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Handbook of Papers and Panels

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Convenors: Elizabeth Lambourn, Senior Research Fellow, De Montfort University and Research Fellow, SOAS & Finbar Flood, Associate Prof., New York University

Punch-Marked Coins (Thursday July 7 9.30 – 12.30)

Convenors: Dr. Shailendra Bhandare, Asst. Keeper, Heberden Coin Room, Ashmolean Museum & Joe Cribb, Department of Coins and Medals, British Museum

Archaeology of Religion: Issues in Hindu and Buddhist Iconography (Thursday July 7 9.30 – 5.00)

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The Cultural Diversity of Northwestern South Asia at the time of the Indus Civilization (Thursday July 7 9.30 – 12.30)

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Prehistoric Technologies and Cultural Traditions (Friday July 8 9.30 – 12.30)

*Convenors: Michael D. Petraglia: Lecturer, Biological Anthropology, Cambridge
Dorian Q Fuller: Lecturer, UCL Institute of Archaeology*

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The Archaeology of Water (Friday July 8 9.30 – 12.30)

Convenor: Prof. Marco Madella: Department of Archaeology and Anthropology, Institució Milà i Fontanals, Spanish Council for Scientific Research (CSIC)

Arts of the Mughal Period (Friday July 8 2.00 – 5.00)

Convenor: Dr. Jennifer Howes (The British Library)

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Issues in Indian Ocean Commerce and the Archaeology of Western India (Friday July 8 2.00 – 5.00)

Convenors: Roberta Tomber, Visiting Fellow, Department of Conservation, Documentation and Science, The British Museum; Shinu Abraham, Department of Anthropology, St Lawrence University, Canton, New York; Lucy Blue, Department of Archaeology, University of Southampton

The Archaeology of Sri Lanka (Friday July 6 2.00 – 5.00)

Convenor: Dr. Osmund Bopearachchi: CNRS, Paris

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PANEL: Pre-Mughal Islamic Material Culture (Wednesday July 6 9.30 – 4.30)

New Research on pre-Mughal Islamic Material Culture in South Asia

Convenors: Elizabeth Lambourn, Senior Research Fellow, De Montfort University and Research Fellow, SOAS & Finbar Flood, Associate Prof., New York University

The presence of Islam in South Asia pre-dates the arrival of the Mughals by some eight centuries. Those eight centuries are represented by an impressive array of material remains scattered across India, Pakistan and Bangladesh. The remains reflect an engagement with a broad array of material and architectural traditions in South Asia as well as those of the metropolitan centres of the wider Islamic world. Although the pre-Mughal material has never been ignored entirely, the Mughal period has tended to dominate scholarship on Islamic material culture in South Asia. The last three decades have, however, seen a real surge in research on this area from scholars worldwide.

In spite of this activity, the field retains a relatively low profile internationally, not least because it straddles the two subject areas of "Islamic" and "South Asian" archaeology and art. The proposed session aims to provide an inter-disciplinary forum specifically dedicated to pre-Mughal Islamic archaeology and material culture in South Asia. The session will offer a unique forum for scholars to present their research to a specialist audience and represents a key opportunity for intellectual exchange across current political and disciplinary divides. The breadth of the geographical and chronological frame involved makes it difficult to anticipate all the issues that will arise from the session however we anticipate that the session will address a number of important issues. It will consider the relationship between the material culture of pre-Mughal sultanates in South Asia and that of neighbouring Hindu and Jain polities. It will also seek to address the relationships between the Islamic cultures of South Asia and those of the wider Islamic world. Among the issues that speakers might consider are the chronology of Indo-Islamic cultures, urbanism, the relationships between form and function in South Asian Islamic architecture, the impact of diasporas from the central Islamic lands on the Islamic cultures of South Asia, and differences in the nature and impact of contacts by land and sea. The session will also seek to address the specific methodological and theoretical issues arising from archaeological excavations and architectural surveys of Islamic sites and monuments in South Asia. Among these are the ways in which conceptual, disciplinary and political boundaries have set the parameters for research in this field. Paradoxically, perhaps, the session will raise the question of whether it is meaningful or useful to isolate Islamic material culture in South Asia. In doing so, it will consider where the focus of future research in this expanding field might lie, and the directions that it might take.

Mughal contemporaries and Pre-Mughal continuities in the Deccan: the survival of pre-Islamic ritual topography in Bijapur and Naurasapur

Mark Brand, Cambridge University

Mughal culture in South Asia should be understood within the spatial limitations of the Mughal Empire and its influence. 'Pre-Mughal' cultures could continue in Indian sultanates until their Mughal domination or conquest. Continuity in the synthesis of

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Indo-Persian culture, Islam and Hinduism, was most marked in the Deccan region, where sultanate authority devolved from Delhi to the Bahmani and then sub-regional dynasties, contrasting with waves of invasion and upheaval in Hindustan. From 1318 to 1686, between its Delhi Sultanate and Mughal conquest, Bijapur was ritually anchored around a mosque raised from structures and spolia from pre-Islamic Vijayapura's central Hindu temple. The palatial seat of sultanate authority remained situated on this mosque's qibla-axis, throughout this period, while retaining essential characteristics associated with Sassanian traditions of universal kingship. This hall and others modelled upon it, including that at the centre of Naurasapur, Bijapur's late 16th century twin as capital of the 'Adil Shahi Sultanate, provided settings for key mystical royal rituals. These rituals stemmed, increasingly explicitly, from traditions of universal spiritual dominion in Hinduism and Islam. This unusually explicit Perso-Islamic appropriation of Hindu traditions may explain the unique sultanate continuity of pre-Islamic Indian concentric urban planning in *both* Bijapur and Naurasapur.

Ceramics in Sind during the Islamic period: material from Central and Low Sind, Pakistan

Annabelle Collinet, Musée du Louvre, Doctorante Université de Paris I-Panthéon Sorbonne, rattachée à l'UMR 8084 du CNRS

Ceramics from Sind during the Islamic period are not well known. Recent excavations at the site of Sehwan (Central Sind) by the French Archaeological Mission headed by M.Kervran allow us to identify and date the different kinds of ceramics existing in this country between the beginning of the 8th century AD and the Mughal period. Red-paste ceramics with painted, stamped or molded decoration, grey and black ceramics, and glazed productions and imports now can be dated more precisely. The stratigraphy and material from Sehwan, the ancient Siwistan, show the history of the city during the Arab period, under the Ghaznavids and Ghurids, the Delhi Sultanate and, finally, the short Arghun and Tarkhan periods before the Mughal conquest. Other ceramic materials coming from sites in the Indus Delta enriches this corpus, especially for the middle and late sequences.

Polychrome enamelled bricks of Pre-Mughal Sultanate Bengal: A preliminary scientific investigation

Somnath Ghosh & Varada Khaladkar

This paper attempts to understand the technology employed in manufacturing glazed bricks and tiles used in the architecture of Sultanate Bengal. The study focuses on chemical composition of glaze, its colorants, chemical and physical properties of the brick-body as well as the firing technique employed.

Polychrome enamelled bricks and tiles were used in south Asia from fifteenth century AD onwards and those found in Bengal form a distinct sub-tradition. The technology of glazing bricks/tiles did not have any precedent in south Asia and historians trace its provenance to either China or Persia. These bricks have so far been only visually studied. However, archaeometric analyses will help us to have a better understanding of technologies involved. For this purpose, tests like XRD, XRF, Thermal Analysis, AAS

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were conducted on the archaeological samples from the sites of Gaur and Pandua – the medieval capital cities which formed the urban core of the sultanate Bengal.

Results indicate that it was a low flux tin-alkali-lead glaze with cobalt, copper, iron, lead and chromium as the major colorant materials. Bricks were compact and fired by bisque firing technique.

Notes on Sultanate aesthetics: glazed tiles in the Indus valley

Dr Julia Gonnella, Freie Universität Berlin

The extensive use of glazed tiles in the Indian subcontinent evolved only shortly after the Ghaznavid and Ghurid invasions, the earliest centre being the region in and around Multan. The following paper will discuss the origins and early development of this type of architectural decoration which seems to be particularly associated with funerary structures. It will consider the role of patronage and look into whether, and if so how, glazed tilework contributed to the formation of a specific Islamic architectural language.

Form and function in the Indo-Islamic architecture of Ahmedabad (Gujarat, India)

Sara Keller

This paper explores the issue of form and function in the Indo-Islamic architecture of Ahmedabad, focusing on an analysis of the religious architecture (mosques, tombs, mausolea) of the capital. It will describe and explain the particular conditions of the birth and the development of the Gujarati architecture, exploring how some characteristics of these monuments slowly lose their functions until they become decorative elements, or even totally disappear (for example, stairs and size of the minarets, stone carving on the surface of the walls). The process is a well known from the evolutive dynamics of the art: the artistic and architectural element lose their organic and functional properties and become decorative and figurative.

The Late Sultanate architecture at Mandu, Madhya Pradesh

Thalia Kennedy

The architecture of Mandu, capital of the Malwa sultanate from the outset of the fifteenth century, stands out as one of the most complete groups of buildings that survive from the sultanate period. With Timur's sack of Delhi in 1398, and the subsequent political debasement of its territorial power, the newly-formed independent sultanate of Malwa became a major player in the political and territorial landscape of northern India. Its capital was established at Mandu in modern-day Madhya Pradesh as the seat of the Ghurid and subsequent Khalji dynasties. Members of both ruling families undertook extensive building projects during their time in power. The former capital contains tombs, mosques, palaces, and utilitarian structures. Its buildings have been documented and discussed most notably by Ghulam Yazdani and Percy Brown in the earlier part of the last century. The architectural types that survive in the city, combined with extant architectural inscriptions and historical sources, including the work of the historian Ferishta, provide an exciting opportunity to set these buildings into their dynastic and political context. This paper will summarise the forms and functions of the

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architecture that survives and go on to explore the possible motivations that lay behind the construction of some of these buildings.

Urban archaeology of the mediaeval city of Gaur (West Bengal, India). reconnaissance 1994-2001.

P.K. Mitra, Keeper, State Archaeological Museum, West Bengal, Kolkata

The study of urbanization in India began since the later part of the 19th century, had not dwelt much on the mediaeval city formations in Bengal that saw its efflorescence during the Sultanate period (1205-1576A.D.). In the absence of contemporary historical literature the historians were not been able to formulate much on such formation and had to remain satisfied with the findings of inscriptions, coins and the accounts of foreign travellers, which, are often contradictory. Despite the fact that Gaur and Pandua had remained capitals of Bengal under the Sultans for more than three hundred years, no worthwhile attempt, except the *Memoirs of Gaur and Pandua* by Abid Ali Khan in 1912, had so far been made to describe the history and archaeology of these cities. Aside a lone air survey conducted by the Archaeological Survey of India in the late twenties of the last century no endeavour was made either to systematically explore the Gaur-Pandua complex and to tally the results with the recorded history, architectural remains, coins and inscriptions. The brilliant attempts of Creighton and Ravenshaw to map the old city of Gaur or the reconnaissance of its ruins (also of Pandua) by Orme, Francklin, Buchanan-Hamilton, Cunningham and few others remain unconnected with the urban history of the period. It was in this context that a research project was taken up by the Directorate of Archaeology, Government of West Bengal with the objective of tracing out the pattern of urbanization in Mediaeval Bengal through a case study of its principal cities, Gaur and Pandua. The methodology adopted to achieve this objective was threefold. The first, to build up a comprehensive database of all the published and unpublished records (including coins, inscriptions, historical manuscripts), visual material, maps and other related documents on these cities. The second, to carry out sector-wise archaeological explorations in these cities to situate habitation patterns and to collect evidence of material culture. The third, to collate the available records with the archaeological findings and analyse the same in the historical perspective to locate, *inter alia*, the causes of growth and decline of these urban centres.

The present paper will dwell on the archaeological reconnaissance carried out in the mediaeval city of Gaur (24° 50'44" and 24° 55'50" N latitude, 88° 7' and 88° 10' E longitude) during the field seasons of 1994-2001 as a part of this research project. The paper will focus on the methodology of field work, the major discoveries, analysis of artifacts collected and will generally attempt to collate the archaeological data with historical, monumental and other records for a reconstruction of the principal functional zones of the city.

Sultanate water systems of Chāmpāner-Pāvāgadh - tracing the footprints

Sumesh Modi, Consultant to Heritage Trust Baroda, Champaner-Pavagadh World Heritage Site Project, Vadodara, Gujarat

Recent research at Champaner-Pavagadh, with its complex landscape that evolved over centuries, reveals a probable precursor to the Mughal gardens. Till now largely ignored,

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this spectacular and coherent cultural landscape is an important milestone in reconstructing the history of Islamic gardens in India.

Once, the capital city of the Greater Gujarat (1484 AD-1535 CE), Chāmpāner-Pāvāgadh had established an icon in the field of rain water harvesting, to support as many as 50,000 people, during the reign of Sultan Mahmud Begarhā. After Humayun's attack in 1535 CE and subsequent destruction, the city was completely deserted and, along side this, the hydraulic system also deteriorated and was forgotten.

The current paper aims at an understanding of the Sultanate hydraulic system with the intention of establishing the importance of regional Sultanate gardens as a significant phase in the evolution of later landscaping principles in India.

These technological innovations, during the course of their development, became such powerful elements for the society that they started assuming a more elaborate, aesthetic and robust form such that they almost became a religion by themselves for the community. Every water structure became a political and social urban space - the very icon of the beliefs of the society. They assumed a definite, identifiable form which was almost ornamental in character. These water structures now lying forgotten form one of the most significant aspects of the architectural heritage of Sultanate period Chāmpāner-Pāvāgadh and are the biggest source of knowledge and expression of the glory of rain water harvesting system of Chāmpāner-Pāvāgadh.

The paper shall inquire into the technological methods of water harvesting, water retention, and water provision in the region. This paper intends to reconstruct the lost knowledge of traditional Sultanate scientific systems such that the isolated water structures start knitting together and regain their relevance in the context they belong.

From Province to Sultanate: The architecture of Gujarat during the mid-12th through 16th centuries

Dr. Alka Patel, Senior Fellow, American Institute of Indian Studies

As noted in the Call for Papers, scholarship on the Sultanate period of South Asia's architectural history has emerged from the Mughals' shadows only during the last three decades. It is at least in part due to this recent nascence that few of the regional architectural traditions have been examined in detail. Studies treating individual building traditions are now both materially as well as methodologically necessary. For, without such focused works, we would lose a nuanced historical perspective on the myriad and minute ways that craftspeople rose to the challenges of meeting the social and ritual needs of the numerous and widely varying communities of South Asia during the 12th through 16th centuries.

The present paper hopes to contribute to this nuanced (and ultimately cumulative) methodology by treating the architectural reinventions and redefinitions taking place in Gujarat, spanning from ca. 1150 until Akbar's annexation of the region to the larger Mughal empire in 1572-73. The overall premise will be that Gujarat's architectural language was undergoing adaptive changes even during its "apogee" in the sultanate.

Gujarat's changing status as an independent kingdom under the Chaulukyas during the 10th-13th centuries, and then as a province of the Khaljis and Tughluqs during the 14th

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century, coincided with the redefinition of the region's indigenous temple building tradition in the construction of buildings of Islamic worship. Moving further, this paper will analyze how the reinvented architectural language was in turn employed in the services of state-building, with the establishment of the independent sultanate of Gujarat in ca. 1410. While the local building practice had reached a certain level of comfort by the 15th century, changes continued to take place, fuelled by political rivalries in the sultanate's administrative hierarchy, and by the gradual (though in the end unsuccessful) introduction of Iranian architectural traditions. Such an approach should demonstrate that, by the time of the Mughal ascendancy in the mid-16th century, vastly different, regionally based architectural traditions - like that of Gujarat - entered into individual dialogues with the Mughal juggernaut.

The Lost City Of Banbhore & The ancient trade links

Nargis Rashid, Associate Prof., General History Department, University Of Karachi

The ruins of Banbhore are situated near the small town of Dhabeji on the northern bank of an inlet of the Arabian Sea, known as the Gharo Creek. It is at a distance of 65 kms east of Karachi. The extinct harbour town of Banbhore on the northern margin of the deltaic coast of South Asia- Pakistan, is popularly associated with the invasion of Sindh in 712 CE by Mohammed Bin Qasim and presently known as the Gateway of Islam.

Banbhore - A pre-Islamic or Islamic site, become a challenge for the Department of Archaeology. The re-examination of the whole problem was undertaken under the leadership of Dr. F. A. Khan during the four years of excavation of the site, started in 1958. The substantive excavations have revealed extremely interesting results i.e. a well-fortified harbour town through out its existence. The deep digging revealed the remains of three distinct periods: the Scytho-Parthian, Hindu-Buddhist & Islamic periods datable from 1st century BC to the thirteenth century CE (Khan: 1960) . In finding out the cultural sequences of the site, deep diggings were done in the water logged lower levels at the depth of 25 to 30 ft from, surface. The long period of occupation from the eight to thirteenth century CE reveals no cultural break. Up till now the detailed report is still awaited, only few articles on various aspects of Banbhore have been published in different journals. More than Forty years have elapsed since its excavations and no comprehensive report has been published so far, on such a rich & extensive site.

Banbhore is especially interesting because it is the ancient city of 1st century BC, which continued to retain its position in one way or the other and succeeded in survival under different names such as Barbarikon, Barbaricum, Deb, Deval, Debal and Banbhore may be more until 13th century CE. This ancient city could possibly a lost link between Gulf region and China. The Pottery from Banbhore shows that it was drawn into a system of intense "international" interaction extending across the Gulf region, during the classic & post- classic periods. My research suggests that Banbhore survived the earthquake & the downfall due to its strong ties to the adjacent region. Ceramic style and stylistic change is used by archaeologists primarily for dating, however, there is also a broad consensus that style is a form of non-verbal communication. The presence of Red ware, Burnished pottery in Gulf region and Chinese Amphoras at various places including Banbhore shows a good deal of trade links though scarce in historical accounts. The pottery of the

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South-Asia embodies the highest artistic achievement of a race of quiet, peaceful, and tenacious people who have even to the fall of their city successfully kept their culture intact for over thousands years. The excellence of Banbhore craftsman ship, evidenced in the product & the production, form and the decoration of their pottery, rivals that of any Asian. It is hoped that this research paper will provide insights into the very long history of potting and a possible way to peep in to pages of the ancient history to find trade links and cultural relations between the south -Asia & the Gulf region. Focus is on the style of the ceramics of the Classic- Early Postclassical period, dating from approximately 1st century to 13th century CE. I found the Banbhore fairly sophisticated site in which new forms of trade and interregional interaction led to widespread social, political, and religious change.

Sources for the study of Sultanate Period architecture in Pakistan: Zoroastrian architecture in Baluchistan and Arab and Persian influences along the Baluchi trade routes

Prof. Abdul Rehman, University of Engineering and Technology, Lahore

The Sultanate Period Architecture in Pakistan was developed as a result of interaction of several local and foreign cultures. On one hand it had Gujarati and Rajastani influence and on the other had it had local Indus Valley tradition but the province of Baluchistan had been playing a very crucial role in the formation and development of Sultanate period architecture. In this context, the Zoroastrian architecture in Baluchistan and Arab and Persian influence has not been playing a very crucial role and had not been studied adequately. There are several trade routes which used to pass through Baluchistan connecting Iran and Iraq on one hand and Afghanistan on the other. The pre-Islamic and later Islamic monuments along these routes show close relationship in the formation of a specific style. The paper will explain the possible sources and mode of influences on the Sultanate Period architecture in Pakistan in the light of recently identified monuments along these trade routes.

The function of the “Word”: “Qur’anic inscriptions on early Sultanate mosques

Michelle Rein, University of Pennsylvania

This paper considers the Arabic inscription programs of the Ghorid and Mamluk mosques of the *Adhai-din-ka-Jhompra* in Ajmer and the *Caurasi Kambha* mosque in Kaman. Reading the epigraphic inscriptions offers a means of exploring the ideological agendas of north India’s earliest patrons of Islamic monuments. Just as the Dome of the Rock was built of borrowed structural elements and decorative motifs visually relating to Christianity, yet refuting it as the insufficient predecessor to the righteous faith of Islam, a similar situation occurred in northern India. Epigraphic inscriptions supported the political and religious intention of the patrons by validating the colonizers, while invalidating the religion of those conquered. The Sultanate rulers accomplished this through the use of consciously selected Qur’anic verses.

These inscriptions evidence a site-specific use of non-historical text for the purposes of furthering a philosophical, theological and political agenda. The texts reflect an ideological program intended to be read by two distinct populations. Non-historical texts tied the non-indigenous, dominant minority to their own familiar cultural past,

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...serving as a device with which to support and legitimize the Muslim sultan's new position of power. At the same time, these inscriptions functioned as a message of reassurance and inspiration for those newly converted members of a society in transition from a position of subjugated non-Muslim majority to one of privileged Muslim minority.

The conundrum of 15th century Sultanate painting *Emily Shovelton, SOAS, University of London*

The term Sultanate Painting refers to the illustrations of manuscripts written in Persian, Avadhi and Arabic, commissioned by Muslim patrons in pre-Mughal India. In 1947 Goetz was the first to publish his suspicions that there existed a pre-Mughal school of painting. However, conclusive proof of the existence of Sultanate painting was not provided until twelve years later when Skelton published the *Nimatnama*. Since this pioneering work the number of manuscripts attributed Sultanate India has continued to grow. However, compared to the succeeding Mughal period, the field of Sultanate painting remains a relatively neglected area. Nothing survives from before the collapse Delhi Sultanate in 1398; the extant manuscripts date to the 15th and early 16th centuries.

The corpus of Sultanate painting is inchoate and perplexing: most of the manuscripts lack a precise date and provenance, and their styles often bear no relation to one another. Even Mandu, the only court to have four extant manuscripts, shows no evidence of a centrally controlled school. Similarly, Sultanate paintings in their entirety display no unifying style. Some of the paintings are by Indian artists in the mould of Jain illustrated books. Others are virtually indistinguishable from Persian paintings. This paper will analyse three previously understudied manuscripts from contrasting traditions, and explore what constitutes a Sultanate painting.

Inland trade routes of Bengal and neighbouring areas during the Sultanate Period (1205-1576 CE). the evidence of coin-hoards.

Sutapa Sinha, Fellow, Centre for Archaeological Studies and Training, Eastern India, Kolkata.

With the arrival of the Turkish General in the beginning of 13th century, Bengal witnessed a new and stable currency system that continued up to the last quarter of 16th century. The regular currency was silver coins of average 10.6 gm weight, replaced occasionally by gold when large sums were required for business transactions. Small transactions were carried out through cowry shells. Insufficient information in the contemporary written chronicles - Perso-Arabic or vernacular - leads us to depend on the epigraphic and numismatic sources for an understanding of the socio-political and socio-economic scenario of the period.

Since the 19th century, quite a good number of coin-hoards of the period have been recovered from different parts of eastern India and Bangladesh. Study of these hoards throws fresh light on the monetary history, trade and trade routes of Bengal and its neighbouring areas. In the present paper, an endeavour has been made to explain that systematic analysis of a series of coin-hoards could provide wealth of information on land and riverine trade routes and movement strategies in trade within a given region.

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The relationship between places of origin of a coin with the places of its ultimate deposition (place of inhumation of a coin-hoard) may very well indicate the direction of currency mobility within a defined space and such mobility of currency over a considerable span of time helps us to locate the established trade routes of the region. In the present paper such attempt will be made to define the inland trade routes of Bengal and the neighbouring areas through a critical analysis of thirty-seven coin hoards of the Sultanate period of Bengal supplemented by textual evidence, where available.

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PANEL: Punch-Marked Coins (Thursday July 7 9.30 –12.30)

Convenors: Dr. Shailendra Bhandare, Asst. Keeper, Heberden Coin Room, Ashmolean Museum & Joe Cribb, Department of Coins and Medals, British Museum

Silver Punch-Marked Coins of the "Archaic" series: Approaches to Classification

Shailendra Bhandare, Asst. Keeper, Heberden Coin Room, Ashmolean Museum

Imperial Silver Punch-Marked Coin Hoards from Bihar: An Analysis of the Coin Types

Rehan Ahmed, Research Officer, IIRNS, Nasik, India:

Imperial silver punchmarked coins classified into many series and more than 600 varieties are found almost all over the Indian subcontinent. It is, however, not known whether all the varieties circulated at all the places or whether there was some regional element in their circulation. Whether some varieties were preponderant in particular areas and scarce in other?. The best answer to this question, in my view, can be had by study of hoards from different areas. The present study is a type study and studies the major hoards from the state of Bihar like Machhuatoli, Patraha, Gohada, Taregna, Gorhoghat, Ramna etc. to find out the pattern of distribution of coin varieties. The results are then compared with the contents of some published hoards from outside the state of Bihar.

Punch-Marked Coins of the Barikot Hoard

Susmita Bose-Mujumdar, University of Calcutta

A hoard consisting of 214 Punch marked coins and some Indo Greek coins was found at Barikot in Pakistan. This hoard has been jointly studied by myself and Prof. Osmund Boppearachchi. I am thankful to him for giving me the opportunity to study the Punch marked coins of this hoard. Among the 214 coins 35 coins are too corroded which reflect that they were in circulation for a long time. The earliest punch marked coin in the hoard are two coins attributable to Gupta-Hardaker Series I. Maximum number of coins in the hoard, among the punch marked, belong to Gupta Hardaker Series VI i.e. 90 which is 42.05% of the total number of the punch marked coins in the hoard. Again in this series type 543, 573, 574 and 575 dominate. However a common feature about the series 573-575 is the occurrence of particular reverse symbol that is recognised as Taxila mark, although the name Taxila has been appended to the mark yet its regio-specificity to Taxila alone is debatable. It has been dealt in detail in the paper. The symbol under discussion definitely has a north- western origin which is discernible from the considerable amount of coins with this symbol in the hoards from the north-west. In the Barikot hoard this symbol can be distinctly traced on 60 coins that is 28.03% of the total number of Punch marked coins in the hoard. One of the coins, type Gupta-Hardaker 574, has a sixth symbol along with the usual five found on similar types. This sixth symbol is not an additional mark but an integral part of the set of symbols the coin was supposed to bear as has also been suggested by Rehan Ahmad in case of a few coins of this type, indicating the fact that this sixth symbol has been punched prior to the sun symbol on two of the coins which he had examined. This clearly shows that this symbol was not a later addition or an extra symbol. The coin in

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our hoard brings the total count of such coins to 31, which rather demands the addition of this variety separately to the list proposed

by Gupta-Hardaker, though this is a derivative of 574 yet it forms a separate type. Thus, it will not be unreasonable to name the type 574a. According to recent research on punch marked coins carried on by Elizabeth Errington Gh 574 and Gh 575 occur in inverse proportion to each other, however this is not the case with the coins of these two types in the Barikot hoard. They occur in almost equal quantity. A comparative analysis of these coins with the other coins which have come to light along with Indo-Greek coins has also been attempted. Among the Indo-Greek coins issues of 10 rulers have been found in this hoard from Antimachus I to Apollodotus II. This also helps in relative dating of the hoard to some extent.

A passage in Visuddhimagga refers to the fact that a money-changer would at once know from what village, town city, mountain or river bank and by what mint master a coin was struck. This masterly system, using hundreds of different symbolic devices, slowly came to an end with the use of inscriptions on Indian coins. The above reference also indicates that the symbols on the punch marked coins stand for denoting city, town or village it was issued from, at the same time to trace its geographical location i.e. if it was located by the side of a river or by the side of a mountain etc. was reflected by another symbol, similarly one of the symbols definitely stood for the mint or a specific mark of a mint master. Metal analysis of some of the coins of this hoard has further revealed interesting results which will be discussed in detail in the paper especially the marked difference between the metallic composition of the Indo-Greek coins and the PMC. The technique of alloying prevalent in those days has also been dealt in details.

Title to be announced

Elizabeth Errington, Dept. of Coins and Medals, British Museum

Imperial Mauryan Punch-Marked Coins and their Copper Imitations: First Analytical Insight

Maryse Blet-Lemarquand and Jean-Noel Barrandon, CNRS, IRAMAT, Centre Ernest-Babelon, Orleans, France

Imperial punch-marked coins were issued by the Maurya from the third century B.C. Bad base silver and copper imitations were also struck. Huge hoards discovered all over India and Pakistan show that the Mauryan coins circulated in a large area, even a long time after they were coined. Imitations circulated as well from North to South India and Sri Lanka and some hoards testify that imperial Mauryan punch-marked coins and their imitations circulated together.

Neutron activation analysis using a cyclotron were performed on imperial Mauryan punch-marked coins from a hoard excavated in North Pakistan and studied by O. Boparachchi and also on imitations discovered in South India and Sri Lanka. Comparing typological and analytical data our paper aims to tackle different points. How does composition evolve and is it linked with typology? Do trace-element concentrations give clues to the provenance study of silver metal? Is it possible to establish relationships between silver punch-marked coins and their imitations?

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Copper Punch-Marked Coins vis-a-vis Silver Punch-marked Coins: Investigating the Links, Typology, Sequence and Distribution

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In comparison with the silver punchmarked coins, the copper specie of the same series has hardly been studied. The present investigation seeks to be a modest attempt at removing this lacuna. It deals with the question of linkages between the universal type of silver punchmarked coins and the copper punchmarked ones particularly with a view to find out if particular type/s of the former degenerated into or were precursors to copper types or the latter were an independent issue. This brings into focus the issues of the chronology and typology of the copper punchmarked coins. The aspect of distribution and elements of regionalism, if any, are also investigated.

A preliminary study on Wari-Bateshwar silver punch-marked coins

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Wari-Bateshwar is a significant archaeological site located in Bangladesh. There is a mud rampart citadel of Early Historic period (c.500 BC) and 46 more archaeological sites of unknown period(s) in the region. Wari-Bateshwar was a river port and it has been assumed to be Ptolemy's transgangetic emporium Sounagaura. However, the site has been known for silver Punch-marked coins, semi-precious stone beads, glass beads, iron objects, etc. as surface finds since the 1930s. The recent excavations have revealed NBPW, rouletted ware, knobbed ware, iron and copper artifacts and a hoard of silver Punch-marked coins. Hundreds of silver Punch-marked coins have been reported from at least 10 spots in the region. The present study of 95 such finds has revealed coins of both Imperial and Janapada series. On the basis of five symbols on obverse, 47 coins have been placed in Imperial series, i.e. issues of the Mauryan empire. On the occurrence of 3 to 4 symbols 46 coins have been placed in Janapada series. A coin having six symbols could not be placed in any series because it does not conform to any known type in punch-marked coin literature. Surprisingly, no karshapana standard coin has been found in Imperial series. The weight ranges from 2.5 to 3 gm, which makes it lighter than the standard Karshapana weight of 3.3 gm. However, 6 coins exceed 3 gm that is 3.11 to 3.29 gm. All the coins bear 4 symbols which fit with Janapada series, on the basis of the number of symbols. Only, 3 coins having 5 symbols weighing 3.1346, 3.1639 and 3.2975 are close to karshapana standard. If we relax slightly the karshapana weight (3.30-3.50gm), these 3 coins may be placed in Imperial series according to the existing rules of Punch-marked coin. On the reverse of these coins there are blanks as well as 1 to 6 symbols. Various sun and six-armed motifs are common in both the Imperial and Janapada series but 8 coins don't have six-armed symbols and 9 coins don't have sun motif on the obverse.

After the various sun and six-armed signs, the caduceus and three arches-and-crescent are the most common symbols. The caduceus sign seems to be rare except in the catalogue of coins from Amaravati. Fish and boat symbols are also found in Wari-Bateshwar Punch-marked coins. Rajgor has placed Punch-marked coins in 17 Janapadas on the basis of some common symbols. He mentions that boat is the common symbol for the Vanga Punch-marked coins. Boat is present in the Wari-Bateshwar coins but

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infrequently. The presence of boat on Wari-Bateshwar coins may suggest that the region in question belonged to Vanga Janapada territory but the uncommonness of the boat sign seems to suggest something different. Also, the focus of Vanga Janapada is the old Bhagirathi delta which is far to the west of Wari Bateshwar. The capital of Vanga was the site of Chandraketurgh near Kolkata. We feel that the existence of a site as rich as Wari Bateshwar around 500 BC suggests the existence of a different Janapada in this territory. The only Janapada which fits in this context is Samatata. This territory is first mentioned in the Allahabad pillar inscription of Samudragupta in the 4th century AD, but there is no reason why this political principality could not exist earlier. Samatata is generally put in the trans-Meghna region of Bangladesh. Wari-Bateshwar is very near the modern flow of the Meghna, and it is equally possible that ancient Samatata essentially stood for the area of the old Brahmaputra delta. We suggest Wari-Bateshwar to be the capital of the ancient Janapada of Samatata. The presence of the coins of the Imperial series also indicates that the site became later incorporated in the Mauryan empire.

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PANEL: Archaeology of Religion: Issues in Hindu and Buddhist Iconography (Thursday July 7 9.30 – 5.00)

Convenors: Robert Harding (UCL Institute of Archaeology); Dr. Claudine Bautze-Picron; Dr. John Guy (Victoria and Albert Museum, London)

The banquet scene on the base of a seated Buddha in Gandhara

Nakao Odani

We found a strange relief on the base of the seated Buddha during our excavation at Ranigat in 1986. It looks like a banquet scene around a female deity, who has a lunar crescent behind her shoulders. In most cases, a seated Buddha of Gandhara sits on a square base, on the front of which a small image of Buddha or Bodhisattva is carved in relief, sometimes flanked by several worshippers. A Buddhist symbol such as a stupa or a fire alter may replace it, but no non-Buddhist image so far. If the Bodhisattva on the base holds a flask in his hand, he is identified with Maitreya, the Buddha of the future. The combination of the principal seated Buddha with his successor Maitreya is easily understood, but in the other cases is not always so certain.

The banquet scene (19cm x 24cm) has remained on the central front of the base, though the sculpture has been found much in broken conditions. In the middle of the scene a female deity sits frontally on a lion facing to right. She holds a bowl in her left hand, flanked on either side by a male who lifts up a bowl or a rhyton toward the goddess. A pitcher is also found near her feet. We can identify her with the goddess Nana, since we see similar figures portrayed on the Kushan gold coins, inscribed as Nana. The purpose of my paper is to present this unique relief from Ranigat and to interpret the relations between the seated Buddha and the Kushan goddess Nana in a Buddhist context of Gandhara.

The Birth of the Buddha in Gandharan art: on the Western origin of its iconographic nucleus and resulting implications for textual and art history of the Buddhist Saviour's nativity episode

Martina Stoye: Freie Universität Berlin

Compared to many other Gandharan iconographies narrating minor episodes from the Buddha's life, of which today we have only a few specimens, depictions of the wondrous Birth of Siddhartha Gautama have survived in a fairly large number. Over 120 are known through publications, many more lead a secret life in private collections and museum go-downs.

The lecture will show that the iconographic nucleus (Maya - Baby Siddhartha - Indra) can be traced back to a western prototype, which, at the time of its adoption by Gandharan artists in the 1st ct AD, already had a 600-year-old history of transmission within the Mediterranean art tradition and derives from a context that goes amazingly well together with its 'new' application in the Buddhist context. Iconological analysis done by Archaeologists in the field of Classical studies on those prototypes may deepen our understanding of what the Gandharan artists wanted to express by the selection of the figure pattern petrified in the central group of the Gandharan nativity scene.

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As the structure of this central figure group has been explained so far mainly by reference to Indo-Buddhist textual tradition, the discovery of a visual western prototype entails a revision of the customary conception of the text-image-relation. A suggestion will be presented, how to form a picture of a less text-dependent construction of iconography as well as of a more image-dependent text-construction (regarding Northwest Indian Buddhavita tradition).

A remarkable Gandharan relief of Buddha and the Stupa

J. Sadik Sherrier:

This unique Gandharan relief depicts Sakyamuni Buddha, apparently performing Pradaksina at a Stupa. Worshipping? Surely an anomaly to be depicting him 'worshipping' at a shrine! Nor can one cite any similar example throughout Buddhist Art - at any period. Another glaring anomaly is that of the protagonist facing him on the other side of the stupa; But worshipping on a par with the Buddha!? Unacceptable. So one reverts to the scant textual materials relating to the Buddha & the Stupa, which might throw some light on this oddity.

Could Sakyamuni be worshipping at the stupa of an earlier incarnate Buddha? We know that there are references to Kanakamuni's stupa (Mulasarvastivaya), also a reference of a stupa of Kasyapa (Mahasamghika, Mahasasaka, Dharma Guptaka & a Pali version - all relating to the same event). But these are all late texts - and therefore must be discarded.

So, one narrows it down to three other possibilities that one knows of. The famous physician Jivaka, who is known to have built a monastery at Rajagriha for the Blessed One & fraternity of Monks & donated it to them; evidence of which is further supported by the famous Chinese traveller, Hiuen-Tsiang, when out there.

Next, the sage Sariputra, being a late convert, requests the Buddha to explain & demonstrate the method of Pradaksina (from the Pradaksina-Gatta). But these are all late texts.

Third is the merchant Anathapindaka, who having donated the Jetavana Park to the Buddha & his disciples, at a much later juncture, asks permission of the Buddha to build a stupa for the deceased Sariputra's relics. Having been given permission, he asks the Buddha how to go about constructing it according to the required tenets and the Buddha shows him the way to do this.

International trends in the late Buddhist art - some reflections on the sanctuary of Tapa Sardar

Dr. Anna Filigenzi

In 2002 the Italian Archaeological Mission in Afghanistan of IsIAO (Italian Institute for Africa and the Orient) has resumed its works in the country. Within the limited possibilities offered by the still unsafe conditions of the country the team is now trying to collect new data, at the same time re-organising the old ones. Apart from a survey of the survived material in the Kabul National Museum and in the store rooms at Ghazni, accompanied by restoration works on the damaged pieces, the team has also resumed the

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field works on the Buddhist site of Tapa Sardar, whose excavation was still in progress when the political events in the late Seventies put to an end any archaeological activities in the country. Fortunately, all the materials collected from the excavations, with a few exceptions, are safe and in a relatively good condition. Moreover, the admirable way the excavator collected and recorded the archaeological documents, the hypothesis and indications for future works they put forwards, on the basis of a careful analysis of the data already acquired, allow us to resume the activities without uncertainties but those caused by the present conditions of the archaeological deposits.

The importance of the site has been already stressed: the long life of the sanctuary, its complex net of major and minor sacred areas, the plenty of architectural and sculptural materials and their changes through the time offer an invaluable opportunity of study. We are now adding new hypothesis to the old ones, thanks to a broader range of possible comparisons made now possible by the development of the researches in ambits close to ours. We hope that these hypotheses will be tested in the next future in order to understand the significance of this site and its relations with the religious culture of the time.

Imaging Balarama: fusing folk lore and hero myths into a Vaisnava icon *Doris M. Srinivasin*

If, by the time of the medieval period, an image consists of a god protected by a snake canopy, who holds a plough, a mace or pestle, and often a wine cup, that image can only represent Balarama. This formula for representing the god combines his two distinct natures: one focusses on his heroic (or vira) nature, the other on his chthonic (or naga) nature. The combination had become standardized earlier. Actually, aspects of this iconographic formula had been worked out by pre-Gupta times. Given this stable iconographic history, how can we explain the way Balarama is depicted in an exceptional Kangra miniature. The god is shown with all his standard attributes plus one additional feature. From the top of Balarama's head emerge a mass of snakes and these support a hilly mound. This is the only representation known to me that includes a mound.

Contemporary shrines dedicated to Balarama in Mathura unexpectedly provide insight into the significance of the iconographic addition. In the villages of Baldeo, Anyor, Jatipur, and by the side of the large Bhutesvar Temple in Mathura City, there are shrines to the god still in worship. Inside of several, Balarama shares the altar with Revati, his spouse, and a rock made fit for worship.

The paper discusses the modern shrines and compares their icons to the ancient ones, including two heretofore unpublished ancient Balarama icons which display his dual nature. Further, an investigation of current folk traditions and the geography of the region assist in identifying the rock. The identification advances a possible pre-Kushan connection between the hilly mound and Balarama's naga nature and offers mythic references and iconic imagery to support the connection.

In sum, the paper analyzes the unusual bipolar (naga and vira) characteristics of Balarama, showing two new icons with these characteristics; it also introduces a new

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iconographic feature, which, when properly identified, deepens our understanding regarding the naga nature of a god who remains a very popular deity in Mathura today.

A funerary monument of Prabhavati Gupta?

Prof. Hans Bakker: University of Groningen

The British Museum contains amidst its treasures some deposits made by T.A. Wellsted in 1930. It concerns some pottery and a small image of a soap-stone Naga (BM 1930.10.7.1--25). The provenance of these deposits is, according to their donor, 'a brick burial shaft near Mansar, Ramtek.' In an article in the Journal of the Asiatic Society of Bengal (published 1934) Wellsted describes these finds and their context. The site from where these finds were recovered has disappeared since, but a map in Wellsted's article still allows us to locate this so-called 'burial shaft' in the landscape, namely between the Ramagiri (near the village of Ramtek) and the Hidimba Tekdi (near the village of Mansar). Excavations at the latter hill have revealed in recent years a magnificent brick complex, which, as I have argued elsewhere, may be identified as the Pravaresvaradevakulasthana, known from inscriptions of the Vakataka king Pravarasena II, the youngest son of Prabhavati Gupta. It also seems likely that this king's new residence, Pravara-pura, to which he moved after he had succeeded Prabhavati to the Vakataka throne, has been discovered in excavations of a mound adjacent to the Hidimba Tekdi, thus leaving his mother in the old residence Nandivardhana (Nagardhan, south of the Ramagiri). The 'burial-shaft' is situated c. 1 mile to the east of the site of these Mansar excavations, half-way between the two state sanctuaries of the Vakatakas, the eastern one built by the Vaisnava mother, the Bhagavata complex on top of the Ramagiri, and the western one by the Saiva son, the Mahesvara complex on the Hidimba Tekdi.

The paper will examine the finds of the 'burial shaft' in more detail and connect them with what is known about funerary monuments, *eduka*, in the Sanskrit literature of this period (3rd to 7th centuries AD). If the authorities of the BM permit, the finds, including the Naga image, will be at display at the lecture. Especially this beautiful image of a Naga seems to point to Prabhavati Gupta as the one whose ashes had been buried in the shaft.

Ganesha with a dagger

Dr. Gouriswar Bhattacharya

The earliest Hindu iconographic text *Brhat-Samhita* describes the two-armed form of Ganesha as (ch. 58, v.58), "The lord of the pramathas (the same as ganas) should be elephant-faced, pot-bellied, holding a hatchet and a radish, and should have one tooth." The other well-known iconographic text, *Visnudharmottara*, however, describes (ch. 71, vv. 13-14) the four-armed Vinayaka (same as Ganesha) as, "holding a pike (trident?) and a rosary in the right hands, and a pot filled with sweets and a hatchet in the left hands. His elephant-head should be devoid of the left tusk."

The earlier Ganesha images, i.e. from the 4th to the 7th century, are two-armed, but they hold a pot of sweets. Although several descriptions of Vinayaka (Ganesha or Ganapati) are given in the Sanskrit iconographic texts, both from the north and south of the Indian Sub-continent, no where the deity is given an attribute of a sword or dagger. But in the context of Buddhist iconography an elephant-headed, two- or four-armed male deity is

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shown with a dagger and vanquished by a Buddhist deity. In the case of the well-known Buddhist deity, Aparajita, the female deity is shown trampling upon an elephant-headed male deity which holds a dagger in hand. Now, how one has to identify this dagger-carrying elephant-headed figure? The origin of this figure is very interesting, and has been given very convincingly by Janice Leoshko (1988:47-48). She describes (p. 48)," In this late ninth-century sculpture of the Buddha in *bhumisparsamudra* , two females appear on the base. One, as in the previous examples, kneels and holds a pot aloft with one hand, while the other hand is raised. The second female in the Kurkihar work assumes the half-crouching pose and hand gestures seen in the ninth-century Bodhgaya sculpture. But now the figure of Ganesa appears beneath her feet. And so here the second female could be identified as Aparajita." Leoshko is perhaps not fully right to call this two-armed, elephant-headed figure Ganesha following the later Buddhist iconographic text *Sadhanamala*. Besides, she does not mention the important fact that this image of Ganesha (?) holds a dagger, which is quite unusual for a Hindu deity. There is no textual support for it. The vanquished elephant-headed figure is no doubt obstacle incarnate or *vighna*. Its appearance in the *mara-vijaya* scene is therefore, very significant.

As regards the origin of the image of the elephant-headed deity, clearly representing *vighna* or obstacle, we have to search for the earlier Buddhist texts, and in this respect we have to refer to the relevant and scholarly article by Monika Zin (1996: 331-344). In this article, written in German, Monika Zin refers to the story of the wicked elephant Dhanapala (also known as Nalagiri) which was let loose to kill the Buddha by his wicked cousin Devadatta, Monika Zin illustrates various scenes by her excellent drawings from the Gandhara sculptures and Central Asian cave paintings. In these illustrations the wicked elephant, who was supported to kill the Buddha, is shown with a sword or dagger. The incident took place at Rajagrha, the ancient capital of Magadha, and is known as a great wonder (*maha-pratiharya*) in the Buddhist literature, and is very often illustrated in the Pala art of Eastern India. In this paper the author has discussed in detail how a confusion was made in illustrating an elephant-headed figure of obstacle (*vighna*) carrying a dagger with the elephant-headed figure of Hindu deity Ganesha.

Bibliography

- Leoshko, Janice 1988. "The Case of the Two Witnesses to the Buddha's Enlightenment." A Pot-Pourri of Indian Art, ed. Pratapaditya Pal, Bombay, pp. 39-52.
- Monika Zin 1996. "Der Elefant mit dem Schwert." Festschrift Dieter Schlingloff zur Vollendung des 65. Lebensjahres dargebracht von Schülern, Freunden und Kollegen, herausgegeben von Friedrich Wilhelm, Reinbek : Dr. Inge Wezler Verlag für Orientalische Fachpublikationen, pp. 331-344.

A unique Visnu sculpture from Bihar in the National Museum of Nepal, Kathmandu
Dr. Gerd J.R. Mevissen: Museum für Indische Kunst

A recently acquired stone sculpture showing a standing Visnu figure is on display in one of the galleries of the National Museum at Kathmandu. It seems to have been produced in Bihar and dates from the early Pala period. Apart from representing a quite unusual eight-armed form of Visnu, the most interesting feature of the sculpture is the row of small figures carved in low relief along the rounded upper part of the back slab. Close

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examination shows that altogether sixteen standing figures are represented there, falling in two groups of eight figures each. The first group can easily be identified as eight planetary deities (astagraha), starting with Surya and ending with Rahu. The second group consists of quite indistinct characters, of which only the first can be identified with certainty as Surya again, and the third figure as Vayu, being distinguished by the billowing cloth around his head. From this it is quite clear that the second group represents the *astalokapalas*, a group of directional deities that was popular in Bihar in the 9th century and was later replaced by the *astadikapalas*. This sculpture is thus a very rare example where the grahas are shown as subsidiary figures for Visnu, and it is unique for showing the *astalokapalas* as subsidiary figures, since so far only independent panels of *astalokapalas* are known. The simultaneous presence of the deities of time and space may point to the identification of the central figure as Visvarupa.

Buddhist book-covers from Eastern India: the book-covers of the manuscript SL68 at the Collège de France, Paris

Dr. Claudine Bautze-Picron

The iconography of 11th and 12th c. book-covers from Eastern India, knows a wide range of variations which might appear, at a first glance, impossible to relate to each other. However, their study allows to apprehend the existence of a certain pattern, which reflects a sophisticated reflexion on the nature of the text protected by its covers. The covers are meant to be the boundaries between the text and the outer world, they constitute the spatial borders within which the Buddhist word/world extends. Simultaneously, they also mark the time limits within which a certain journey is made, which is the reading or unfolding of the text, i.e. from East when/where the sun rises to West when/where the sun sets. Similar observations may apply to the illuminations distributed within manuscripts (Bautze-Picron 1999, 2000).

The book-covers of the manuscript SL68 brought back from Nepal by Sylvain Lévi at the end of the 19th c., and preserved at the Collège de France, composes a unique pair combining an illustration of the main religious stream of the time, i.e. the Vajrayana with the depiction of the *Pancatathagata* and the *Prajnas* of four of them on one board - the only board to have been published by M.-Th. de Mallmann in 1976 (in particular her figs 1-3), and of the Mahayana ideal of the Bodhisattva offering his body through nine scenes on the second board.

Besides the fact that their detailed study allows us to identify their respective position at the beginning and the end of the manuscript, both covers, with their particular iconographic program, complement each other. It also appears that the Bodhisattva offering himself in order to rescue souls of their fate, is not only the future Buddha but also Avalokiteshvara, who is described in similar circumstances in the Karandavyuhasutra; and this finds an echo in the central presence, on the second board, of Amitabha (and not Vairocana whom one would expect in this position). This offering unfolded in an endless length of time and culminated with the spread of the Dharma in five directions under the heading, in this particular case, of Amitabha. Thus here again, we observe how both covers together convey the idea of eternity and infinity.

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Bibliography

- Cl. Bautze-Picron 1999. "Buddhist Painting during the Reign of Harivarmadeva (end of the 11th c.)." *Journal of Bengal Art*, vol. 4, pp. 159-97, in particular pp. 186-7.
- 2000. "The Los Angeles Manuscript Covers: uncovering and explaining their Iconography", *Journal of Bengal Art*, vol. 5, pp. 95-128.
- M.-Th. de Mallmann 1976. "Notes d'iconographie tantrique." *Arts Asiatiques*, tome XXXII, pp. 173-87.

An early Nepalese Gandavyuhasutra manuscript. An attempt to establish connections between the text and the illuminations.

Dr. Eva Allinger: Institut für Südasien-Tibet- und Buddhismuskunde Universität Wien

The *Gandavyuhasutra* relates how the merchant's son Sudhana visited various teachers in order to discover the path to enlightenment. From a Nepalese manuscript of this text - dated on stylistic grounds to the 12th century - are preserved 27 illuminated leaves, distributed between five museums (The Asia Society in New York, The Cleveland Museum of Art, The Virginia Museum of Fine Arts in Richmond; The Seattle Art Museum, The Los Angeles County Museum of Art Collection) and a private collection. Two types of depiction predominate: either a youth walking or two figures sitting opposite each other.

This pictorial subject constitutes a very general connection with the contents of the text. Connections of this kind between image and text are very rare in early Buddhist manuscripts. In most cases subjects are depicted - such as the Eight Great Events in the Life of the Buddha in the *Prajñaparamita* manuscripts - which bear no relation to the text.

The images of the *Gandavyuha* manuscript do not contain anything of the often very detailed textual descriptions of Sudhana's teachers, their retinues and dwelling places; i.e. no concrete textual passages are illustrated, but there is a clear attempt to establish a link between text and image.

Apart from brief mentions of individual leaves by Sherman E. Lee and Stella Kramrisch, the leaves preserved in the museums have primarily been treated by Pratapaditya Pal in the literature. The leaves in the private collection are as yet unpublished.

Bibliography

- Kramrisch, S., 1964, *The Art of Nepal*. Asia House Gallery, New York.
- Lee, S.E., 1963, *Apollo*, Christmas 1963, p.480.
- Pal, P., 1978, *The Arts of Nepal*, Vol.II, Leiden/Köln.
- Pal, P. 1985, *Art of Nepal, A Catalogue of the Los Angeles County Museum of Art Collection*, Los Angeles.
- Pal,P. & Julia Meech-Pekarik, 1988, *Buddhist Book Illuminations*, Ravi Kumar.

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The portraits of the Chola King Rajaraja I

Dr. Vincent Lefèvre: Musée national des arts asiatiques Guimet - Paris

Portraiture in Indian Art is a much debated field; it however seems to be attracting the attention of more and more scholars. This paper is part of a wider study attempting to settle certain issues on newer grounds. It will nevertheless focus on a specific example.

One of the main issues faced on the definition of portraiture in India (prior to the Moghol era) is that it is very rare to find several representations of a same character. One of the exceptions is the famous south Indian king Rajara I from the Chola Dynasty.

The aim of this paper is to propose first a typology of Rajaraja's 'portraits' according to their provenance (Tanjavur, Govindaputtur, Tirunaraiyur, Tiruvisanallur, etc.) and their medium (stone, metal, and painting). The mode of representation will then be studied. A comparison with the literary eulogies of the king in the chola inscriptions will finally help bring forth the image of kingship given by these 'portraits'.

Iconographic Comparison between Burmese Buddhist "Andagu" and (burnt) clay plaques.

Achinto Sen-Gupta

A large number of small sized so-called "Andagu" plaques, carved in low relief on yellowish beige Pyrophyllite stone slabs with Buddhist motifs, mainly stations from Buddha's life, have been found in Burma, India, Sri Lanka, Tibet and Thailand. They have been the subject of much attention and also of much controversy among scholars as to their place of origin. But burnt and unburnt clay plaques of similar small size (h.5 - 20 cm), also depicting more or less the same scenes of Buddha's life have received little attention from Western scholars. This paper will attempt a direct iconographic comparison of the "Andagu" and clay plaques, whatever their origin may be.

The fine-grained "Andagu" stones allow very fine carving of a sequence of events from Buddha's life which are more or less standardized according to larger or even monumental Pala stone sculptures of Bengal and Bihar. These patterns are the basis of both the "Andagu" plaques as well as burnt clay plaques adapting even minute details from the large stone sculptures, but often altering or even omitting some details" due to lack of space. The three main types of depiction include a central Buddha in earth-touching gesture with two or more stupas or attendants on his left and right, a central Buddha in earth-touching gesture representing his enlightenment at Bodhgaya encircled by 7 other life scenes and a third variety with the central Buddha encircled by 7 stations of his life and the seven weeks after his enlightenment. Details of the iconography both of the "Andagu" as well as of the burnt clay plaques will be analysed with reference to larger Pala stone sculptures and Buddhist texts. Inferences' will be attempted on the school of Buddhism of the donors or makers of the plaques.

The burnt clay plaques have often inscriptions at the back, which were scratched on the still wet and soft clay before they were burnt. They often give the date of make and the donor who commissioned the making of the plaques. The clay plaques which have survived till to-day outnumber vastly the "Andagu" carved plaques and they show many

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iconographic traits not yet found on the "Andagu" plaques. The similarities and the dissimilarities of the two groups will be discussed.

Archaeology and heroic discourse in India

Archana Verma (JNU, New Delhi)

Heroic discourse can be a sustenance mechanism for the prescribed norms of the Brahmanical society, as evident in the characterisation of the conventional (or 'stereotypic') heroes of the epic (e.g., Rama, Krishna, Pandavas etc.). As necessary requisites of heroic figures, these heroes are endowed with both martial and romantic qualities. In the context of Indian tradition, these two qualities need not be distinct from each other. For, a hero is often desirable in romantic terms because he is a great warrior and he often takes up a martial challenge because of a romantic interest. With the rise of Vaisnavism and the Puranic religion, we see the process of gradual deification of the hero. This characterisation provides the normative vision for the Brahmanical social order, even though the epics may not be the normative/canonical texts. At the same time, the epics also have the 'unconventional' heroes, who do not follow the prescribed social order (e.g., Karna, Bali, Ravana, Ekalavya etc.). These figures otherwise are endowed with great virtuous qualities, skills and learning, but they also tend to question the Brahmanical norms. In fact, they have to be vanquished in the narrative not because they are sinful, but because they have upset the prescribed social order. The narrative tradition of the epics thus, also provides a possible critique of the prescribed social norms in a latent form. It is important to remember that there exists a multiplicity of texts within the epic tradition of India. This leads to the diversity of forms of a single narrative text. Thus, the core legend may be similar or identical, but its content may be reformulated in different narrative traditions. It will be interesting to explore the question as to why and how certain epic forms become dominant and other forms become subordinated in the narrative tradition, in verbal as well as visual media. Iconic images encompass within themselves ideas from the relevant legends, the persona of the figure depicted and the social beliefs and practices. In this sense, icons can also be called visual narratives and this is the sense in which the term 'narrative' has been used in this study.

Some of the relevant questions to be asked are -

1. Which heroic themes were especially favoured in Indian temple sculpture? Can a compelling reason be found for the inclusion of this material in the temple setting?
2. Can temple iconography be 'read' as a text? What kind of 'readings' can we do?
3. What is the relation between the visual and the verbal forms of the narratives and how can this relation be conceptualised? How does this process contribute towards the formation of a collective psyche in society which may have contributed towards the use of the 'archaeology of epic' as a politico - religious tool in historical and in our modern times

The reclined devi from Badoh: goddess of the city?

Anne Casile: Paris III

Effigies illustrating a motherly scene of a divine lady in resting attitude with a child by her side are well known from northern India, following the iconographic tradition of

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representing child conception and birth in narrative art. Some hundred of these sculptures, dated between the 10th and 12th century, were discovered in north Bengal and identified by scholars on a mythological level with Gauri and *sadyojata*-Siva. Reclined mother and child on a bed or on a coiled serpent similar to Ananta-Sessa supporting Visnu are also found on images from central India where they are, however, more rare. The study of these images reveals much iconographic diversity and various religious affiliations. Most of them seem to be connected with the celebration of Krsna's birth.

In this paper, after a brief iconographic overview and interpretation of this divine form of maternity in sculptural tradition of central India, we will focus on a particular example coming from Badoh, where it was found inside the early nine-century temple of Gadarmal among tens other effigies of seated goddesses. This sculpture presents an unusual iconography, which led to various interpretations, essentially based on the mythology of the Epic and Puranic tradition. Thus, it has often been identified with the birth of Krsna and the birth of Skanda (Parvati as *skandamata*). However, the original overall context of the statue, i.e. its temple and landscape setting, has never been seriously taken into consideration, and if done so, could have led to different interpretations.

A first glance on early Drigung painting

Dr. Christian Luczanits, Vienna - Berkeley

Recently Deborah E. Klimburg-Salter published a scroll painting on silk of the Rubin Museum of Art. This painting is not only of great religious and historical importance due to the footprints of Drigungpa himself, as has been described by Klimburg-Salter, but is the key to defining a group of early paintings which now can safely be attributed to the Drigung school.

The paintings of this group share a number of details in iconography and motives that allow to identify them despite the, sometimes severe, differences of style. These markers are also independent of the main topic depicted, which can be footprints, as in the case of the Rubin scroll, portraits of Drigungpa and his successors as well as deities. Even better they connect thangkas with murals from a number of different places, partly as remote as Ladakh in the western Himalayas. All of them are to be attributed to the period from ca. 1200, when the Drigungpa school became dominant in Tibet to ca. 1350.

In my presentation I will introduce the major and minor markers defining the group and exemplarily discuss the interrelationship of some examples with regard to chronology and religious changes through time.

Gandabherunda, the monsterbird which feeds on elephants: enigmatic scenes on old Indian cotton textiles

Brigitte Khan Majlis, Cologne

In recent years a growing number of Indian cotton textiles have appeared on the art market, having been hitherto kept as precious heirloom pieces in the clan or family

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treasures of various ethnic groups in Indonesia. Among these textiles there is a small group that shares a common colour scheme and a limited range of patterns. Some of the textiles have been collected from the island of Timor, others from Sulawesi. Results of C14 analysis place their date of manufacture in the 16th/17th century. The paper tries to interpret their enigmatic scenes and iconography and to define their place of origin by comparing them with motifs from paintings, architecture and other sources. Up to now Gujarat or the Deccan was thought to be the manufacturing area. Research on iconographic and stylistic features seems to point further southwards to Karnataka or Tamilnadu.

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PANEL: The Cultural Diversity of Northwestern South Asia at the time of the Indus Civilization (Thursday July 7 9.30 – 12.30)

Convenors: Prof. Gregory Possehl (University of Pennsylvania) and Prof. Vasant Shinde: Deccan College

Title to be announced

Prof. Maurizio Tosi: University of Bologna

Glyptic evidence from Konar Sandal South in Jiroft (Iran)

Dr. Holly Pittman, University of Pennsylvania

Three seasons of excavation of the site of Konar Sandal South in the region of Jiroft in the province of Kerman in south central Iran have produced a rich and varied body of glyptic evidence both in the form of actual seals and their impressions on clay sealing devices. While the results are still preliminary, an analysis of the imagery and style suggests that there is remarkable cultural diversity represented among the seal users at the site at around 2500 BC. Seals were being used that suggest the presence of individuals from distant lands including Mesopotamia, the Iranian plateau, the Indus valley and perhaps Central

Asia. The paper will summarize the evidence and argue that individuals were drawn to the region because of the extremely rich craft activities, in particular the processing of semi precious stones that come both from the surrounding mountains as well as from as far away as the sources of lapis lazuli.

Sohr Damb/Nal: new results from the excavations 2004 and 2005

Dr. Ute Franke-Vogt: DAI-Eurasienb-Abteilung

In 2004 and 2005, large-scale excavations were carried out at Sohr Damb/Nal. The cemetery dating to Period I was further excavated and several tombs exposed, providing us with insights into burial customs. Period II/Nal buildings were exposed in a number of trenches, shedding light for the first time on domestic architecture and the related assemblages. The stratigraphic relation to Period III levels and the study of the artefacts prove important information on continuity and change. Period III remains are horizontally exposed in two areas and 5 structural phases were defined. Extensive assemblages facilitate in-depth technological, typological and stylistical analyses (see paper St. Langer).

The results obtained throw new light on the cultural development in Central Balochistan from 4000 to 2000 BC and , in comparison with the data from Miri Qalat and Mehrgarh, lead to at a better understanding of the regional interaction and development.

New radiocarbon dates from Sohr Damb/Nal, Balochistan

Dr. Jochen Görtsdorf: DAI-Eurasienb-Abteilung

Sohr Damb/Nal, the type site of the Nal complex, was excavated by H.Hargreaves in 1924. The Joint German-Pakistani Archaeological Mission to Kalat re-opened excavations in 2001 and has worked at Sohr Damb for three seasons. The sequence unearthed so far has pushed back the initial date of the settlement into the 4th

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millennium BC and brought to light a substantial post-Nal (Period II) occupation. The well-preserved Period III settlement has several links to sites such as Miri Qalat, Mehrgarh, Nausharo, Mundigak and Shahr-e Sokhta.

The calibration of earlier dating results in consideration of stratigraphic and archaeological information gave informations about the transition from phase II to III (Boundary B) as well as from phase III to IV (Boundary C). Due to the special form of the calibration curve, the time interval near boundary B is especially sensitive for the old wood effect. For the period II only one date was measured.

In this paper, a new series of 14C dates obtained from the site will be presented and their chronological implications will be discussed.

The pottery assemblage of Period III from Sohr Damb/ Nal, Balochistan

Stephanie Langer DAI-Eurasienb-Abteilung

The report introduces the pottery assemblage of period III from Sohr Damb/ Nal which originates from compact architectural structures and includes a large variety of shapes and motifs. The inventory from these levels shows stylistic parallels to cultural horizons in Northern Baluchistan (Damb Sadaat III, Rana-Ghundai III) and to Mundigak IV in Afghanistan, and is important not only for the local history but also for questions of the supra-regional chronology and cultural interactions in the 3rd millennium BC. Based on a selection of pottery from stratigraphically well determined contexts, an insight into the repertoire and preliminary results of the typological analysis will be provided.

Ceramic production and distribution during the Later Prehistoric Sheri Khan Tarakai and Tochi-Gomal Phases of the Bannu Region, NWFP, Pakistan

Dr. Cameron Petrie: Department of Archaeology, University of Cambridge. & Dr. Justin Morris: The British Museum

Excavations and surface surveys conducted in the Bannu region since 1986 have revealed evidence of a village based Neolithic occupation dating to the 5th and 4th millennia BC, generally referred to as the Sheri Khan Tarakai phase. This earliest phase of sedentary occupation in the region is characterised by a distinctive hand built ceramic assemblage, marked by a grit tempered fabric decorated with a distinctive range of zoomorphic and geometric motifs. The following Tochi-Gomal phase represents a marked shift in the approach to ceramic production, in particular the use of a wheel to produce bichrome or polychrome decorated vessels from well levigated clay.

Previous characterisations of these assemblages have drawn comparisons with the decorative schemes of contemporaneous assemblages in South Asia, in particular with the Gomal region to the south. This paper seeks to provide a more detailed explication of these relationships, and will contrast evidence for the mechanisms of ceramic production and distribution in the Bannu and neighbouring Gomal region, at the same time drawing on the evidence for the production of lithics in these regions during the same culture phases. The paper will also seek to address the nature of the stylistic and technological relationships between the Bannu region ceramic assemblages and contemporaneous material from the Indo-Iranian borderlands and Central Asia.

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In conclusion the paper will seek to demonstrate the unique constraints imposed by the geomorphological and environmental nature of the Bannu region during the later prehistoric period. In particular the paper will demonstrate that the region acted both as a filter and a conduit for cultural contact and influence, thereby serving to alternately integrate or isolate the Bannu region from cultural and socio-economic developments that took place in neighbouring regions.

Chalcolithic culture of Mewar, the Harappans and contemporary cultures of Western and Southern India: the nature and extent of their interactions and influences

Shweta Sinha Deshpande: Deccan College, Pune & Vasant Shinde: Deccan College, Pune

The end of fourth and the beginning of third millennium BC witnessed a flurry of activities in western India, the major part of which falls in the semi arid region. The evidence from Bagor and Gilund indicates that the Mesolithic hunter-gatherers gradually developed into early farming communities. The Mesolithic people of this region introduced pottery and domestication activities in the middle of fifth millennium BC. As is evident at Gilund, there is a smooth transition from Mesolithic to Chalcolithic. Excavations at Balathal indicate local origin of the village life in the Mewar region, independent of the Harappan culture. Most of the characteristic features of Chalcolithic of this region were introduced by the people of this region from the very beginning around 3500 BC as is evident at Balathal and Gilund. The evidence further indicates gradual development in material culture that is best reflected in their structures and pottery. Around 2500 BC the culture is transformed into a prosperous and most developed phase. Small circular and rectangular structures in the beginning gave way to a well-planned fortified settlement consisting of roads, lanes and private and public structures of stone and mud and burnt bricks. The coarse and handmade pottery that was introduced by the first settlers gradually becomes refined and becomes classical in the middle phase of the Chalcolithic. There is also very elaborate evidence for craft manufacture and expansion of settlements at Balathal and Gilund. One of the most important reasons that we have identified for the flourishing of the Chalcolithic phase around 2500 BC is its trade contacts with Harappans and the contemporary cultures of central and south India. The Harappan influence is evident on their methods of construction, presence of Tan ware with typical Harappan shapes, and copper objects. The Reserve Slip Ware introduced by the Chalcolithic people of Mewar was later borrowed by the Harappans. The presence of Malwa, Jorwe and Southern Neolithic pottery pieces in the ceramic assemblage of the Ahar culture at Ahar, Balathal and Gilund indicates wide regional contacts. The copper from Khetri belt controlled by the Ganeshwar-Jodhpura people was supplied to not only the Harappans but also the cultures in the far off Deccan region. The painted pottery tradition of central India and the Deccan bears a lot of resemblance with the Harappan pottery tradition, indicating extensive influence. This paper deals with the evidence from recent excavations at Bagor, Balathal and Gilund related to regional trade contacts and extensive influences on each other.

The seal impressions from Gilund: evidence of administration and contact in Chalcolithic Western India

Marta Ameri: Institute of Fine Arts, New York University

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The discovery of seal impressions at the Ahar-Banas site of Gilund in the winter 2002-2003 excavation season came as a surprise to many who had typically considered this area of western India a backwater, physically close to yet developmentally far removed from the great cultures of the Indus Valley and beyond. It placed the site squarely within an administrative tradition that existed throughout Asia as early as the 5th millennium B.C. For example, the use of seals as tools in an advanced administrative system is well known from sites in Mesopotamia, Turkey and Iran as early as the 5th millennium. During the 3rd millennium, square stamp seals with short inscriptions are one of the most typical artifacts of the Mature Harappan civilization.

What is unusual about the impressions from Gilund, however, is that rather than imitating the square seals of the Indus Valley, they strongly resemble material found at BMAC sites of Central Asia and generally associated with these oasis cultures. This raises important questions as to the nature of the external contacts of the inhabitants of Gilund as well as those of the Ahar-Banas cultures in general. This paper will attempt to place this material within the larger context of both its administrative function and its iconographical origins. I also hope to address some of the cultural mechanisms that may have led to the appearance of these artifacts in western India.

Networks outside of the Indus: re-defining the political economy of the Ganeshwar-Jodhpura Cultural Complex

Uzma Z. Rizvi: University of Pennsylvania

The preliminary studies of the material and data collected in the 2003 Survey season indicate that the Ganeshwar-Jodhpura Cultural Complex can effectively be understood within a copper artifact-producing context. This context is evident by the high percentage of vitrified metal waste products and furnace complexes in this region. The extraction and mining sites that have been mapped lend a complete picture of potential economic activities that were in place. The data suggest simultaneous active economic and political networks, peer-polity models of interaction emerging within the complex as a form of network strategies, with potential center-periphery type relationships between the Indus Civilization and the Ganeshwar-Jodhpura Cultural Complex.

This study enhances our understanding of the prehistoric development of settlements in an economically significant area and its role in the growth of complexity and networks between local and regional settlements, specifically between the Indus sites, the Ahar sites and the Ganeshwar-Jodhpura Cultural Complex. It will also enlighten arguments of political, economic and social networks that may have existed between individuals, agencies and/or community units. The mapping of networks allows the data to answer previously unasked questions about power, mediators and negotiated space opening archaeological research to new venues of inquiry.

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The organization of iron production in southeastern Rajasthan during the late first millennium BC

Praveena Gullapalli: University of Pennsylvania

This paper discusses the organization of iron production in southeastern Rajasthan during the late first millennium BC and addresses the possible economic and administrative frameworks that could have been in place. Understanding the organization of craft production provides an avenue through which the nature of administrative and economic systems can be explored, especially in the absence of other lines of evidence. This is the case with southeastern Rajasthan during the late first millennium BC, where fairly limited archaeological investigation has resulted in significant gaps in our knowledge of that society. Excavations thus far have revealed several sites that have been involved in the production of iron, although their role within local production systems has been unclear. Production evidence gathered through survey has revealed that these sites were part of a landscape that witnessed a variety of iron production related activities. Furthermore, these activities highlighted the two discrete stages of iron production and revealed different organizational principles for each. It is argued that, based on iron production debris, smelting activities were centered on fewer specific sites while smithing (or refining) activities were more ubiquitous across the landscape. This has implications for the possible economic and administrative systems that may have been in place: mechanisms of control may have been in place over only the smelting of iron, perhaps indicating difficulties in the procurement of ore. The actual fashioning of the artifacts may have been less contentious. Furthermore, it is evident that iron production cannot be discussed as a singular act; an explicit acknowledgement of the stages highlights the possibility of markedly differing modes of organization for each.

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PANEL: Aryans, Harvesters and Nomads (Thursday July 6 2.00 – 5.00)

Convenor: Prof. Asko Parpola: Department of Asian & African Studies University of Helsinki

Excavations at Parwak, Chitral - Pakistan.

Ihsan Ali: Directorate of Archaeology & Museums, Government of NWFP & Muhammad Zahir: Lecturer, Government College, Peshawar

The Directorate of Archaeology & Museums, Government of NWFP, under the supervision of Prof. (Dr.) Ihsan Ali, Director, Directorate of Archaeology & Museums, Government of NWFP, Peshawar has completed the first ever excavations in Chitral at the site of Parwak. The team included Muhammad Zahir, Lecturer, Government College, Peshawar and graduates of the Department of Archaeology, University of Peshawar.

Chitral, known throughout the world for its culture, traditions and scenic beauty, has many archaeological sites. The sites mostly ranging from 1800 B.C. to the early 600 B.C, are popularly known as Gandhara Grave Culture. Though brief surveys and explorations were conducted in the area earlier, but no excavations were conducted. The site of Parwak was discovered by a team of Archaeologists from Directorate of Archaeology and Museums, Government of NWFP and Boston University, USA in a survey conducted in June 2003 under the direction of Prof. (Dr.) Ihsan Ali and Dr. Rafique Mughal.

The site is at about 110 km north east of Chitral, near the town of Buni, on the right bank of river Chitral and set in a beautiful environment. The site measures 121 x 84 meter, divided in to three mounds. On comparative basis, the site is datable to the beginning of 2nd millennium BC and represents a culture, commonly known as Gandhara Grave Culture of the Aryans, known through graves and grave goods.

A total of 14 trenches were laid on the site, covering an area of 309.5 square meters, of which 8 represents only single period belonging to the Gandhara Grave Culture. A total of 12 Aryan Graves were excavated, which contained skeletons and grave goods. Four types of burials i.e. inhumation, cremation and fractional burials were excavated during our excavations of the site. The inhumation burials were also of three different types; extended, inflexed and crouched. These graves were mostly oriented east west but not north south oriented graves were also exposed, all containing grave goods.

The grave goods included pots, weapons, tools, jewellery and seal/stamp. The excavated artifacts included 10 copper and iron bangles, 06 gold and copper earrings, 01 semi precious stone finger ring, 04 copper finger rings, 128 semi precious stones, paste and faience beads, 06 iron arrow heads, 02 iron knife blades, 01 iron hook, 02 iron axes, 01 iron chisel head, 02 tool's sharpeners, 02 grinding stones, 06 ceramic opened mouth bowls, 12 handled drinking pots and a copper seal. The excavated materials, along with skeletons and samples, were handed to the newly established Chitral Museum of Archaeology and Ethnology, Chitral and for record and display.

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The excavations at Parwak are playing an important role in the establishment of the cultural profile of Chitral and provide evidence for testing the theories regarding the Aryan invasions and the origin of Kalashas and Chitralis. The research is in progress and we plan to invite scholars to analyse our data for comparing the dead bodies with Kalashas, Chitralis, Greeks and others to pin point the original home of the Kalashas and the inhabitants of the Gandhara Grave Culture.

The Vedic Aryans' burial rites and their archaeological parallels

E. Kuzmina: Institute for Cultural Research, Russian Academy of Sciences

The burial rite of the Vedic Aryans has been reconstructed on the basis of Rigveda (X: 14 - 18), Atharvaveda (XVIII: 1 - 4), Shatapatha-brahmana (XIII, 8), and later texts (Caland 1896; Pandey 1982; Smirnov 1997). In the cemeteries outside the settlements the dead were cremated or inhumed and buried in a flexed position, head to the west. The pit grave was sometimes supplied with frame of logs as a house for the dead. A round or rectangular stone enclosure was built around the grave and above it a barrow was erected (the rite of Pitrimedha). The ashes were brought in a vessel (kumbha). There also occurred the cremation of man with wife (sati). Vessels accompanied both cremations and inhumations. A horse was sacrificed on the occasion of the burial of a king or kshatriya (Puhvel 1981). When one had died far away from home, he was cremated and a cenotaph was erected in his homeland. In other cases the body in a vessel with oil, or 33 bones of skeleton were sent home for cremation (Baudhana-pitrimedha sutra III: 6, 2).

These burial rites have nothing in common with the burial rites in Baluchistan and in the Harappan civilization (Marshall 1931; Wheeler 1947; 1953; 1968; Singh 1970; Possehl 2002) and post-Harappan cemeteries H, R-37, Jhukar and Chanhu-daro in India and Rana-Ghundai, Shahi-Tump, Khurab in neighbouring lands.

The total combination of all specific burial rites characterizes only the Vedic tradition and the Andronovo culture, especially in North Bactria. There are a lot of cenotaphs in Bactria (Vinogradova 2004). They may belong to Aryans who migrated to India.

The evolution of the moulding techniques in the ceramic sequence of the Swat Valley (North-West Pakistan)

Emanuele Morigi: Conservazione dei Beni Culturali, Italy

In spring 2004, we resumed the survey of the Kandak and adjacent areas in front of the Barikot hill for the Italian archaeological mission in the Swat Valley (North-West Pakistan). During the examination of the ceramic materials recovered in the survey and excavated in the past in different archaeological sites, we realized the importance of moulding as a primary form technique.

Moulding, frequently used with coils or with the potter's wheel, consists in adapting clay into special moulds or chucks for obtaining a preliminary structure on which the form could be further elaborated. Attested for the first time in some vases of Period III of the Swat archaeological sequence (1900-1700 BC) the presence of this class of techniques in continuous evolution, being still very popular in Saka-Parthian and Kushana times.

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The paper shows the archaeological indicators of moulding in different types of ceramics across the archaeological periods so far considered

The face urns of Gandhâra and the cult of the Nâsatyas

Prof. Asko Parpola: Department of Asian & African Studies University of Helsinki

The Gandhâra Graves represent the first archaeological culture in the Swât Valley region to have the domesticated horse. The two successive cultural phases beginning about 1600 BC and 1300 BC, respectively, probably reflect the arrival of the earlier and later wave of the Indo-Aryan speakers associated with the Rigveda. On the basis of river names and other indications, the Kânvas of the earlier wave and the Atris of the later wave mainly resided in the Swât area. These singer families are pre-eminent in praising the Nâsatyas or Ashvins, the divine horseman twins who drive a heavenly chariot, and in offering them gharma, a drink of heated milk.

I suggest that the 'face urn' characteristic of the Gandhâra Graves is related to the gharma vessel of the Ashvin cult. According to Vedic texts, the gharma pot represents the severed head (which flew off to become the sun) of a heroic deity, and thus it is not unlikely that the pot was fashioned to resemble human head. The Shatapatha-Brâhmana (14,1,2,17) in fact specifies that this clay vessel was to have a nose (nâsikâ). Several things - including their name - associate the Nâsatyas with the nose in the Veda.

If accepted, the proposed link between the Vedic religion and archaeological evidence would have important implications. However, it poses some further questions. In particular, did the Nâsatyas and the gharma vessel have a funerary function? Can other traces of the Nâsatya cult be found in the Gandhâra Grave culture?

Stone 'harvesters' of neolithic tradition from northern Indo-Pakistani valleys

Giorgio Stacul: University of Trieste

The stone industry from the northern Indo-Pakistani subcontinent, in the late prehistoric times, is characterized by the so-called 'harvesters', i.e. the notched and holed stone sickles recovered in Kashmir and in Swat and dated from the 3rd to the mid-second millennium B.C. Similar tools were also found in various sites of Inner Asia and particularly in the northern neolithic China.

According to some authors, waves of migration through the Tibetan Plateau reached the Kashmir Valley crossing the Himalaya Ranges. The westernmost point of this movement is the Swat in present-day Pakistan. Dog burials and some bone and jade decorated objects, suggest links with late neolithic traditions of China. Such cultural innovations in the Indo-Pakistani valleys, may not necessarily be connected with ethnic changes, but seem to suggest long-distance contacts and cultural interactions.

Chronology of Late Bronze and Early Iron Age Monuments in the Northern Bactria

N. Vinogradova: Russian Akademîe Nauk Institut Vostokovedeniya & E. Kuzmina: Institute for Cultural Research, Russian Academy of Sciences

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1. The archaeological monuments of Southeast Uzbekistan and Southwest Tadjikistan are the parts of cultural historical region of Bactria. This region became the area of migration of pastoral Andronovo culture tribes and their contacts with aboriginal farmers - the bearers of Namazga VI culture (or a BMAC variant Sapalli culture at the late Molali and Bustan stages). The different models of cultural interconnection took place and the new steppe culture Bishkent-Vakhsh formed.

2. The comparative analysis of archaeological materials of farming and steppe sites makes it possible to arrange them according to chronological stages (table 1). The 1st stage is represented by the finds of early Andronovo Sintashta type cheek-pieces in Zardcha-Khalifa grave and Dzharkutan settlement (Bobomulloev 1997; Teufer 1999). Their calibrated C14 dates in the Urals and Central Asia are 21st - 18th centuries BC (Kuznetsov 1996; 2003; Kuzmina 1998; Epimakhov 2003; Görsdorf et al. 1993). The 2nd stage - the peak of Andronovo and Bishkent-Vakhsh cultures is the Molali period. C14 dates of the Dzharkutan temple, settlement Kangurtut and necropolis Tigrovaya Balka are between 1800 - 1300 BC (Görsdorf, Huff 2001; Vinogradova 2004). The date of the 3rd stage is based on the analogies with the Final Bronze Age steppe cultures of pottery with applied roller (13 - 11 centuries BC). The 4th stage is Yaz I period (11 - 9 centuries BC) with painted pottery and iron.

3. There is a direct line of continuity of cultures Namazga VI - Yaz I - Kuchuk I B. They are the base of the great kingdom of Bactria in the 8th - 7th centuries BC (Kuzmina 1976, Vinogradova 2004).

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PANEL: The Archaeology of South Indian Landscapes (Thursday July 7 2.00 – 5.00)

Convenors: Dorian Q Fuller and Prof. Ravi Korisettar (Chair)

Archaeological landscapes of South India

Dorian Q Fuller and Prof. Ravi Korisettar

“Landscape” has become a theme of increasing interest in archaeology, which has been pursued from quite different points of view. Natural landscapes are reconstructed by environmental archaeologists, as catchments in which resources are procured and activities conducted. Others have emphasized the importance of landscapes as perceived, experienced and constructed through cultural categories and signs. The landscape is structured by time as much as by space. Cycles of the seasons structure an environment. For human groups in the past, these cycles and their spatial presentation were experienced but also structured, cognized through rituals, and controlled through political systems and modes of social interaction. An eclectic approach therefore must regard these two perspectives on landscapes as complementary rather than contradictory. This may become clear when the same regional landscape is considered through different periods when different cultural traditions and societies understood and modified the same basic regional setting in different ways to suit their time and society.

The present session is an opportunity to provide such a diachronic comparison of the archaeological landscape represented in a particular regional setting, that of a limited region of the South Deccan. This session will bring together what may be broadly classed as landscape studies, including considerations of site placement and creation, natural resource distribution and use, and the signing of parts of the landscape through art and signs. All of these papers focus on a fairly limited region, focused along the Tungabhadra river catchment, in which much of the plains is punctuated by mainly granitic hills that have served as places of settlement focus, defense, resource procurement, and tableaux for carved and drawn representations. Papers will include studies of prehistoric periods such as the Mesolithic and Neolithic as well as much later historic periods of medieval empires and kingdoms, and thus provide an opportunity to assess how very differently organized societies experienced and reassessed the same natural setting with its constraints seasonality, aridity, water and material sources.

Chair: Prof. Ravi Korisettar

Making a record of a direct visual record: rock-art research in Kurnool District

Jamie Hampson, David Robinson & Christopher Chippindale: Department of Archaeology, Univeristy of Cambridge

The visual nature of rock-art requires an explicit visually oriented analysis: Fortunately, its above ground context allows for documentary approaches involving varying degrees of sampling strategies. The rock-art record is a product of practical methodologies employed in the field. This documentation can be characterized as Rapid, Medium, or Long, each approach offering relative strengths and weaknesses for archaeologists researching rock-art. This paper addresses methodological necessities, advantageous or

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otherwise, particular to rock-art research in the context of a recent survey in the Kurnool District, South-Central India: 23 rock-art sites have been added to a growing regional corpus thus presenting sufficient representation to begin advancing interpretative inferences.

Hypotheses can now be suggested regarding chronology, taphonomy, motif, landscape, and syntax. However, it is stressed that these propositions arise only through the accessibility that the direct visual nature of rock-art affords.

Game boards at Vijayanagara

John M Fritz: Co-Director, Vijayanagara Research Project, and Research Associate, University of Pennsylvania Museum of Archaeology and Anthropology

Over a period of more than a decade our Project has documented the surface remains of Hampi/Vijayanagara. One of the characteristic traits of this surface is the presence of exposed bedrock, especially large piles of granite boulders and wide expanses of sheet rock. This raw material was used in the great majority of capital construction projects in the city. Natural and artificial rocky surfaces were sites of a wide range of activities, and these have left various marks. During our detailed mapping of the surface of the city, we recorded some 770 game boards cut into horizontal expanses of sheet rock, pavement and basements. To our knowledge this is the largest corpus of such boards recorded at any site in South Asia.

Here, I report on the forms and frequency of boards, the types of games that may have been played on them and the variation in occurrence of different types of boards across the site. Following Murray's "A History of Board-Games Other than Chess", we classify Vijayanagara's boards into those played in War Games (Alquerque, Blockade, and possible Chess boards), Hunt Games (Leopard – including Goats and Tigers), Race Games (Parcheesi and Single-Track), Games of Alignment (larger Merels, also known as Nine Men's Morris) and more simple Mankala games.

In a preliminary study of the occurrence of these boards we find that Blockade and Hunt game are proportionally more frequent in the zone we term the Sacred Centre while Race game are somewhat more frequent within the walled Urban Core and Royal Centre.

We hope that this preliminary study will encourage students to take up a more detailed study of this unique body of material, a window to many aspects of the cultural life of this imperial city.

Landscapes, soundscapes, and traditions of practice: The rock art of Hiregudda Hill and environs, Bellary

David Robinson: Department of Archaeology, University of Cambridge

Digital documentation of 200 rock-art panels on the granitic and dolerite rock formations of Hiregudda Hill and vicinity provide a wealth of information of an elaborately enculturated landscape. Evidence suggests that cupule making was part and parcel of other grinding and pecking practices tied to food and axe production.

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Sound likewise played a role in the marking of the landscape and is directly associated with petroglyphs. Preliminary analysis of imagery suggests a chronology spanning from Mesolithic, Neolithic, Megalithic, Historic to Modern. In particular, imagery appears to reflect changing human/animal inter-relationships, from hunted animals to an obsession with cattle and its domestication.

While animals in the singular appear to be a dominant motif, exceptional compositions exist implying a concern with multiple animals or herds. It is suggested that a core cultural metanarrative focused upon cattle was expressed via its depiction. Through time, panels were focal points for addition of subsequent anthropomorphic imagery which gradually becomes more prevalent. A probable historic period efflorescence of densely applied rock-art perhaps reflects a regional dominant polity's appropriation of a locality redolent with the past evidenced in several millennia of rock-art imagery.

Understanding Neolithic landscapes of South India: archaeobotanical data versus speculation

Eleni Asouti: Institute of Archaeology, UCL

Neolithic landscapes of South India have been discussed in a number of older and more recent publications in terms of pastoral mobility, site inter-visibility, agricultural production and symbolic/ritual expression. However, until now, there has been a lack of adequate primary research with regard to the reconstruction of the physical properties and vegetation cover (woodland composition, structure and physiognomy) of prehistoric South India. This paper brings together charcoal macro-remain data collected from archaeological sites located in different environmental zones (arid plains, hillslopes and the foothills of the Western Ghats) in order to elucidate the environmental context of early agriculture and pastoralism in South India, and the nature and pace of human impacts on the prehistoric landscape.

Village defences of the Central Karnataka Maidan South India, 1600-1800

Barry Lewis: Department of Anthropology, University of Illinois at Urbana-Champaign, Urbana, Illinois

Research on Vijayanagara, Gingee, and other large, late medieval and early modern sites can tell only part of the rich story of South India's recent past. Relatively little is known about the small towns and villages that were the stage upon which most people played out their lives. We examine one aspect of these small communities - village and hamlet defenses - as expressed in Chitradurga District, central Karnataka, between the fall of Vijayanagara in 1565 and the fall of Srirangapatana in 1799, or roughly AD 1600-1800. The defensive measures of this period were highly patterned, reasonably effective, a common element of the cultural landscape, and are, even now, often accessible from the examination of surface remains.

Archaeological site surveys and archival research show that, while city, town, and village defense shared some similarities (e.g., the use of bound-hedges), villagers ultimately responded to different security concerns, drew on different resources, and set different security priorities than did their nominal rulers.

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Neolithic Agro-pastoral landscapes in South India: insights on seasonality and territory use from the ashmound evidence

Prof. Marco Madella: Department of Archaeology and Anthropology, Institució Milà i Fontanals, Spanish Council for Scientific Research (CSIC)

The ashmounds are the most evident hallmark of the Neolithic of southern Deccan. The building of the ashmounds has followed a cyclical rhythm connected with the agro-pastoral schedule of labour. This rhythm has been recorded in the dung deposits of the ashmounds and can be unlocked to understand the implication for the Neolithic society of combining agricultural labour and the herding of probably large cattle herds. The present paper discusses the seasonal cyclicity of several ashmounds associated with settlements or standing solitary in the landscape and how these cycles might have structured the social construct.

Landscape, time and the creation of place in Neolithic South India

Nicole Boivin, Maison de l'Archéologie et de l'Ethnologie, Université de Paris X & Dorian Fuller, Institute of Archaeology, University College London

The third millennium BC in south India saw the development of a distinctive Neolithic society characterised by the cultivation and domestication of local crops, management of symbolically important cattle herds and creation of 'ashmounds'. Recent multi-disciplinary investigations have focused on exploring patterns of Neolithic landscape and site use, through the application of bioarchaeological, geoarchaeological, archaeological and survey methodologies. These studies suggest that temporal cycles are important to an understanding of the ways that Neolithic peoples inhabited the landscape of the southern Deccan. Seasonal climatic and agricultural cycles concentrated people at particular times of the year, and dispersed them at others. These rhythms intermeshed with other, longer term cycles that structured the creation of ash layers and ashmounds through the accumulation and burning of dung.

New understandings of ashmound chronologies, based on the acquisition of new dates and the re-evaluation of earlier ones, suggests that ash layer and ashmound creation events were important to the establishment of sites, but are not necessarily an ongoing feature of site inhabitation. The notion of site histories or site biographies is therefore crucial to our understanding of Neolithic sites in the southern Deccan. Ashmound creation appears to represent a stage of site creation, and may relate to wider cosmological beliefs about the appropriate way to make a settlement. Examination of intra-site spatial patterning suggests that structuring principles also ordered activities within and movement through Neolithic sites, implicating daily rhythms and routines into the wider picture of Neolithic temporality, spatial use and worldview.

Recent evidence from Gachibowli: A Megalithic site

Dr. K. P. Rao: Reader in History, University of Hyderabad

The megalithic site located at Gachibowli, Andhra Pradesh, India was excavated by the present author recently. The site contains a menhir and about 25 stone circles.

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The site has pit-burials without cap-stone as well as with cap-stone. Three burials were excavated during the 2004 field season. The burials contain large number of pottery in different wares like Black and Red ware, plain red ware and red slipped ware. Apart from usual table ware, storage jars were also found. Unique among the pottery is a measuring pot having a liquid capacity of 250 ml. No graffiti is found on the pottery. The pottery is subjected to x-ray diffraction analysis to prepare a mineral profile to work out the contacts. Iron is very scanty, represented only by one or two objects from each burial. All the burials contain skeletal remains of secondary nature.

The Thermoluminescence dating of the pottery has given a date of 1000 B.C. This goes consonant with the presumption that the scantiness of the iron objects and the absence of graffiti marks probably suggest early date for this megalithic site. The site also has yielded evidence suggesting adoption of astronomical observations in fixing the orientation of the burials and burial structure.

Late Prehistoric and Early Historic landscapes of the Tungabhadra Corridor

Prof. Carla M. Sinopoli: Department of Anthropology, University of Michigan

This paper reports on preliminary results of ongoing archaeological fieldwork at the Late Prehistoric/Early Historic settlement of Kadabakele, located along the Tungabhadra River in Koppal District, Karnataka. The research, co-directed by Carla M. Sinopoli and Kathleen D. Morrison in collaboration with the Karnataka Department of Archaeology and Museums, examines long-term landscape histories and socio-political transformations in the semi-arid inlands of northern Karnataka from c. 900 BCE-300 CE.

This millennium-plus period witnessed the formation of large residential communities, such as the c. 40 ha Kadabakele, dependent on agricultural production, herding, and specialized craft economies, during a time of expanding inter-regional interactions with northern India and other portions of the peninsula. Through a program of regional survey, excavation, and analysis, the EHLTC project examines large and small settlement sites and the changing agricultural landscape of the late prehistoric/early historic period. Here, we report on our recent excavations at Kadabakele and associated surface documentation at contemporary village settlements and mortuary sites in the 35 sq km project region.

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PANEL: Indian Palace Architecture of the 18th and 19th Centuries (Friday July 6 9.30 – 12.30)

Convenor: Dr. Jennifer Howes (The British Library)

The British History of the Palace at Madurai

Jennifer Howes: The British Library

In this paper I will examine colonial records connected with the Nayaka palace at Madurai to achieve two aims. First, through written descriptions and artists' impressions and maps made from the mid Eighteenth Century onward, I will show how the palace complex looked before it was largely dismantled in the early Nineteenth Century. Through these pictures and written accounts we can tell that the palace originally covered an area larger than the Minakshi-Sundareshvara Temple at Madurai's centre. We can also gain an idea of how the palace's different areas were used during the pre-Colonial period.

Second, I will look at how British attitudes towards the palace complex changed during the Nineteenth Century. In 1801, when the British formally took control of Madurai away from the Nawab of Arcot, the palace buildings were only considered worthy of upkeep if they could usefully serve as British administrative offices and army barracks. However, by the late Nineteenth Century, the British saw the surviving palace buildings as the architectural remains of a golden era of Madurai's history. Through Robert Fellowes Chisholm's conservation of the large courtyard known as the 'Tirumalai Nayak Mahal', this change in attitude affected the way the palace at Madurai would be perceived until the current day. Chisholm's conservation also had an impact on public architecture elsewhere in Madras Presidency.

Early British Photography of South Indian Palaces

John Falconer: The British Library

The first photographer to be commissioned by the East India Company to take photographs in the south of India was Linnaeus Tripe (1822-1902). His photographs of the palaces at Madurai, Thanjavur and Pudukkottai, were taken in the late 1850s, and provide Historians and Art Historians with a record of the use and condition of these palaces. A decade later, Edmund David Lyon (1825-1891) was commissioned by the government of Madras to photograph archaeological and architectural antiquities in the presidency. Many of Lyon's photographs were taken at the same places as those taken by Tripe.

This paper will first and foremost look at these two men within the broader history of photography in India by looking at their careers. It will also look at how their work influenced the formation of the ASI, why Lyon had to take photos of the same views as Tripe and the importance of these photographs towards the study of palaces in South Asia. Another avenue of investigation will be how contemporary researchers have read these photographs as historical documents.

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The lives of Indian buildings: uncovering the history of Lucknow's palaces *Sophie Gordon*

The practice of architectural history today generally seeks to describe and interpret individual buildings as single, fixed structures, unchanging after the moment of their completion. Written histories concentrate on the period prior to the design and construction of a building, ignoring the subsequent life of a structure as it is used, adapted and altered. It would seem that once the structure is in place, its life is effectively over. Photographic illustrations, by contrast, nearly always present the building as it stands today, ignoring any possibility that the structure may have altered over time.

This practice, developed from the traditional art-historical approach towards the visual arts, has changed little over the years, as several recent publications on Indian architecture illustrate. It leaves a large part of India's architectural history still untold. This history is often difficult to uncover, however, given that written sources have generally ignored it. It is possible to discover at least part of this history by using visual records, in particular, photographs. This in turn introduces the necessity of locating and identifying photographs, as well as subjecting them to the same scrutiny that written sources habitually receive.

This paper takes the palace architecture of Lucknow, in particular the Chattar Manzil and the Qaiserbagh complexes, as a case study to show that the use of photographs can uncover a previously hidden architectural history. It demonstrates that architectural history and photographic history work 'hand-in-hand', as the history of each discipline informs the other. More generally, this paper acknowledges that buildings have 'social lives' that need to be uncovered if we are to understand fully the complexities of India's architectural history.

The Aina Mahal in Kutch *Amin Jaffer*

The Aina Mahal, built Maharao Lakho (r. 1741-1760) in Bhuj, Kutch, in the mid eighteenth century, is a remarkable example of the taste for western decoration that existed at Indian courts of the period. The layout of the palace was conceived along Indian lines, but its interiors were largely inspired by western taste and technology and are a showcase for the mirrors, lustres, tiles and prints which the Maharao Lakho imported from Europe. Central to the story of the palace is that of its Gujarati designer, Ram Singh Malam, who had lived in the West, where he acquired expertise in architecture, tile and enamel work, glass-blowing and clock-making. This paper will explore both the historical and artistic context of the palace, in particular focussing on the way in which the ruler used western goods, and locally-produced copies, to enhance his power and majesty.

The Lucknow Palaces, India 1775-1856 *Rosie Llewellyn-Jones*

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During the brief period of less than a century (1775 - 1856) the Nawabs of Awadh made their new capital, Lucknow, one of the most architecturally splendid cities of India. Four palaces complexes were created, the final Qaisarbagh Palace covering an area as large as Versailles.

Rapidly changing political events during this period, most notably the increasing intrusion of the East India Company into the supposedly autonomous post-Mughal province of Awadh, led to pragmatic responses by its rulers. The first palace complex, Macchi Bhawan, on a fortified hill, was designed for defence, but as the nawabs were ruthlessly stripped of their authority, so their palaces became more decorative and whimsical. The formal gardens were filled with follies, statues and fountains.

European critics derided the Nawabs for imitating or copying classical buildings in the West. Dilkusha Palace in Lucknow is based on Seaton Delaval in Northumberland, for example, with some interesting nawabi adaptations, while the front facade of Barowen, a few miles outside the city, has recently been identified as a copy of Government House in Calcutta, itself based on Kedelston House in Derbyshire.

The Nawabs' ambiguous response to the British and the East India Company's increasing ambition forms a poignant contrast with their enthusiasm for western architecture, artefacts, and indeed some westerners themselves. Early buildings in Lucknow by Europeans, particularly those by the Frenchman Major General Claude Martin, also influenced Indian palaces.

This paper will bring together the different strands that made Lucknow an extraordinary city, which visitors compared Constantinople, St. Petersburg, and even, imaginatively, to Oxford.

Falaknuma, Hyderabad *George Michell*

The outstanding example of the Neo-Palladian style in India, this grandiose but elegant palace was erected by one of the Paigarh nobles in the 1890s and then "purchased" by the 6th Nizam for his personal use. The talk will introduce the architecture, furniture and fittings of the palace, many of which are still intact, though now decaying. It will also consider how the formal receptions that took place here contributed to a cosmopolitan aristocratic lifestyle that was consciously promoted in Hyderabad at the time. The talk will be illustrated by splendid photographs by Bharathj Ramamrutham.

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Panel: Prehistoric Technologies and Cultural Traditions (Friday July 8 9.30 – 12.30)

Prehistoric technologies and cultural traditions

Convenors: Michael D. Petraglia: Lecturer, Biological Anthropology, Cambridge

Dorian Q Fuller: Lecturer, UCL Institute of Archaeology

Humans have been in South Asia for at least a million years, and a wealth of archaeological sites containing lithic artifacts testify to regional manifestations of cultural traditions and a long history of technological changes and continuities. Recent years have seen increased research on the lithic technologies, which remains of central importance from the Paleolithic through the Iron Age, as well as site distribution, and environmental studies relating to the hunter-gatherer and early agricultural societies of early Humans and pre-modern Hominids. This session intends to bring together recent research on pre-agricultural societies and early agricultural societies, with emphasis on technological traditions and regional cultural developments, but will also welcome studies that foreground South Asian prehistory in comparative global terms.

The South Asian Palaeolithic: New Insights on Hominid Cognition, Behaviour and Dispersals

Michael D. Petraglia: Leverhulme Centre for Human Evolutionary Studies, Downing Street, University of Cambridge

This paper presents information about the Palaeolithic record of South Asia in an attempt to highlight the pivotal role that the region played in human evolution. Recent archaeological investigations in the region are providing new insights about the Lower to Upper Paleolithic record. Examination of Acheulean stone tool reduction sequences and landscape distributions is providing new information and hypotheses about hominid cognition, learning strategies, transport practices, and communication abilities. The archaeological record of South Asia is being studied in order to examine the evolution and meaning of 'modern human behaviour'. The identification of volcanic ash deposits in South Asia are providing insights about the impact that this event had on archaic populations. Preliminary mapping of Late Pleistocene site distributions and GIS simulation studies indicates the potential routes that were used for the colonisation of South Asia by anatomically modern humans.

Excavation at the Stone Age Site of Angu Gatkai, Nawagai, Bajaur Agency.

Ihsan Ali and Lutf-ur-Rehman: Directorate of Archaeology and Museums, Government of NWFP, Pakistan

The Directorate of Archaeology and Museums, Government of NWFP, under the direction of Prof. (Dr.) Ihsan Ali has completed the first phase of excavations at the Stone Age Rock Shelter of Angu Gatkai, Nawagai, Bajaur Agency. The Rock Shelter measures 11 x 8 meter with a 2 meter deep cultural deposit yielding a total number of 7 occupation layers. These excavations were supervised by Mr. Lutf-ur-Rehman, Lecturer Government College, Charsadda and a Ph.D research scholar, with a team of archaeologists consisting of Mehar Rehman and Abdul Hameed Chitrali, graduates in Archaeology and a number of field workers from Bajaur. This is the first ever excavation of an archaeological site in a tribal area of Pakistan, which has revealed two

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main cultural periods, Palaeolithic (Old Stone Age) and Neolithic (New Stone Age). The stone tools discovered have strong resemblance with the tools of the Stone Age Cave of Sanghao in the Mardan District, excavated by Dr. Dani in 1963. Dr. Saleem dated it to about 45000 – 22000 years B.P, while the C14 dates by Farid Khan and John Gowlett show an age depth of 40,000 B.P to the earlier levels. The excavations at Bajaur, ranging to a time from 8000 to 40,000 years before now has filled the gap in the history of Pakistan Archaeology.

The site of Angu Gatkai, locally known as Gul-e-Taqar Kamar is located near the Bando Khwar, 2 km down Nawagai off the Gandab – Nawagai road, in which the lower four layers are Palaeolithic (Old Stone Age) and the upper three layers are Neolithic (New Stone Age). Main tools found are of chert, quartz & sand stone and consist of grinding stones, blades, scrapers, cleavers and blade cores. Hand axes of disc shape and bone tools have also been excavated from the site. Quartz was found in a hearth confirming the fire technique of the Stone Age Inhabitants. In all, over 500 stone tools have been discovered from this excavation.

In all, there are 35 Stone Age Sites in Bajaur & Mohmand Agencies out of which 34 are Rock Shelters and only one cave of Tanga Nao. These Stone Age Sites are mostly located in the Nawagai Alingar region, which, in early historic period, was crossed by Alexander the Great in 327 B.C. Greek Period sites are also known from Khadi China, Alingar, Kareer, Lakarai, Tarakai Tangi and Shinkot areas. The discovery of these sites, concentrating along the Nawapass – Nawagai route confirmed that this route was in use many thousand years earlier than Alexander invasion of the region in 327 B.C.

So far, a total of 304 sites have been documented in the Bajaur and Mohmand tribal region, out of which 109 sites were previously surveyed by Mr. Lutuf Rehman for his M. Phil thesis, while 195 sites have been surveyed by us for the Directorate of Archaeology & Museums, NWFP in the session 2003-04. Among them, only one site, Angu Gatkai, has been excavated. The sites discovered range from 40,000 years B.P till the beginning of 18th century, during the Mughal Period.

Lithics, Symbolism and the Emergence of Modern Human Behaviour within South Asia

Hannah V. A. James: Department of Biological Anthropology, University of Cambridge

The evolution of the human species is as much about behaviour as it is about anatomy.

Yet while there is general consensus (based on fossil and genetic data) that anatomically modern Homo sapiens evolved within Africa c.150ka, the timing and processes involved in the evolution of modern human behaviour remain poorly understood. The archaeological record of Later Pleistocene South Asia has the potential to clarify some of the issues raised in the current debates surrounding behavioural modernity. The distinction between behaviours truly unique to our species and those that we share with our closest relatives (such as the Neanderthals) can only be investigated by understanding the behaviour of later Pleistocene hominins within the entire old world. This paper reviews the lithic assemblages from the South Asian Middle and Upper Palaeolithic, and summarises the earliest symbolic behaviour from the Indian sub-continent. It argues that while the technology from the region is unique, the pattern of

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the emergence of modern human behaviour is similar to that seen within Africa. The implications of this similarity for the evolution of modern human behaviour are investigated.

In the face of adversity? Hominin population dynamics in Late Pleistocene India
Sacha Jones: Department of Biological Anthropology, University of Cambridge

The supervolcanic eruption of Toba 74,000 years ago was the largest eruption of the

Quaternary and is hypothesized to have decimated human populations. This event broadly coincides with dates for a severe bottleneck in Late Pleistocene human populations, evident in studies of modern human DNA. Some scholars have proposed that the eruption resulted in a "volcanic winter" and worldwide environmental disaster. Others, however, contest the severity of the eruption's impact on climate and hominins.

The eruption of Toba, located in northern Sumatra, was of such great magnitude that it resulted in the deposition of a blanket of tephra over India. Tephra deposits have been discovered in marine cores from either side of the Subcontinent as well as at several terrestrial Indian sites. At a number of the latter, stone artefacts are found in direct association with Toba tephra. This paper presents evidence from two such sites, one located in Madhya Pradesh and the other in Andhra Pradesh. Data from Palaeolithic archaeology is combined with that from palaeobotany, palaeoclimatology, palaeontology and human genetics in order to test several demographic models. The latter describe scenarios of population extinction, continuity and refugia in Late Pleistocene India. What was the extent of the impact of the Toba eruption on hominins in India and how does the evidence clarify the fiercely debated issues of modern human origins and dispersals in South Asia? This paper uses multidisciplinary data to assess aspects of Late Pleistocene hominin occupation of India; this kind of focus on South Asian prehistory is both critical and long overdue.

Lower Palaeolithic in the Soan Valley Rawalpindi, Pakistan
Dr. Salim: Lahore

Recent finds have brought some interesting evidence of early man from stratified deposits and have gone further than the 1930's surface collections. Two different assemblages from two different geological deposits representing varied Palaeoenvironmental conditions are observed. The earliest represent pebble tools of chopper-chopping type and flake tools only associated with fossil faunal remains from silts. Overlying is Siwalik conglomerate with Acheulian handaxes, picks and flake tools. At the base a palaeomagnetic date of 2.2 m.y. is obtained.

Cultural tradition of the prehistoric fossil wood records of Bangladesh: An investigation into its problems, correlations and prospects
S. M. K. Ahsan: University of Dhaka

Before 1989, it was hardly known about the prehistory of present political boundary of Bangladesh except some unsystematic report of a few sporadic surface collections. First systematic exploration was done by D. K. Chakrabarty with some students from the

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Archaeology project of the Department of History, Jahangirnagar University in 1989. He reported some locations of prehistoric record at Lalmai Hills region in Comilla of Bangladesh. The teachers and students from Department of Archaeology have conducted several studies on the prehistoric archaeological records, discovered mainly from the secondary context of Lalmai Hills and Chaklapunji of Sylhet.

The uniqueness of the prehistoric culture of Bangladesh lies, first, on the raw materials from which the tools were manufactured. Large chunks of fossilized wood were used to make both core and flake tools. The second aspect of its distinctiveness lies in its contextual association. No primary context location of artifact occurrence has been found. This particular feature of the prehistoric cultural tradition requires different analytical framework that will take into account the archaeological record formation processes into account along with typology. On typological basis alone, it is difficult to build a sound chronological framework, especially without the corroboration of dated stratified context. It is therefore there are debates regarding the ascription of cultural and temporal boundary on these fossil wood tools. Though the present author consider these tools as closely corresponding tentatively to pre-Neolithic and Neolithic cultures from the surrounding northern and north eastern part of present India and southwest part of present Myanmar, other prehistorians think that these tools either belongs to upper Palaeolithic or to Neolithic period.

In this paper an attempt will be made to expose the nature and chronology of the prehistoric cultural tradition of Bangladesh to a greater audience with various aspects of debates on it. Moreover, a regional cross-cultural comparative framework will be applied to examine and test the validity of all the arguments. Of course, these endeavours would be complemented by the detail typology and predicted technology of the manufacture and use of the tools. It is, however, an effort will be made to suggest the possible solution of the on going disputes.

Along with the previous data collected by the researchers from different levels, a formidable amount of data recently collected and interpreted by the post-graduate research students and the present researcher will be incorporated in the paper. The method of data collection and interpretation involves explorations conducted in different seasons over the past 2 years. This paper will seek answer to specific problems regarding chronology typology, regional co-relates and socioeconomic context of use. Moreover, the essentiality of incorporating the study of formation processes in the prehistoric research field will be highlighted. This paper, above all, will try to synthesize the data collected, recorded and interpreted since the last 13 years and so, to have a profound understanding and examination of the prehistoric cultures of this particular deltaic region.

First possible evidence of Paleolithic tools from the Swat valley
Roberto Micheli & Massimo Vidale

We present preliminary collections of lithics typologically referable to Early and perhaps Middle Palaeolithic and byproducts from the Swat valley. The stone tools were gathered during the surface survey of the Kandak valley, near Barikot, directed by M.Vidale for the Archaeological map of the Swat Valley (AMSV). Some of the tools

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are heavily worn by river transport, while others have fresh, unmodified surfaces. The collection includes one ascertained quartzite hand-axe, chopping tools, a scraper and at least one levallois-like flake. Although the lithics come from secondary contexts of deposition (heavily disturbed agricultural terraces at the confluence of the Kandak and Swat rivers), and therefore have no controlled stratigraphic provenience, on a typological ground the finds may be preliminarily compared to the so-called Soan complexes of the northern fringe of Peshawar plains, as well as to similar complexes identified from Kashmir to the Afghan territory. We plan for the immediate future a more intensive exploration of the Barikot-Kandak area, specifically monitored at getting a more complete and reliable picture of this new find.

Contexts of faunal assemblages and changed perspectives

Vijay Sathe: Department of Archaeology, Deccan College Postgraduate and Research Institute, Pune

The Pleistocene fossil record in India comes from over half a thousand localities in fluvial settings and the skeletal record is often far from complete. Reworking of bones renders them secondary in context, thus they are recovered without a definite stratigraphical designation and chronology. Hence gaining precise knowledge of the first and last appearance of several animals becomes extremely difficult. In recent years greater awareness generated in the field of palaeontology has apparently made us more inquisitive about the factors responsible for the information loss and the need to reconstruct the 'life histories of fossils' is ever more realised.

Recent discovery of a fossil locality of Harwadi in the Manjra valley (Maharashtra) in Peninsular India with a large assemblage of mammalian fauna in a primary context offers an insight into the processes involved in the formation of a fossil record during the later part of the Pleistocene. In an excellent state of preservation the occurrence of hippopotamus in association with partial remains of tiger, elephants, cattle and smaller vertebrates provides a type site for taphonomical processes. This provides a point of reference to address the complex issues concerning the formation of a fossil record especially with respect to fluvial settings.

Detailed investigations at this newly discovered site of large mammalian assemblage have helped us to understand the mode of deposition and individual response of skeletal elements to fluvial activity. It also highlights the event of supposedly rapid burial of an assemblage that prevents any further loss of information. Such loss of information is an inevitable result of long exposure in the fluvial regime.

This recent discovery has provided a firmer footing for the reconstruction of palaeoenvironment and ecology by identifying original habitats of these large mammals. A model has emerged that can be applied in the context of other sites on the subcontinent.

Cognition and sociality in the Indian Acheulean

Ceri Shipton: Department of Biological Anthropology, University of Cambridge

The theoretical background for this work draws on primatological, neurological and

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psychological literature. Following the Social Brain Hypothesis it is proposed that there is a fundamental link between social interaction and cognition in humans.

Space and shape pertaining to Acheulean bifaces are analysed at three different scales: The morphology of the bifaces themselves, the distribution of artefacts at a quarrying and manufacturing locality and the movement of bifaces across a basin from their raw material sources.

Using a microscribe digitizer, morphological data is collected on c. 500 bifaces from 10 sites in the Hunsgi-Baichbal Basin, Karnataka. Three-dimensional models of the bifaces are generated using the program Morpheus. From this data an index of three dimensional symmetry and an index of sinuosity have been created, to assess the craftsmanship of different biface assemblages. Additionally the overall three dimensional form of the bifaces is analysed according to site, site type, number of flake scars, flaking success and invasiveness of retouch.

At the extremely high provenance quarry and manufacturing site of Isampur, artifact spatial distribution is analysed using arcGIS software to determine the character of different artefact clusters and the extent to which reduction was a co-operative process.

On a basin-wide scale the distance of sites from the relevant raw material sources is determined to see if there is a relationship between the workmanship of bifaces and the distance they travel across the landscape.

In conjunction findings from all three scales of analysis will produce a model of the cognitive abilities and the nature of social interactions among Acheulean hominins. It is proposed that the homogeneity of the Acheulean masks vast changes in communication and cognition among Pleistocene hominins, only subtly manifested in lithic technology.

Understanding early human colonization patterns in Peninsular South India:

Geologic and geomorphic perspectives

Prof. Ravi Korisettar: Karnatak University, Dharwad

Geology, tectonics and climate have together controlled the formation of a variety of ecosystems across the peninsula. Tectonic processes and geological events of the Tertiary and pre-Tertiary eras have been primarily responsible for this physiographic configuration of peninsular south India which has remained basically stable during the Quaternary. Both intra and inter-provincial environmental gradients can be observed.

In this paper an attempt will be made to identify particular ecological factors that controlled prehistoric colonization in each of the geological provinces of South India.

Quaternary landforms, largely covered by the Late Quaternary, are found along the alluvial tracts. In these rocky basins identifying Early Quaternary landform features has been greatly constrained by the dominantly erosional processes under semi-arid conditions. Prehistoric settlements from the Palaeolithic to the Iron Age through the Neolithic have been documented from all these geological provinces. The database reveals varying degrees of intensity of prehistoric human occupation; while some provinces reveal a continuous development from early times the other areas reveal colonization at different periods and reveal preference to particular environments at

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different cultural stages. For instance the granite batholith province reveals intensity of occupation only in the Holocene by the primitive pastoral communities who gradually developed in these habitats, particularly in the Mid-Late Holocene times, and by Late Holocene major part of the Subcontinent were colonized by the later prehistoric communities and Early Historic communities.

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Panel: Cultural Heritage and Museum Collections (Friday July 8 9.30 – 12.30)

Convenors: Dr. K.K. Chakravarty (National Museum of India, Delhi) & Dr. John Guy (Victoria and Albert Museum, London)

Cultural Heritage of Jammu and Kashmir State in Museums and Libraries: Preservation Concerns

Dr. Poonam Chaudhary: Department of History, University of Jammu

The state of Jammu and Kashmir, the northernmost state of India has a rich immovable and movable heritage in the form of forts, temples, palaces, manuscripts, etc. The immovable heritage like forts, palaces are under the protection of the Archaeological survey of India, whereas the movable heritage i.e. paintings, manuscripts are kept in the museums, archives, libraries with the aim that they would be preserved for future generations. Theoretically it is true as by definition museums are non-profit organizations set up for the preservation and conversation of the heritage of mankind but in practice this is not the case. It is however, unfortunate that many museums, libraries, archives, in India have failed to fulfill the purpose for which they were set up. This can be said for some of the museums \ libraries of India and more specifically of my home city, Jammu, the winter capital of the state of Jammu and Kashmir. One such museum and library are Dogra Art Museum (named after the people of Jammu) and Ranbeer Library (named after the Maharaja of Jammu and Kashmir).

Taking into consideration the collection of Dogra Art Museum, we find that it houses the finest collection of miniature paintings, belonging to different periods of painting viz Basholi, Jammu and Kangra. Besides, these, the museum house the sculptures, manuscripts, etc. It is a pity that this rare collection is under the state of poor preservation.

Similarly, the Ranbeer Library, amongst many other manuscripts has in its collection the Kangur texts. These are the Buddhist texts that trace their origin to Buddha around 2500 years ago. It contains over thousand different books in some 100 volumes of carved woodblock prints. It is said these books reached Tibet more than thousand years ago and were translated into Tibet language. Over the centuries these were protected by the natural barrier of the Himalayan Mountains. However, over the period of time these got scattered and some of them reached Jammu in the Ranbeer Library. These are lying in the library uncared for and on the verge of being eaten away by termites. The pathetic condition of the artifacts housed in the Dogra Art Museum and Ranbeer Library can be attributed to some extent to the untrained staff and many other factors.

If nothing is done fast the heritage of Jammu and Kashmir will be lost for ever. Steps need to be taken to preserve our heritage housed in museums and libraries for posterity.

Cultural Heritage Management and Use of International Tools in 'Developing' Countries: A Critical Understanding

Shahida Perven: UNESCO, Bangladesh

On the basis of practical needs, many international legal instruments or tools have been developed and are in force. In this paper I would like to evaluate these tools and various

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machineries and mechanisms of their implementation. Through proactive and innovative international conventions, declarations, charters, recommendations or protocols, countries from developing worlds are expected to manage their cultural properties as per international standard (!). In accordance with the global policy referred above, countries are also expected to review and revise strategies and management policies in national level. Sometimes they are also under pressure from international organizations like UNESCO, WHC, ICOMOS, ICCROM, etc. for implementations of these tools, especially where the World Heritage Sites are concerned. However, for an effective cultural resource management policy, development of precise strategies including conservation-restoration, monitoring and evaluation regarding public basis of the tools are completely absent. Though local communities are very important components, concerned ministries, national agencies, educational institutions and departments are the main stakeholders in endorsement of these components in Bangladesh. They are also trying to apt initiative to promote cultural tourism for sustainable development and include heritage sites to the main development stream. Now days, using heritage as development tools is globally accepted common trend. The outstanding universal values (!), standard setting, protection and management of sites for promotion of tourism are now setting up new international standard on cultural identity. However, questions remain regarding how to enhance the effectiveness of these instruments in developing countries? Or how to outreach activities to enable local and national authorities, institutions, communities, stakeholders etc. to fabricate and strengthen appropriate management approach for heritage? But I want to show that the fundamental questions regarding the conceptual history and the asymmetrical politics between 'developed' and 'developing countries' are never asked in the common discussions in Bangladesh. The context of implementations of tools and its history is very important to reveal the complexities of implementations and their failures. I will try to understand the policies and their context of implementations in their entirety in reference to the policies adopted by Bangladesh Government and its agencies regarding various heritage sites. This paper will contribute to unveiling of the divergent meaning and networks of parties that are acting to contest a 'global' conception of heritage and value system.

Community Consciousness and the Interpretation of Heritage: Local Gaze at the Khiching Museum, Orissa, India

Rajasri Muhopadhyay: Fellow, Asiatic Society of Bengal

A community's notion of culture and heritage shape its interpretation and viewing process. Khiching museum in Mayurbhanja district of North Orissa has been taken as a case study to understand the nature of local gaze as it receives a number of local visitors round the year. It is located within the compound of Khichingesvari temple, the presiding deity of the village and the erstwhile local rulers, and visitors mainly constitute of the devotees who come to offer puja at the temple. The museum has a rich collection of Hindu, Buddhist and Jain deities, mainly from 10th C.A.D. There is no guide and a very sketchy guide-book is only available at the Orissa state museum at Bhubaneswar! Thus, urged by the priest they view the 'gods of the museum' as an extended pantheon of the goddess Khichingesvari. Some enthusiastic ones tend to perform rituals inside the museum; worshipping more gods, accumulating more punya

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(virtue). There is also an attempt to push back the antiquity of the icons to the epic period of Ramayana and Mahabharata.

The paper by analyzing how archaeological heritage is preserved, displayed and interpreted at the grassroots level at a site museum in a remote Indian village, reflects on the implications of the linkage between community consciousness and the representation and interpretation of heritage. It also addresses the issue of construction of heritage at the local level in India.

The ancient sculptures which we view as archaeological treasures and objects of art in the galleries of the modern museums of South Asia and the West assume a much different connotation when displayed at a site museum removed from urbanity and viewed by local people on their own.

Cultural Heritage & Museum Management in Northern Indian Contexts *Dr .C. C. Mullick: Banaras Hindu University*

Museums in India are the repositories of evidences of Indian art and heritage. If any one has to understand the culture of a country he has to explore the original sources and such sources are available in Indian museums. Unfortunately, the different surveys carried out in recent years prove that most of the museums are not being properly managed the way they are supposed to. There are several reasons, of these, the foremost being the non-availabilities of adequate funds. Here comes the consideration for the recent concept of Museum Marketing in the area of cultural heritage & art. This is a comparative new area in the field of Indian museums on which serious attention was never made earlier.

The issue has become important because most of the museums in India are nearly suffocating due to inadequate financial support. The developmental activities nearly stopped in most of the Indian museums. Due to various economic factors governmental organizations are not in a position to extend full support to Indian museums and museums are being asked to generate their own resources for maintenance and developmental activities and therefore, the issues related to museum marketing are being given serious attention these days. Museum marketing includes two aspects: visible and invisible. Various means of scientific interpretations adopted by museums to interpret its collections come under invisible aspect of museum marketing. The visible aspect includes the income a museum makes through its sales and the other activities in its sale-counter. In dealing the invisible and visible products in a museum, it has to pay attention to the quality, packaging branding and styling its products. Advertisements play a significant role in museum marketing and therefore, a well thought and tacit programme for advertisements in news posters, magazines, Radio, T.V., Cinema etc has to be undertaken. At the same time, museum shop has to be reorganised to sale the various museum products and finally, steps need to be taken for wider publicity and intimate public relations.

In present communication, various issues related to the heritage management on the basis of recent surveys conducted in India with particular reference to the museums and art objects in northern India shall be discussed.

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The ideology of representation of heritage sites in a multicultural society
Sudarshan Seneviratne (Sri Lanka)

This paper focuses on the ways in which heritage sites are bound up in ideologies of representation. In a multicultural society, where different representations of the past are developed and contested, such sites will become foci for such contestation. The paper presents examples from Sri Lanka.

Issues of Conservation and Heritage in the Kingdom of Nepal
Mr. Sukra Sagar Shrestha: Chief Archaeologist, Department of Archaeology, Nepal

A short survey of Hindu temples in Peshawar, Pakistan
Ibrahim Shah: University of Peshawar

The monumental glory of Peshawar encompasses historic mosques, mausolea, well-laid gardens, sara'is and Hindu temples. Presently, we have confined ourselves to a short survey of the Hindu temples in Peshawar city so that the fastly decaying ones erected in the 19th and 20th centuries could be recorded. They were built in the architectural style then in vogue in the Peshawar valley. Constructed by the ordinary Hindu community, they may not necessarily be regarded as masterpieces of architecture unlike the well-planned and profusely ornamented medieval temples in the same region, nevertheless their significance for the heritage of Peshawar needs recognition.

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PANEL: The Archaeology of Water (Friday July 8 9.30 – 12.30)

Convenor: Prof. Marco Madella: Department of Archaeology and Anthropology, Institució Milá i Fontanals, Spanish Council for Scientific Research (CSIC)

Water Management and Land Ownership in Indus Floodplain Agricultural Systems

Dr. Heather M.-L. Miller, Anthropology, University of Toronto

The different land ownership systems possible for the floodplains of the Indus Valley have very different implications for sources of wealth and power. For long-term stability, land ownership systems depend in part on the agricultural management systems employed, and in the semi-arid floodplains of the Indus Valley, water management is a key variable in agricultural systems. In this paper, I use historical and ethnographic analogies and the available archaeological data, particularly the recent great advances in plant analyses, to construct a number of possible water management systems and cropping regimes. These agricultural systems are then used to suggest ways in which land ownership might have affected Harappan Phase social and political systems of the Indus Valley Tradition, ca. 2600-1900 BCE.

While there has been much research devoted to investigations of Harappan food production systems, and even past discussions of cattle herds as a source of wealth and political power, land-based wealth and prestige has generally been taken as a uniform backdrop to social and political structure for the Indus civilization. (Leshnik's work in the 1970s being a notable exception.) However, food production is usually seen as one of the two major sources of wealth in ancient economic systems, the other being manufactured goods. This second source of wealth has seen considerable attention for the Indus Valley Tradition, especially for the urban integration period of the Harappan Phase. In contrast, the accumulation of wealth and prestige from food production, and particularly from land ownership, has seen little attention in models of Harappan Phase social and political organization. This paper will suggest ways our current data may be used to more actively examine the role of agriculturally-based wealth and power.

Climate, Water and Culture: A Perspective from the Greater Indus Valley during the Harappan Tradition.

Prof. Marco Madella: Department of Archaeology and Anthropology, Institució Milá i Fontanals, Spanish Council for Scientific Research (CSIC)

Climatic change has often been cited as a determining factor in cultural changes. In this paper I explore the relationship between climate, and specifically water availability, in a cultural perspective focusing on the Harappan Tradition of modern Pakistan and India. I will discuss the evidence for water availability changes on the basis of climatic instability as well geological reasons (e.g. tectonics) and how these influenced the Harappan social structure.

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Early historic landscapes in central India: recent archaeological investigations in districts Raisen and Vidisha, Madhya Pradesh, 2003-5

Dr. Julia Shaw: Merton College, and Institute of Archaeology, Oxford

Since 1998, a multi-phase archaeological survey in Vidisha and Raisen districts, Madhya Pradesh, has been carried out with the aim of examining the relationship between religious, social and economic change in central India from c. 3rd century BC to 5th century AD. The initial fieldwork, conducted over two six-month seasons between 1998 and 2000, extended over 750 sq km around the Buddhist site of Sanchi and the nearby early-historic city site, Vidisha. It resulted in the documentation of a large number of Buddhist sites, habitational settlements, ancient dams, rock-shelters and sculptures.

Subsequent seasons have concentrated largely on the dams, using archaeology and hydrology to relate the history of irrigation in the area to religious and political history. Between 2003 and 2005 this work was developed further through a programme archaeological and geological sampling aimed at establishing a model for the chronology of the dams, and for testing earlier hypotheses regarding their associated land-use. This involved the application of pollen and phytolith analysis as well as OSL dating techniques. Intensive mapping at Buddhist sites was also instigated, leading to new insights into the history and chronology of Buddhist monasticism in the area, while a programme of satellite remote-sensing provided a prospection and landscape analysis tool against which the survey results collected during earlier seasons could be measured. In this paper, I shall summarise the results of these most recent phases of fieldwork and their impact on our understanding of religious, economic and agricultural history in the Sanchi area.

Pre-modern waterworks technology: a case study of Alwar Fort

Dr. Vinod Singh

This paper is based on the detailed survey of waterworks undertaken by us in the Alwar fort of District Rajasthan, India. This study attempts to analyse the indigenous technology through which the people in Rajasthan preserved and used water for irrigation and domestic purposes. It studies the pre-modern technology involved in the collection, storage and circulation of water. Hopefully, our study shall shed new light on the extent - to which the Indian civilization was receptive to science and technology in the pre-modern period.

The Alwar fort is situated at 20°31'N, 70°36'E. It is equidistant from Delhi and Jaipur. It lies on the National Highway no.8. 98 miles to the south-west of Delhi. The fort of Alwar stands on a hill top of Aravali range about 1000 feet above to the north of the town of Alwar. It stands at a point which is 1960 feet above the sea level. It's length from north to south is 3 miles and the breadth from East to west is nearly 1 mile. With a circumference of 7 miles.

As is well-known the systems of water supply were always regarded of prime importance in the designs and layouts of the forts built in the arid region of Rajasthan. All the important forts constructed in Rajasthan during the medieval period are well

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equipped with waterworks like tanks. Baolis, aqueducts etc located within the enclosed area. This is for example, discernable in the Tahangarh (Sawai Madhopur) and vijaymandirgarh (Bayana) forts explored by me. It also conforms to the pattern revealed by preliminary archaeological reports regarding many other forts of Rajasthan, (Alwar being one of them) which remained to be carefully explored from this angle.

The hostile climate conditions did not pose insurmountable problems for the people of Alwar fort. With their impressive dexterity, hardwork, and above all, technical skills, they were able to overcome the limitations posed by the arid climate

The Bridge at Vitthalapuram

John M Fritz: Co-Director, Vijayanagara Research Project, and Research Associate, University of Pennsylvania Museum of Archaeology and Anthropology

The remains of the stone bridge across the Tungabhadra River near the Vitthala Temple complex at Hampi/Vijayanagara are well known but perhaps under-appreciated. Here we report the results of our documentation, the first detailed study of this structure. The largest construction of its kind in southern India or Sri Lanka until the bridges built at Srirangapattana by the British at turn of the 19C, the two sections of the bridge stretched for more 500 m. The triple pillars making up the pylons of the bridge had elaborate foundations (sockets and slab boxes held in place by large pegs), horizontal and diagonal braces, and a superstructure that consisted of two layers of capitals and beams all joined by stone pegsand metal clamps. The base was probably stabilized by a weir. The roadbed almost certainly was made of wood. I outline the possible role of this structure in local transport, consider factors role effecting its longevity, propose a construction date in the early 16C while evaluating other suggested dates, and compare it with other bridges built in southern India. Finally, to recent suggestions that the bridge be “reconstructed,” I reply that this unique record of Vijayanagara engineering should be preserved “as it is” both because of its aesthetic qualities and for future, more detailed study.

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Maritime Shipbuilding Industry in Early Historic Bengal

Dr. Shahnaj Husne Jahan: Cultural Survey of Bangladesh Project, Asiatic Society of Bangladesh, Dhaka

Today, no one questions whether there existed maritime trade at all in Bengal in the early historic period since we have at hand quite a lot of archaeological materials found in West Bengal and Bangladesh. However, if one begins to ask definite questions related to the shipbuilding industry of Bengal during early historic period, most of the answers are obscure. What types of vessels were engaged in the maritime trade of early historic Bengal? Which of these were indigenous crafts? What level of proficiency did Bengali shipwrights attain during this period? This paper attempts to deal with these questions because types of ships, their sailing capabilities and source of their energy required for motion would determine the feasibility of voyages, which would in turn influence maritime trade of early historic Bengal. We also need to bear in mind that the level of development of shipbuilding technology could influence to a considerable extent a community's or a nation's level of participation in international trade.

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Panel: Arts of the Mughal Period (Friday July 8 2.00 – 5.00)

Convenor: Dr. Jennifer Howes (The British Library)

The view of Delhi painted in 1842 for Maharao Ram Singh of Kota and the view of Agra, done in 1866 for Maharao Shatru Sal II of Kota

Dr Joachim Bautze, Wako University

In V.S.1899 (1842 A.D.) Maharao Ram Singh of Kota (r.1827-66) together with his court artist Kisan Das, 15000 soldiers and retainers travelled to the royal court of Delhi. Although no details about this “darbar” at Delhi are reported by published sources, we learn that Maharao Ram Singh was “content”. Besides, he met the rulers of Bikaner, Ratan Singh (r.1828-51), and Dholpur, “Rana Balvant Singh” (=Bhagvant Singh, r.1836-73?), cf. Mathuralal Sharma: *History of the Kota state*. Kota, 1939, Vol.2, p.599 (in Hindi).

Kisan Das and his son, Lacchi Ram, left a visual record of that visit: the probably largest transportable Rajput painting on record, measuring 445 x 259 cm, cf. Stuart Cary Welch *et alii: Gods, Kings and Tigers. The Art of Kotah*. Munich / New York, 1997, p.205, with more references. In about 1866 that painting was copied, on a smaller scale, as a wall-painting within the old palace of Kota.

In November 1866, Ram Singh’s son and successor, Maharao Shatru Sal (r.1866-89) attended the darbar of Lord Lawrence at Agra. Lacchi Ram and Manna Lal were then responsible for sketching the monuments of that city, which includes a rare Rajput view of the Taj Mahal, see Pratapaditya Pal *et alii: Romance of the Taj Mahal*, Los Angeles / London, 1989, no.246.

For both the Delhi and Agra views, numerous sketches were necessary. These sketches and drawings, most of which were never published, reveal much about the artist’s perception of the reality and its transformation into a picture. With the help of early photographs it is possible to show that much of what seems to be a product of the artist’s fancy was in fact real, whereas almost as much is a result of the artist’s tradition, training, habit and, lastly, the artist’s capacity to immortalize a piece of history on a sheet of paper.

Salim or Jahangir Enthroned

Barbara Brend

A picture in the St. Petersburg *Murraqa*‘ (f. 3a) shows the prince who is first known as Salim, and comes to rule in 1605 as Jahangir, seated upon an elaborate throne; the subject is presented without background. The image is surrounded by an inscription in verse which names the two painters, Manohar and Mansur, but does not name the prince by either his pre-regnal or regnal name. It appears that Grek sees the picture as celebrating the accession, and hence portraying ‘Jahangir’; though as Das remarks this is not corroborated. McInerney follows the line that it is an accession picture; however, S. C. Welch is inclined to place it in the period of the revolt of ‘Salim’ at Allahabad in the years 1599-1604.

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It seems worthwhile to consider in detail the style and the inscription--which is not to my knowledge published in English--in the endeavour to discover which view is correct. I believe it can be shown that a date in the Salim period is more probable.

The Jade terrapin in the British Museum: context and meaning

Sheila Canby: British Museum

This paper will consider the famous jade terrapin in the British Museum, found in a tank in Allahabad in the early 19th century, from several angles in order to clarify why and for whom it was made. By the late 20th century scholars had come to believe that it was carved in the period 1600-1605, when Prince Selim rebelled against his father, Akbar, and set up his own court at Allahabad. However, the circumstances of the terrapin's discovery need to be reviewed with more emphasis on what buildings Akbar and Jahangir constructed and used at Allahabad and whether the tank in which the terrapin was found is connected with one of these. The paper will also discuss the man who found the terrapin, Lt.-Gen. Alexander Kyd of the Bengal Engineers. Since Lt.-Gen. Kyd worked primarily in Calcutta, the paper will seek to explain what he was doing in Allahabad.

Finally, the paper will examine whether there is any basis for considering the terrapin to have been produced for a Hindu patron, since tortoises are avatars of Vishnu, or if the traditional explanation of the terrapin as a garden ornament fit for a Mughal prince should stand.

Bagh-e Babur: A Mughal garden in Kabul and its change through time

Ute Franke-Vogt: DAI-Eurasienb-Abteilung; K. Bartl, & Th. Urban

Bagh-e Babur is one of the oldest Mughal gardens. Its founder, and that of the Mughal dynasty, Zahir ud-Din Muhammad Babur, was buried there around 1540. Emperors Jahangir and Shah Jahan paid visits to Kabul and patronaged large building programs, modelling the garden according to contemporary taste, appropriate to its significance as their ancestor's burial place. From all these buildings, only the tomb and the mosque, both heavily restored, are preserved above surface.

Little is known about the following century, but almost 150 years later, under Amir Abdur Rahman (1880-1901) and King Nadir Shah (1929-1933), the garden was twice completely remodelled, and finally destroyed and mined during the Civil War.

Certainly, Bagh-e Babur is, in comparison to other Mughal gardens in Pakistan and India, poor in preserved structures. Possibly, it even never marvelled with buildings like the gardens in Lahore, Delhi, and Agra. Nevertheless, it has become evident that many of the structures mentioned in the historical sources did indeed exist.

Six seasons of excavations, supplemented by historic documents and illustrations, have brought to light important information on the ancient lay-out, landscaping, water technology, and architecture and facilitate the reconstruction of these changes throughout the almost 500 years of its existence. In the paper, the results of the excavations will be presented.

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The Madrasa of Ghazi al-Din Khan at Delhi

Prof. Ebba Koch: Institute of Art History, University of Vienna

The story of the madrasas in South Asia still remains to be written. It is evident that as a building type on its own it did not play a great role in Mughal architecture, nor did it in the earlier architecture of the Delhi Sultans. So far only a few madrasas have entered the architectural history of the Indian subcontinent. To these belongs the madrasa of Ghazi-ud-Din Khan, built at the end of the 17th century at Delhi. However, despite its architectural and historical importance -- between 1825 and 1842 it housed the educational institution of the Delhi College—it has only been treated in passing in general works.

My paper presents a brief history of the madrasa and the first detailed analysis of its architecture. The latter is based on the first measured plan of the building which I had prepared recently, and on early 19th century Company drawings. I will show that the madrasa of Ghazi-ud-Din Khan must be considered an outstanding contribution to Mughal architecture. It revives once more the concept of the geometrically planned Timurid madrasa of Central Asia and brings significant innovations to the time honoured scheme. At the end of the 17th century it demonstrates that the architectural principles established under Shahjahan were not a dead canon but could still bring forth creative solutions, by merging a four iwan plan with the river front garden design, and by giving the wings a clearly defined individuality which culminates in the unprecedented position of a mosque building in a four iwan madrasa scheme.

Collecting and Patronage in 18th and early 19th Century Awadh

Rosie Llewellyn-Jones

The late 18th century saw the rise of the gentleman collector in Europe, born out of the Enlightenment desire to enumerate and rationalise the products of the natural world, with ‘cabinets of curiosities’, the discoveries of scientific principles that led to ‘electrifying machines’ and air-pumps, and a fascination with the classical world, enhanced by archaeological discoveries at Pompeii and Herculaneum. The impact of Enlightenment thinking and particularly the accumulation of objects in private ‘museums’ in 18th century India has not been widely examined, apart from pioneering work by Dr Savithri Preetha Nair in Tanjore and Dr Lucian Harris in the Berlin archives.

The Nawabs, of Iranian origin, quickly established themselves as hereditary rulers of Awadh in the fluid situation of late 18th century India. But they were anxious to legitimise their position and to be seen as heirs, not usurpers, to the declining Mughal Emperors. This desire manifested itself in a number of ways, including the purchase of precious items from the Delhi Court, and by the patronage of artists, poets and craftsmen, some fleeing from Delhi. The Nawabs, as collectors, filled their palaces with an astonishingly eclectic range of goods, many of European manufacture and some of which coincided with the ‘treasures’ of the enlightened European. As patrons, the Nawabs provided work not only for skilled Indian craftsmen and painters, but for European artists too, who flocked to the capital, Lucknow. New ideas and techniques

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from men like William Hodges, Ozias Humphry and the Daniells, inspired local artists, who quickly became skilled in reproducing, or copying, their works. Today some of these 'European' paintings are known only from such copies, the originals having been destroyed or lost.

There is a fascinating collision in 18th century Awadh between the European and the Indian collector/patrons. While the Nawabs, with their almost unlimited wealth, could purchase anything they wanted, Europeans saw themselves as more discriminating. Like the Nawabs and their courtiers, they too, commissioned local artists to copy important paintings, but also, in the Enlightenment tradition, to provide albums of Indian flora and fauna.

While the Indian collections of men like Richard Johnson, Antoine Polier, Jean-Baptiste Gentil and Claude Martin are comparatively well-known, it is almost impossible to trace the Nawabs' treasures today. So much was stolen and destroyed in the recapture of Lucknow by the British in 1858, that it is only from earlier written records that we can evaluate the collections of the Nawabs, and judge whether they were comparable to those of the enlightened European collectors.

Decorative Art on Mughal Coins vis-à-vis Sultanate Coins

Danish Moin: Indian Institute of Research in Numismatic Studies

Notwithstanding the fact that coins were primarily an economic object to be used as a means of payment, they also functioned as objects of art. Here, the art is seen in the delineation of pictorial motifs and figures, as in, for example, ancient coins, which were essentially pictorial. With the beginning of the Sultanate period, one finds a fundamental difference in the coinage of India. Now pictorial motifs and figures disappear and coinage is dominated by Arabic inscriptions. But these too are not devoid of artistic merit. Only here one sees the decorative art used in the forms of decorative or geometric designs, and also in the calligraphy. When one comes to the Mughal period this expression of art on the coins is primarily in the form of floral designs and the writing of the coin legends. Exceptions to the rule are some coins of Akbar and Jahangir which are pictorial. Many of these are virtually species of miniature art.

The proposed paper brings out the different types of decorative art that have found expression on the different series of coins in the Sultanate period and compares it with the Mughal period to bring out similarities and differences. The paper will also examine other evidence bearing on the subject. Such a study has not been attempted before now.

18th Century Miniature painting from the collections of Antoine Polier and Jean-Baptiste Gentil

Malini Roy: School of Oriental and African Studies, University of London

Miniature painting executed at the provincial court of Awadh in the late 18th century has been stigmatized as inferior, ornately colored imitations of Mughal originals, meant primarily for European consumption. The Polier collection (at the Museum für Islamisches Kunst, Berlin) and the Gentil collection (at the Bibliothèque Nationale, Paris), both assembled between 1760-1785 in Faizabad, consists of original Mughal,

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Deccan, and Rajput miniatures, of which many were copied by Faizabad artists in the late 18th century and included within these collections. More importantly, Mihr Chand (son of the artist Ganga Ram), known foremost for his study "A European Gentleman Watching a Nautch," reproduced most of these "copies." These works, attributed to Mihr Chand, cast new light on the career of Mihr Chand between 1759-1772.

Christian Iconography Disguised: Images of Nativity and Motherhood in Mer'at al-Qods and Akbarnama Manuscripts of 1595-1605

Friederike Weis: Freie Universität Berlin

A significant number of scenes chosen for illustrating different copies of the *Mer'at al-Qods* ("Mirror of Holiness"), also known as *Dastan-e Masih* ("Story of Christ"), a Persian text which was presented by Father Jerónimo Xavier to Akbar in 1602, are centred on the image of the Virgin. This is not astonishing if one considers the high esteem Mary enjoys in Islam and the fact that the lineage of the Mughal dynasty was traced back to the legendary ancestral mother of the Chengizids, Alanquwa, who, since the time of Ulugh Beg, had been compared to the Virgin.

Apart from the complete manuscript with illustrations preserved in Lahore, the miniatures from the Mirror of Holiness are scattered in various collections throughout the world. By studying the whole passage to which the text fragments on these miniatures belong, each scene can be exactly determined.

This is necessary because some of the stories illustrated are not in the Gospel, but even if they are, their Mughal renderings, as for example the "Presentation of Christ in the temple" and the "Adoration of the Magi", often recall only slightly Christian images with the same subject. It is the Virgin who, instead of the Messiah, forms the focus of attention. As most of the biblical and legendary events illustrated are not part of the Islamic tradition, the Mughal painters relied to a large degree on Christian iconography - and less on Jesuit theatre and liturgy, as has been hitherto assumed. Disguised borrowings from Christian iconography are indeed common in Mughal paintings of the Akbari period, but only a few of them have been detected till now. In this paper I will also take a closer look at illustrations of the Akbarnama with birth scenes of princes being modelled on engravings showing the nativity of Christian saints, such as St. Francis of Assisi or St. John. In the illustration of the birth of Prince Salim in the Chester Beatty Library portion of the Akbarnama, for example, Maryam az-Zamani is modelled on St. Francis' mother from an engraving attributed to Francesco Villamena. Perhaps the Mughal painters mistook the "Birth of St. Francis" for a "Nativity of Christ".

The careful examination of the adoption of these Christian themes reveals once more the eclectic taste of Mughal painting.

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PANEL: Issues in Indian Ocean Commerce and the Archaeology of Western India (Friday July 8 2.00 – 5.00)

Convenors: Roberta Tomber, Visiting Fellow, Department of Conservation, Documentation and Science, The British Museum; Shinu Abraham, Department of Anthropology, St Lawrence University, Canton, New York; Lucy Blue, Department of Archaeology, University of Southampton

Beyond India, as far west as the Roman Empire, culturally and geographically distinct regions are inter-connected in a number of ways, including the phenomenon of 'Indo-Roman' trade. While Indo-Roman trade has long excited scholarly interest, recent work throughout the entire Indian Ocean littoral is providing a much more extensive database. From this it is possible to take a more synthetic perspective to evaluate better the nature and extent of contact and reconstruct the socio-cultural settings in which these contacts occurred. This session will present new findings on Indo-Roman trade particularly from South Asia, and aims to promote further communication between researchers on both sides of the Ocean.

Boats, routes and sailing conditions between western India and the West *Dr. Lucy Blue, Department of Archaeology, University of Southampton*

Direct information on the boats and ships that participated in Indo-Roman trade is extremely limited. This paper examines the available evidence in order to present a hypothesis as to the nature of maritime transportation and the networks in which it operated.

Through addressing the different types of evidence that exists for contemporary watercraft it is hoped that a greater appreciation of the nature of transportation that operated along the west coast of India during the Early Historic period will be obtained. This includes archaeological evidence from the region, analogous evidence of ship remains from the Roman Mediterranean and Red Sea region, the available textual evidence particularly the 1st century AD *Periplus Maris Erythraei*, and ethnographic parallels from the Indian Ocean.

Archaeological evidence for boat and ship construction will be examined together with the nature of seafaring along the west coast of India. Attention will focus on the character of the maritime conditions of the region, the available shelter provided for shipping and the nature and performance of Roman seafaring, trade and trade routes in the Indian Ocean during the period.

Kamrej and Elephanta in the shifting patterns of Indian Ocean trade (1st – 7th century AD)

Sunil Gupta, Allahabad Museum

Much of our knowledge of Early Historic trade ports on the western coast of India comes from Greco-Roman sources, principally the *Periplus Maris Erythraei* (1st century AD), the *Geographia* of Ptolemy (2nd century AD) and the travelogue of Cosmas (6th century AD). Because of the strong Greco-Roman bearing upon the evidence of harbours on the western coast, most of the trade ports have been viewed as

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part of the vibrant external trade of India with the Mediterranean world. While the evidence on the ground bears this out, patterns of contact with other Indian Ocean lands are also observed in the material record.

The paper draws from my excavations at the '*Periplus*' port of Kamrej-on-Tapi and my study of ancient trade ceramics from the island of Elephanta in the Mumbai complex to show:

- The urbanization processes on the western coastlands that led to the rise of Iron Age ports.
- Artefactual indicators of long distance contact (and trade) with the Red Sea, east African, Gulf of Aden and the Persian Gulf regions.
- The shifting patterns of sea trade on the western Indian coastlands from the 1st through 7th century AD

In particular, the paper endeavours to show that the spread and expansion of coastal settlements on the western coast was part of a broader pattern of rising trade activity across the Indian Ocean world during the early centuries AD.

A search for the Early Historic ports on the west coast of India

Rukshana Nanji & Vishwas D. Gogte, Deccan College Research Institute

The Satavahana period (230 BC to AD 230) was the most prosperous period in the history of Western India. With Paithan as their capital, the Satavahanas ruled not only Maharashtra but also the adjacent territories of Andhra Pradesh, Karnataka and Gujarat. The prosperity of this period is attributed to dynamic trade and commerce carried out under the patronage of the Satavahana rulers. The trade was not restricted only to within India but they had trade relations with far off foreign lands. The occurrence of Roman antiquities of the Early Historic period at Paithan, Nevasa, Ter, Nasik etc. gives evidence of maritime trade of the Satavahana kingdom with the Mediterranean region.

The *Periplus* of the Erythraean Sea mentions many Early Historic sites in Western India as inland trading centres, which were connected to the sea ports at Barugaza, Souppara, Kalliena, Semulla, Mandagora, Palaepatmai, Meliziegara and Buzantion and several other ports on the west coast. However, these sites are only vaguely known and only a few explorations were carried out for locating the ancient port sites. Since 1998, the author has undertaken a thorough survey of the coastal sites on the west coast of India with more emphasis on the Konkan region.

An exercise involving the study of maps of different periods proved fruitful in locating the habitational areas of the Early Historic and the later periods at Chaul and Palshet. These sites occur in the *Periplus* as Semulla and Palaepatmai, respectively. For example, the archaeological evidence of habitation of the Early Historic and the later periods has been found for the first time at Chaul although it has been profusely mentioned in the ancient literature as a major port on the west coast of India. The occurrence of not only the characteristic Satavahana pottery but also ring-wells, coins, saddle querns, glass beads and bangles of the Satavahana period has been recorded at several places on the old mud flat of the Kundalika river. A body sherd of Roman amphora was found in the Satavahana layer. An ancient embankment wall and a

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dilapidated stone structure looking like a jetty have been located on the edges of the old mud flat.

Similarly, the explorations at Mandad in the vicinity of the Buddhist caves at Kuda gave evidence of the habitation of the Satavahana period. The habitational area which is now under the modern mud flat could be approached only during low tide. Typical Satavahana pottery such as drinking cups and dishes could be recovered from the mud. A body sherd of Roman amphora has, also, been recovered. This site could be Mandagora of the *Periplus*. A search of the ancient land routes from Chaul to the contemporary inland sites has been undertaken. At least one trade route from Chaul to the famous Early Historic site of Junnar via the cave sites at Ashtami and Gomashi, has been identified.

Moulding the west: Terracottas, moulds and the circulation of western models on the Deccan Plateau

Pia Brancaccio, Department of Art History, Drexel University, Philadelphia

Under the Satavahana dynasty inland centres of Maharashtra became involved in Indian Ocean trade. The towns of Ter and Paithan mentioned in the *Periplus* of the Erythrean Sea were the best known among the suppliers of export goods to transoceanic commerce. Not surprisingly, it is at these sites that we observe an unprecedented westernising trend in the terracotta production. Through an analysis of a small group of unpublished moulds from these two Satavahana centres, I will address issues related to the diffusion of western motifs across the Deccan.

The soapstone moulds from Ter and Paithan with depictions inspired by western types, offer us a key to understand how foreign models might have travelled across great distances. They also show how new motifs were appropriated and circulated among inland communities connected with international trade. Perhaps most interesting, these moulds suggest that involvement in Indian Ocean trade was not the only conduit for the diffusion of western visual forms; they also point to an unexplored connection between the Satavahana centres and the northwest of the subcontinent. Additional archaeological evidence corroborates this hypothesis, placing Ter and Paithan at the centre of an international network touching the major 'West's' of the time: the Roman Mediterranean and the Greater Gandhara region.

Archaeological investigations at the Early Historic urban settlement of Pattanam, Malabar Coast, India: new evidence for the location of ancient Muziris

V.Selvakumar, Centre for Heritage Studies, Hill Palace, Tripunithura; Shajan, K.P., M.G. University, Kottayam; P.K Gopi, Registrar, Centre for Heritage Studies, Hill Palace, Tripunithura; Roberta Tomber, Department of Conservation, Documentation and Science, The British Museum

India occupied the central position in the Early Historic Indian Ocean trade network that connected the western Indian Ocean and Mediterranean regions and the eastern Indian Ocean region. While a few sites of this trade network have received enormous attention (e.g. Arikamedu), certain sites have not received due attention because of lack of archaeological evidence. Kerala and its ports such as Muziris and Tyndis fall into the

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latter category, despite their significant role in this network. Numerous attempts to search for Muziris in the immediate vicinity of the river Periyar around Kodungallur did not yield any noteworthy evidence. Additionally, no settlements had been found in Kerala with either megalithic habitation or Mediterranean ceramics, despite the abundance of megalithic burials and Roman coin hoards, unlike the east coast where several settlements are found with Mediterranean artefacts. Against this background, the discovery and excavation of the Early Historic settlement at Pattanam ($76^{\circ}10' E$, $10^{\circ}10' N$, c. 3.5 km E of the modern coast and c. 4.5 km SE of the Periyar river mouth), 1.5 km northwest of Paravur, in Ernakulam district of Kerala assumes significance. This paper comprises of two parts, the first presents the archaeological evidence recovered from surface context, while the second part presents the results of the trial excavations.

Surface surveys from 1997 to 2004 at Pattanam yielded archaeological evidence such as brick architecture, roof tiles, ring wells, spindle whorls, fine rouletted ware, and Roman wine amphora, Yemeni and Mesopotamian pottery and beads of semiprecious stone and glass assignable to the Early Historic and Early Medieval periods.

Trial excavations conducted at Pattanam in 2004 by the Centre for Heritage Studies in association with Shajan revealed three important cultural periods, viz., Iron Age (Megalithic), Early Historic and Medieval. The excavations also exposed evidence of architecture, amphora fragments, rouletted ware, an early Chera copper coin, stone and glass beads. The ceramic evidence from the site has enabled the establishment of a typological sequence of this region. In the context of absence of Megalithic (Iron Age) in Kerala settlements, the discovery of Iron Age occupation below the Early Historic layers is an important finding.

Geological and geomorphological features in the Paravur-Kodungallur coastal areas indicate that the coastline c. 2000 BP was about 1 km west of Pattanam. The palaeogeography of the site and the canal network that connects the site to the Periyar River and the Paravur Todu suggest that Pattanam was a tidal river port.

The extent of occupation (c. 25 ha.), the abundance of architectural remains and characteristic Indian and foreign artefacts, and its locational context suggests that Pattanam could be related to Muziris. The authors hypothesize that the settlement at Pattanam is ancient Muziris, but suggest that this be further tested by intensive survey in the Periyar basin.

From Periyar to Palghat: Integrating overseas trade with local communities in Late Iron Age/Early Historic Central Kerala

Shinu Abraham, Department of Anthropology, St Lawrence University, New York

Archaeologists today are more and more concerned with understanding how ancient societies managed economies that incorporated external trade. The late Iron Age/Early Historic period of South Indian history (c. 300 BC to AD 300) is an ideal case study, since archaeological reconstructions of this period invariably emphasize the participation of central Kerala communities in the long-distance maritime trade networks of the Indian Ocean. However, very little is known archaeologically about how these communities organized themselves, or how they merged overseas trade

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routes with existing local exchange systems. Addressing such questions requires a more contextualized approach to the archaeology of Tamil South India, assimilating data from a variety of sources at a larger regional scale.

This paper will present an overview of the first phase of the Malabar Region Archaeological Survey (MRAS) project, which is designed to investigate early Kerala socio-economic structures by documenting the type and distribution of archaeological remains that form the regional and cultural contexts for trading port sites such as the recently discovered Pattanam. By analysing local and non-local artefact forms against a backdrop of regional site distributions, the MRAS seeks to expose both small-scale and large-scale material patterning that may help to identify local socio-economic groups, systems, and activities. Preliminary findings for the three main goals of this project will be presented: (1) the results from the first season (Dec 04 to Jan 05) of an intensive surface survey and mapping of the site of Pattanam, aimed at understanding intra-site artefact patterning for this Late Iron Age/Early Historic urban settlement, (2) the design of a regional GIS-based site database that integrates environmental and other variables into the study of early Malabar communities, and (3) the development of a Kerala ceramic profile, based on materials from both the Pattanam surface survey and from an earlier survey in the Palghat Gap region.

Beyond western India: the evidence from imported finds

Roberta Tomber, Visiting Fellow, Department of Conservation, Documentation and Science, The British Museum

A variety of written and artefactual sources are available for the interpretation of contact between India and the West. This period of interaction, frequently referred to as that of 'Indo-Roman trade', is generally considered to be most intense during the first and second centuries AD and it is this, the Early Roman period, that has received the most attention by scholars.

Imported finds remain the most direct evidence for identifying external trade contacts between India and the West. After coinage, amphorae are the most widely reported Roman find from India, but their full potential, which includes reliable dating and identification of source of manufacture, has only been occasionally realised. This paper will summarise the archaeological evidence for imported goods in India, particularly emphasising the firsthand examination of amphorae from c. 15 coastal and inland sites in western India, ranging from Gujarat to Kerala.

Detailed identification of this material has challenged several assumptions regarding Indo-Roman trade and given a much fuller picture of the extent and nature of this contact. In particular it has identified the on-going importance of the Gulf region during the Roman period, and the sustained level of contact between Rome and India during the late Roman period (fourth to sixth centuries AD).

An understanding of imported material contributes as much to our understanding of internal networks within India as to external trade. As a final point this paper will briefly compare assemblages from sites in western India with those from eastern India in order to evaluate differences between the two and assess their significance.

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PANEL: The Archaeology of Sri Lanka (Friday July 6 2.00 – 5.00)

Dr. Osmund Bopearachchi: CNRS, Paris

The “Laksmi Plaques” of Ancient Ceylon: a Final Attempt to Convince Monetarists of their Non-Monetary Function

Dr. Reinhold Walburg: Deutsche Bundesbank-Geldmuseum

From the time of their discovery in the 19th century up to the present day, the monetary function of the so-called Laksmi plaques has been a subject of heated debate. The objects in question are rectangular in shape and depict, on the one side, a female/male standing or seated figure, while the main design on the other side is a large-railed swastika to which several small attributes are added. The sizes of the plaques vary from extremely minute specimens to very large ones. Hoards and single pieces have been found at various locations on the island.

The recent archaeological excavations at Tissamaharama, the ancient capital of the southern principality/kingdom of Rohana, have yielded numerous specimens that show some peculiarities. These physical characteristics point to a premeditated violent treatment of the plaques, which was obviously intended to make them unserviceable - for whatever reason. This treatment together with the phenomenon of piercing the plaques clearly points to these objects having a non-monetary function. Moreover, this suggestion is supported by their varying weights and stylistic differences.

Sculptures of Amaravati style from Tissamaharama: an appraisal of early Buddhist sculptures from Sri Lanka

Dr. Osmund Bopearachchi: CNRS, Paris & Senarath Disanayaka, former Director-General of Archaeology, Sri Lanka

When discussing the stylistic features of early Sri Lankan Buddhist sculptures, Ananda Coomaraswamy observed: “The most characteristic Buddha images of Anuradhapura are what would be called in India the Gupta style. The design very closely recalls the (pre-Gupta) Amaravati standing figures and the same time shows an approach to a later type in the transparent clinging drapery”. The same art historian having first dated two standing Buddha statues originally kept on the platform of Ruwanweli Dagaba (Anuradhapura) to the later part of the 2nd century AD, altered later the date to the 3rd and 4th century AD. Today art historians are unanimous to accept the influence of Amaravati-Nagajunakonda art on the earliest type of Buddha images known in Sri Lanka. This made Senerath Paranaviana to suggest that the influence of Andhra on that of early Sri Lanka is so overwhelming that it may have been possible that a branch of that school was established in the island.

The epigraphic, numismatic and archaeological discoveries made both in Sri Lanka and South India in recent years add to the growing body of evidence attesting to the close cultural, social, religious and commercial intercourse between Sri Lanka and Andhra-Tamilnadu from the early Historical Period. Recent findings of Buddhist sculptures in Anuradhapura and Tissamahara not only confirm Paranavitana’s hypothesis, but also account for the fact some sculptures carved at Amaravati-Nagarjunakonda were imported to Sri Lanka as offerings to the religious monuments. In addition to such

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imported pieces known since the 19th century, a group of sculptures from Amaravati were unearthed in 1986 from the monastic complex of Jetavana Vihara, Anuradhapura. Two Buddha images either imported directly from Amaravati or executed by the artists of the same school established in the southern coast of the island were recently found under the Central Cultural Fund project. A guardstone of a unique kind depicting stylistic features of the Nagarjunakonda school may give us some indications of the origin of this type of art forms in Sri Lanka. These discoveries will be discussed in this paper in order to re-examine the origin and development of Buddhist art in Sri Lanka.

Buddhist Murals of Tivanka Image House *Jagath Weerasinghe*

The paper I am planning to present is on the 12th century Buddhist murals of Tivanka Image House at Polonnaruwa. It's largely a re-examination of what has been said on these murals, and then I proceed to suggest a model to understand the organization of the murals within the built space of Tivanka Image House. I argue that the thematic spread of murals in the Image House is organized in relation to the organization of Buddha's life in Pali Attakatha. Finally using this model I try to shed light on partially identifying one of the Jataka stories depicted in Tivanka.

Sigiriya Paintings Reconsidered: Evidence for Parallel Motifs from Contemporary Asia *Dr Benille Priyanka: UCLA*

For more than a century the subject matter of the renowned damsels of the Sigiriya paintings (5th century) from Sri Lanka has been debated. Up to now there are three prominent theories. They are: ladies of King Kashyapa, the builder of Sigiriya (H.C.P. Bell, 1905); celestial nymphs, or Apsaras (Ananda Coomaraswamy, 1927); or symbolic of lightning (vijju) and clouds (megha) surrounding Alakamanda the heavenly abode of Kuvera, god of wealth (Paranavitana, 1961). Based on a statement in Sri Lanka's great chronicle Mahavamsa, Paranavitana believed King Kashyapa lived in Sigiriya as Kuvera of Alakamanda. Thus he proposed the Sigiriya paintings as symbolically representing lightning and clouds surrounding the Alakamanda.

However, some parallel motifs to the Sigiriya paintings can be observed from Persia, Afghanistan, Northwest India and Siberia. These examples are prior to the Sigiriya paintings. Given the efficient international trade during the 3rd - 6th centuries in Sri Lanka it is possible that Sigiriya painters were exposed to some popular art motifs in contemporary Asia. These parallels could have a bearing on its meaning. Dr. Boppearachchi has already shown the connection of the Sigiriya water gardens with the garden planning of the Persian Empire and approximately 3000 Roman coins have been found at Sigiriya.

Polonnaruwa City Plan: Was Half of it Submerged? *Anura Manatunga*

Polonnaruwa was the capital city of Sri Lanka from the beginning of 11th century AD to the middle of 13th century AD. It was only a ruined city amidst a thick forest when

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archaeological excavations began in 1900 AD by the Archaeological Survey Department. It is now a World Heritage City and a popular tourist destination.

One of the salient features of Polonnaruwa is the large reservoir known as the *Parakrama Samudra*, just west to the city area. The city is rectangular in plan and covers an area of about 2500 hectares. It consists of two distinct parts i.e. the citadel and the outer city or the Royal and Monastic precincts respectively.

This basic plan of the city has been taken as granted so far from the beginning of Archaeological Studies at Polonnaruwa. The present study, however, indicates that this plan is a later alteration and half of the city area was submerged in the reservoir. Thus, the original city plan of Polonnaruwa was somewhat square in shape and nearly double in extent. The rectangular shape of it has been taken only as an alteration after the enlargement of the reservoir, the Sea of Parakrama.

It is very recently the present writer has identified Polonnaruwa as the same as the *Pana Nagara* of 4th century BC. There are no references thereafter either for Polonnaruwa or *Pana Nagara* until 8th century AD. But the name Polonnaruwa is often found as a city where kings of Anuradhapura had temporarily occupied from the 8th century onwards. Therefore, the walled square city may have been developed by that time. As there are clear references to the construction of the reservoir with amalgamating five small tanks by king Parakramabahu in the 12th century AD, the submerge of the half of the city and the alternative rectangular plan could well be dated to that period.

Direct smelting to high-grade steel: the technological achievements of Sri Lanka and evidence for wider Asian interaction

Dr Gill Juleff: University of Exeter

In the mid-1990's evidence emerged from archaeological and experimental work in Sri Lanka of an extensive and highly successful iron and steel-making industry in the first millennium AD that was the likely source of the famed *Sarandib* steel of Early Islamic weapons. The results of this work, first published in the journal *Nature*, demonstrated that the industry was based on a unique furnace design that utilised monsoon wind power. With its origins in the mid-first millennium BC, this technology is one of the earliest known in the Indian sub-continent. Review of archaeological accounts from across the region now suggests that, while the steels produced in Sri Lanka were traded with the Islamic world, elements of the technology surface elsewhere in Asia, including Burma, Cambodia and Japan, suggesting the possibility of a previously unrecognised pan-Asian technological tradition that is distinct from either Western or African models. This paper presents new metallurgical analysis that examines the steel-making capabilities of the Sri Lankan technology and also presents a case for exploring Indian Ocean contact as a route for technology transfer.

The Distribution Pattern of Proto-Historic and Early Historic Sites in the Montane Region of Sri Lanka: A Case Study of the Dolmen Site at Padiyagampola

Chulani Rambukwella: University of Kelaniya, Sri Lanka

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In the early 1980's a series of multi-faceted studies were undertaken in the upper valleys of river basins for a better understanding of the Early Iron Age (EIA) cultural ecology of Sri Lanka and for the purpose of looking at alternate Iron Age habitats in areas other than the 'Dry Zone' plains of Sri Lanka.

One such area that came under investigation was the middle and the upper valleys of the Maha Oya, which originates in the western montane region and flows 78 miles before entering the Indian Ocean at Chilaw. The estuary has a major Black and Red Ware habitation site. The middle and upper valleys revealed nearly 200 archaeological sites. Of these nearly half are EIA sites with 03 burial (dolmen, cist and urn) sites and the rest being drip-ledge cave shelters with some bearing BC 2nd Century Brahmi Inscriptions and some Pre Christian stupa sites.

This study essentially looks at the macro and micro distribution patterns of the EIA sites, both in time and space. The macro location is viewed in relation to the adjacent river basins and their EIA sites. A probe into the spatial distribution pattern of the sites within the valley itself may indicate the existence of several ecological zones. The internal spatial arrangement within each zone is not determined merely by the physiography alone. The location of natural resources for subsistence and mineral resources (mainly gem stones and metals), and exchange route net-works facilitating the movement of such resources, mainly to external zones outside the valley apparently had a strong bearing on the locational - distribution pattern of EIA sites. It is also possible to suggest that the socio-political basis of this ecological zones, represented by lineage - based societies provided the human dynamism sustaining the socio-political landscape of the montane zones such as the Maha Oya valley in Sri Lanka.

Urban Origins in Southern Sri Lanka: A Settlement Survey of the Lower Kirindi Oya Basin in the Southern Province.

Dr Raj Somadeva: Postgraduate Institute of Archaeology, Colombo

The urban origins in southern Sri Lanka project, was conducted throughout a period of four years since 2000. The field activities of the project were carried out within the area of 300km² centering on the modern Tissamaharama town of the Hambantota district in the southern province.

The historical chronicles and the inscriptions of Sri Lanka describe the south and southeastern region of Sri Lanka as an active cultural area of the country since mid first millennium BCE. The distribution pattern of the archaeological sites indicates the potentials of a deep research on the ancient settlement development and the rise of the early urbanism in the region.

The field survey conducted in the years 2000 and 2001 was focused on the lower basin of the river Kirindi Oya, which flows from north to south and meets the Indian Ocean at the southern frontier of the research area.

The field survey resulted in identifying 127 hitherto unknown sites. The comparative analysis of the surface pottery collected from the sites yielded a relative chronological sequence and it shows that the archaeological sites of the area can be ascribed to the period between 900 BCE and 1400 CE. The field survey was followed by 8 limited area

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excavations. Twenty-nine ¹⁴C dates together with a considerably diverse assemblage of artifacts suggest 7 cultural phases within that period. The early urban characteristics of the area emerged around 450 BCE.

The research results incorporated with an explanation that describes the indogenic dynamics of the early urbanization of Sri Lanka (e.g. agro-pastoralism, iron technology and inland trade) with the inspiration of a series of exogenic impulses generated by the long distance trade and the hegemonic shifts in the wider Indian Ocean region.