The archaeological excavations carried out in the Ganga Plain and adjoining areas during the last two decades or so, have provided hitherto new information. A good number of new radiocarbon dates have been determined of the samples collected from stratified occupation deposits of such sites. The studies on the carbonised archaeobotanical remains recovered from these deposits have generated a lot of primary data. More palynological studies on the lacustrine deposits and multifaceted geomorphological information are available. This paper is aimed to discuss their main implications on the prevailing perceptions in archaeology of the Ganga Plain, which suggest that - 'the Ganga Plain is not plane', 'the theory of dense forests in the Ganga Plain is a myth', 'the Ganga Plain settlers interacted with distant regions since circa 3rd millennium BCE', 'agriculture advanced in the Ganga Plain without the use of metal artefacts', 'the dynasties mentioned in Puranas and other ancient Indian texts should not be written off', 'iron appeared in the Ganga Plain in first half of the 2nd millennium BCE', and so on.

Excavations at Mahasthangarh: new results
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This paper will focus only on the earliest levels excavated by the Franco-Bangladesh expedition. Reinterpretation of the chronology for the ancient levels at the Eastern Rampart excavations (1993-1999) using C14 datation and paleomagnetism of bricks we suggest a Pre-Mauryan occupation of the city. The study of the rampart allows us to specify the different phases of its construction and to link them with the growth of the urban center

In the new area excavated by the Franco-Bangladeshi team (2000-2005) monumental buildings, road and massive defensive wall have been found. Some items point to a religious activity

Bairagi Bhita: an intra muros temple from Mahasthangarh
Dr. Barbara Faticoni

Placed within the town-walls of Mahasthangarh in northern Bangladesh, the Bairagi Bhita temple represents one of the most interesting archaeological remains from this site. Although excavations over the last few years have interested only the eastern rampart area, and more recently the south-eastern side of the city, archaeological surveys conducted in the past had brought to light several monuments inside and outside the town-walls.

Among these monuments, the temple of Bairagi Bhita (trans. Ascetic’s Home, from vairagi = a man without passions, a hermit, and bhita = home or original place, as well as generally a building’s podium, or the building itself) holds a prominent
position. Its first description was made by K. N. Dikshit, who directed site excavations between 1928 and 1929, and related the temple to the Pala-Sena school.

During the excavation campaign in the Mahasthangarh citadel this year, the temple of the Bairagi Bhita has been reopened by the French team working in Mahasthangarh (preparatory work had been concluded in 2004). The objectives set for this second year of mission were: to continue the clearing of structures between the platform and the second temple, and to understand the relationship between the podium of the first temple and the podium of the second temple.

The first objective aims at drawing an extensive and complete plan of the temple in the coming years as a first step towards a new and complete reading of the temple. In order to understand the relationship between the first and the second temple we opened a small trench (2.50 x 7.50 m, direction East-West), from the edge of the "platform for the ablution" right to the end of the platform of the first temple. This allowed us to identify three building phases in the main temple, and also to conduct preliminary tests on the materials drawn from the various layers, which clearly indicate a religious context. Over the next few years we plan to complete the study of the entire sacred area. This will entail a full clearing of structures, drawing a comprehensive map, and also planning systematic excavations with the aim of reopening the area and preparing a restoration project.

In the almost total lack of reliable studies on Pala-Sena architecture, archaeological work in Bairagi Bhita may substantially improve our knowledge of Indian architecture and its evolution.

**Terracotta discs of PGW period: A concept of primitive coins**

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Trade and currency are inseparable, may it be barter or banking economy. In primitive society barter was the principal method of exchange and in India this system existed even after the introduction of real coins. In this paper the author has tried to convince the terracotta discs as the primitive coin or token money. Usually coins were made of silver, copper, gold, lead, nickel and bronze etc. But from the commentary on Vinayapitaka by Buddhaghosa we learn that sara wood, lac, skins of animals, the outside of bamboo or the Palmyra leaf, fruits and seeds were also in circulation as a type of non-metallic currency. Clay lumps bearing coin devices may also have been used as currency. In fact the use of clay as a medium of exchange was not uncommon in India. Thaplyal, therefore, thinks that if any non-metallic substance bearing rupa-marks has any claim of being taken as coins, clay lumps bearing coin devices are also equally entitled to be classed in the same category. The concept of currency is associated with particular value to the object/coin, which may not be the actual value of the object. But non-metallic currency, although it was in vogue, was not certainly organized currency in circulation over a wide area. It could, however, at best have been only a local arrangement. Punch-marked coins did not appear suddenly into existence. Before taking its shapes as punch-marked coins, there must have been its primitive stage.

Terracotta discs have commonly been found at PGW sites. At most of the sites they occur in very large numbers and has a long tradition during the successive period also.
Why should not we take terracotta discs as primitive source or stage of punch-marked coin? Perhaps, the symbols found on terracotta discs were the source of symbols for punch-marked coins. The characteristics features of the punch-marked coins are its various symbols. Surprisingly, most of the signs are similar. The symbols commonly found are as follows: - The Human figure, the Sun, the Moon (Crescent), the Mountain (Chaitya), the Swastika, the Charka (four, six, eight, or multi-armed), the Star, the Tree? Arrow, Fish, Eye or leaf design, Circle / Checker/cross/ square/ rectangle/triangle/dotted line/parallel line and other geometrical lines etc. In this research paper, I have prepared a chart to compare the symbols and motifs found on terracotta disc with the symbols and motifs found on punch-marked coins.

**The archaeology of Middle Ganga plain: a note on copper objects from Imlidih Khurd, Gorakhpur, India**

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The study of archaeological metalwork is as significant in archaeology as the study of ceramics, bones, or lithics. The scientific examination of metal artefacts is not an end unto itself, but a method by which more information can be gleaned from the archaeological record. The metallurgical techniques commonly used today (e.g. metallography, elemental analyses, electron microscopy) have consistently produced valid results that have helped to clarify important archaeological issues such as the reasons for the development of craft specialisation, the impact of the introduction of new technologies on societies, the degree of interaction between cultures, and the forces necessary to alter societal infrastructure.

The objectives of the research work being undertaken by the author since last few years are to demonstrate the manner in which metallurgical analyses can be used to address important archaeological problems. Several samples of metal objects (particularly copper & iron) have been subjected to the scientific examination from the archaeological sites of the middle Ganga plain in order to estimate the questions like, How were production and exchange organised? To what extent do metal reflect the cultural milieu in which they were found? Do different types of metals, because of appearance, geological rarity, or difficulty of working, have different cultural trajectories? etc. In present communication, as a case study, the data obtained by the examinations of a few copper objects from Imlidih Khurd, an important site from the Sarayupar region of the middle Ganga plain have evaluated.

**Imlidih Khurd** is located on the left bank of river Kuwana in Gorakhpur district. It extends in an area of 6-8 hectares. The Banaras Hindu University conducted the excavation at the site. The main achievement of the Imlidih excavations is the discovery of an antecedent phase of culture, stratigraphically occurring just below the Narhan Culture deposit hence termed as 'Pre-Narhan' with a suggested date of pre-1300 BC. The diagnostic trait of this culture comprised the characteristic pottery (corded ware) hitherto unrecorded from Narhan, Khairadih and Manjhi but present at Sohgaura and Lahuradeva.

The inhabitants of Pre-Narhan culture lived in wattle and daub houses represented by reed marks in large numbers. Several floors made of mud, oven and *chulah* marked the other structural activities. The small find comprise several micro beads of steatite (similar to Harappans), beads of terracotta, agate and faience, bone points and pottery discs. In addition, a few pieces of copper objects such as beads, an arrowhead and a celt (comparable to the copper hoard variety) were also recovered. A scientific
examination of the copper objects revealed that the alloying is noted from the very beginning but by the time of NBP period (i.e. c700 BC) the use of tin metal was in vogue in the middle Ganga plain. The analytical details, ore-sources, ore-artefact relation and the archaeological significance shall be discussed.

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Early ceramic assemblages of Sarayupar in the light of the excavations at Gotihawa, Nepalese Tarai
Liliana Camarda &Daniela De Simone

At Gotihawa, a site in the Nepalese Tarai excavated by the Italian Archaeological Mission, has shown the existence of ceramic assemblages typical of the Chalcolithic and post-Chalcolithic horizons of the Upper Middle Ganga valley (Sarayupar). C-14 dating also supports the stratigraphic sequence. A few fragments of OCP have been also found, pointing to an even earlier context. The Nepalese Tarai, therefore, appears as being fully part of the settlement history of the central Ganges plain. A careful observation of the materials and the archaeometrical analyses show that the relation between the Black-Slipped Ware and the NBPW and the very nature of these ceramic classes are far more difficult to define than usually believed. The technological development which eventually led to the production of the NBPW is discussed at length.

An archaeological study of ritual and pilgrimage at Bodhgaya

Bodhgaya, the place of Buddha’s enlightenment, has been one of the most sacred Buddhist pilgrimage sites visited by people from around the world, and venerated by the devotees for centuries. This paper intends to study the discovery of Bodhgaya as one of the major Buddhist sites and its importance for the study of Buddhism in the nineteenth century. In addition, an attempt would be made to study the tradition of pilgrimage and rituals at the site. The paper begins with a historical background including the works of the surveyors and archaeologists in the nineteenth century which led to the identification of Bodhgaya as a Buddhist site. The second section would analyse the inscriptive sources and archaeological remains and structures in and around Bodhgaya. In this section an attempt would be made to locate the growth of the site archaeologically in order to study laity’s contribution and the interaction between the monastic and lay community at the site. The relationship between laity and monastic community gets reflected in pilgrim’s patronage, necessary for the survival of monastic community, and laity’s desire to accrue religious merit which resulted in the construction of religious structures at the site. This interaction between the monastic and lay community contradicts the notion of Buddhism being a monastic religion. In the final section, the paper contends that the continuation of the site from early historic period to fourteenth century A.D. reveals the social base of the religion as reflected in the continuation of patronage and pilgrimage at Bodhgaya. Thus, the
paper would demonstrate the symbolic meanings of the archaeological structures by viewing them in their wider ritual context, i.e. the way they were made, used, and experienced by the followers.

Bharhut: A reassessment

Jason Hawkes: Ph.D candidate, Department of Archaeology, University of Cambridge

Since its discovery the remains of the Buddhist stupa of Bharhut have been the subject of much study. For the most part, however, past scholarship has focused almost exclusively on the sculptural remains of the railing that once surrounded the stupa. More specifically, and due in part to a preoccupation with the textual sources in the study of ancient Buddhism, it has tended to concentrate on the identification and analysis of those scenes deemed to represent certain narrative episodes from the Pali Canon.

This focus on the narrative scenes has restricted the questions that can be asked of the sculptural scenes, and in doing so limited their value as archaeological evidence. While the exclusive focus on the carved remains in general has limited the examination and understanding of the wider archaeological context of the site itself, a complete account of which has yet to be made.

New examination of the archaeological evidence from Bharhut as part of wider doctoral research has greatly added to the knowledge about the site and its remains. Reassessment of the remains of the stupa railing has expanded the total number of both the known constituent parts of the railing as well as the sculptural scenes that adorn them. Preliminary schematic analysis of those sculptural scenes has also yielded interesting results that appear to challenge the traditional importance attached to the narrative scenes. While basic examination of the surface remains at Bharhut has greatly improved the picture of the site itself.

Together the findings of these results have not only improved the basic understanding of the site, but more fundamentally highlight the growing need for new direction in the study of religious monuments in South Asia, one more grounded in the archaeological realities of the sites themselves.

New results on Early Historic fortification

Prof. Paul Yule, Heidelberg University

The archaeological component of the DFG SPP1066 project shed light on early historic fortifications of Orissa, concluding as it did field operations in January 2005. Since the last SAA conference in 2003 it was possible to use a laser scanner in Sisupalgarh to documented the column complex "Area D". A tachymetric survey of Area D supplemented the area recorded for computer simulations. Ground radar also illuminated the south moat, Area D and the crest of the glacis of the western city defenses. Most notably, the southern moat was located and proven to exist. Finally, in face of increasing pressure to settle on all of the available land within the walls, preservation was documented by means of GPS-assisted mapping.