this remote region was not as isolated from the rest of the country as it was generally believed. At least from the 10<sup>th</sup> century A.D., cultures from the Gangetic basin and Brahmaputra valley penetrated into the foothills of Arunachal leaving archaeological remains in the form of temples, forts, roads and tanks. Along the southern part of this state adjoining Assam there are ruins of historical sites consisting of sculptures, relief works and decorative designs, e.g., the temple of *Malinithan*. These represent an extension of the East Indian School of Art across the boundaries of Assam to this region. A few of the images made of granite stone viz. *Surya*, *Kartikeya*, *Indra*, *Ganesa*, *Nandi* and *Durga* deserve special mention.

It has been found in this study that the interaction between the Indo-mongoloid and the *Brahmanical* cultures in this region was not a one-way traffic. It was also a case of the Indo-mongoloid speeches and ideologies, cults and customs being engraved on the *Aryanized* (*Brahmanical*) culture. The study covers how far the Mongoloid cultures were responsible for introduction of their features in the *Brahmanical* culture, for instance, worship of the Mother Goddess involving tantric aspects such as human and animal sacrifices and other magical rites.

N. Manassero, A.C. Felici, A. Fusaro, A. Ibrahim, K. Lashari, M. Piacentini, V. Piacentini Fiorani, A. Tilia

***Notes on Pakistani-Italian Research-work at Banbhore (Sindh): A Major Trade Centre at the Indus Delta***

The following paper aims at introducing some of the achievements by the Pakistani-Italian



team within the framework of an interdisciplinary Pakistani-French-Italian Historical-Archaeological research project at Banbhore (Sindh, Pakistan), which has been working at the site since 2010. Written contemporary sources provide a wealth of information. The ruins show a towered bastioned city, with an early Mosque and a Hindu temple, a palatial area and a crowded urban grid with houses, markets and workshops; the city is surrounded by “industrial” and residential areas to the North and East, an artificial lake with four artificial islands, and other structures to the west and south-western area outside the walls. This discourse focuses on the trenches dug by the Pakistani-Italian team and the evidence unearthed during the 2012-2015 campaigns. An updated map with curve-lines (kite photos) has been drawn. The stratigraphic trenches carried out in the North/Central area of the site document that Banbhore experienced a long period of settlement within its walls from the first centuries CE up to the beginning of the 13<sup>th</sup> century. The activities of the Pak-Italian team (trenches 4,5,7,8,9) have so far brought to light a dense grid of buildings and roads of the Islamic period, clearing the chronology and the architectural features of the “Partition Wall”, a towered structure dividing the citadel in its last stage of life. Trenches 7 and 9 have provided solid data documenting an Indo-Sasanian period of occupation and a long transitional phase. The findings testify the role of Banbhore both as a production centre and a market in Sasanian and Islamic times. The water table has so far prevented us to reach the virgin soil. Metals, glasses, carved ivories and stone artefacts, worked and semi-worked shells reveal important artisanal activities in the Western half of the citadel; numerous “honey-comb moulds” are related with smelting and coinage activities; the huge amount of red and grey pottery is mostly locally produced; sherds from Mesopotamia, Iran, India, south-east Asia and China are also witnessed. Historical research and archaeometrical analyses in situ and in the University of Rome’s laboratory have solidly supported our work.

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Michael W. Meister

### *Āmalaka Shrines*

Why *āmalakas* became emblems of the radiance of North Indian temples may remain a mystery but their importance in the development and even origin of Nāgara architecture needs to be explored more fully. A typology of early experiments with formulating a *śikhara* or superstructure for shrines in the early fifth century CE suggests a path for interpretation and a future for architectural form. Evidence also suggests that the struggle was pan-Indian, non linear, but immediate, not sectarian, effective, and long lasting. This paper will review material evidence as well as interpretive frameworks, intended, or sometimes suggested.

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Gerd J.R. Mevissen

### *A Note on the Devapaṭṭas from Ancient Kṛmilā (Lakhisarai, Southeast Bihar)*

The recently constructed Śrī Indradamaneśvara Mahādeva Temple (also known as Aśokdhām Temple) at Chowki, a few kilometres to the northwest of Lakhisarai, as well as nearby clusters of images preserved in private houses contain a great number of sculptural remains from ancient Kṛmilā, a major urban centre in present-day southeast Bihar during the late Gupta and Pāla periods. Among them are several longish stone slabs (*paṭṭa*), most of them hitherto unpublished, depicting certain groups of minor Brahmanical deities (*deva*), namely:

1. The Eight or Nine Planetary Deities (*aṣṭagraha* or *navagraha*);
2. The Eight so-called "Manu-Lokapālas", a specific group of the Eight Regents of the Directions of Space (*aṣṭalokapāla* or *aṣṭadīkṣpāla*), which includes figures of the Sun-god Sūrya and the Moon-god Soma/Candra; this group gained popularity mainly in South Bihar during the early medieval period;
3. The Seven Mother Goddesses (*saptamātṛkā*) accompanied by Vīṇādhara-Śiva; and

#### 4. The Ten Incarnations of Viṣṇu (*daśāvatāra*).

The region of ancient Kṛmilā can thus be regarded as a largely unrecognized hotspot of Devapaṭṭa production in the southeastern part of Bihar. In this regard it complements the city of Gaya in the southwestern part of Bihar, another hotspot of Devapaṭṭa production that was brought to notice at the previous EASAA meeting at Stockholm in 2014.

The present paper deals with the arrangement and the sequential order of the different groups of *devas* on the slabs from ancient Kṛmilā and with typological and iconographical considerations of the small *deva* figures depicted on them. It will also address the question of the original function of these slabs as well as their possible date by comparing them with similar specimens from other parts of Bihar, especially those from places in the vicinity of Lakhisarai and Gaya, and from Gaya itself.

Michele Minardi

#### ***The Ancient Chorasmian Unbaked-clay Modelled Sculptures: Hellenistic Cultural Impacts on an Iranian Polity***

Ancient Chorasmia is an Iranian Central Asian polity mentioned in the “Young” Avesta and also attested among the Persian “nations” of the Achaemenid royal inscriptions. The polity for its position between sedentary Central Asia and the northern steppes inhabited by the semi-nomadic *Sakā* had always played an important role as intermediary between these two “worlds” and it was strategic for the Achaemenid policy in the region. The Ancient Chorasmian territory is located on the lower reaches of the Amu-Darya (the Oxus), south of the Aral Sea, and the Chorasmian “oasis” is embraced by the Kizil-kum and Kara-kum deserts which isolate it from the other Central Asian polities to its south.

Although Chorasmia partook in the events involving Central Asian history, such as its fall under the influence of the Hellenistic civilisation in the aftermath of the *anabasis* of Alexander and with the Seleucids, unlike its southern neighbours it only progressively accepted some Hellenistic innovations being not directly invested by this culture. These western elements likely penetrated into Chorasmia via Bactriana. Only later, following the 2nd century AD was Chorasmia fully integrated into a trading and exchange network with the rest of Central Asia and India as the material culture of the site of Toprak-kala attests, in particular if we look at its unbaked-clay sculptures.

The recent discovery made by the Karakalpak-Australian Expedition to Ancient Chorasmia (KAE) of modelled unbaked-clay sculptural fragments at the royal seat of Akchakhan-kala dating to the 1st century BC - 1st century AD are an important addition to those of Toprak-kala, a site founded after the abandonment of Akchakhan-kala. These latter display underestimated artistic ties with Gandhāra, whilst the earlier Akchakhan-kala fragments underline a selective adoption of fully Hellenistic themes within a not Hellenised Iranian culture. The unbaked-clay sculptures from Ancient Chorasmia, within their specific historical context, due to the peculiar character and history of the polity where the Hellenistic culture was only progressively accepted, are thus paradigmatic of the different waves of Hellenism that reached this Iranian polity, making Chorasmia an ideal laboratory for the diachronic study of such cultural transfers.

Rabindra Kumar Mohanty, Anam Behera, Kishor Basa and Shantanu Vaidya

#### ***Settlement Archaeology of the First Farmers of Coastal Odisha (Eastern India)***

The first discovery of a Neolithic settlement at Kuchai in Odisha goes back to 1961-62. Subsequent investigations were intermittent without focused applications. In recent years, a few Neolithic-Chalcolithic sites like Gopalpur, Sankherjang, Golbai Sasan, Harirajpur (Banga) and Dentiguda in Coastal Odisha have been intensively investigated along with limited excavations. They have given clear evidence of the settlement of the earliest farmers of this region, who exploited the ecology, practiced rice cultivation along with a few cereals and augmented with readily available aquatic resources. They probably exploited wild rice which is still found and harvested in these regions. It further reveals that environmental conditions possibly gave stimulus for the beginning and development of settlements and facilitated a large number of settlements to crop-up close to each other in the neighbourhood. These settlements seem to have initially started around the beginning of the second millennium BC and most of them were uninhabited around the 1<sup>st</sup> Millennium BC. Again around the 7<sup>th</sup> century BC, Early Historic settlements emerged in the vicinity of these farming settlements exploiting similar ecology and resources along with a wider network for procurement and distribution of the then essential commodities, while demonstrating a linear regional and cultural development.

Recent intensive explorations in this region have revealed more than twenty Neolithic and Chalcolithic settlements alone in the Khurda district within a radius of 30 to 40 km. Some of these sites are very close to each other, around 1 to 2 km apart. They are located either close to springs, the regional river system and water-bodies. They show common settlement strategies; the mounds are circular in their perimeter and elevation. The excavated sites gave evidence of well-made wattle and daub circular houses and antiquities supporting contemporary economy. Sometimes they buried their dead in the settlement. Most of these settlements were located on the edge of a rocky, forested landscape overlooking a vast alluvium flood plain of the river Mahanadi with patches of marshy land suitable for wild rice.

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Munmun Mondal

### ***Depiction of Fauna in the Early Historic Terracotta Art of the Middle and Lower Ganga Valley***

The term 'Early-Historic' refers to the period which extended from the second BCE to the third century CE and is considered to be a particular phase of social and cultural development that enhanced the expansion of regional cultures and economies in India. The terracotta art of this period is essentially a product of the Early Historical urbanisation that took place in the Ganga Valley in Northern India during this time. Terracottas from the early historic period overshadow all other aspects of material culture in the region. Innumerable terracotta figurines, plaques and objects of this period have been discovered from the stratified level (ranging from 200 BCE to 300 CE) of the excavated Early Historic sites of the middle and lower Ganga valley region such as at Mathura, Ahichhatra, Sonkh, Rajghat, Kausambhi, Bhita and Tilpi, Mangakot, Dihar, Pokarnna and Tamluk.

The middle Ganga valley comprises the states of Uttar Pradesh (some portions) and Bihar, whereas the lower Ganga valley region comprises the state of West Bengal (here, it might be noted that in the Early Historic period the lower Ganga valley region was part of the geographical unit called 'Bengal' but presently it is divided into two separate political regions – West Bengal and East Bengal. East Bengal forms a separate country named Bangladesh whereas West Bengal is a state in the Indian Subcontinent). In my present study, I will draw attention to terracotta depictions of animals dating to the Early Historic period and found in the geographical region of West Bengal.

Depictions of various themes and subjects are remarkable features of this terracotta art which not only reflects day to day life but also contemporary society with its surroundings. It illustrates a wide variety of the fauna of the region and conveys the taste, love and care of the clay modellers in depicting the birds and animals around them as well as enabling us to appreciate the directional changes in the form and content of the artistic creation.

My paper intends to throw light on the diversities of animal depictions in Early Historic terracottas found in the middle and lower Ganga valley with special emphasis on the typology, stylistic attributes and environmental significance.

Murad Khan Mumtaz

***Remembering the Friends of God: Indian Muslim Devotional Portraiture as an Aid to Spiritual Remembrance***

*Tazkarāt*, the collected biographies of saints, constitute one of the most prolific genres in the history of Muslim literature. First popularized by the twelfth-century Persian mystic, Farid ud-Din Attar, in his *Tazkarātul Auwliyā (Remembering the Friends of God)*, this genre quickly took root and flourished in the literary and visual culture of Muslim India. Considering the *tazkarā* as a comparative conceptual paradigm, this paper aims to shed light on Muslim devotional portraiture in Indian painting, a major theme that has not been fully addressed by art historical scholarship.

It is my contention that a serious study of representational tropes within Indian Muslim devotional imagery has the potential to destabilize the rigid sectarian boundaries that have impeded discussion of the long tradition of Hindu-Muslim transculturation. I also hope to shed light on the fact that Muslim devotional portraiture is very much a part and product of the larger field of devotional imagery in Indian art. The remembrance of God through saintly intercessors was a popular trope in the literary imagination of Islam and found fertile ground in the visual traditions of India, which were conditioned by the indigenous trans-sectarian concept of *darshan*.

Even though the representation of Sufis in Indian painting goes as far back as the Sultanate period, in this paper I aim to identify a sub-genre within devotional portraiture that emerged in the mid-seventeenth-century under the patronage of two children of Emperor Shah Jahan, Prince Dara Shikoh and his elder sister, Jahanara. This sub-genre appears to be distinguished by its spiritual function, which was to make the *barakāh*, or divine grace, of the saints present through visual remembrance.

By using contemporary literary accounts and visual evidence, the paper examines the thematic shift within devotional painting in Mughal India that appears to have coincided with the imperial siblings' initiation into a mystical order during the mid-seventeenth-century. The paper will conclude with a brief case study of a hitherto undocumented Pahari painting series from the Lahore Museum's collections in Pakistan, examining the genre as it flowered in 18<sup>th</sup> century North India, expanding through many sources of patronage, beyond the imperial milieu.

Benjamin Mutin, Abdurauf Razzokov, Frédérique Brunet, Sébastien Lepetz,  
Margareta Tengberg, and Henri-Paul Francfort

***Sarazm, Tajikistan: Synthesis of the 2011-2014 Fieldwork of the Tajik-French***

### ***Joint Project***

The site of Sarazm in northwestern Tajikistan was discovered in 1976 and was then excavated by Tajik (1977-today), French (1984-94) and American (1985-86) archaeologists. Its vestiges, mostly dating to the fourth and third millennia B.C., spread over hundreds of meters at a short distance from the Zeravshan River. Sarazm is well-known for the reason that excavations at this site found numerous artifacts with styles similar to materials excavated hundreds of kilometers away in Pakistan, Iran, Turkmenistan, near the Aral Sea, and in the Steppes of Central Asia. This site is unique in the context of Tajik and Central Asian archaeology and became a U.N.E.S.C.O. World Heritage site in July 2010.

The last joint Tajik-French excavations at Sarazm ended in the early 1990s, and a renewed cooperation between the Academy of Sciences of Tajikistan and the French Archaeological Mission in Central Asia (M.A.F.A.C.: C.N.R.S. and French Ministry of Foreign Affairs) began in 2011. Preliminary results of the 2011 field-season were presented in 2012 at the International Conference of the European Association for South Asian Archaeology and Art in Paris. Since then three additional field-seasons have been conducted. These field-seasons comprised: different operations in the field including a geomorphological study and archaeological excavations; analysis of botanical and faunal remains; study of material assemblages such as ceramic and lithic industries; and restoration and conservation of archaeological materials. The present paper will provide a recap of the last four field-seasons between 2011 and 2014 with a specific focus on the results of the archaeological excavations. These were conducted in the northwestern portion of the U.N.E.S.C.O. property and consist of three excavations and six small soundings. Architectural levels and pits, mostly the remains of habitats, were uncovered. Results of these operations have provided us with new data as to the chronology and spatial organization of the site as well as unique information as to the social, economic and technological practices of the peoples settled at Sarazm. These results brought new perspectives for the study of this site and show that, forty years after its discovery, Sarazm certainly did not reveal all its secrets.

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Satoshi Naiki

### ***The Chronological Order of the Gandhāran Sculptures with Inscriptions Including Dates***

There are four sculptures which have inscriptions with dates found in the Gandhāra region: 1) a standing Hāritī statue found at Skārah Dherī; 2) a standing Buddha statue found at Pālātū Dherī; 3) a “meditating Buddha in Indrasāra cave” sculpture found at Mamāne Dherī; and 4) a standing Buddha statue found at Loriyan Tangai. These sculptures with dates have been studied by several scholars over a long period of time. However, unfortunately, the question of when these sculptures were made is unsolved for three reasons. The first reason is that there are several ideas on what the digits inscribed on sculptures are. The second is that it has been believed that several eras were used in ancient times in northwest India. The third is that there are several ideas in which year each era was inaugurated. The combination of these three factors make the question complicated. In order to make the chronological order of these sculptures clear, another perspective is needed.

So this time, the chronological order of sculptures with dates are discussed from a stylistic perspective based on archaeological information. By considering stylistic features of sculptures, it is possible to assign these sculptures to particular periods. The stylistic features of the Hāritī statue can be assigned to the period after the second half of the first century CE in the Gandhāra region. Draperies seen on three Buddha figures are rendered with large folds and small folds alternately. This kind of drapery was used in the period after the third century

CE in the Gandhāra region. And with a detailed observation of draperies on these Buddha figures, it can be said that the Pālātū Dherī Buddha, Mamāne Dherī Buddha and Loriyan Tangai Buddha were made in this chronological order.

By calculating these dates with the Azes era, which was inaugurated in 47/6 BCE according to a recent study by H. Falk and Ch. Bennett and used on most inscriptions with dates found in north-west India, these inscribed sculptures can be dated to 132/3, 237/8, 242/3, 271/2 CE respectively.

Deepak Nair

***Architectural Planning in an Early Historic South Indian Settlement: A Glimpse into the Architectural Features of a Trench at the Pattanam Site***

The Pattanam archaeological site (Muziris?) located at the southwestern tip of the Indian subcontinent on the Arabian Sea coast, has been excavated for nine seasons from 2007-2015. The excavations have yielded evidence of a planned settlement with various architectural features. This paper evaluates the structural features excavated during the latest 9<sup>th</sup> season (2015) at Pattanam. The paper will focus on the architectural features found in trench PT15 LXI.

In the first part an outline of excavated *loci* will be presented in order to situate the structural features in their overall context. Subsequently, each structure will be examined in detail to understand the phases of construction, chronology, functions, and the spatial organization. Finally, each structure will be considered in relation to other aspects of the early historic period at Pattanam, as interpreted from previous finds.

Isabella Nardi

***Nathdwara Devotional Art Practices and the Emergence of Manorath Painting in the Early Twentieth Century: A Preliminary Study***

This preliminary study critically defines Manorath paintings by exploring their iconographies, meanings, and uses within Nathdwara devotional art practices. These experimental artefacts emerged during the time of a prominent priest of the Shri Nathji temple, Tilkayat Govardhanlalji (1861-1933, head priest from 1876) and had a major flourishing at the beginning of the twentieth century.

The word *Manorath* usually translates as ‘cherished desire’ and it denotes the aspiration of a Pushti Marg follower to perform *seva*, or service, to Shri Nathji. Analogously, Manorath paintings represent devotional events sponsored by wealthy devotees visiting the temple and incorporate their portraits next to the icon of the god. These popular artefacts originated from the intersections of miniature painting styles and iconographies, Pushti Marg devotional practices, painted photography and photographic realism; and they constitute a new typology of image representative of contemporary trends in the Nathdwara art market to attract new consumers.

My paper will first briefly introduce the cultural-artistic context in which these works emerged; it will then analyse a selection of Manorath paintings from an Indian private collection to understand how they break from the conventions of traditional images of Shri Nathji. This overview will ultimately highlight the significance of Nathdwara painting in the evolution of Rajasthani visual arts in the early twentieth century.

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Luca M. Olivieri and Lisa Iori

***The Beginnings and Abandonment of an Early-Historic Town in the North-West of the Subcontinent. Data from the 2015 and 2016 Excavation Campaigns at Bīr-koṭ-ghwaṇḍai, Swat (Pakistan).***

After more than 30 years, and 20 excavation campaigns, the settlement of Bīr-koṭ-ghwaṇḍai (Barikot) in Swat, Pakistan, can be considered as a crucial site to understand the beginning and the crisis of urbanism in the northwest of the subcontinent.

This contribution reports on the latest data provided by the 2015 and 2016 excavation campaigns at the site. These campaigns represent the conclusion of an intensive 5-year excavation project, which was meant to document the foundation and early phases of the ancient city (Indo-Greek phase, mid-2nd century BCE), as well as its phases of abandonment (Kushano-Sasanian phase, second half of the 3rd century CE).

The 2015 excavation focused on two areas of the urban site. The area outside a bastion close to the southwest corner of the Indo-Greek defensive wall revealed a complex sequence of constructions, collapses and abandonment of the external defenses, dated to the Saka-Parthians and early-Kushans. The excavation of the outer precinct of an *intra muros* cultural complex (Unit K) has so far revealed a long sequence of earthquakes and reconstructions from the mid-2nd to mid-3rd century CE.

The 2016 excavation campaign is meant to be the follow-up of the previous campaign. Outside the urban defence, a portion of the defensive moat was selected in order to better document the pre-urban phases (generally dated to the second-half of the 1st millennium BC). Inside the built-up area two residential units have been selected to confirm the model of collapse and abandonment of the city so far established.

The new data is compared with others from previous excavation campaigns at the same site. A reassessment of the general structural sequence and chronology of the site will be also proposed.

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Sayantani Pal

***Donors of Kurkihar Images: An Investigation in to their Socio-Economic Background***

Kurkihar, a village located to the south of Rajgir hills first came into the limelight in the nineteenth century when M. Kittoe discovered Buddhist remains there. Later a hoard of bronze images were found in the village. Remains of a monastery or shrine have also been traced. A large number of the images bear inscriptions incised by their donors which reveal that they came from different socio-economic backgrounds. A number of stone and bronze images had been donated by monks from the southern part of India like Veṅgi, Kāñcī, Andhra etc. Some of the donors of stone images were tailika (oilmen). Besides this, vaṇik (merchants), suvarṇakāra (goldsmiths), carmmakāra (leather workers) also appear as donors of images. Often their place of origin has been mentioned. The paper attempts to study the socio-economic background of the donors of Kurkihar images, the patterns of their preference for particular types of images and the network of connectivity that this place shared with the other regions.

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D. Parikh and C.A. Petrie

***Conservatism and Variation in Ceramic Production in Indus Northwest India***

Previous research on Indus ceramics has broadly emphasized homogeneity in vessel production and form. These models have, however, developed out of a research focus on urban settlements, with the ceramics from such sites being used as a proxy for the ceramics across the rest of the Indus region; much of which is characterized by very different contexts of settlement and geography. The Indus Civilisation is distinct from other early complex societies, being larger than its contemporaries, but far more sprawling; although displaying urbanism, there were only a handful of city sites; and while capable of developing writing, its use was relatively minimal. It can be argued that this distinctive nature provided a matrix that resulted in unusual modes of craft production and distribution.

This paper presents research on ceramics excavated at four Indus-period rural settlements in northwest India. This multi-site, multiphase dataset offers the opportunity to examine change across time and space. Archaeological research has seen considerable emphasis on the concept of innovation in technology, but this paper will explore evidence for conservatism in production and technology.

It is clear from examining these assemblages that there are elements of regional variation, technological fluidity, and conservatism in vessel form. The decorative motifs used show regional patterns, and a single vessel form may be produced using a wide range of techniques, often in flexible combinations. However, many Indus ceramic forms do not change significantly in terms of morphology across long spans of time. As such, despite other differences, the end results in terms of vessel form are generally the same. This cautiousness and conservatism is at odds with the flexibility elsewhere in the production sequence. While technological and material conservatism has often been derided, particularly within the South Asian or Indus context, it is helpful to view the concept through a more nuanced and less culturally loaded lens, by focusing on the purposes served by conservatism, its potential benefits, and how it can be practiced simultaneously with fluid approaches. This has implications both for our understanding of technological practices as well as how we conceptualise craft production in the Indus and elsewhere.

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C.A. Petrie, H. Orengo and R.N. Singh

***From Land, Water and Settlement to Two Rains: Exploring Human/Environment Relationships in Indus Northwest India***

There has been considerable discussion about the role of climate and environment in the growth and decline of South Asia's Indus Civilisation, but there has been a lack of empirical data. To understand the relationship between climate, environment and human behaviour it is imperative to understand the nature of local environmental conditions, assess how these conditions changed over time, and ascertain how past human societies responded to such pressures and potential threats. It is also essential that the nature of the interconnections between these processes is demonstrated through the assessment of how local environmental conditions change over time, and how the life-ways of ancient populations operate at various scales: from villages to cities to regions. This understanding can only come by examining the interconnections between archaeological evidence and that for climate, hydrology, and



sedimentology, which are all too often treated as independent data sets.

The *Land, Water and Settlement* project was a multidisciplinary collaboration led by researchers from BHU and the University of Cambridge that involved scholars from several Indian and European institutions (UK and Spain). It carried out an investigation of the interrelationship between ancient climate, environment, hydrology, landscape and settlement systems in Haryana, northern Rajasthan and western Uttar Pradesh between 2008 and 2012. Starting in 2015, the *TwoRains* project is expanding on this initial research to investigate the degree to which “climate change caused collapse”.

This paper presents an overview of the results of the collaborative *Land, Water and Settlement* project, introduces the aims and objectives of the *TwoRains* project, and highlights the early results of this research. Both projects investigate the relationship between humans and the environment on the plains of northwest India. They combine the use of satellite remote sensing, on the ground survey, archaeological excavation, sedimentology, and geoarchaeology as well as palaeoclimate reconstruction.

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Michael Petraglia and Nicole Boivin

### ***New Research Topics in South Asian Prehistory***

The prehistoric record of South Asia is rather remarkable as a great variety of sites are found in the region, including Palaeolithic localities that range back to more than one million years ago and urban landscapes that are unprecedented in size and scale. The variety and temporal depth of archaeological sites in South Asia therefore indicates that the region played a significant role in the evolution of humans and the development of complex societies. However, despite its rather remarkable cultural record, South Asia has been underplayed in some key modern debates. Here we highlight the importance of the South Asian archaeological record and how it can be used to address a range of wider, on-going interdisciplinary debates. Our presentation explores how the South Asian record can contribute to four key topics in scientific and historical discourse: 1) the dispersal and spread of humans Out of Africa over multiple periods; 2) the relationship between climate change, human population growth, and cultural innovations during the Late Pleistocene and Holocene; 3) the ways in which human populations shaped ecosystems in the past, either intentionally or unintentionally, and 4) how past cultural exchanges and biological interactions paved the way for an increasingly globalized world today.

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Jessie Pons

### ***Gandhāran Art(s): Reviewing Current Concerns in Light of a Stylistic Study***

This paper offers a preview of the results of completed doctoral research on the stylistic variations of Buddhist stone sculptures from Greater Gandhāra. The stone sculptures produced during the first centuries of the Common Era share features which justify the designation of “*a Gandhāran art*”: the predominant use of grey schist, the ubiquitous depiction of Buddhist subjects, as well as the aesthetic language, which results from the Indian, Iranian and Greco-Roman heritage of the region. Despite this indubitable homogeneity, local iconographic and formal differences can be identified. In support of a large corpus of documented pieces (approx. 5000), this research provides the first characterisation of the many plastic languages which constitute what is commonly referred to as Gandhāran art. As this paper will demonstrate, the emphasis that this study lays on the geographic distribution of motifs also allows for the reassessing of many issues related to Gandhāran art in particular

and to the region of Gandhāra in general. While previous scholarship tended to explain stylistic differences as results of historical developments and often regarded the composite aesthetic language as a ‘pan-Gandhāran’ phenomenon, this paper argues for the relevance of local dynamics in the formation of the region’s plastic expressions.

In light of two illustrative case-studies, namely a group of sculptures excavated at Zar Dheri and a second discovered at Loriyān Tāngai, the analytical framework which enabled the circumscription and the definition of the various aesthetic expressions, which may proceed from “major or minor schools”, “production zones” and “workshops”, will be presented first. The examination of sculptures from Zar Dheri and Loriyān Tāngai will subsequently provide insight into three major issues: the emergence of so-called Mahāyāna imageries; the networks linking Buddhist centres across which artistic motifs and ideas were exchanged and disseminated; and local phenomena of cultural and religious interaction such as the depiction of Dionysian scenes. By briefly considering these three topics, this paper attempts to show how a traditional stylistic analysis, which concentrates on the geographic logic underlying the appearance of iconographic and formal motifs can promisingly contribute to the current issues of Gandhāran studies.

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Oriel Prizeman

***Braided into the Image: Ritual Depiction and Continuous Fabrication at Ajmer***

Within a first floor room of a factory housed in the Gangadhar Ji Ki Haveli in the Naya bazaar of Ajmer, India, a loom is restrained by a rope bolted through the centre of a fictive scene painted on the wall to keep the machine in position. The painting has been identified as depicting the “celebration of the ninth or tenth day of Dasahra in Jaipur” and shows a “puja to the royal vehicles of war - elephants, horses, camels, carts, palanquins, etc”. The paintings are in a Jaipuri tradition, either early 19<sup>th</sup> or possibly late 18<sup>th</sup> century. The puncture appears to be sensitively positioned, through a blank middle ground of white. We were told at the factory that their products; “all kinds of Gota Fancy Jari and Metallic Goods” are mainly sold to the many thousands of pilgrims visiting the Dargah at Ajmer annually. Should the relationship between the painted scene and the mercantile activity supported by ongoing ritual traditions be regarded as a poignant overlaying or a serious conservation risk?

A ruinous neighbouring site shows the economic threats at hand. Arguably the makeshift canopy over the inner courtyard, erected to facilitate the storage of materials has saved this building from obsolescence. The presence of the machines may even be seen in a positive light; ensuring that the frescoes are not overly impacted by high levels of humidity from modern domestic activity. The pigments are protected from natural light by permanent shades. In addition, its connection with the weaving, the ritual traditions of dress and occasion that surround the Dargah, make a literal thread from past to present, albeit transformed into “Rayon, Nylon and Metallic Yarn”. Nevertheless outside, the indifference appears more concerning, the elephants flanking the entrance are already half rendered in cement. On the face of it, it might be assumed that conservation management must begin and activity be suspended. However, it may also be read as a demonstration of specific path of continuity, an economic business model upheld by the ritual significance and almost unique cosmopolitan spiritual activity of the city itself.

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S.V. Rajesh, Brad Chase, G.S. Abhayan, Y.S. Rawat, Ambika B. Patel, Ajit Kumar,

Charusmita Gadekar, Akinori Uesugi, Bhanuprakash Sharma, Haseen R. Raja, P. Ajithprasad, Prabhin Sukumaran, Saleem Shaikh, Muhammed K. Fasal, Ananthu V. Dev, M.N. Renjinimol and Reni P. Joseph

***A Glance into the Archaeological Field Investigations of a Harappan Settlement at Navinal in Kachchh District, Gujarat, India***

Located in the northern margins of the Gulf of Kachchh in Mundra taluka, Kachchh District, the archaeological site of Navinal (22° 49' 17.5" N, 69° 35' 49.9" E) was first reported by S. R. Rao in 1963, and systematic surface surveys during 2013-14 demonstrate cultural remains of the Integration and Localization eras of the Indus Civilization. In 2013, a long term multidisciplinary international research project entitled 'Archaeological Excavation at Navinal in Mundra Taluka, District Kachchh and Exploration in Kachchh District, Gujarat' was launched by archaeologists from the University of Kerala, Kachchh University, Albion College (USA), Gujarat State Archaeology Department and the M. S. University of Baroda with financial support from the University of Kerala and the Archaeological Research and Conservation Program: India and Pakistan (ARCIPI). This project has been launched in order to understand how the residents of small rural settlements in Kachchh were integrated into the interregional interaction networks of the Integration Era and how these patterns of social interaction changed during the subsequent Localization Era. In addition to ceramics, our surveys have found typically Harappan-style objects of material culture including terracotta objects, shell bangle fragments, beads and other ornaments crafted in stone, shell and terracotta, as well as a large number of copper tools and stone tools and debitage characteristic of the region. Many features indicative of stone and mud brick architecture and indicators of craft production (copper working, pottery production, shell working) are visible in various parts of the site. Faunal remains found on the surface of the site show calcification suggesting substantial antiquity. A large number of charred and uncharred otoliths of a variety of fishes and fish vertebrae were also collected from the site. The paper deals with detailed results of the field investigation, typological analysis of artifacts and issues of craft production at the site.

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Rajpal

***Archaeological Exploration in the Jind District of Haryana (India) with Special Reference to Agro-pastoral (Pre-Harappan) Communities to Later Harappans***

The region of District Jind is extremely rich archaeologically and, thus has been the focus of research since the middle of the last century. Archaeological activities in the area initiated by Suraj Bhan in the 1960s and 1970s was responsible for starting explorations in the region (IAR 1966:67 ;Suraj Bhan 1975), D.S. Dhatarwal (1978) explored the Safidon tehsil of Jind district. It was 1978 when the American scholar Jim. J. Shaffer and Suraj Bhan placed the history and archaeology of the Jind region on the world platform (Suraj Bhan and Jim J. Shaffer 1978). Thereafter Braham Dutt explored this region (Dutt 1980). Sat Dev (1981) explored the Jind tehsil of the study area and later Amar Singh explored this region for his Ph. D. research (Amar Singh 1981). J.P. Joshi of the Archaeological Survey of India also conducted explorations in the area (Joshi 1984). After a long gap Vivek Dangi explored the southern half of Jind district (Dangi 2009; Dangi 2010). Scholars from Cambridge University and Banaras Hindu University also explored some sites in the region (Singh et al 2010:49). Sheela Devi (1978) and Devendra Handa (2006) brought to light some art pieces from this area. In addition to these explorations, the Hatt site was excavated by M.D. University, Rohtak (Kumar 2012) and Kisrola in the Julana tehsil was excavated by the Archaeological Survey of India and Deccan College, Pune, under the direction of Vasant Shinde and P.B. Sanger (2012). Excavations at Kisrola brought to light a continuous cultural sequence from

Late Harappan to Early Medieval.

With this archaeological background of the region, the present researcher took up exploration in the region. As a result of this effort 284 sites were explored, out of which 59 new sites were placed on the archaeological map for the first time. In addition to this a number of sites have yielded new cultural remains not reported by previous scholars. These sites show a cultural sequence from the Ghaggar Hakra Culture to the medieval times. Almost all the sites are either under cultivation or under modern habitation. Pottery and other associated finds of the different cultures were collected from these sites not only to study the different aspects of the cultures. Moreover, this effort has also filled a major hole left by previous investigations. Generally speaking, earlier researchers had not given details about the location, size and coordinates of the settlements. Secondly, some of the sites need thorough investigation in order to obtain more data, and as a consequence of this a number of sites have yielded new cultural remains which were not reported earlier. In order to collect archaeological material, the researcher undertook a village-to-village survey in District Jind.

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Imma Ramos

***From Akbar to Ambedkar: Retelling the Story of South Asia at the British Museum***

In 1992 the British Museum renovated its gallery dedicated to South, Southeast and East Asia (Gallery 33). Plans are now underway to dramatically redevelop this gallery with a scheduled opening in November 2017. This paper will focus in particular on the gallery's current and proposed South Asia displays. The opening will tie in with the 2017 UK-India Year of Culture, a year-long programme to celebrate the 70th anniversary of Indian independence and UK cultural ties. Since 1992 the emphasis of the gallery's South Asia display has rested on the religious sculpture of the medieval period (with a focus on Hindu, Buddhist and Jain works). This has limited the representation of South Asia in chronological, material and religious terms. Although partly a response to the strengths of the collection, these limitations were also due to a particular set of restrictions, including the inability to exhibit fragile works in daylight conditions (such as paintings). The plan for the 2017 redevelopment will be to showcase, for the first time, light-sensitive material on a rotating basis. The narrative of the gallery will also change significantly: the approach will be chronological and geographic with an emphasis on cultural history and cross-cultural exchange. This will provide an opportunity to take the gallery right up to the modern and contemporary periods, including displays of the Indo-Islamic cultures of the Sultanates and Mughals as well as displays of colonial encounter, exploring histories of South Asia and Britain. Ending the gallery with a display of 20th and 21st century works will allow the museum to showcase politically motivated works, including responses by artists to colonial and post-colonial debates and experiences. This paper will thus provide a behind-the-scenes insight into the process of shaping this new gallery, and will touch upon emerging challenges encountered along the way.

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Ellen M. Raven

***Beauty on the Beast***

A major change in the formatting codes underlying early Indian iconography manifested itself when gods and goddesses other than Indra started to ride mounts as part of their identity. Moving from representations that combine a standing, hieratic, divine figure with an emblematic animal, to imagery that expresses the link through a rider-and-mount motif, was in fact a gradual process. Hinted at in early art for images of *yakṣas* and *yakṣīs* mostly, the new 'mode' gained some true momentum only from the later Kuṣāṇa and early Gupta period

onwards. And it was employed for a select few divine figures only, so it seems.

Among the art that can definitely be dated to the 4<sup>th</sup> and 5<sup>th</sup> centuries are the engravings for the numerous dies that were necessary to strike the gold coins of the Gupta kings. The presence of Gaṅgā balancing on her *makara*, on coins of Samudragupta and of his grandson Kumāragupta I, show how close the engravers were in touch with the iconography of riverine imagery in other media of their time. The glorious images of Kārttikeya on coins of Kumāragupta I, as discussed by me at the South Asian Archaeology conference in Vienna in 2010, are the unmistakable counterparts of similar imagery, though still rare, at the sites of Udayagiri and Mathura.

In developing a *mūrti* of the goddess Śrī in which she is shown mounted on a lion, the die-engravers may well have been iconographic pioneers in the North Indian artistic landscape of Gupta times. Within the coin corpus she first makes her appearance on specific coins of Samudragupta, and subsequently she recurs on coins of several successors up to Skandagupta.

My paper examines the engravers' visual experimentation (how should a divine lady sit on a lion?) with quite variable results as we shall see, in their attempts to develop an acceptable, mounted image of the Beauty on the Beast.

Sikhasree Ray

***Terracotta Ornaments from Early Historic Excavations in Odisha and their Representations in Sculptural Art: A Gender Perception***

The recent excavations at the Early Historic fortified urban centres of Sisupalgarh, Radhanagar and Talapada in ancient Kalinga, Eastern Odisha, have produced large numbers of intricately crafted terracotta ornaments. These include terracotta ear spoons, ear studs, earrings, beads, bangles, pendants and bullas, which add to a corpus of ornaments that includes semiprecious stone beads and metal ornaments. The excavations have shown that the number and design of these ornaments considerably increased during the latter phase. Some of these ornaments are very close in their theme and execution. Some can be considered as having common production centres, and later distributed to all these far off places. Alternatively craftmakers had the same strong traditional training and ethos. The settlements in question date from around the 7<sup>th</sup> century BC to the 6<sup>th</sup> century AD. Contemporary to the latter phase of these settlements, are several monuments, caves, temple and isolated images pertaining to the various religions like Jainism, Buddhism and Brahmanism that are found in the vicinity of the settlements. The sculptures and the icons on these monuments both belonging to male and female figures shown wearing varieties of ornaments which have very close similarities to those found from the excavations. This has given an excellent opportunity for understanding and correlating the findings in order to determine who would normally have worn which type of ornament, especially in terms of gender affiliations and distinctions. Besides this, there is a possibility of observing their social status and any other religious differentiations and connotations reflected through this medium.

Patrick Roberts

***Stable Isotopes and Human Adaptations in the Late Pleistocene–Holocene Rainforests of Sri Lanka***

Until recently, archaeologists suggested that intensive rainforest occupation and exploitation by our own species began at the start of the Holocene. Yet, over the last decade,

archaeological research in Africa, Southeast Asia, and Melanesia has suggested that humans were able to inhabit and exploit rainforest ecologies at least as early as 45 ka (thousand years ago). South Asia has provided a particularly interesting case study in this regard given that the earliest appearance of *Homo sapiens* fossils in the region (c. 36 ka), associated with early microlith toolkits, bone tool assemblages, personal ornamentation, and complex hunting strategies, come from the Wet Zone rainforests of Sri Lanka. Existing research into early human rainforest adaptations, both here and elsewhere, however has, to date, relied on indirect pollen, archaeobotanical, and archaeozoological palaeoenvironmental records, of unknown resolution and catchment, in association with archaeological sequences. As a result, the nature, longevity, and potentially seasonal role of these ecosystems in early human subsistence have remained under-explored.

Collaboration between the University of Oxford and the Department of Archaeology, Government of Sri Lanka, applied stable carbon and oxygen isotope analysis to human and faunal tooth enamel from four Late Pleistocene to Holocene archaeological sites in Sri Lanka. Based on the “canopy effect”, whereby forest-dwelling animals have more negative  $\delta^{13}\text{C}$  than those spending some, or all, of their time consuming open-habitat foodstuffs and/or  $^{13}\text{C}$ -enriched  $\text{C}_4$  tropical grasses, this methodology provided direct insight into human rainforest reliance and subsistence.  $\delta^{18}\text{O}$  measurements complement this distinction, with more depleted  $\delta^{18}\text{O}$  in animals experiencing closed forest conditions relative to more insolated, open areas. Our results show that human foragers relied primarily on rainforest resources from at least ~36,000 years ago, with a distinct preference for closed and semi-open rainforest ecologies. Therefore, while tropical rainforests have faced a long ecological and anthropological history of being characterised as untouched, our data demonstrates the time-depth and intensity of anthropogenic reliance on the rainforests of South Asia.

While currently little utilised in South Asia, this work also highlights the diverse potential of stable isotopic analysis in the various environmental and prehistoric contexts of this region of the world.

Abdul Samad

***Changing Perspectives in Pakistan Archaeological Researches: Case Study of the Bhamala World Heritage Site***

The World Heritage site of Bhamala is located (N 33° 49.971' E 72° 58.554') in the extreme northern part of the Khanpur valley, a sub-valley of the Taxila valley, on the right bank of the River Haro. An ancient route through the Muree and Margalla hills that connected the Taxila valley with Kashmir ran along the left bank of the River Haro.

The geographical position of Bhamala, coupled with the unique cruciform style of stupa and its relatively well-preserved nature, drew our attention to the site. The site was first excavated by Sir John Marshall in the later part of the 1920's and early 1930's and since then has never been examined in detail. The main purpose of our excavation of the Bhamala site was to introduce the latest excavation techniques to the excavation of Buddhist sites in Taxila valley. These have never been practiced or applied in the excavations of Buddhist sites in the Taxila valley. The recent excavations showed several phases of occupation and the radiocarbon dates provide the first conclusive dating for the destruction of the site.

This project is a joint venture between the Directorate of Archaeology and Museums, Government of Khyber Pakhtunkhwa, Department of Archaeology Hazara University, Masnehra, and the Department of Anthropology, University of Wisconsin, USA. We also aimed to train our staff, undergraduate, graduate and professional archaeologists and

conservators in Pakistan in the latest excavation and recording techniques.

Thus, the purpose of this paper is to share the results of two seasons including finding remains of the oldest statue of *mahaparinirvana*, unique Buddhist statues, coins and seals and to highlight the understanding of Gandharan Archaeology with some new interpretations.

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Hayley Saul, Emma Waterton

***Restoring a Nyingma Buddhist Monastery in Nepal: A Window on Local Heritage and its Conservation***

This paper reports the results of several years of collaborative community efforts to restore the Tibetan Buddhist monastery (gompa) in the village of Langtang, Nepal. The restoration work was entirely local-led and executed by traditional artisans from the village. Through a combined analysis of selective changes to the materiality of the gompa, as well as semi-structured interviews with local monastery-users, the relationship between materiality, antiquity and authenticity was explored from an indigenous standpoint. These investigations are a move towards framing a Langtangpa (people of Langtang) notion of their heritage. Such local representations are timely for heritage management policymaking in Nepal, which has seen an increase in ethnic politics in the last decade, as a counter-balance to centralized government authority, as well as a source of empowerment for the local community of Langtang following devastations brought about by the April 2015 earthquakes.

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Carolyn Woodford Schmidt

***The Trisūla Motif in Gandharan Buddhist Art and Culture: A History of Origins, Transmission, and Values***

One of the most captivating and artistically significant motifs created in the expansive and eloquent symbolic language of ancient South Asian art is a three-pronged motif that is often referred to as a *trisūla*. Although most of the early evidence for the beginnings of the Buddhist tradition has been lost, from the second century BCE onward, extant evidence in art and architecture attests to the acceptance of an already well-developed set of Ancient Indian royal and Vedic symbols. These symbols, in which the *trisūla* played a notable role, are not distinguished as separate from the primary currents of Indian culture and other religions. In addition to both material and spiritual wealth and good fortune, the interpretations most commonly ascribed to this motif are of power, authority, and protection.

The *trisūla*, having been transmitted along the routes for trade, communication, and movements of peoples, was extremely important iconographically to a number of Buddhist centers across the South Asian landscape from at least circa 185 BCE to the third or fourth centuries CE. In addition to chance findings of dazzling gold ornaments for personal adornment, replicas of necklaces with *trisūla* ornaments were incorporated into the beneficent *kalpalata* or creeper of the world-period, narrative-relief panels, and used to adorn a standing image of a *yaksi*, an auspicious spirit of nature, at the *stupa* at Bharhut. By the first century CE, this symbol had become important at Sanchi and in greater Gandhara. At some point, in conjunction with Mahayana esoteric traditions, it was transmitted to Japan.

In an age when most individuals could not read or write, symbols, such as the *trisūla*, served very notable didactic purposes as outward signs of things immaterial, spiritual or not present,

and, perhaps, embodied a wide range of additional meanings, particularly in the religious contexts of Buddhism.

Arputharani Sengupta

### ***The Planets in Greco-Buddhist Reliquary Cult***

An analysis of the relationship between Buddhist iconography and tomb markers indicates that the archaeology of ancestors combines Tomb Cult and Hero Cult. The obligation to identify individuals rarely arises. As a consequence the motivation behind the unprecedented Reliquary Cult is obscure. Commemoration of the dead in the Mystery Religion follows the passage of the sun and the moon. Meaning of innovative Buddhist form and function can be best understood from current Hindu beliefs and customs. Commemoration takes place on Makar Sankranti in mid-January when the sun on its celestial path transits from Sagittarius to Capricorn during the winter solstice in the northern hemisphere (Uttarayana). The sun ascending in the northern hemisphere is propitious while the descending southern signs are considered malevolent Mara, from the Indo-European root *mer* meaning to die. The year-long cyclic rituals are meant to avert Mara. Saturn is lord of Capricorn called *Makar Rashi* that signals regeneration of the invincible solar deity incarnate in Greco-Buddhist and Roman culture. The *makara torana* in Buddhist tomb monuments is the gateway to a bounteous hereafter signified by Gajalakshmi and Hariti holding cornucopia. The homonym Mahakala meaning infinite time and immense black or space is indicative of Saturn (Chronos) and his elephant leading reliquary processions. The denticulate Harpa (Ankusa) held by Saturn identify goddesses of the underworld as well. Apart from several Elysian deities, Saturn's consort Demeter (Hariti) and his daughter Isis-Venus (Srima Devata) hold the mirror of life in Intercultural Style. The goddesses and cosmological deities as guides of departed souls merit careful consideration. Secret eschatological doctrine surrounding the toga clad BOΔΔO introduced several pseudoscientific systems of divination in Greco-Buddhist art notable for the Pythagorean Semicircle and Circle. The reliquary cult suggests that distinct Imperial family history can be uncovered in the funerary deposits.

Sushmita Sen

### ***Terracotta Figurines from Early Historic Gujarat***

Terracotta art is a creative process which goes through different stages of evolution which reflect the culture and its people. Archaeological evidence of terracotta art exhibits a wide variety of craft in India associated with almost all periods such as children's toys, household decoration, and religious objects used in worship and rituals. In all regions clay has been used in variety of forms, which indicates certain stylistic variations. The study of terracotta figurines depicting both human and animals in Gujarat from the excavated sites will be a unique endeavour.

With the emergence of Chalcolithic culture in Gujarat, there dawned a new cultural epoch which exhibited a considerable advancement in the art of baked clay objects. These objects developed in to new forms while others remained the same. It is an articulation of different cultural aspects reflecting the socio-economic, cultural, and artistic traditions of urban and rural society.

In the Early Historic period Gujarat saw a decline in human and animal figurines. The animal figurines were more realistic and better modelled. They were found in large numbers and different varieties of animals were modelled in clay.



Since Gujarat is situated in the Western Littoral, many traders and foreigners came to this region to exchange goods and this is reflected in the style of terracotta figurines. The human figurines were now found in different poses and foreign traits are observable. It is presumed that the human figurines may have been involved in a cultural or ceremonial event.

The aim of this paper is to study the stylistic changes in type and design of terracottas in different cultural periods of Early Historic Gujarat. This work aims to present and discuss the results of an analysis of an assemblage of terracotta figurines and the technology of making these figurines.

Swadhin Sen

***Problematizing the ‘Early Medieval’ in South Asia: Some Propositions on the Basis of Full-coverage Surveying, Excavation and Geoarchaeological Studies in the Northwestern Part of Bangladesh***

The temporal range from *circa* the 6<sup>th</sup> to the 13<sup>th</sup> century CE is identified as the ‘Early Medieval’ period in South Asia, though some scholars have recognized this period as ‘medieval’. Without delving much into the debates on periodizing categories it can be asserted that the importance and centrality this particular period has gained in the domain of the discipline of history is immensely voluminous and variegated. Based predominantly upon textual and epigraphic sources, various strands of history writing have taken refuge in archaeology essentially for the material support for their respective arguments. As a discipline, archaeology has developed its methodology on its own terms in relation to other disciplines. These terms have hardly been negotiated in these strands/paradigms owing to contextual conditions of the disciplinary traditions of scholarship. In this paper, I will try to draw together the ‘history of the Early Medieval’ with the ‘archaeology of the Early Medieval’ in reference to our archaeological studies in the northwestern part of Bangladesh (in the past known as Varendri/Gauda/Pundra). Along with agrarian expansion, third urbanization, integrative and processual, segmentary, and/or feudal polity and state formation, the development of regional realms and formation of a Brahmanical worldview is juxtaposed to this particular period. With the aid of a full-coverage archaeological survey, horizontally inclined and stratigraphically informed excavations and understanding of landscape context, alternative narratives of the Early Medieval are sought in terms of currently trans-disciplinary theories and methodologies in archaeology and in relation to dominant historical narratives. It is found, for example, that several concepts and spaces of established historical narratives can be questioned and rethought in the light of our research in some areas of Varendri, albeit small in spatial coverage. For example, the notion of urban/rural dichotomy is found to be invalid in terms of settlement nature and formation, the settlement pattern and continuity are much more dependent upon the landscape variables like history of rivers, the religious traditions and their interactions and reconfigurations are much more complex and conditioned by Pan-Indian, regional and sub-regional structures and relations of power. Finally, I attempt to look for an archaeologically nuanced past in reference and in relation to a textually and epigraphically informed history making without trivializing their importance in attending to the past categorized as ‘Early Medieval’ through our archaeological research in a sub-region of Bengal.

Ifqut Shaheen

***Alexander Cunningham’s Exploration at Taxila and its Appreciation in the Light of his Methodological Framework***

Indo-Pakistani archaeology has seen a great many theoretical and methodological developments from the start of 19<sup>th</sup> century. Right from the time of James Prinsep until today vacillations in this regard may be appreciated in terms of paradigms and paradigmatic shifts. One important name in relation to these epistemological debates is Sir Alexander Cunningham who is also known as “the father of Indian archaeology”.

Cunningham and his works, a huge corpus of archaeological explorations reports, have recently been subjected to critique from the theoretical standpoints of internalism and externalism. But there still remains great work to be done specially with a tight spatial focus. In this context, the present study first attempts to elaborate Cunningham’s methodological approach. In the next step, it analyzes his explorations and archaeological reports about the Taxila valley in the light of his methodological framework. Finally, we get a vivid understanding of Cunningham’s work in the context of intellectual milieu of the time. Furthermore, an appreciation and critical analysis of Cunningham’s work in the light of his own research agenda will be achieved. In this way, the beginning of archaeological activity at Taxila will be contextualized against the backdrop of historical and archaeological methods prevalent, particularly, in Indo-Pakistan at the time and across the world at large.

Mandira Sharma

### ***Between Men and Gods: Kinnaras in Texts and Ajanta***

The place of semi-divinities in world religions is well-known. The paintings of Ajanta, although more famous for their Buddhist narrative tradition, also follow, with sensitivity, the tradition of depicting several semi-divine beings, of which the *kinnaras* form one class. Though otherwise frequently depicted in early Indian art, the study of *kinnaras* and other similar beings seems to be to some extent meagre. This article attempts to examine the meaning of the word *kinnara*, and considers how these celestial beings with their two-fold visage of human-equine and human-bird are constructed in Indian literary and *śilpa-śāstric* tradition. The paper also reflects on the distinction of ‘*kinnara*’ from ‘*kimpuruṣa*’. Sometimes, *kinnaras* are mistaken as *kimpuruṣas*, which latter too are represented in human-equine form, thus seeming to blur the distinction between the otherwise two clearly separate beings. In this context, the paper tries to take into account the literary sources like *Amarakośa*, *Vācaspatyam* as also *Citrasūtra* of *Viṣṇudharmottara Purāṇa*, to provide their view of the *kinnaras*.

The paper then discusses how *kinnaras* with their two-fold appearance already found in Indian literary / *śilpa-śāstric* tradition and in art, came to be re-imagined or expressed in visual art in Ajanta paintings. The manner in which they make an appearance at Ajanta is an aspect which is critical for understanding their iconographical form. One is here almost forced to ponder over their presence in Ajanta paintings, since at least at some places there, they are represented more often in human-bird countenance than in human-equine one.

Daniela De Simone

### ***Mauryan Antiquities from Pāṭaliputra***

Pāṭaliputra, seat of the Mauryan dynasty and capital of the first Indian empire, was identified with modern Patna, Bihar in the 19<sup>th</sup> century. Excavations started in 1892 and went on, discontinuously, until the end of the 1950s. Remains of wooden structures were unearthed at different sites around Patna, along with a stone pillared hall that was discovered at Kumrahar, a residential area of the modern city. Several antiquities were recovered during excavations,

including early punch-marked coins, inscribed glass seals, ring-stones and elaborated terracotta figurines, such as the famous so-called ‘dancers’ of Bulandibagh.

Dating Mauryan antiquities is problematic, as it is a process exclusively based on stylistic and typological grounds that are not always consistent with a Mauryan origin. The number of unambiguously Mauryan objects is indeed very limited: the archaeological evidence of the “Mauryaness” of many artefacts is lacking or, at best, very weak. Excavations at Mauryan sites, mostly conducted between the end of the 19th century and the first half of the 20th century, were carried out without the support of the stratigraphic method, and for many significant finds even the exact findspot is unknown.

The case, for example, of the famous stone image of the *yakṣī* of Didarganj is emblematic. The lack of stratigraphic evidence and of other contemporary and comparable specimens has led to speculations on its date spanning over 500 years. The sandstone sculpture was finally dated to the Mauryan period simply on the basis of the mirror-like polish of its surface, similar to that of the Aśokan pillars, but it is, in fact, a Kuṣāṇa work of art.

The paper will present a new review of the Mauryan antiquities recovered during excavations at Pāṭaliputra based on the author’s ongoing research on the Mauryan capital.

Pushp Lata Singh

### ***Recently Explored Ancient Settlements in District Sravasti, Uttar Pradesh (India)***

The present paper is primarily based on an archaeological survey along the Rapti River and its tributaries in district Sravasti (27°31’1.5”N; 82°32’2”E), Uttar Pradesh, India. It was the centre of gravity for all kinds of activities - social, religious and political in the days of the Buddha. The extensive explorations have been carried out by me in Ikauna, Jamunaha and Bhinga tehsils in district Sravasti and have brought to light approximately sixty new settlements. The ancient settlement pattern on the northern fringe of the Bhinga Tehsil in district Sravasti (the low lying Terai) is almost continuously under water during the rains. Hence this area is ecologically less favourable for human occupation. It seems that the northern fringe of the Bhinga area was sparsely settled during ancient times. Even today this area is not densely populated.

The area was, however, inhabited from the pre-Northern Black Polished Ware Culture until the Medieval Period, though it is apparent that the density of the settlements increased during the Kushan Period. The longevity of the settlement was due to the nearness of the Buddhist pilgrimage site. Buddha stayed here for as many as twenty-five rainy seasons (*chāturmāsya*). Another factor is that Sravasti stood on a high road, which connected the most important places of Buddhist India including Rajgriha to the east, Taxila to the northwest and Pratisthan to the south. Sravasti lies on the *Uttarapatha* trade route. During the Kushan period not only did the number of settlements increase, but their size also expanded which proves that the population burgeoned in the area. These explored sites had both single and multiple phases of occupation. Several single Kushan settlements were also reported in the area. The average spacing between two settlements was 3 to 15 km. The interesting finding is that the cluster of Kushan settlements was also concentrated near to the Buddhist shrine within a radius of 10 km.

Ravindra N. Singh, Cameron A. Petrie, Aftab Alam and A.K. Pandey

### ***Graffiti on Potteries from Ganeshwar: A Possible Linkage with Harappans***

Ganeshwar was excavated by Vijay Kumar in 1982 and 1984, and by P.L. Chakraborty and Vijay Kumar between 1988 and 1989 for four seasons. They documented over a thousand copper implements in association with the OCP (?) in addition to other materials (*IAR*, 1982, 1984, 1988, 1989).

In order to assess its chronology, its role in copper metallurgy and the possible links with Harappans, the site was subjected to a small scale excavation by the archaeologists of the Banaras Hindu University under the direction of R.N. Singh during 2013. Excavations revealed a cultural sequence from the Mesolithic to the Chalcolithic with a flimsy deposit of the Iron Age just below the topsoil represented by a few iron objects. The potteries were largely wheel-made, with a few hand-made as well. Isolated and small bits of coarse red ware were recovered from the upper layer of the Mesolithic level. These fragments were too small to indicate any shape. Potteries from the Chalcolithic or Ganeshwar Culture include: Red Ware (coarse and fine), Dull Red Ware, Red Slipped Ware, Incised and Deep Incised (20 %), Chocolate Red Slipped, Reserved Slip, Post-firing scratching and also an appreciable quantity of pot-sherds with graffiti marks.

The shape includes vases, bowls, jars, dish on stand, legged bowls, goblets, handles, miniature pots, etc. In addition to paintings, incised designs include groups of parallel bands, chevrons, herringbone pattern, criss-cross, short strokes, nail and thick wavy lines, etc. Amongst the incised potteries, a large number have deep incisions with painting in black and incisions with the alignment of paintings (in black or red). In applique designs, generally a strip of clay was affixed to the exterior of the vessel at the point of carination below the shoulder and by cutting, incising and other methods, various types of rope and chain patterns were made on the clay. But at Ganeswar the applique design was made on the shoulder without adding the additional strip of clay while at other sites a strip of clay was affixed. There was no slip below the applique designs.

An attempt has been made to study and compare the graffiti of Ganeshwar pottery with the graffitied pottery of the Harappan civilizations. Our preliminary study revealed that a good number of Ganeshwar graffiti has similarities with the Harappan graffiti (scripts?). In addition to graffiti, carnelian beads identical to the Harappan steatite beads and Harappan potteries were also unearthed from our excavations.

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Sutapa Sinha

### ***Coin Hoards Vis-à-vis Coin Collections of the Bengal Sultans Preserved in the Museums of Europe***

In connection with my research on the coin hoards of the Bengal Sultans and their dispersal in the 19<sup>th</sup> and 20<sup>th</sup> centuries, six public collections in Europe have come to light for preserving quite a good collection of coins of the Bengal Sultans, Delhi Sultans and other provincial Sultanates of India. The focus of the present discourse is only on the collections of the Bengal Sultanate coins (AD 1205-1576) preserved since the 19<sup>th</sup> century in these museums with an emphasis on how these coins from coin hoards have made their way to these museums from Bengal and their significance towards the study of lost coin hoards of the series unearthed in the 19<sup>th</sup> and early 20<sup>th</sup> centuries.

Apart from the coin cabinet of the British Museum, London, three other public collections in

the United Kingdom namely the Ashmolean Museum, Oxford, the Fitzwilliam Museum, Cambridge, and the Royal Museum of Scotland, Edinburgh have been found to preserve coins from the coin hoards of the Bengal Sultans, not previously known. In France, a very small collection of seven coins of the same series is preserved in the Cabinet des Medailles of the Bibliotheque Nationale, Paris. Another very important collection has been preserved since 1876 at the Munzkabinett of the Bode-Museum, Berlin, where more than 80% coins have come from the famous Cooch Behar hoard uncovered in 1863.

None of the aforesaid collections have published any updated coin catalogue so far. The British Museum catalogue for Indian coins was published back in 1885 by Stanley Lane-Poole where only one hundred and sixty-two coins of the Bengal Sultans were included. Only seventeen coins of the series in Ashmolean Museum, which were then in the custody of the Old Bodleian Library were published by Lane-Poole in 1888 but the collections preserved in the Fitzwilliam Museum, Royal Museum of Scotland, Bibliotheque Nationale and Bode-Museum remained totally unpublished. An in-depth study and documentation of all these collections was made years ago and I would like to present a brief discussion as stated above.

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Fabrizio Sinisi

***Royal Imagery in the North-West Before the Kushans: Sakas and Yuezhi***

We still lack broader studies on the development of royal imagery in the region of the so-called Indo-Iranian Borderlands in antiquity. The Kushans have received some attention, but not in a really systematic way, and the preceding periods have been even more scarcely addressed by scholars. Needless to say, this is of course largely due to the nature of the documentation. Yet the available evidence is growing, and this allows the assessment of some specific problems.

The paper will deal with royal imagery as mainly attested by coins, which are the richest source at our disposal, in order to outline the main features of the two traditions that we define as Saka and Yuezhi. The focus will be on their peculiar traits as well as on their possible inter-relation, including points of contacts with further contexts, such as e.g. the Indo-Parthian one, aiming at a broad picture of the development of royal iconography before the final establishment of Kushan patterns of imperial imagery occurred under Vima Kadphises. In the framework of an approach based on the detection of patterns of transmission rather than on mere descriptive analyses, the indications coming from coinage will be systematically compared to the evidence provided by non-numismatic materials. This will result in a wider perspective illustrating the potential of approaching visual evidence from different media, and at the same time will allow the highlighting of the conventional character of some of our definitions and the consequent impact on the relevant interpretative paradigms.

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Michael Skinner and Wannaporn Kay Rienjang

***Localizing the Apraca Dynasty: New Evidence for an Old Problem***

In the centuries around the turn of the Common Era, Śakas, Indo-Parthians, and local elites all vied for control over Gandhāra. One of these localized powers were the Apraca Rajas, a dynasty that emerged in the late first century BCE and remained in power throughout the first century CE. This short-lived, but culturally significant dynasty is known from seventeen inscriptions, twelve of which are found on Buddhist reliquaries, and from coins bearing their

names. This evidence indicates that the Apracas considered themselves legitimate rulers, yet the extent of their territory remains unresolved. It has been argued that they ruled over Bajaur, a region in northern Pakistan along the Afghanistan border, but identifying the exact location of the Apraca kingdom has proven difficult.

Recent research on the physical characteristics of Gandhāran stone reliquaries suggests some continuity among those produced by the Apracas. These characteristics are otherwise mostly restricted to reliquaries from eastern Afghanistan, and rarely occurred on reliquaries from other areas in Gandhāra. Based on these characteristics, and the coins found with the reliquaries dated to this period, this paper proposes a first to second century CE date and eastern Afghanistan and Bajaur as the time and place for the production of the Apraca reliquaries.

In our presentation we will combine this new evidence with the existing body of knowledge on the Apraca dynasty to assist in determining the extent of Apraca rule. Michael Skinner will review the epigraphic, numismatic, and archaeological evidence and Wannaporn Kay Rienjang will present her new reliquary analysis in order to situate the Apraca dynasty within Gandhāra. With the location of the Apraca dynasty more firmly established, our research helps to clarify the political landscape of Gandhāra in the first century CE.

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Anna A. Ślaczka

***How to Make a 'Cōla Bronze'? Theory and Practice of Bronze Casting in South India.***

There are numerous publications dealing with the subject of the Cōla bronzes. Considering the amount of literature on this topic, one gets an impression that everything that needs to be said has already been said. But nothing can be further from the truth. The majority of the publications discuss in detail iconography and style, leaving out the technological aspects, which are of less interest to art historians. Information about production technology, if included at all, is rarely based on scientific research. The same is true for the instructions allegedly found in the ancient Sanskrit and Tamil treatises on art, which are often misquoted. The results are incorrect, or at best imprecise, statements often repeated by several authors.

The present paper discusses the techniques of bronze casting in the Cōla period and now in an attempt to clarify the often contradictory statements found in publications. Attention will be given to topics such as solid *versus* hollow casting and the so-called *pañcaloha*, an alloy of five metals. Finally, I will present the preliminary results of the scientific research of the monumental 12<sup>th</sup>-century Naṭarāja-bronze from the collection of the Rijksmuseum, Amsterdam.

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David Smith

***The Apsarases of Khajuraho – An Overview and an Analysis***

This study is part of my book in-progress on Hindu Eroticism, and summarizes my reflections on the apsaras as found in Khajuraho. It is based on a catalogue and photographic record in progress of all apsaras extant in Khajuraho (catalogue currently covering Lakṣmana, Viśvanatha and Kāndariya temples). I analyze the types and the forms of the sculptures, and also discuss previous treatments, most notably those of Stella Kramrisch and Devangana Desai. The apsaras will be shown to enable the creativity of the sculptor, and at the same time to be an expression of feminine creativity, not least of woman as writer of letters. I will also

consider the problem of the relation of the apsarases to the erotic sculptures featuring human males and indeterminate females.

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Monica L. Smith and Rabindra Kumar Mohanty

***Excavations at Talapada (Odisha): The Role of Town-sized Sites in the Urbanisation of the Eastern Indian Subcontinent in the Early Historic Period***

The Early Historic town site of Talapada, located 40 km southwest of the ancient city of Sisupalgarh in eastern India, has been the focus of a three-year project of geophysical survey and excavations by a joint University of California (Los Angeles, USA) and Deccan College (Pune, India) team. The site, which is bounded by a formal rampart and gateways, provides the opportunity to understand the growth of urbanism from a regional perspective. Until the time of its discovery in 2011, the only known fortified sites in the region were the large urban settlements of Sisupalgarh and Jaugadh, each of which are approximately one square kilometer in size with a rectilinear fortification pierced by two gateways on each side. At Talapada, aerial imagery revealed a square formal configuration with four gateways (one in the middle of each side of the rampart) with a total area one-quarter the size of Sisupalgarh.

The main objective of the research project was to investigate daily life at Talapada through the study of architecture and artifacts. The team has undertaken excavations in eleven different areas including domestic and monumental architecture, the rampart, and gateways along with areas inside and outside of the formal perimeter rampart. Artifacts and architecture recovered at Talapada confirm the contemporaneity of the site with Sisupalgarh, and that the inhabitants of both sites were part of the same regional network of production techniques and consumption styles. But the town of Talapada also revealed a number of significant differences in lifeways and economic activity: although the rampart constitutes a formal boundary for habitation, the site appears never to have been fully occupied. The rampart is also very modest in height, indicating an economic or social perimeter rather than a defensive one, with evidence of elaboration at only one gateway (tellingly, the one 'finished' gateway faces Sisupalgarh). The inhabitants of Talapada appear to have relied primarily on perishable architecture for habitations in contrast to the stone and brick structures known from Sisupalgarh, and there were fewer ornaments and more storage vessels suggestive of a more self-reliant mode of provisioning.

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Natalya F. Soloveva

***Craft in the Early Eneolithic Period of Turkmenistan (A Sensational Discovery at Yylgynly-Depe)***

Yylgynly-depe (southeastern Turkmenistan) is an archaeological site of the tell type with an area of about 14 hectares and height of about 14 m. The settlement, which arose in the Early Eneolithic Age (Namazga-I period), acquired its maximum extent in the advanced Eneolithic period (Namazga-II) and had been gradually abandoned by the Late Eneolithic (Namazga-III). This cultural layer comprises approximately 20 building horizons of mud-brick architecture. Six horizons dating from Namazga-II period have been investigated.

In the Autumn of 2014 the expedition of IIMK RAS discovered a specialized workshop for manufacturing small clay plastic sculptures of the Early Eneolithic period at the turn between the 5<sup>th</sup> and 4<sup>th</sup> millennium BC (Late Namazga-I period).

The workshop included a large courtyard, working rooms, a container for drying the sculpted articles and a room with a special two-part kiln for firing. All the room corners, pilasters,

pylons and doorjambs were figured. Also noteworthy are numerous parts of furniture (legs, ledges with legs, ‘table tops’) made from unbaked or fired clay.

On the floor and in the fill of the workshop, in the container for drying and in the kiln there were found over 1700 intact, broken and rejected anthropomorphic and zoomorphic figurines, game chips, small lumps, disks and rings of clay. The quantity of small objects considerably exceeds the needs of the family occupying the building with the workshop. Hence there are grounds to suggest manufacturing of articles for other residents of the settlement, i.e. we are dealing with a group of ‘artisans’ indicating that even at such an early time there was division of labour. Therefore we must revise our knowledge of the social structure of the society of the Early Eneolithic period.

The discovery of the Early Eneolithic complex of a specialized workshop for manufacturing small ceramic plastics (5<sup>th</sup> to 4<sup>th</sup> millennium BC) is a sensation for Central-Asian archaeology. No complex of similar kind has ever been found by archaeologists before. Actually there have been registered single finds of collapsed kilns, pits and artefacts, the find-spots of which were called by researchers ‘workshops’ basing on associations of these objects, however these all date from later periods.

Kirsten Southworth

### ***Old Wine in New Skins? Changes in the Worship of Skanda-Karttikeya in Gandhara and Mathura***

A number of sculptures from the art-schools of Gandhara and Mathura have been identified as the Hindu god Skanda-Karttikeya. Yet the range of iconography of these early images suggests that the focus of worship addressed very different aspects of the deity, while only later does the iconography appear more unified. Furthermore, these images from Gandhara with a good provenance all come from Buddhist sites. The aim of this paper is to investigate the various objectives of Skanda-Karttikeya worship, their importance in different geographic areas and their changes over time due to political as well as socio-economic causes.

Doris Meth Srinivasan

### ***Queens and Crowns and Sorrowful Queen Maya - Part III***

Imagine that a Gandharan artisan wishes to emphasize the majesty of Maya. Visually, the tradition does not indicate her royal status. In narratives where Maya appears, context alone is the signifier. If the artisan portrays Maya giving birth, she may have a wreath on top of her head. But it cannot function as a crown since other ladies that surround her may also wear the wreath. When she sits with her husband the king listening to the prediction of Asita, her presence by the side of her husband is emblematic of her royal status as the living queen. I have recently described a new narrative context in which Queen Maya appears. She descends from the Trayastrimsa Heaven at the time of her son’s Parinirvana. Three Gandharan reliefs depict her worshipful and sorrowful presence. In the first, Maya is a bust within a leafy roundel and seems to be holding a flower offering. In the second, the Queen is again a truncated figure framed in a leafy surround; she inclines her head so that her face is buried in a large cloth. She seems to be weeping as she looks upon her dying son from on high. In both reliefs she is decked with a wreath in her hair and is the only truncated figure hovering up above the funerary scene. The third relief introduces a significant change. The full figure of Queen Maya is shown seated to the proper right of the dying Buddha who lies on his bedstead. She is one of several mourners at the Parinirvana. A royal emblem would be a desideratum to distinguish her from the others. The opportunity to innovate exists. This paper



discusses the crowned figure in the third relief with a view to demonstrating that the female wearing a turreted crown can indeed be Queen Maya.

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Agnieszka Staszczyk

***In Search of a Universal Model for Hindu Temples: Birla Temples as an Example of Modern Sacral Architecture in India***

The temples founded by the Birlas, thus commonly known as the Birla Mandirs, are located in Northern and Central India. Some were founded in major cities or places significant to Hindu tradition: Delhi, Kurukshetra, Varanasi, Patna and Calcutta, while others were built in the newly established industrial towns near the Birlas' factories, for example in Renukoot (aluminium processing), Shahad (textiles), Alibaug/Salava (steel processing, cellulose), Amlai (cellulose). The founders of the temples - a well-known and influential family of businessmen and industrialists - seem to continue the tradition of *dāna*, which is a religious approach to accumulating merit by supporting a community. The overreaching idea underlying the foundation of new temples is the revitalisation and strengthening of Hinduism as the "Arya *dharma*" so as to make this religion a platform of agreement for all religions and spiritual paths, both Indian and foreign. Thus, the Birlas decided to promote various Hindu gods, ascetics or saints, as well as include Sikh, Buddhist or Christian traditions. The main deity of the temple would be either the most popular god of the region, or the main, pan-Indian deity understood as the possible theistic manifestation of the Absolute. There are consistent strands that can be interpreted as an attempt to make these Hindu temples as inclusive and universal as possible.

There are two groups of Birla mandirs (identified on the basis of their architectural forms): the temples built in the particular style of 20th century sacral architecture (the earliest Birla foundations until the 1960s) and the temples designed as eclectic - in fact the bodies of the shrines consist of elements of a different origins, often inspired by more than one style. The earliest temple of the first group - Lakshmi Narayan Mandir in Delhi, opened in 1939, was designed by Sris Chandra Chatterjee in order to create a standard for a Hindu shrine according to the ideas of the Modern Indian Architectural Movement. The construction inspired the following later Birla foundations: Patna, Kurukshetra, Mathura, Akola, Brajrajnagar, Varanasi and Bhopal. The main common features of this group are: 1. bright halls with pillars and windows; 2. three separate sanctuaries with the major one in the middle; 3. numerous sculptural decorations, paintings and inscription panels inside; 4. two storeys in the larger constructions such as Delhi or Varanasi temples; 5. yellow, red and white colours on the outside walls, with limited sculptural decoration.

The structural design of the second group is mostly the result of blending regional styles, freely incorporating particular elements according to certain requirements. Some of them, however, tend to imitate completely some excellent examples of Indian temple architecture, such as the Konark Sun Temple, Bhuvaneśvar Rajarani Temple or the Khandariya Mahadev in Khajuraho. In this group we may list the temples in Pilani, Jaipur, Hyderabad, Kolkata, Renukoot, Amlai, Shahad, Gwalior and Nagda. The other important features of this group are: 1. Sculptural decoration is concentrated on the outside walls, 2. There are only a few inscriptions, 3. Besides the main deity, to whom the temple is dedicated, there are numerous representations of gods, and mythological scenes in the naves as well as on the exterior and interior walls. Therefore, their design is more suited to contemplation and meditation than specific religious rituals.

It is of analytical interest which architectural forms and decorations were selected to exemplify the ideas of a universal Hindu temple. In my paper I aim to discuss the particular

features of this type of temple architecture as well as the most significant decorations.

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Tadashi Tanabe

***The Gesture of Raising Two Fingers Depicted on Gandharan Sculptures***

The purpose of my presentation is to specify the meaning of a unique hand-gesture represented in Gandharan art. It is the gesture formed by raising two fingers, i.e., the middle finger and index finger. As regards this gesture, several scholars such as J. Marshall and M. L. Carter have discussed it and offered numerous meanings: blessing, admiration, meditation, enlightenment, conversation and so forth. However, none of these was proposed on the basis of firm evidence. Therefore, I will clarify the origin of this gesture and what this gesture means exactly in comparison with the art of Classical antiquity and with reference to relevant Buddhist literary evidence.

Firstly, I will attempt to compare this gesture with what is written in a few episodes of the life story of the Buddha and clarify that it is employed by the person engaged in conversation and dialogue. Secondly, I will explore a toilet-tray and Amaravati relief panel that depict this gesture and clarify that it did not derive from ancient Indian culture but from the Mediterranean World: Greek, Hellenistic and Roman art. Thirdly I will make a survey of Greek, Hellenistic and Roman art and show several specimens of this gesture. Fourthly, as for the meaning of this gesture attested in Greek, Hellenistic and Roman art, I will adopt the meaning offered by T. Richter: it means fundamentally conversation and dialogue. To conclude, this gesture meaning in principle conversation and dialogue, was beyond doubt transmitted from the Mediterranean World to Gandhara.

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Tilok Thakuria

***Archaeology of the Stone Jars: Recent Archaeological Research in the North Cachar District of Assam, India***

An archaeological exploration was conducted in the state of Assam in India to survey and record the stone jars. The jars are unique in India and so far reported only from Assam and its bordering state of Meghalaya. Though no parallel exist in other parts of India, similar stone jars were previously reported from Southeast Asian countries like Laos, Indonesia and Philippines.

Therefore, the archaeological exploration in Assam was undertaken to understand the nature, function and distribution of the stone jars. The jars are located in six localities in the North Cachar district of Assam. All the localities are situated between 1000 m and 700 m altitude on Barril Range. In two cases habitation deposits were also identified close to jar localities at Bolasan and Derebore. The preliminary documentation on distribution and morphology of the jars revealed that they have striking similarities with the jars found in Southeast Asia. Presently, none of the Indian jars contain any archaeological materials. However, it is sure that these jars initially contained certain materials as the local Zemi Naga informed us that their ancestors used to search for items like beads and other ornaments in the jars, and as result of such search they vandalized and emptied the jars.

The broad geographical distribution of the jars, covering Northeast India and Southeast Asia, is being evaluated. These are significant artifacts in trying to understand prehistoric migrations, perhaps the Austro-Asiatic to Northeast India, considering the fact that Khasi are the only existing people of Austro-Asiatic lineage in Northeast India. Hence, a survey of

Khasi burial practice was also carried out to find an ethnographic parallel to understand the nature and function of jars and their distribution along with Khasi inhabited areas.

The present paper therefore will discuss all the issues addressed above related to the jars of North Cachar Assam based on archaeological and ethnographic works conducted over the last two years.

Letizia Trinco

***Dating Parameters for Undated Materials: Architectural Motifs of Hindu Memorial Stones from Maharashtra***

A lesser-known expression of the Hindu concern for death and afterlife is conveyed by a group of artefacts labelled as ‘memorial stones’, i.e. non-architectural structures erected to commemorate and - to different extents - worship the deceased.

Despite the scanty references contained in the literary sources, be they normative or descriptive, archaeological investigations seem to reveal an actual proliferation of such artefacts all over India. Systematic studies, however, are still at an early stage and an overall assessment of this material culture phenomenon at a pan-Indian level has yet to come. A relatively neat picture of it has resulted from field research carried out over the last forty years mainly in the central, western and southern regions of the subcontinent.

The stele and pillar varieties of memorial stones, especially if dedicated to a deceased person whose death is associated with the performance of extraordinary deeds which qualify them as ‘heroes’, are usually provided with epigraphic and iconographic apparatus giving account of the circumstances of death of the individuals being celebrated. Due to the lack of inscriptions, any assessment of the chronological frame of these materials relies upon the evaluation of formal features, such as typology and distribution of the narrative scenes. This seems to be particularly the case of Maharashtrian hero-steles and pillars, where the presence of epigraphs appears as the exception rather than the rule. In a context like this, I believe that the analysis of the architectural motifs regularly depicted on the top section of the artefacts - a portion basically deputed to the small scale reproduction of temple covering elements - may contribute to sharpen the time range to which these funerary materials are ascribed, their chronological coordinates, at least in Maharashtra, being until today generically labelled as ‘Early’ or ‘Late Medieval’. The comparison of the most representative architectural designs of hero-stones from a selected area of Maharashtra with the patterns of temple architecture from both Maharashtra and neighboring areas will be the focus of the present contribution.

Notably, a better definition of the relative chronology of the hero-stones class of artefacts, with special reference to those dated to the Early Medieval period, may also lead to a better understanding of the Early Medieval period itself, a period, as recent studies demonstrate, which suffers from a basic lack of dedicated archaeological investigations.

Corinna Wessels-Mevissen

***Reconstructing an Early Goddess-and-Sphinx Set from Kaushambi***

A hitherto unpublished miniature bronze of a sphinx in the collection of the Asian Art Museum, Berlin, raises a number of questions. Its stray nature and morphological uniqueness

renders it difficult to be assigned to any particular archaeological-cultural context. However, it was possible to identify a related and, probably, originally associated figure, namely, the “Goddess with Weapons in Her Hair” in the Metropolitan Museum of Art, New York, on the basis of the close resemblance of the headgears. The respective records support this relatedness, as Kaushambi appears to be the find spot of both bronzes.

The proposition that goddess and sphinx once belonged together, irrespective of whether this set was complete by itself or supplemented by other objects, facilitates a number of considerations and preliminary conclusions. These range from questions of long-distance iconographic inspirations that may have shaped these rare figurines (in particular, the sphinx) to reflections on early ritual practices on the Indian subcontinent. Through taking a closer look at the coeval group of early ornamented ritual or cult objects known as "ringstones" and "stone discs" it is hoped to gain insights into the religio-cultural setting that has produced the miniature bronzes. Part of the imagery reflects a conscious, skilful process of the adaptation of Mediterranean models.

The sphinx image adds another interesting variant to the large number of diverse forms that constitute the iconographic cluster of sphinx-like composite figures in early South Asia, among which it may represent a particularly early one (ca. 3rd–2nd century BCE).

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Rita P. Wright

### ***Integrating Regional Histories: Agro-ecological Zoning and the Indus Civilisation***

Almost since its discovery, scientists have sought explanations for the relatively rapid development and subsequent decline of the Indus civilisation. Climate change has been one of the major factors thought to be the catalyst for its diminished settlement pattern. A second proposition has been that its regional environmental diversity impacted on cultural differences. In this paper we identify differences in logical ecologies and subsistence regimes using an Agro-ecological zoning model that identifies climate constraints, natural environmental diversity and their continuity and change. We focus on three zones and compare the water sources at Harappa, Mohenjo-daro and Dholavira. Based on regional responses observable in the archaeological records, we identified cultivation practices, animal husbandry, wild plant and animal usage, and water management as critical factors. The continuous feedback loop between human induced landscape changes and agricultural practices goes a long way toward explaining critical differences in responses of local communities.