

**HISTORY OF NEPALESE ARCHITECTURE
EG 628 AR
YEAR III PART A**

Lect 4 hrs PER WEEK	40 hrs	INSTRUCTION in lecture mode
	[8 hrs	Visual study (4 marks)
	8 hrs	PORTFOLIO PREPARATION & SUBMISSION
		(8 + 4 + 4 = 16) Total marks 20
	4 hrs	MARKS SUBMISSION TO DEPARTMENT]

Final Examination duration 3 hours Total marks 80
COURSE TUTOR: PROF. SUDARSHAN RAJ TIWARI

Course Objective:

To achieve an understanding of the development of architecture as related to the society, culture, religion, technology, economy, climate and geography

To become familiar with the means of examination of historical evidence and to develop the ability to gather knowledge and experience for judgement and criticism. To understand the relationship between the old and the new buildings, between building and environment and to develop ability for conservation, adaptation and transformation. Relationship of building to its environment.

- Topics:
- a. Chronological study and comparison of different stages of development. Factors influencing these developments: social, cultural, religious, technological, climatic, material and economic factors.
 - b. Form, function and symbolism
 - c. The following major areas are to be covered
 - 1.0 Early civilization Kirat and Lichchhavi
 - 2.0 Malla period (12th- 18th century)
 - 3.0 Early Shah period (18th- 19th century)
 - 4.0 Rana period (1846- 1950)

Coverage should include both secular and religious buildings, religious buildings of both the Hindus and Buddhists should be treated separately. Specific examples for study:

- i. Development of palaces, temples, stupas, priest houses, bahals, bahils and house forms
- ii. Hindu-Buddhist architectural harmony
- iii. Development of brick and brickwork
- iv. Development of woodwork and carvings

Recommended Methods:

Students should prepare illustrated notebook on at least one period or stylistic group of development with analytical notes. Students should also prepare a thorough analytical illustrated report on at least two structures of choice. Students should participate in a group work assignment / present a measured drawing of one structure of the Malla period.

Tentative Lecture Plan

- Week 1: Introduction to History of Nepal/ Framework/assignments etc.
Kirat/ Early Lichchhavi period: culture/religion and possible architectural expressions
- Week 2: Announcement of Assignment & Lichchhavi palaces / temples/ Chaityas
- Week 3: Meeting on Assignment (Disaster preparedness, response and management
Field Works
- Week 4: Architectural Developments in the Malla period
Palace architecture of the Mallas
- Week 5: Details of Patan Durbar.
Field Assignment to be completed.
- Week 6: Temples.
Temples.
- Week 7: House-forms.
Stupas and Monasteries.4 & 8 Falgun
- Week 8: Proportions/Symbolism in Nepali architecture.
Assignments to be announced
- Week 9: Hindu/Buddhist architectural harmony
Fieldwork
- Week 10: Developments outside Kathmandu valley (Lumbini/Tilaurakot) +New Assignment
Bricks and brickwork/wood works and carvings
Fieldwork
Submit Assignment
- Week 11: Shah palaces/ temples/Rana palaces
- Week 12: Assignment works
- Week 13: Assignment
- Week 14: Assignment
- Week 15: **Marking/Closing**

WEEK ONE: LECTURE ONE PART ONE

INTRODUCTION TO THE COURSE: OVERVIEW OF THE SYLLABUS
NO LECTURE NOTES WILL BE HANDED OUT THIS SEMESTER !

PROPOSED TEXTS:

SANDAY, J.: MONUMENTS OF THE KATHMANDU VALLEY
KORN, W.: TRADITIONAL ARCHITECTURE OF THE KATHMANDU VALLEY
TIWARI, S.: TIERED TEMPLES OF NEPAL
BANERJEE, N. R.: NEPALESE ARCHITECTURE

REFERENCES:

SLUSSER, M.: NEPAL MANDALA
WEISNER, U.: NEPALESE TEMPLE ARCHITECTURE
BERNIER, R.M.: THE NEPALESE PAGODA

WEEK ONE: LECTURE ONE PART TWO

Introduction to History of Nepal

PROTO-HISTORIC PERIOD/LEGENDERY REFERENCES : PURANAS AND THE GOPALS

Svayambhu purana: Bipaswi Buddha/ Manjushree : Manjupattan > King Dharmakar > Dharmapal > Sudhanwa:
Shankashya

Gopalvamsavali: Vhringareswor, Pashupatinath: 'Ne' muni at Teku.

PRE-HISTORIC PERIOD

First Gupta lineage:

Gopals:

King Bhumigupta > 8th King Jingupta (Jisnugupta) > 505 years, 3 months

Mahisapalas:

King Birsingh (3 coins) > 3rd King Bhuvansingh > 161 years, 2 months

KIRATS :

YALAM > 31st King GASTI > 1581(700) years >

14th King Thungko:Ashokan period ?

A COUNTRY AT THE CULTURAL CROSS-ROADS ?

RELIGIOUS, SOCIAL, CULTURAL SETTING

HISTORIC PERIODS: LICHCHHAVIS (2ND CENT-) 5TH -9TH CENTURY AD

Nimish> **1st king Shupuspadev** > **25th king Jayavarma** > **41 st king Manadeva** > **Amshuverma (605-621 AD)** > **56th Narendradev** > **58th Jayadev II (reign end 733 ?)**

Thakuris ? : last king Vaskerde/ Jayakamadev/Vijayadev (AD 955 ?)

THAKURI - (DARK PERIOD ?) 9TH-12TH

MALLAS 12TH-18TH CENTURY

SHAHS 18TH - (RANA SUB-PERIOD 1846-1950)

Lecture 2

Kirat period

culture/religion and possible architectural expressions

Chronicles, legends all suggest early ruling houses came to Kathmandu from outside valley

Kirats: >>came into valley through Lele /Bagmati ?
>>came valley from Tibetan sides: Magar, Gurung, Rai, Limbu
>>Aboriginal : Early Newars ?

Lichchhavis : From South of Nepal ? difficulty of linkage

Nagas: original pastoral tribe >> Gopals & Mahispal gentes

> The Seven daughter gentes : Satungal, Boshingau,
Machchhegau, Taukhel, Kirtipur, Lohankot, Nagau (Panga)
>>Gwas, Hales, Jatra of Satgau > Central place Balkhu
>>Podes as husbands/guardians of goddesses !

KIRATS:

Pastoral/Agro forestry based economy

Socio-religious cultural state : Ancestral worship :

Yumi(Ajima: grandmother)
Theba (Hathvan > Bhairab : Ajju: Grandfather)
Akash Vairab > Yalamber Hang > Yala
Pachali Vairab > Pabbi > Phalapringa
>> Phalic Worship

* Hilltop settlements: Nagarjun > Manichur > Fulchoki > Champadevi

* Inside valley hillocks: Phalapringa
Mashapringa
Lohpringa
Khopringa etc.

*The Kirat Temple?

* Archeological finds at Hadigaon- what can we say about architecture before the Lichchhavi?

*Devakula, Dyoche, Pithugvora etc.

Matindevakula and brickworks/woodworks

Typical Dyoche

*Palaces at Godavari, Pulchowk (Kadapringga), Gokarna, Sankhamul (Patukodon)

*Sites venerated by Kirats: Patukodon
Siddhilaxmi at Tyagal
Tikhel (SW Patan)

LECTURE 3 & 4

Lichchhavi Sites and architectural expressions:

Changu >> credence to chronicles about Char-narayan predating Manadeva(+ Indradaha, Anantalingeswor, Icangu) (Changu, Ichangu, Bishankhu and Shikhanarayan)

>> Self created : Single stone base of Changu ?

Settlements:

For defence

For customs collection 'Vishamvhara= Varabisrawanasthal /trading outpost

('more traders than farmers', 'drama, music, fetes')

Lichchhavi towns: Capital towns and Temple centric towns: highway linkage:

maharathya, hastimarga, marga, sulpamarga, brihatali, ali etc.

- Character

-Kanko-Vilva marga / Kampro-Yambi marga

Daxinakoli gram, Yupa gram, Maneswor, Tamrakuttasala etc.

-Temples, Siva lingas, Vishu images (Tribikrams)

Dolashikhara swami, Kailasesor, Manesora, Narasimha deva, Ramesora, Pashupati,

Hamsagriha deva, Dharamanesora, Vagvatiparadeva etc.

- forms

-Matindevakula (= matrina/matara : Swothanarayan ?)

-Monasteries, Chaityas

> Jivaverma vihara/Arjika vihara

> Gum vihara, Sriraja vihara, Sivadeva vihara, Mana vihara etc.

> Chaityas

-Palaces

-Water conduits

Lichchhavi palaces / temples/ Chaityas

Lichchhavi towns: **Temple Centric:** core of temple, tax collectorate, stone water conduits

Bringaragrama: Sunakothi, Jamayambigrama: Jemalesor + Akashvairab

Lembatidrangga: Lele, Matinggrama: Matrika

Teggwala grama: Tegwalanarayana etc.

Capital town: Palace Centric:

Palace, gates as tax collectorate, water conduits

> no external square

> vedic layout ?

Ex. Hadigaon, Maneswor, Deupatan

Lichchhavi Palace: Daxinarajakula: South of Bagmati?

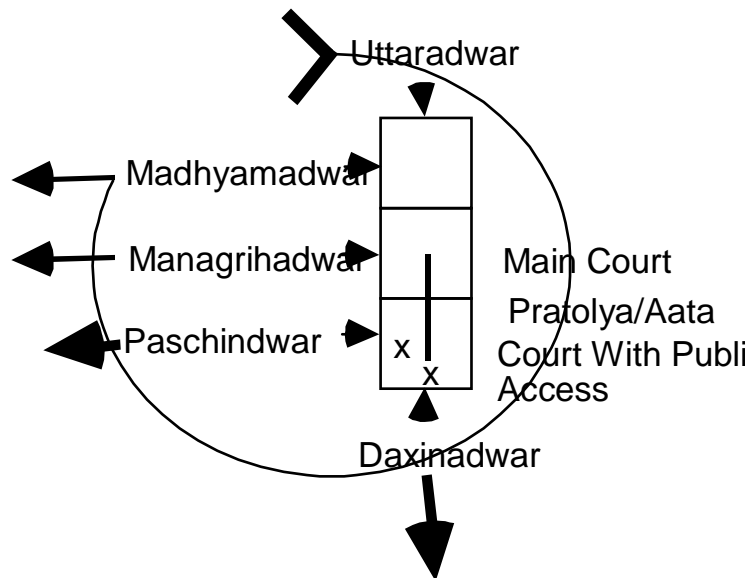
Managriha: about (SE of) Manamanesori at Hadigaon

> single fore-court ? East/west/south gate

Entrance Hall

Kailashkutbhavana

> in three terraces/courts > probably extending N-S-



Built and inaugurated about 598 AD

in the middle of the palace tower of Seven Storeys > copper tiles > inlay stones on balustrades, grills, columns and beams > 10,000 men in upper floor > Copper water pipes and golden makaras >> **TANG ANNALS** >>

INSCRIPTIONS > Above + Paniyakarmantika

>> White earth from Khopasi > brickwork/plastered/inlaid and whitewashed ?

Temples:

Using Bricks in temples: fairly advanced ?

>>use of copper/clay tiles/bricks >> Tiered style may have existed already

>> **Matindvakula** >> Matrika temple >> wood/brick

>>**Satyanarayana Excavations:** Foundation for square temple

>> East entrance, plinth level circumambulatory ?

>> Squareform >> Orientation ? >> (AD_BC)

>> plinth wood band/wooden pillars/single roof

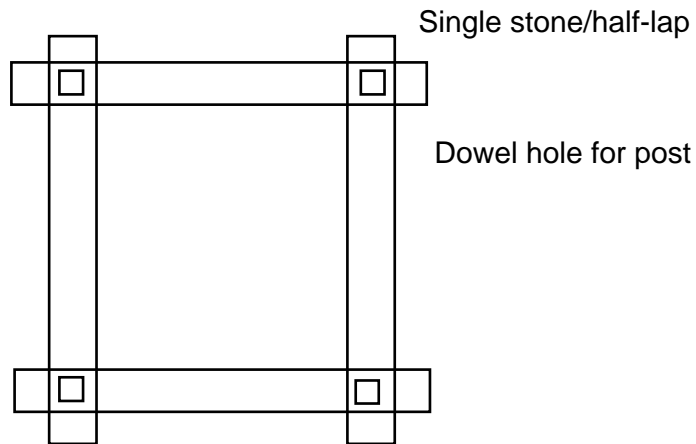
Mini Temples in Stone: Guptan ?

Laxibatkar-itwa-bhawanam : for Tribikram

Srimat-Samsthana-rupam-bhawanam: for Kshemasundari linga

>> **Earliest forms** >> **Pashupatinath/Hadigaon/Lele**

>> **plinth stone band** / single stone/ 'wooden joints' >> similar lintel



>> **Short posts** >> **Single stone cut roof slab** >> **Usually with Sivalinga**

>> **Other developed form** >> **Pashupatinath (NW corner)** >> Origins of the shikhara style in Nepal

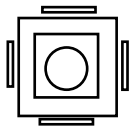
Sculptures in stone: Technological characteristic : metallic polish (like steel)

>> **Licchavi Chaitya**

Temple structure: similar ? (Chardhunge) >> **Jibavarma Bihara** >> **Amarbana**

Base square /usually two tiers/ 'with four gateways' in each level

/hemispherical dome/ht 2-3 ft/ polish/'gateway' decor/Chattri ?



Week 4: Lecture 4: Architectural Developments in the Malla period

GROUP ASSIGNMENTS:

- Students will form into eight groups of five/six/seven students
- Each group will prepare an inventory of public or private traditional elements, buildings or cultural artifact and streetscape drawing of one side of an allocated street
- Reconstruct the elevation of the street as it may have been twentyfive years ago
- Make a suggested elevation improvement scheme for the side you have studied.

TOPIC FOR GROUP ASSIGNMENT FOR THIS YEAR : REFER MAP **INVENTORY OF ELEMENTS OF HERITAGE SIGNIFICANCE OF A FESTIVE STREET AND DRAWING OF A STREETScape.**

THE INVENTORY IS FOR RECOVERY IN CASE OF EMERGENCY. The street scape study would be applied to suggest streetscape improvements in planned conservation activity.

Compilation of drawings and description. (+ Photographic recording) etc.

FOLLOW-UP LICHCHHAVI:

Building Types:

Temples

Chaityas

Palaces

Viharas

USE OF TIMBER & BRICKS FIRST !

GUPTAN/KUSAN INFLUENCE IN ART FORM/USE OF STONE ?

WOODEN CARVED WINDOWS WERE ALREADY IN VOGUE

MAY BE LARGER TEMPLES EXISTED ! TIERED STRUCTURES POSSIBLE !

** CONSTRUCTION OF PASHUPATINATH TEMPLE ? SUPUSHPA DEV ?

RECONSTRUCTION: NEPAL SAMBAT:

PASHUPATI BHATTARAKA SAMBATSARA >>> 879 AD

* **political instability following Sivadeva II: 8-10th century:**

Thakuri rule

Lineage of Amshuverma (till 1082 ad ?)

Nuwakot Lineage (till 1200 ad)

> Malla rule (Ari Malla >>>)

> Ananda Malla >>> replans Bhaktapur ? ADDS SEVEN SATELLITE TOWNS

Karnataka dynasty/Nanyadeva at Simraongarh> 1324ad > Harisimhadev > Rajalladevi+Mallas

>>> Shamsuddin Ilyas 1349 AD

> **Jayasthiti Malla (1382-1395 AD) >> Bhaktapur**

>>> **1390 AD KUMBHESWOR ?**

> **Yakshamalla (1428-1480 AD) >>> valley divisions**

>>> **YAKSHESWOR MAHADEV**

> **intrigues/conflicts >> Shahs 1768 AD**

SOCIO-CULTURAL SETTING

RELIGIOUS SETTING

MATERIALS

CLIMATE

>> ARCHITECTURAL DEVELOPMENT

Week 5: Lecture: 5 Palace architecture of the Mallas

Antecedents of the plan form:

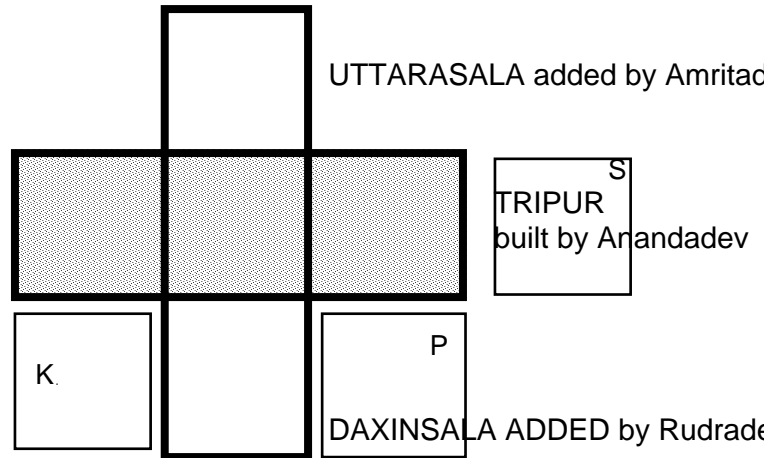
Vedic/Lichchhavi palaces with several courts: usual range 3-7 courts

*seperate quarters for princes, queen, temples, audience area, state meetings, bath houses, Inner court (private meeting hall. Antapur "Anarasan"), etc.

*King Harsa (Amshuverma's contemporary) had a palace with three courts with main building called Dhawalgriha and has such facilities as garden, exercising area, bath house, temple, Toyakarmanta (water tank ?), Mahanasa (Kitchen), Aharamandap (dining hall) etc.

*Kailashkut bhawan had three courts

*Early Malla palace : Tripur (three courts) Anandadev (NS 267- 312)- 12th century



TRIPUR 1150 AD ca >>> PANCHAPUR 1205 AD ca (AT BHAKTAPUR)

* Durbar and Taleju temple: Harisimhadeva in Bhaktapur

* Durbar and the durbar square

* Durbar as groups of courtyard buildings with temples

* 170 years ago Hanuman Dhoka palace had 35 courts (at the beginning of Rana time)

* earliest structure Tanadewal

* Hitichowk ?

*Ratna Malla's Taleju later replaced by the current temple in Mahendra Malla in 1563

AD ca, Mahendreswor temple

*Mulchowk: 1564 AD

*Pratap Malla adds Mohan Chowk in 1649 AD - also the adjacent Sundari Chowk (1651 AD), Nasal Chowk, Bhandarkhal etc.

*Prithvinarayan Shah adds Basantpur durbar 1769 AD: Four **towers** over corners of Lohan Chowk

*Gaddi Baithak 1908.

*****Traditional, Muslim, Neo-classical (Post-Victorian)**

* 99 courts in Bhaktapur palace ?

* 12 courtyards in 1742 AD -today 6 left (1934 earthquake)

*First Malla palace at Bhaktapur

*Taleju temple : Mulchowk: 1324 AD

*Bhairab Chowk: prior to 1580 AD

*Nagpokhari : 1620s ?

*55-windowed palace 1697 AD

* No temple over other buildings or temple towers

Week Six: Lecture Six

Palace of Patan: Details of Palace Architecture

*** Built between 1620-1684 AD**

Architectural form: Location, Entrance and Orientation
No axuality. Geometric planning in layout ?
Relation with residential architecture
Gate and falecha
Square courts
 -spaces for living
 -spaces for worship (Mul chowk/Taleju/Degutale)
 -spaces for defence (Chaukhat: Kwatha: Kot)
 - spaces for bathing (ponds/stone conduits)
 - spaces for garden (Bhandarkhal : flowers for worship)
Courtyards with interlinking doors
Towers and temples

Courtyards: Single bay construction
Dalan
Door and torana
Windows: Sanjhyal, Gaajhyal, Vimanjhyal, Tikijhyal, kujhyal,
Kajhyal, Pashukhajhyal
Roof projection and strutting
Balconied walkways
Facade and treatment
Construction methods and Materials
brick, timber, mud floor, jhingati roof

Layout

Week 7: Lecture 7 Temples.

Temple Building from Lichchhavi times :

* Square form in plan

* Four corner pillars with single stone slab roof

> later closed Sanctum with one, three or four doorways

> plinth raised to about 2'6" to enable worship from outside : external circumambulatory.

> corbelled pyramidal roofing ?

> No portico or mandapa in front

* Brick and Timber temple : may have been tiered

> sited on stone or stone plinth band

> copper/tile roof

> Jhingatis with holes for nailing have been found

> Inscriptions mention copper roofs

> also square in plan form : cf./ex. temple foundation from Hadigaon

> **Pashupatinath (2/3 rd century AD ? 5 tiered)**

> rebuilt in 879 AD ?

> Gunkamadev renovated it (12th century)

(Malla Period)

> Ananta Malla guilded the roof (1307 AD)

> Mahendra Malla made/rebuilt it three tiered 1572 ca

> reduced to two tiers in later Malla period 1600s

> **current form 1702 AD/Bhupalendra Malla**

>> **Changunarayan: (current form 1694 AD/Bhupalendra Malla)**

Taleju temple Bhadgaon: residential courtyard format / Bahal format ? 1324 AD

Kumbheswor Temple Patan: ca 1390 AD (two tiered) : **Jayasthiti Malla**

Srinivas Malla (1670s) adds three tiers

Minnath Patan: ca 1450 AD **Yakshya Malla**

Yakshesor Mahadev: ca 1440s AD >> Datatraya temple

Mahendra Malla : Taleju Kathmandu >> 1564 AD ca

Charnarayan Patan: 1566 AD

Pratap Malla: Degutale (renovated ?)- 1660s AD

Siddhinarashimha Malla : Krishna Temple 1630s AD

Two stylistic groups : Stone group : Shikhara style

Brick group : Tiered style

Typologies:

Shikhara style : medium/low plinth

multi-level with repeated kiosks

(also done in brick >> Jaggannath of Bhaktapur)

Tiered style : medium to low plinth > square

: high plinth > rectangular > sanctum upper level

: over palace buildings > (round/octagonal : late)

Plan Types : with wall on one side, wall on three sides, one doorway, three doorways,
four doorways

two telescopic walls with doorways > internal circumambulatory

ext collanade and garvagriha walled

No. of Tiers : one, two, three, four, five

Plinth tiers: one, three, five, nine

Ritual Temple: cavern/three axes/circumambulation/ (water)

- >> ritual requirement
- >> plan proportioning
- >> elevational proportioning

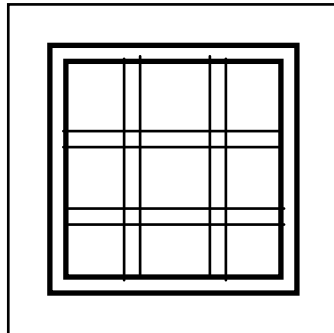
Week 7: Lecture 8

CONSTRUCTION MATERIALS AND TECHNOLOGY / TEMPLES.

The tradition of Conservation/reconstruction : "recreating as in the past"

Construction Technology >>

Foundation: temple platform itself forms the foundation/ walls rise on stone plinth beam that is placed all around or all over except at the corners of the square. Plinth in brickwork with stone trimmings



Platform division

Butt joints /No tothing

walls : brick in mud-mortar with glazed facing bricks, double leaf construction but facing layer non-load bearing, Load bearing layer tied together with horizontal (ties at nagpasa, entablatures) and vertical timber elements(posts at door openings/corners).

wall thickness 70 cm or more

string courses at base, over door lintels , mid way through the wall (nagpasa) etc. Decorative / formed bricks and carved timber (brick + timber) tied back to load bearing structure.

cornice

Corner detail of cornice

Collonaded plan:

Timber columns (Tham, normally square base with numerous mouldings/ square/ cylindrical shafts), brackets (Metha + **bagahmetha**),

beam (Ninah)

base stone: base timber: Lakasi

Roofing: rafters in fan pattern / tile or timber slats/ mud/ jhingati

hip edges special tiles/stacked /end raised tiles

wall plates regular/hanging over corbels

eaves beam + eaves board

struts bird-mouthing/ carving (in three parts top leaves+ central diety + erotic/other base animal etc. decor)

bottom

Wedges Spacing and tieing to adjacent elements

Top roof main rafters along hip edges, also fanning rafters, king posts/ finial

structural and decorative use of both brick and wood in wall construction

Making "Telia" Bricks :

- >>soil from 2m below ground/ Kalimati ++/greyish preferred
- >> timber mould larger than required brick size allows about 10% shrinkage
- > turned out and left to dry in shade for a day
- > squared and flattened with mallet, then trimmed with Chupi and made into sharp straight edges, wedged and exposing surface whetted , dry in shade for 8-10 days
- >>special slip clay / Hadigaon/ keeping under paddy straw in the monsoon , red fungus dust washed into clay >> store in damp godown to mature for 10 years !
- >> clay slurry applied to required face and burnished with stone > further drying
- the longer the better
- >> firing in clamp kiln / straw, coal, wood and bricks stored together and burnt several times
- >> Teliya bricks: durable, natural hues, water resistant

shifting walls

- >> sets of timber beams in both directions to transfer load of upper inner wall to outer wall below

doorways : structural posts and lintels
lintel extension and side details
lintol sets for opening
torana (decorative)
Triple doorways

Wood Carvings : posts, doors, entablatures, windows, struts

Metal roof: copper sheets on timber boarding with jointing beads, raised joints and joint end covers, hip edge sheeting

usual wood : Sal for structures, chap for carved non-structural elements

Week 8: Lecture 9
16th Dec, Tuesday: House-forms.

Plan type and location in town

Cuka, Nani, Yakahche,

Cukache: Courtyard for a clan / different families (related) making up the sides, access from under one of the houses on the main street

Courtyard function: play, washing, grain working, sitting, sunning

Nanis

Pikhache: Street side house, **Yakache:** Isolated house etc. (**Ikha** > rectangle)

Vertical layout : **Chedi, Mata, Cvata, Baigah**

Gr floor > shop front /work shop / agri. waste store/ domestic animals : dampness

Use of first, second and attic floors

Sanjhya

Joining together : Uniform depth =~ 6m : Varying width 4-15m sometimes even more

Two and a half, three and a half, four and a half floors

Construction:

Uniform architecture > triple wall / central bay post/lintel

Uniform skyline

Foundation, wall, middle wall, floor, roof, window, staircase

Difference in status through finish of facade : Elevation treatment

Regular door/window layout / odd numbers / symmetry: central window: San Jhyal

No heating : Just the makal

No toilets > outside location : common to clan or others > **khikhamugah**

Sagah: waste court/ compost well

Pattern Books: Interpreted vastu-sastra

Decor: cornices, door/window carvings, mikha-fusi over windows, struts under sanjhal , sanjhyal etc.

Week 8: Lecture 10

19th Dec, Friday: Stupas and Monasteries

Stupas:

Stupas and Chaityas >>> Saririka Stupa, Paribhogika Stupa, Uddesika Chaityas

All the so called 'stupas' of Kathmandu valley are Uddesika Chaityas

Comparative forms : stupas and chaityas

Stupas of Tilaurakot

Lichchhavi Chaityas >> 'base storeys' +

Stupas of Patan >> Kirat funerary mounds ? (>> West and South)

Earliest stupa might be : **Stupa at Deupatan** (Arjika Bihara of Lichchhavi days)

Stupa at Bauddha

Stupa at Svayambhu

(Kirtipur, Kathesimbhu, etc.)

Details with reference to Svayambhu :

Circumambulatory

Base

Hemisphere: garba >> **Hiranyagarba**

Hermika >> with eyes >> representing

13- tiers >> stages to Nirvana

Finial >> chata >> cover

Yupa >> Earth tree

Bajra

Week 9 : Lecture 11
23 December: Tuesday

Construction of chaityas:

- brick core with paster (lime-stabilized mud ?) and lime white-wash
- svayambhu- tiers: timber framing with gilded copper sheets
- boudda and chabel stupa- tiers brick with plaster and lime white-wash

Pre-Ashokan stupa at Tilaurakot: brick core, very shallow in proportions !

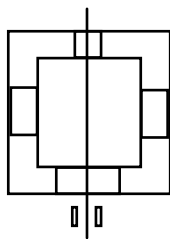
Monasteries: Bahals: Baha(l)/Bahi(l)

Lichchhavi Vihara >> celebrate >> out of town (only two in town : Arjika Vihara, Jibabarma Vihara both on edge.)
 No Viharas in Patan (Yupagrama) before 12th century ?

Baha > In town vihara >> probably non-celebate since start

Bahi > Out of town vihara >> probably celebate in very early days >> now non-celebate

Basic Format:



Kwah-pah-dyo + Agam above

* Kwah-pah-dyo : kostha-pala-deva : Non-tantrik: Variable

* Agam deity tantrik : Herukachakrasamvara -Vajravaraahi or Hebajra-Nairatma

* Torana: central imagery >>> Triple image >>> Buddha (Aksobhya), Dharma (Prajnyaparamita) and Sangha (Lokesvara or Avalokitesora) >>> Kathmandu: Namasangiti

* Mahakal at entrance >> ksetrapal inside
 chaitya and dharmadhatu mandala in courtyard

Pintu Bahil

Chhusya Bahal

Lions/Lioness

Dalans and Kwapadyo

Main shrine and Agam room

Courtyard with chaityas > Chibahs

Wood carvings & other construction methods

Bahals of Patan:

The seven elders /pradhans of Patan>>> Ruling federation prior to Siddhinarasimha Malla

1. Head of Tangala vihara >> Tangal/Minnath area
2. Head of Tava vihara >> Matsendranath area
3. Eldest of the heads of : Vishnuksa vihara
Onkuli vihara >>> Uku baha tole
Gvakse vihara / Guji vihara >> Guji baha >> Calachen Tole
Sako vihara > saga baha ?
Yanchu vihara > Yachu tole
4. Head of Hakva vihara >>> Ha baha tole
5. Head of Hiranyavarna vihara >> Kwalakhu
6. Head of Jasodhara vihara >>Chysal ??
7. Head of Datta vihara >> Guita ??

Hiranya Varna Mahabihar

Most decorated and famous bahal: possibly **NS 165 ca: Vaskara Verma** >> gajura offered on NS 519 and several inscriptions from then on.

Stone lions and stone facade with stone torana on the entrance

Second stone archway inside.

Imposing kwapa-dyo shrine >>> triple gilded roofs over agam room

cast metal lions at entrance

gilt repousse work doorway and silver torana

Kwapa-dyo: Aksobhya

Pashukha jhya (5 bay small windows) in gilt

Cast struts, finials, umbrellas, struts under second roof closed with screen

bells and eaves border, birds, bodhisattwa faces on rib ends.

The chaitya also housed inside a gilded shrine >> Lichchhavi Chaitya >> may belong to transition period

Dharmadhatu mandala and bajra

Upper floor/North-wing Tibetan style prayer room

Central west>> Agam with Yogambara

Sanghas >> Sakyas & Bajracharyas

WEEK 9: LECTURE 12

Dec 26: Friday

Lecture: PROPORTIONS AND SYMBOLISM IN NEPALESE ARCHITECTURE

Proportioning of Temples

Plan proportioning and reducing cores/projecting roofs

Elevational proportioning

Symmetry

(Tiered Temples)

Plan proportioning and dimensions

Elevational proportioning

(Patan Durbar : Prof. Sekler & Tiwari/Bioness; Gutschow: Gorkha Durbar)

Symbolism > towns > Temples > Palaces

Symbolism of square and circle

Cosmic representation / ritual structure

The cave and the mountain in the lake (Kailash /Mansarovar)

Cardinality and axuality

Symbolism > Stupa

Week 9: Lecture 13

Feb. 2, Friday

Hindu / Buddhist Architectural Harmony

Religious history of Nepal >> started with Brahmanical Hinduism ?

Vishnu, Siva and Kali >> Tantrik influences 8th cent. AD

Buddhism > Birthplace >> Mahayana

2nd cent AD..7th cent AD (Yaksha from Hadigaon ... chaityas)

>> Dhyani Buddhas >> multiplication of deities >> incorporation of

Ganesha, Bhairava, Saraswoti and development of parallels:

Durga > Tara, Laxmi > Vasudhara

Tantra in Buddhism >> Bajrayana >>

.... Tantric influence on both the religions

[Religious infighting 9-11 th century ???]

.... **End of celebrate monasticism >> multiplicity of deities**

Viharas >> Bahals

Urbanization of religion ?

.... Buddha as an avatara of Vishnu >> incorporation into Hinduism

....Festivities and socio-economic cohesion

....Jayasthiti Malla's wide division of labour >> 84 sub-castes (H+B)

....**Religious Harmony**

...Community life >> Limitation of secrecy to the highest priestly order in both the religious >> Openness in other occasions

>> GAJUR and CHAITYA: parallel Symbolism

Harmony in Siting >> Dhungedharas >> Siva Lingas and Chaityas

>> Ghats

>> Temple and stupa together (Svayambhu)

Same temple with same image >> parallel gods to H & B >> **Sitala/Harati or**

Matsendranath/Avalokitesor or Adinath/Avalokitesor etc.

Use of the same/similar mandalas following Tantric influence to both

Use of similar temple form >> similar design scheme

Similar construction/ materials >> urban harmony

Same craftsmen!

Assignments:

Lichchhavi temples(301) > Ananda Niketan > Bells in Nepalese architecture
Lichchhavi chaityas(302) > Trichandra College > Lions & other guardians of monuments
Tiered Temples (303) > Pujarimath of Bhaktapur > Bricks in nepalese architecture
Shikhara Temples of Patan (304) > Nyatapola > Wooden Columns at Patan Durbar
Shikhara Temples of Bhaktapur (305) > 55-windowed palace > Struts in temples
Malla Palace architecture (306)+2 > Chysilinmandap > Architecture of the Wells
Stupas of Patan(307) > Patan Durbar: Mulchowk > Use of stone in tiered temples
Chibahas (308) > Krishna Mandir > Architecture of Stone water conduits
Monasteries of Patan (309) > Svayambhu Stupa > Courtyard house architecture
Windows in Nepalese architecture (311) > Kasthamandap > Pati
Rana Palaces (312) > Temple of Pashupatinath > Sattal

Week 10: Lecture 14

Feb 10

Developments outside Kathmandu Valley

Some ancient sites from Tarai

**800-200 BC > Tilaurakot /Kapilvastu towns > Sakya Capital > on the Banks of Vanganga river
about 3 miles long**

Palace area > three periods > earlier ones mud based architecture > last phase 250 -150 BC Kiln fired
bricks

Occupied about 800 BC > 800 - 300 BC first phase

200-100 BC Sunga phase

100-200 AD Kushan phase

East gate/ stupa outside the gate (round and low rise)

Apsidal stupa

Defence walls

Western gateway complex: wide roads with cart track impressions, moat, three periods of defence walls

Northern twin stupas (52' and 22' dia) > enlarged about 200 BC

Ring-wells (terracotta and brick)

Central structure of bricks. Small rooms

Lumbini > pillar and excavated temple foundations

Sagarahawa > stupas > 6-5th century BC

Bhediari > Morang

Sunga period town (200- 100 BC)

temple on 49' x 43' platform 7'high with stepped approach from south 23' x 11' apsidal garbagriha facing
east > brick

Kichakbadh > Mechi

Simaraongarha > Nanyadev 1097 AD

walled enclosure, temples, gateways

images and sculptures

Gadhi of Makwanpur > Sen period > about the same time as Simaraongarha

Janakpur > Janaki temple in Rajasthani style > 200 years old ?

Villages today > Marfa in Mustang
> Budbudi in Surkhet
> Kotgaon (Ghandrung)
> Chainpur

Week 10 Lecture 15
 March 18

Bricks and brickwork/wood works and carvings

Bricks and Brickwork

Use: walling and wall detailing

Types: by manufacturing process > Sundried, fired
 by finish > ordinary (apa), telia (maapa), patterned (Baapa), datiapa
 (conical brick)

Mortar: Sealant (Silay: resin, oil, cotton, colour)

 Yellow clay (for maapa/baapa)

 Ordinary clay for brick-bats and sundried bricks

Construction: Innerleaf sundried, infill brick bats in the middle and datiapa on outerleaf

Brick-making: **Making "Telia" Bricks :**

>>soil from 2m below ground/ Kalimati ++/greyish preferred

>> seasoning for a few days in pits

>> timber mould larger than required brick size allows about 10% shrinkage

> turned out and left to dry in shade for a day

> squared and flattened with mallet, then trimmed with Chupi and made into sharp straight

edges, wedged and exposing surface whetted , dry in shade for 8-10 days

>>special slip clay / Hadigaon/ keeping under paddy straw in the monsoon , red fungus

dust washed into clay >> store in damp godown to mature for 10 years !

>> clay slurry applied to required face and burnished with stone > further drying
 - the longer the better

>> firing in clamp kiln / straw, coal, wood and bricks stored together and burnt several
 times

>> Telia bricks: durable, natural hues, water resistant

Special moulded bricks: corner bricks for temple

 Cornice bricks for door /window

 moulded bricks for brick temples

 floral designs

 artistic decorative elements /religious motif

Wood and woodwork: Structural use: posts, beams, rafters, struts, brick dividers

 Artistic use: outer door/ window, struts, torana

 Window making > inner frame and outer window

 Tiki jhyal > cut strips carved latticed and held by stiles

 component parts assembled

Door: inner jambs and head, decorative outer set/ several jambs

plain shutters: residences, decorative shutters for temple/monasteries

extended lintel and brackets

Pillars/posts: brackets

Entablature (wood or brick or mixed)

Struts

Torana: over door, window, dalan> pieces joined together by wedges at back

Wall bands

lecture 16: Shah developments

Nasal Chowk becomes Coronation Court : Basantpur Durbar in Malla style but proportionately larger (southwing renovated) with widening of Basantpur square.

Lohan Chowk (Basantpur chowk) addition of the four pavilions :

Prithvinarayan Shah

Pratapsingh Shah

(i) Vilas Mandir (Lalitpur tower)SE-PNS

(ii) Basantpur tower SW-PNS

(iii) Kirtipur tower NW

(iv) Bhaktapur tower NE (nine storey)

West of Nasalchowk on street side: Rana style (South wing of Lamo Chowk)

(Gaddi Baithak Hall BS 1965)

Dakha chowk : Surendra Bikram and later

Siva-Parvati mandir: Rana Bahadur Shah

Prithvinarayan Shah's Nuwakot palace: 7 storied

North wing renovation (Sisa Baithak)- Rajendra Bikram

Dharahara and Baug Durbar: Bhimsen Thapa: 1826 AD

Influenced by Mughals > domes, arches, minarettes, plaster work
> formal garden in front

Rana Palaces: Post-Victorian (Neo-classical) simple to Baroque

Porticos and frontal symmetry

Column capitals > doric to Corinthian > sometimes screwed on cast iron

Plaster

Courtyards > garden with exotic trees

> Central porch and hall

Simha durbar > AD 1903 > Chandra Sumsher

> largest palace : 7 courtyards > 1700 rooms

> semi-baroque with simplification

> front garden

> axial to Dharahara

Thapathali durbar:1847 > Jung Bahadur

> extended from Bagmati to the highest point

behind Simha Mahal (Chandra Sumsher)

Narayan hiti Durbar: 1847

Bahadur Bhawan : 1889 > damaged by 1934 earthquake

Lal Durbar: 1890 > Parts of it in Yak and Yeti hotel

Seto Durbar: 1893 > Gate way still stands

Phohara Durbar: 1895 > Bir Sumsher

> garden and fountains

> entertainment center

> dismantled in late 1960s

Keshar Mahal: 1895

Singha Mahal:

Agni Bhawan : 1894

Sital Niwas: 1923

Ananda Niketan: 1893

After the Earthquake > Juddha Sadak - Naya Sadak > central place (with memorial, City hall and Nepal Bank Building - 1939)

Before the Earthquake > Chandra Sumsher > Rani pokhari place

Trichandra College: 1919

Clock Tower > Designed by Kumar/Kisore/ Narsingh Rana brothers > Anglo-Indian look
> square plan / octagonal cupola with lantern and four corner lanterns
> after 1934 > made more European through redesign > extant form

Bir Hospital

Military Hospital

Durbar School

Town Hall > south of Durbar school

> Bagmati riverside development > Teku to Sankhamul