Early Architecture and its Transformations: Kanganhalli
Michael W. Meister: University of Pennsylvania

The recently excavated Buddhist stupa at Kanganhalli, Karnataka, provides, among many important narrative panels from the first centuries BCE and CE, unique visual evidence for forms of early built architecture in South Asia. Within the visual idiom of Kanganhalli, what you see is what was built, unmediated by the iconic transformation of later stone representations and replicas that move away in significant ways from the early impermanent architecture of India. A preliminary report on the site and sculptures of Kanganhalli was given by the Director General of the Archaeological Survey of India at the 15th conference of South Asian Archaeology in Leiden in 1999. It is important now to illustrate the depth of new evidence for architecture this new material provides.

New evidence on early architecture of Bengal
Prof. Dr. Enamul Haque: The International Centre for Study of Bengal Art, Dhaka

The story of architecture in Bengal covers a long period of more than two thousand years. Largely a product of the soil, it however maintained a close interactive contact with development of architecture in other regions of the subcontinent. Although Bengal is found to have made important contributions, the fact is hardly recognised in the standard works on Indian architecture. Not unnaturally, even if some mention has been made, such references remain embedded in publications of comprehensive character that are concerned with various aspects of life and culture of Bengal or India. Admittedly, there is an extreme dearth of ancient monuments in Bengal, especially of the Early Historic phase. Our scanty knowledge of early human settlements in Bengal does not permit us to visualise precisely the building activities at the dawn of its history. The archaeological excavations in Bengal so far have revealed structures generally dated from the Gupta period. But recent discoveries of terracotta plaques from Chandraketugarh, Mahasthangarh and other places have produced substantial evidence to have an idea about the lost and forgotten architecture of ancient Bengal. On the basis of such finds it has been possible to identify free standing columns, pavilions, pavilions with vault, toranas, vedikas and curved roofs with finials on the top, all dated between the Sunga and the Gupta period.

Shaivite temple at Kashmir Smast: study and analysis
Dr. M. Nasim Khan: Department of Archaeology, University of Peshawar

Recent advance in archaeological research in the region of ancient Gandhara has been the focus of scholars interested in the political and religious history of the area. One of the latest discoveries is the identification of Kashmir Smast as the earliest Shaivite monastic establishment in the region. The archaeological investigation at the site and the chronology established on the basis of its antiquities show that in different periods Kashmir Smast has been a convergence point of different dynasties regarding their religious belief. Besides the un-precedental discovery of antiquities, the internal landscape of the site is one of the best examples of well-organized system of town
planning in the area. Different establishments at the site and their strong association vis-à-vis others is an important feature of the site. Although damage to some of these religious structures by clandestine activities is a great setback for the art historian there still remain some monuments to be scientifically studied and properly preserved. One of these monuments is the main Shaiva temple, the only of its kind in Gandhara that can be dated back to 4th/5th century AD. Here we are making an effort to reconstruct the monument and its history and to understand its role in the internal landscape of the monastic area.

**Newly Discovered Temple Remains at Ramgarh**

*Anne Casile: Universite de Paris III*

On the hill of Ramgarh, near Badoh-Pathari (Madhya Pradesh) was conceived a religious settlement of the Brahmanical faith, dating to the early 6th century. During my recent fieldwork I discovered a group of temples on the top of the hill. These are unfortunately in a very ruinous condition, mostly reduced to mounds. Three big sculpted niches showing interesting images count among the vestiges, along with a few scattered architectural fragments. The association of these temples with the caves and images carved into the hillside, reminds us of Udayagiri. Remains of a hydraulic structure (dam) can be observed from the landscape configuration downhill, and are to be considered in relation to the religious complex. This paper will report briefly on the remains on the hillside, including the recent discoveries, and will address various questions regarding the landscape setting of these structures, comparing the settlement with other complexes in the region (notably Udayagiri).

**New researches on Paharpur Buddhist monastery (North Bengal)**

*Jean-Yves Breuil: INRAP (National Institute for Research and Preventive Archaeology), France, UNESCO Consultant in Bangladesh*

*Dr. Sandrine Gill (University Sorbonne Nouvelle, Paris III, France), UNESCO Consultant in Bangladesh*

Paharpur, the ancient Somapura vihara founded in North Bengal at the end of the 8th century by Dharmapala, was extensively excavated and partly conserved in the 20s-30s mainly under the supervision of K.N. Dikshit. Its inscription on the World Heritage List in 1985 is based on the originality of the cruciform central shrine, considered as a prototype, and its exceptional collection of 2800 terracotta plaques.

Since the birth of Bangladesh in 1971, a few excavations in the monastery area led to the discovery of a monumental bronze Buddha image and occupation levels earlier than the main temple. Moreover, exploration in the surroundings and discovery of contemporary sites including Halud Vihara and Jagdal Vihara provide a new perception of Paharpur in its regional context. These new evidences, combined to the recent rediscovery and safeguarding of more than 1700 glass photographs taken by the Archaeological Survey of India - Eastern Circle in the 30s and largely unexploited (less than 16% published) prepare the ground for a better and new understanding of the site under different angles: pre-monastic history, style and iconography of the terracotta plaques, spatial organisation of the site (relations between the main shrine, the monastery, and subsidiary structures), transformation of the site throughout the centuries, adaptation of the builders to environmental constraints and relations between Paharpur, its environment, and contemporary sites.
A study of the development of the Vihara Archetype in medieval Bengal, on the basis of the archaeological findings.
M. Mizanur Rashid and Prof. Heng Chye Kiang: Centre for Advanced Studies in Architecture, National University of Singapore.

The archaeological surveys of the last century in the region of Bengal have revealed traces of numerous Buddhist religious structures from 5th to 11th century A.D. The present physical conditions of most of the structure are so poor that it is almost impossible to perceive their architectural characteristics. However there are a significant number of structures, which are recognizable at their foundation level after archaeological excavation and their layouts, architectural plans and two-dimensional spatial organizations have been documented.

This paper focuses mainly on the Buddhist Viharas that had been constructed during the period Pala dynasty when Buddhist architecture has experienced its peak in Bengal through the manifestation of and mega structures like Sompur Mahavihara at Paharpur and Salban Vihara in the Lalmai-Mainamati region. This study will use the archaeological resources, mainly drawings and artifacts, to understand the architectural characteristics of the Buddhist monastic architecture that has been developed in Bengal in this period. Major objective of this paper is to respond the existing knowledge gap regarding the morphological development of the Vihara archetype in Bengal through the ages. It will further attempt to explore the general architectural features of the planning of a Bengali Vihara type that have been developed during this period due to the internal socio religious and political condition.

The cruciform temple type of the Buddhists in comparison with that of the Hindus
Dr. Falk Reitz: Freie Universitaet Berlin

The Buddhist temple complex within the Somapura Mahavihara (Sanskrit: great monastery of the moon locality) in Paharpur (Bengali: hill locality) is the consequent result of an architectural evolution which took place parallel to that of similar Hindu structures. In the vastushastras of the Hindus the cruciform type of temple with four doors/niches in the cardinal directions and a central garbhagriha is known as sarvatobhadra temple.

The paper will describe the theoretical concepts of the sarvatobhadra temple within the Hindu and Buddhist canons of architecture and will compare both concepts. Furthermore, the Buddhist monuments in Paharpur, Mahasthan and Mainamati will be compared with cruciform Buddhist structures in Uttar Pradesh and Bihar as well as in Sri Lanka and Myanmar to find out regional variations of the same architectural concept. In the discussion we shall also focus on the problem of chronology, especially which of the two communities developed the concept first.

Verena Widorn: University of Vienna

The early Hindu temples of Sakti Devi in Chatrarhi (Chamba) and Mirkula Devi in Udaipur (Lahaul) as well as the Lo tsa ba lHa khang in Ribba (Kinnaur) depict an
uncommon feature in the appearance of their architectural structure. All these temples are distinguished by extensive wooden carvings on the facade of their inner sanctum. This beautiful, predominately figurative, decoration of the garbhagāthā stands in stark contrast to the rather undorned outside entrance doors. This feature is never found in the extensive Buddhist or Hindu architecture of the region in subsequent centuries. Numerous studies have already demonstrated that prior to the late 10th centuries no differences in the plan of Buddhist and Hindu shrines can be identified. Therefore it is even more surprising that this phenomenon contrasts with the only slightly later facades of diverse Buddhist shrines in the neighbouring regions of the Western Himalaya, such as the richly carved wooden portals of Tholing and Kojarnath (West Tibet) or Alchi (Ladakh).

The question arises if there is a sectarian reason for this development or if the answer can be sought in the architectural development of these monuments. The presentation will provide information about the archaeological history of these temples and show possible explanatory models that include considerations of a ritual function for this unusual architectural form.

The Vault of Heaven*: Some Observations on the Function and Symbolism of Ceiling decorations in Indian Hill Architecture

Christiane Papa-Kalantari: University of Vienna

The symbolism of constructed buildings in India, in the vertical direction derives from the concept of the axis mundi and the tree in Hindu mythology as the axis mundi. Stella Kramrisch has pointed out that wood is the substance of this ancient concept. Although the symbolism of the Hindu Temple in India has been extensively studied the iconography associated with the decoration of the temple ceilings has been, until now, not sufficiently examined.

During the time of the newly established kingdoms in the Indian Himalayas (10th to 13th centuries) the Indo-Tibetan Buddhists constructed their simple and austere sacred monuments with the indigenous materials of mud bricks, rubble stones and timber adapted to the harsh climate. These Buddhist temples continued in the rich tradition of wooden temple architecture, namely the Hindu mandapa temples where pillars support the wooden ceilings. However a completely new concept has been incorporated into the symbolism of sacred architecture of the Indian Himalaya that is the rich and varied textile culture: The use of textiles has a special rank in the evolution of the indigenous hill architecture that is deeply linked with international textile trade.

The question of the function and symbolism of painted ceilings as a part of the iconography and the ritual whole of the Indian Hill Temples has not yet been posed. A preliminary analysis will be presented in this talk based on ongoing conservation analysis and praxis in Nako, as well as fieldwork and Tabo (both In Himachal Pradesh) and Alchi (Jammu & Kashmir) during the last 4 years.

*the term and concept of this metaphor has been discussed by D.Klimburg-Salter in her article "Dung dkar/ Phyi dbang, West Tibet, and the Influence of Tangut Buddhist Art” In: East and West, Rome 2001.
Defining the sacred space: Painted Ceilings in Dungadkar and Tsaparang in Western Tibet
Helmut F. Neumann

Painted ceilings are found in most Central Asian cave temples, from Bamiyan in the West to Dunhuang and Yulin in the East. They are in many instances an essential feature for defining the sacred space.

It is therefore not surprising that painted ceilings also play an important role in the three caves of Dung-dkar (end of 11th/12th century) in Western Tibet. The paintings on the ceilings of the three caves are different from each other. The ceiling of one of the caves, which consists of a three-dimensional mandala of the Dharmadatu Vagasvara, was discussed at the SAA conference in Rome (Neumann, H.F. The 11th Century Wall-Paintings of the Rediscovered Caves of Dungadkar in Western Tibet in South Asian Archaeology 1997, pp. 1383-1402, Rome 2000).

This paper will focus on the motifs and style of the ceiling of the other large Dungadkar cave, the cave with the lantern ceiling. This ceiling is particularly splendidly painted, with great variation comprising geometric and floral patterns as well as figurative motifs, especially human forms and real or mythological animals.

When in the time of the political and religious revival of Western Tibet in the 15th/16th century, major temples were built, the artists resorted to the great precursors of the 10th to 12th century for elements of both style and motifs. The panels between the ceiling beams, e.g. in the White Temple in Tsaparang contain motifs from the ceiling of the cave with the lantern ceiling in Dungadkar. The vocabulary of the painted ceilings in Tsaparang was, however, enriched by additional elements, particularly the Eight Auspicious Symbols and the inclusion of deities in circular arrangements resembling mandalas.

Part and Whole: the Story of the Horseshoe Arch
Dr. Adam Hardy (Cardiff University)

The paper attempts to throw some light on Indian temple architecture as a whole through the window of one small part, the ‘chaitya arch’ motif, in particular the gavaksha of northern or Nagara traditions, c. 6th-13th centuries. This is examined both as a hallmark of style and as an architectural element.

As an image of a gable, the horseshoe arch form is inherent in certain shrine forms and in the aedicules or shrine-images derived from these, which form primary components in the composition of more complex temple forms. A dynamic process of growth, often expressed through the relationships between such components, is at times (especially in 7th- to 8th-century Latina and Valabhi shrines) conveyed through patterns of relationship between gavakshas alone. Unfolding, proliferating gavaksha patterns suggest symbolic interpretations, as much as the representational and associational resonances of the form, as window and eye.

The way that the gavaksha form and gavaksha patterns evolve within a number of Nagara traditions is very characteristic of Indian temple architecture. Originally representational, the image is increasingly abstracted. Reflected the kind of growth
process that they themselves convey, the patterns unfold in a quasi-organic way, emerging, proliferating, fragmenting, re-merging. The individual motif is almost lost in a acarved network (jala). The paper examines the grid structure that both generates jala designs and assists in their pertification.

**Use of the Valabhi mode of the Nagara language of Indian temple architecture in Bengal during Pala Period (800-1200CE)**

Dr. Ajay Khare, BIT MESRA, Ranchi, India.

Indian Temple Architecture is expressed mainly in two languages, which are 'Nagara' and 'Dravida'. While Dravidian language of temple architecture is seen only in the Indian peninsula, Nagara tradition is present in the Northern, Western and Eastern parts of India. There are three modes of the Nagara language of Temple Architecture; Latina, Valabhi, and Phamsana. The Latina and Phamsana modes are known in Eastern India in Orissan terms as Rekha and Pidha whereas the rare Valabhi mode is known as Khakhara. The early temple architecture (800-1200 CE) of eastern India finds expression mainly in Latina mode and we do not have many surviving examples of the other two modes of temple building from the early period. But from the architectural fragments of the Pala period, it is amply clear that Valabhi and Phamsana as mode of temple building were well known to the builders of Bengal and their use was also widespread.

The present paper highlights the use of valabhi mode of temple building in the temple architecture tradition of eastern India. In the beginning of the paper the latina and phamsana deuls are briefly explained while the valabhi deul is explained in detail indicating its oblong plan and distinguished mastaka with barrel vaulted elongated roof. It gives examples of valabhi deul used all over the eastern country mainly for Shakti shrines. The paper goes on to explain the use of aedicules in temple building and the use of the valabhi aedicule as khakhara mundi in Orissan temples. The paper makes use of the votive stupas and architectural fragments such as lintels where valabhi aedicules are used along with latina aedicules on the faces. The paper also identifies and lists the extant temples in Bengal where valabhi aedicules are used on the walls of temple i.e. mandovara. The paper analyses the underlying concepts behind that use and identifies the use of valabhi aedicule as essential characteristics of the temple architecture of Bengal. The spread of the use of the valabhi aedicule suggests its presence in Magadha and Orissa region but except for the Vaital deul and a few other shrines, the valabhi mode remains rare in use even in Orissan tradition. The paper will also analyse the absence of the valabhi mode in the later temples of eastern India when the latina and the phamsana modes continue to be built.

**Architectural features of the surviving mediaeval temples in Maharashtra.**

Dr. Gerard Foekema (Amsterdam)

In this talk I will present results of recent fieldwork in Maharashtra. Over a period of 25 years, fieldwork on old temples was carried out in many parts of India, but especially in Karnataka. This resulted in two large monographs, one called Hoysala Architecture, published in 1994, and another called Calukya Architecture, published in 2003. These books, in fact, are catalogues of the surviving mediaeval temples in the southern and northern halves of Karnataka respectively. A third monograph, now in preparation, will deal with the surviving temples in Maharashtra. Probably it will be called Hemadpant Architecture.
In the winters 2002/03 and 2003/04 fieldwork was focused on Maharashtra. About 100 mediaeval temples found here have been published before, but most of them superficially or only in passing. The writing of a catalogue with good illustrations was started in 2004 and will take several years. Many of the architectural features met with are shared with the temples of other regions and illuminate Indian temple architecture in general. Other features are specific for Maharashtra. A good example of a temple showing both common and regional features is the Siddhesvara-temple in Akola. Akola is a village in Ahmadnagar District and its temple was published earlier by Cousens (1931, page 53). Our paper will focus on this temple and notably on the following features:

1. The decoration of the elevation with architecture;
2. The occurrence of both stepped and square plans;
3. The occurrence of a second entrance into the cella.
Cholas, Pandyas, and "Imperial Temple Culture" in Medieval Tamilnadu
Leslie C. Orr: Department of Religion, Concordia University, Montreal

The religious architecture and sculpture, the forms of temple worship, and the patterns of royal patronage and court culture of the ninth to thirteenth century in the Tamil country are almost invariably identified as "Chola" in both popular and scholarly circles. From the very moment of the demise of this dynasty, in the late thirteenth century, there has been a glorification of the Cholas -- by a series of claimants to their political and cultural legacy (from the kings of Vijayanagara to modern Tamil nationalists); in the Hindu sectarian traditions which celebrate the links between the Cholas and the great teachers, ritual practices, and sacred sites of the Tamil country; and by those in both India and the West whose acclaim of "Chola style" artistic productions has influenced iconography and temple-building, aesthetic judgements and art markets, and representations of Hinduism. The application of this blanket dynastic term not only obscures the importance of distinctive local and regional developments with respect to religion and culture, but masks the political complexity of this period -- during which any number of kings and chiefs successfully challenged Chola hegemony, and when the Cholas' neighbours to the south, the Pandyas, arguably had a greater claim to a truly "imperial" style. In this presentation I shall draw on literary, epigraphical and art historical materials to examine the "Chola-ness" of religious art and architecture, of courtly culture, and of temple life in medieval Tamilnadu.

Two Kalamukha Temples in Karnataka
Pierre-Sylvain and Vasundara Filliozat

The two temples in Karnataka, the Somanathesvara, Haralahalli (A.D. 1182) and Kadambesvara, Rattihalli (1230 A.D.) are now known as Jakkanacarigudi because the villagers think that they were built by the divine architect Jakkanacari. Inscriptions show that they were the works of two Kalamukha saints of Pasupata Saivism. Pasupata Saivism became important in the south under the Calukyas of Vatapi (Badami), and reached its summit under the Calukyas of Kalyana, especially under Calukya Vikramaditya VI who acceded to the throne in 1075 A.D. Modern historians credit Vikramaditya VI with creating, for the sake of better administration, many chieftancies in his kingdom and entrusting their governorship to many vassals. Kalamukha, A branch of Pasupata Saivism called Kalamukha received particular attention from the local chieftains and vassals. The Kadamba chiefs of Rattihalli Nurumbada and the Gutta rulers of Guttavolal are two vassalages which are the focus of our study here. Both the ruling families were adepts of Kalamukha saints belonging to Kittagavi scions, Saktiparise (congress) of Parvatavali school. Under the advice of their guru, both the dynasties converted temples of Siva of single sanctum into temples with triple cellas and added many architectural elements. The principles behind such transformations are the main subject of this paper.

Regional pasts, imperial present: Vijayanagara temple architecture in Karnataka
Dr. Crispin Branfoot (De Montfort University)

The Vijayanagara Empire dominated most of southern India for two centuries from the later 14th century. During the 15th century a new style of temple architecture, based upon the Tamil tradition, was created at the capital city that subsequently
spread across the whole of southern India. Two decades of research at the capital city of Vijayanagara in northern Karnataka has documented and discussed the characteristics of the ‘imperial’ Vijayanagara style of temple architecture. In this paper the temple architecture built in the 15th and 16th centuries in Karnataka but outside the capital will be examined in order to: (i) assess the degree to which temple construction was concentrated at the capital city; (ii) examine when and where temples were built across Karnataka; (iii) analyse the degree to which the Vijayanagara imperial style was a source of visual unity across the vast area of the empire; (iv) determine how the temple builders of Vijayanagara related their work to that of earlier dynastic temple building traditions, such as the Hoysalas, both in terms of where they founded temples or added to existing sites, and how earlier building traditions affected Vijayanagara-period design.
Domes, Tombs and Minarets: Islamic Influences in Jaina Architecture
Dr. Julia A. B. Hegewald (Heidelberg)

Despite at times violent persecution of the Jainas by incoming Islamic forces, the stylistic influence Islamic art has had on Jaina religious buildings is startling. Jaina Temples, especially those of the fifteenth, sixteenth and seventeenth centuries, frequently have Islamic decorations and arches, tiles, bulbous domes, minar-like towers and niches resembling mihrabs. Islamic stylistic features did, however, not only remain on the surface but also influence the underlying planning layout of Jaina architecture. Jaina temples were constructed following the principles of courtyard mosques as well as Islamic tombs.

This paper will for the first time draw attention to this so far neglected phenomenon and consider a series of possible explanations. Was it the concept of mimicry, of pretending to be Islamic in order to shield off attacks, which drove Jaina builders to construct temples in the style of what frequently were their worst enemies? It is questionable, however, if such buildings could ever have been mistaken as true Islamic structures. Was the aim perhaps more simply to please or at least not to offend once new rulers by avoiding figural representations and building in a style understood and liked by Muslims in order to prevent raids and destruction? The period of the fifteenth and later centuries is, however, not usually marked by such violent persecution any longer and this might indicate that Islamic design features had become widely accepted and part of the new artistic repertoire. Such and other reasons will be debated in the proposed paper and it is likely that not just one but a series of reasons might have led to the creation of this fascinating hybrid style of Jaina temple architecture.

Vaishnava Havelis in Rajasthan - Origin and Continuity of a Temple Typology
Dr. Shikha Jain

In the 17th century, a new temple form emerged in the region of Rajasthan under the patronage of the Vaishnavite sect. Often referred to as the Haveli temple, this form adapted the courtyard architectural style of the medieval mansions called Havelis and discontinued the use of the typical shikhara.

This type was initially defined by the 'Pushti Marg havelis' of the Vaishnava sect. It is believed that as a protection of the temples from the Mughals, the Vaishnava sect started building temples in the haveli pattern. Though later, it became an established temple typology and a number of temples from eighteenth to twentieth century were built on the Haveli pattern in Rajasthan.

This paper traces the origin and continuity of this Vaishnava Haveli temple in Rajasthan. It presents the Haveli temple type by a detailed analysis of two most dominant Vaishnava haveli temples in the region i.e. the 17th century Haveli temple of Srinathji at Nathdwara and the 18th century temple of Govind Devji at Jaipur, each serving as a nucleus in its historic setting. Along with a study of their broader urban context, the paper provides an insight into the spatio-ritual planning of these two haveli temples to establish the generic layout of the Vaishnava Haveli temples in Rajasthan. The paper further provides an overview the spatial planning and architectural vocabulary of Haveli temples in Rajasthan. It identifies sub regional
variations within Rajasthan by citing specific examples from the nine different regions of Rajasthan and it also evaluates the newly constructed haveli temples in the region.