

*Origins of Agriculture and Early Farming  
Communities (Neolithic Culture)*

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- Origins of Agriculture- Most significant event in the life of mankind**
- Gordon Childe- termed this as Neolithic Revolution- Changed life-style**
- Consequences- include settled way of life, craft production, change in social and economic organization, introduction of pottery, change in their tools, subsistence patterns, public architecture, etc.**
- Various theories such as Oasis by Childe or Climate change by Robert Braidwood**
- Most accepted Population Pressure by Ester Boserup and Mark Cohen.**
- Gordon Childe- Nuclear Zone and dispersal to different parts of the world**
- New Evidence suggests Multiple zones of Origins**
- In India- three possible sources- West Asian Influence, Indigenous development and East Asian (China) influence on Eastern India**
- Termed as Neolithic or Chalcolithic**
- Dates and material culture differ from region to region**
- Reconstruction of life-style based on data (artifacts and ecofacts) retrieved from exploration and excavation, application of various scientific aids, and the use of ethnographic data.**
- Ethnographic data is more significant as there are communities in India technologically living in different prehistoric levels**

**Climate** - stable climate since 9000 B. C. ,  
two major climatic systems, summer  
monsoon and winter cyclonic system

- vast alluvial plains and fertile piedmont  
areas, rich sea coast, deserts with mineral  
resources and grazing areas

- unique distribution of resources led to  
development of inter-regional trade  
networks, economic competition and more  
complex economic and political interaction

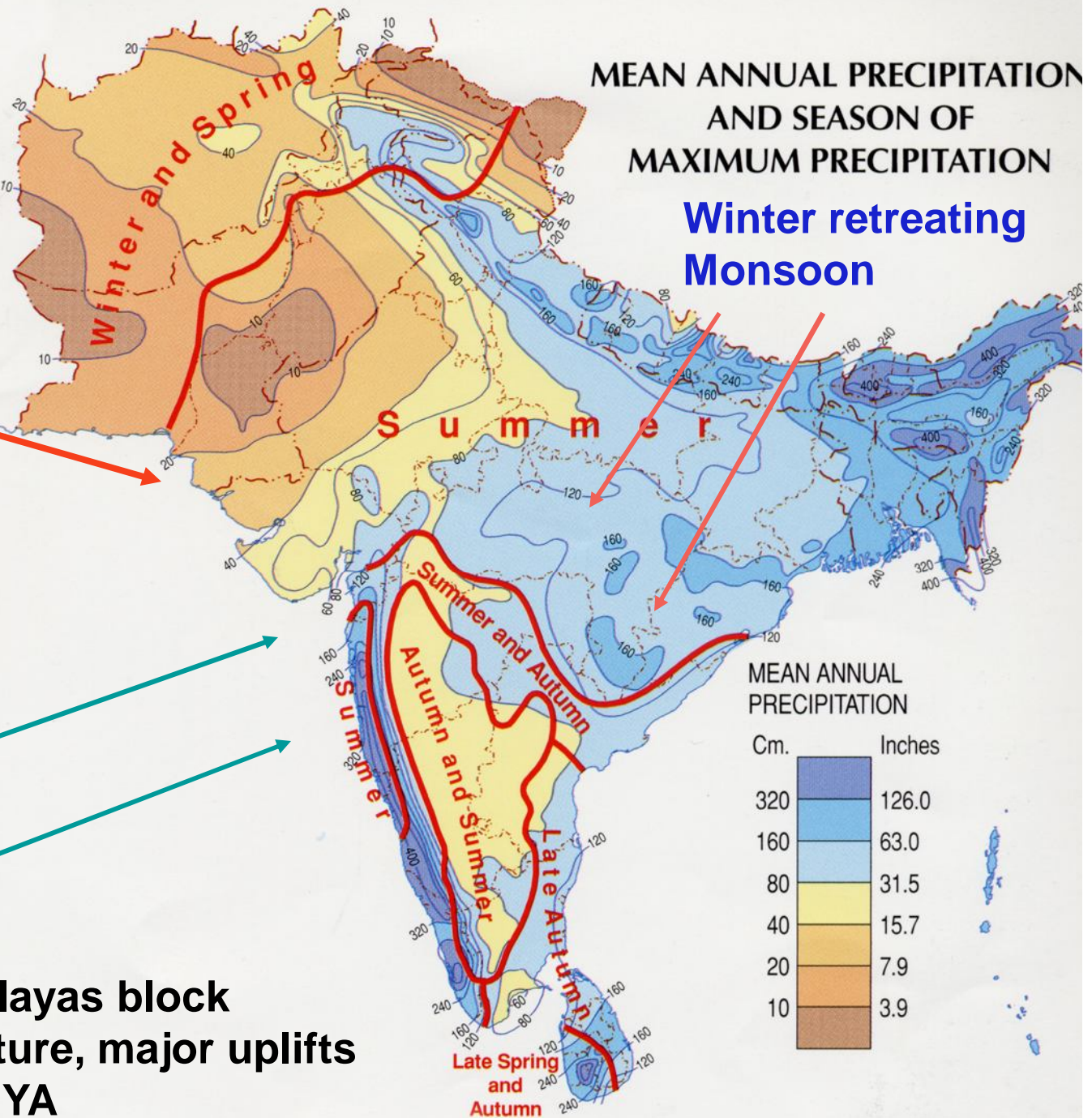
MEAN ANNUAL PRECIPITATION  
AND SEASON OF  
MAXIMUM PRECIPITATION

Winter retreating  
Monsoon

Weather  
Systems  
Winter  
cyclonic

and  
Summer  
monsoon

Himalayas block  
moisture, major uplifts  
4-2 MYA



# INDUS

# MESOPOTAMIA

# EGYPT

# CHINA

0 BCE  
500  
1000  
1500  
2000  
2500  
3000  
3500  
4000  
4500  
5000  
5500  
6000  
6500  
7000  
7500



Mauryan Empire  
Early Republics Monarchies  
**Localization Era**  
Late Harappan  
Harappan  
**Integration Era**  
Early Harappan  
Kot Diji, Amri  
Balakot  
Hakra/ Ravi  
**Regionalization Era**  
Merhgarh IIB  
Merhgarh IIA  
**Early Food Producing Era**  
Merhgarh IA  
Preceramic Neolithic



Old Babylonian Empire  
Akkadian Empire  
Early Dynastic I  
Jemdet Nasr  
Uruk  
Ubaid  
Preceramic Neolithic



New Kingdom  
Middle Kingdom  
Old Kingdom  
Early Dynastic  
Naqada III  
Naqada II  
Naqada I  
Amratian  
Badarian  
Early Fayum



Qin Empire  
Zhou  
Shang  
Sanxingdui  
Xia  
Longshan  
Yangshao  
Neolithic

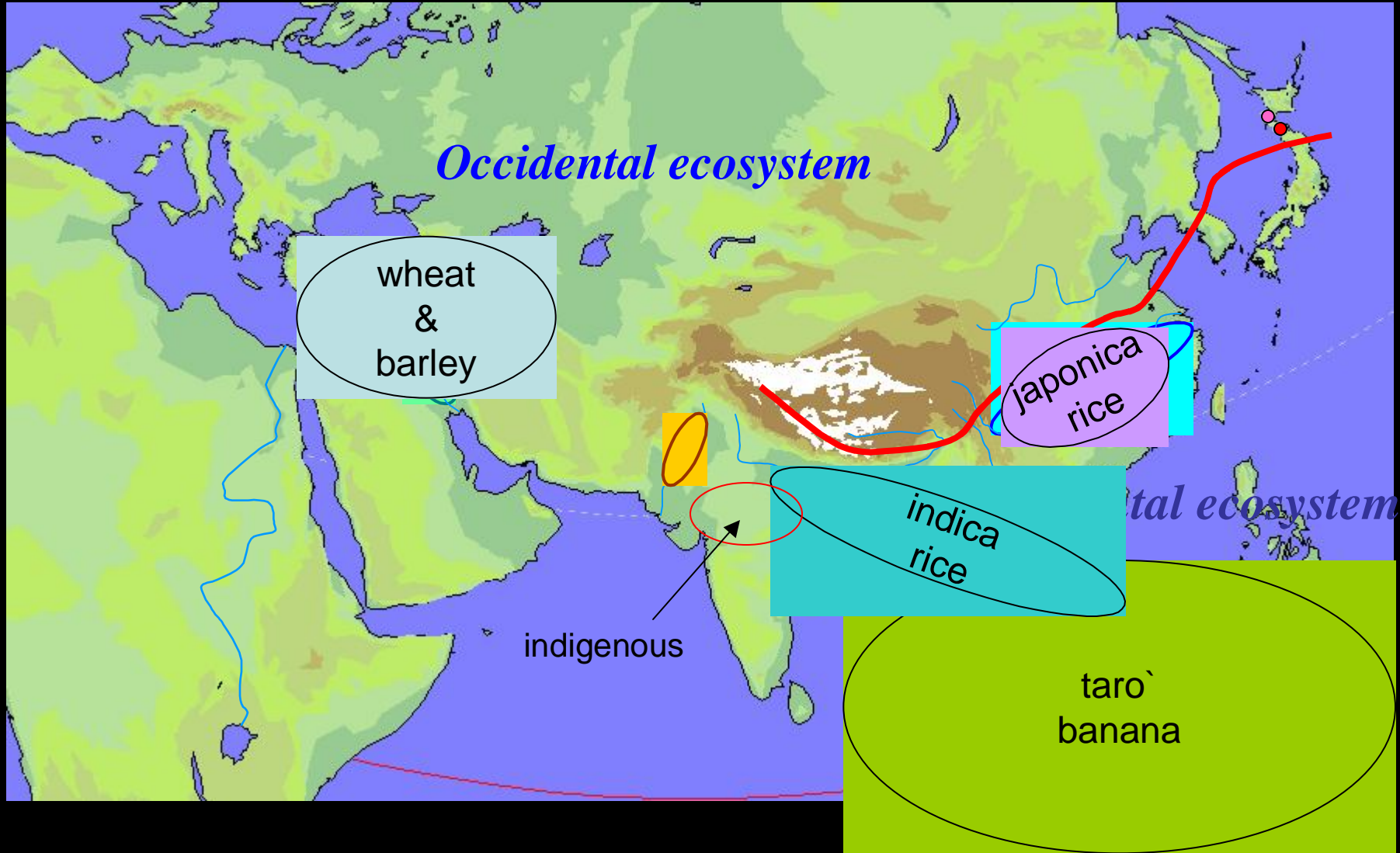
The origin and evolution of Neolithic and Chalcolithic cultures in South Asia shows four streams of cultural tradition spreading over a time frame of five thousand years between 7000 BC to 2000 BC.

Northwest  
Afghanistan  
at Mehrgarh  
around  
7000 BC  
showing  
West Asian  
influence.

Mid Ganga at Lahuradeva  
and Southeast Rajasthan  
at Bagor and Gilund  
around 4500 BC  
showing independent  
evolution.

South India around 3000-  
2500 BC showing both  
independent evolution and  
influence from the east,  
west and central India.

East and  
Northeast  
India with  
early dates  
going to 3000  
BC showing  
influence  
from possibly  
China.



## **Cultural processes-**

*gradual evolution, interaction, transaction, diffusion  
and migration*

led to the rise of 11 regional traditions  
identified by archaeologists  
within the Indian subcontinent  
during the Chalcolithic.



## They are:

- Neolithic of the northwest (Baluchistan and the adjoining regions), 7<sup>th</sup> millennium BC.
- Neolithic/Chalcolithic traditions of the Mid Ganga, east and northeastern India, 6<sup>th</sup>-3<sup>rd</sup> millennium BC.
- Padri and Prabhas Patan traditions of Saurashtra, 4<sup>th</sup> millennium BC.
- Anarta tradition of North Gujarat, 4<sup>th</sup> millennium BC.
- Ganeshwar and Jodhpura of northwest and western Rajasthan, 4<sup>th</sup> millennium BC.
- Ahar tradition of Mewar, 4<sup>th</sup> millennium BC.
- Kayatha and Malwa tradition of the Malwa plateau, 3<sup>rd</sup> millennium BC.
- Savalda and Jorwe tradition of the northern Deccan, 3<sup>rd</sup> millennium BC.
- Ochre Colour pottery/Copper Hoard tradition of north India, 3<sup>rd</sup> millennium BC.
- Neolithic tradition of south India, 3<sup>rd</sup>-2<sup>nd</sup> millennium BC.
- Narahan culture of eastern Uttar Pradesh, end of 2<sup>nd</sup> millennium BC.





## **Indus River Valley**

**- Pakistan, NW and Western India, Afghanistan**

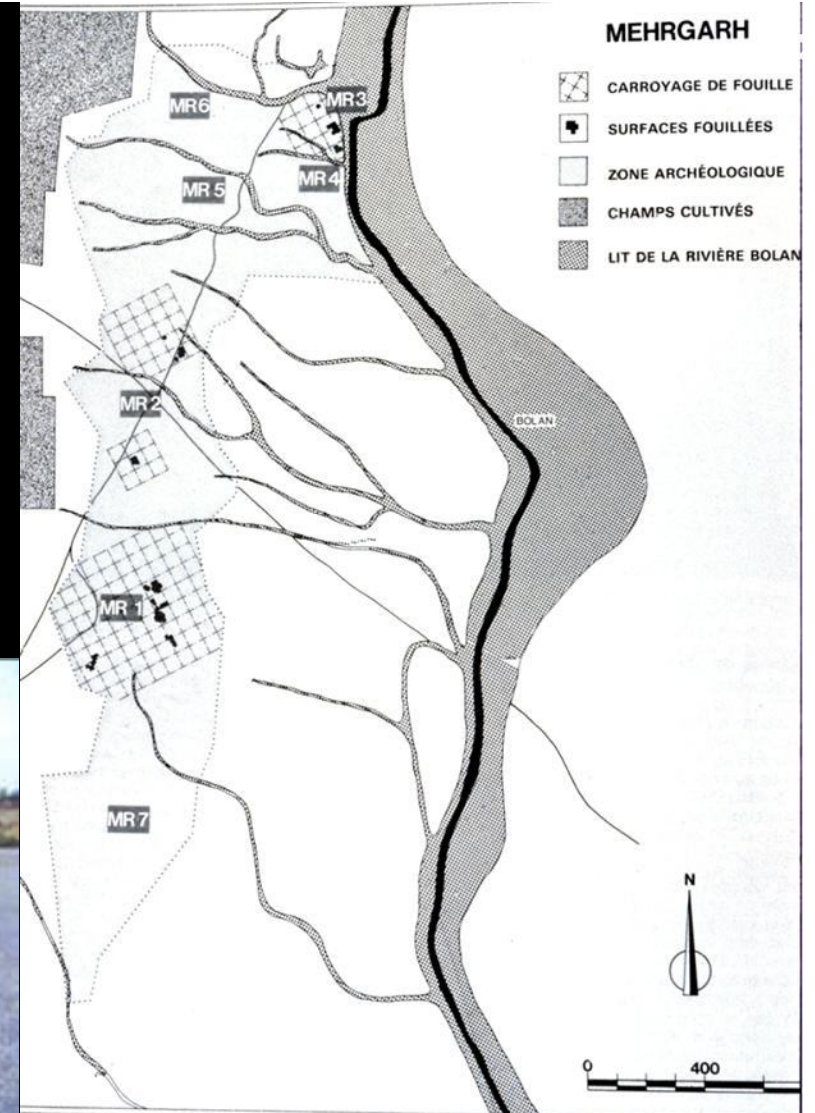


**Mehrgarh, Pakistan  
- 9000 BP (7000 or  
6500 BC) seasonal  
settlement at the  
base of the Bolan  
pass**

***Early food producing  
era: beginnings of the  
long term processes  
that provide the stable  
foundation of a state  
level society***



**Mehrgarh, Pakistan**  
mud brick houses, burials  
with ornaments traded from  
great distances,  
domesticated plants and  
animals, including barley,  
wheat, cattle (zebu - *Bos  
indicus*), sheep and goats.



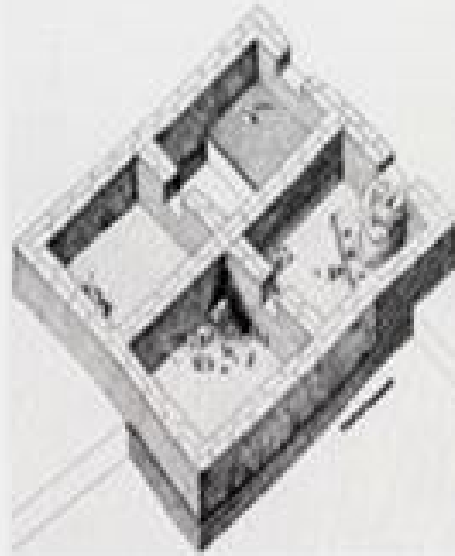
# Archaeological Sequence of Mehrgarh

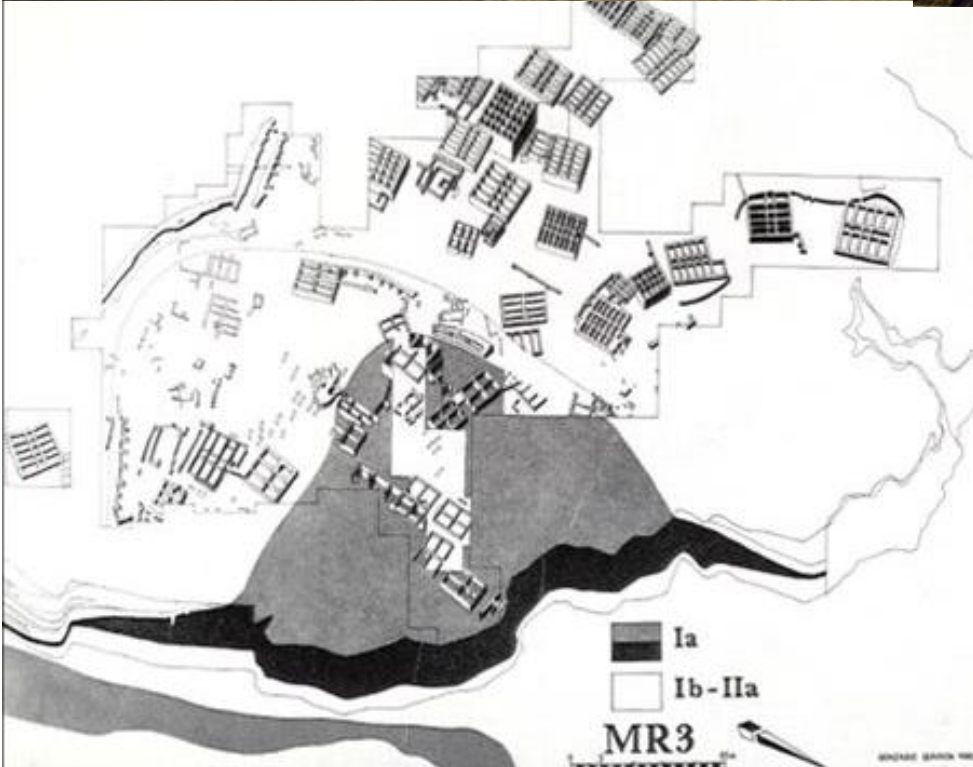
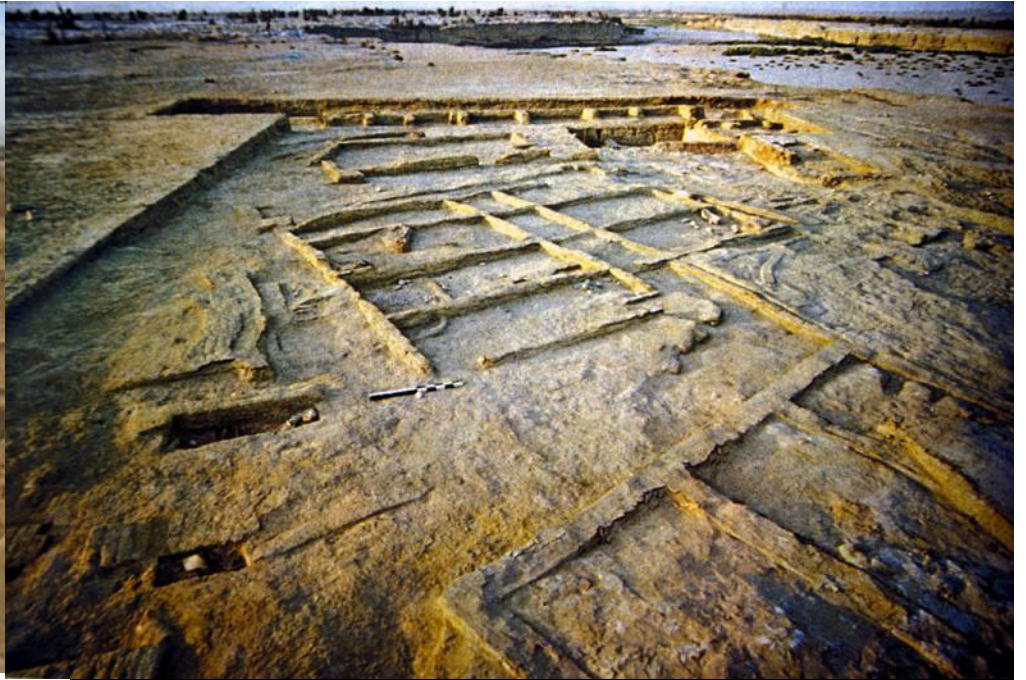
(After Chakrabarti 1999)

Period	Chronology	Archaeological Sequence
Ia-c	7000-6000 BC	Site number MR3- excavated areas: Houses- store rooms, cemeteries, open areas- Main Features: pre-ceramic occupation, unbaked clay figurines, wheat, barley cultivation and cattle, sheep/goat domestication, flint tools
Ila-c	6000-5000 BC	MR4- store rooms, cemetery, open areas- straw-tempered pottery, polished plain pottery, first cylindrical seal
III	5000-4500 BC	MR2-store rooms, open areas-painted pottery (animal designs), first direct evidence of copper smelting
IV	4500-4000 BC	MR1-houses, open areas-painted pottery (geometrical designs), terracotta female figurines
V	4000-3500 BC	MR 1-pottery-firing area, children's cemetery-painted pottery (white pigment), first grey ware, human figurines
VI	3500-3200 BC	MR 1-houses, open areas, pottery-firing area-black-on-grey ware, Quetta Red ware, Nal polychrome pottery, compartmented stamp seals
VII	3200-3000 BC	MR 1, houses, store rooms, open areas, large platform- black-on-grey ware, late Quetta ware, Kot Diji ware, male and female figurines
VIII	3000-2600 BC	Sibri, south of Mehrgarh- cemetery, domestic structures, open areas. 'central Asian' pottery, shaft-hole bronze axe, cylinder seal



## Mehrgarh house types





Mehrgarh, houses  
from the end of the  
pre-pottery Neolithic





Barley  
impressions  
in mud brick



Wheat  
impressions in  
mud brick



Sickle with chert  
blades set in bitumen -  
the wood handle is not  
preserved



Mehrgarh wild animals



Mehrgarh domesticated animals

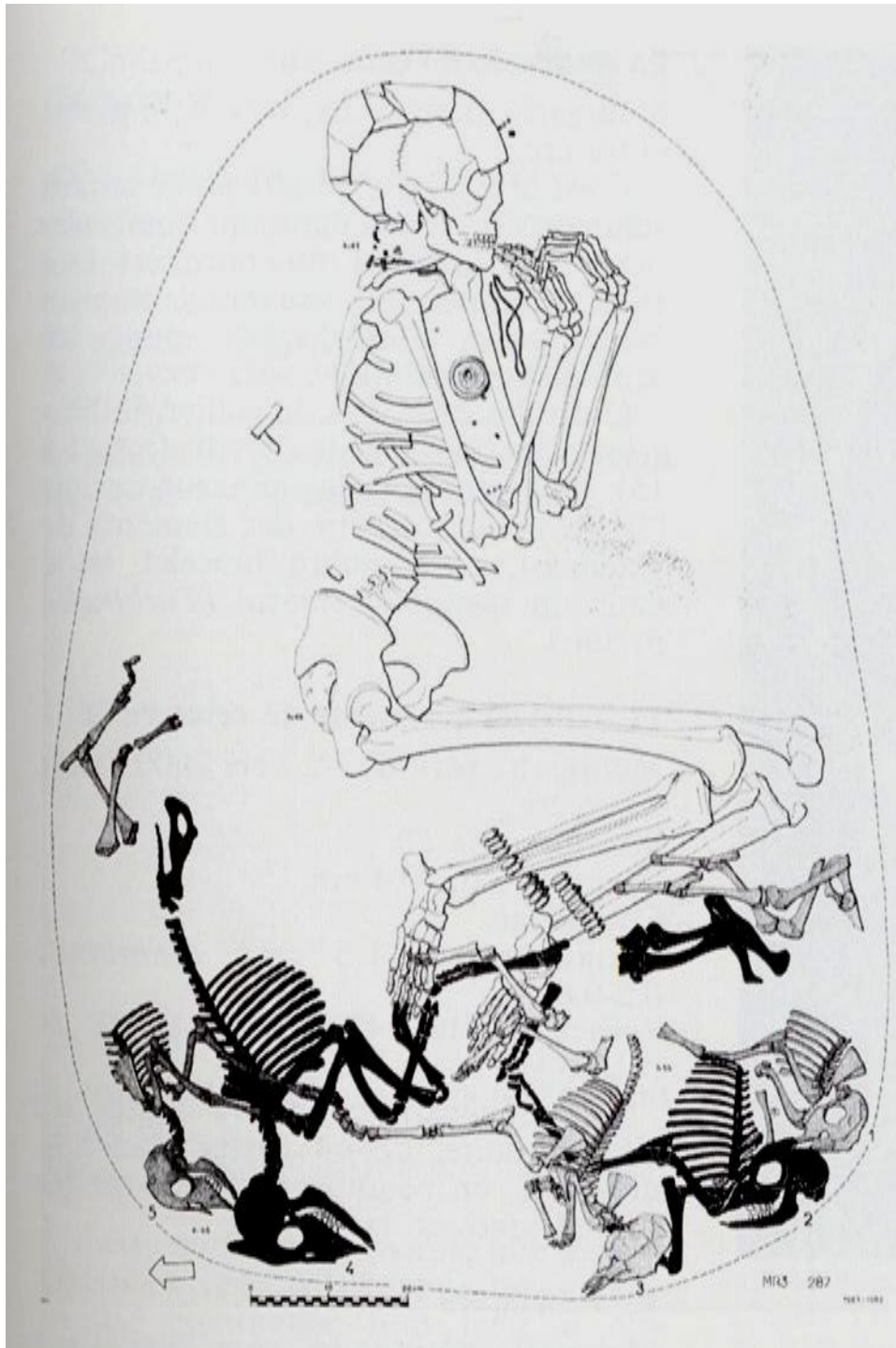
Mehrgarh burials, pit with side chamber closed up with mud bricks



Burials with bitumen coated baskets, ornaments and tools as offerings

**Early Technologies  
and Wealth Indicators  
Mehrgarh, Neolithic  
cemetery,  
Period 1A (non-  
ceramic Neolithic)  
- burials with varying  
quantities and styles  
of ornaments and  
grave goods, no clear  
patterning of  
hierarchical social  
organization**





**Mehrgarh burial, with young goats, and ornaments of exotic materials - marine shell, turquoise, lapis lazuli, steatite**





**Regionalization Era:** beginning of the short term changes that define the nature of integration and the dominant communities who maintain social order

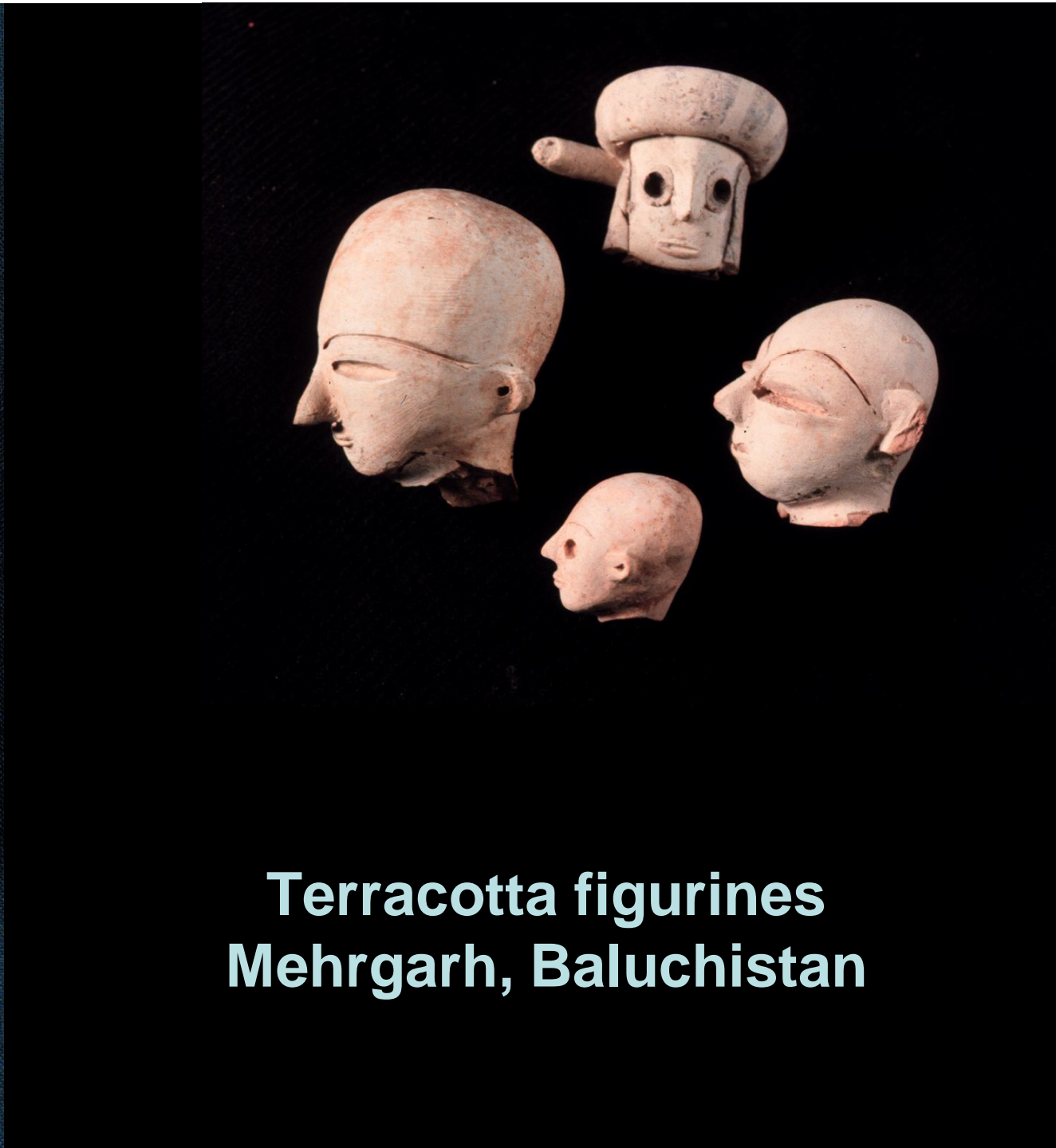
**Mehrgarh, Chalcolithic period (5500-3300 BC) - goods interred with the dead decrease, very few ornaments or utensils, - terracotta figurines show increasing amounts of ornaments**





Terracotta figurines reveal distinctive personal ornamentation and clothing, and headdress styles Mehrgarh, Baluchistan

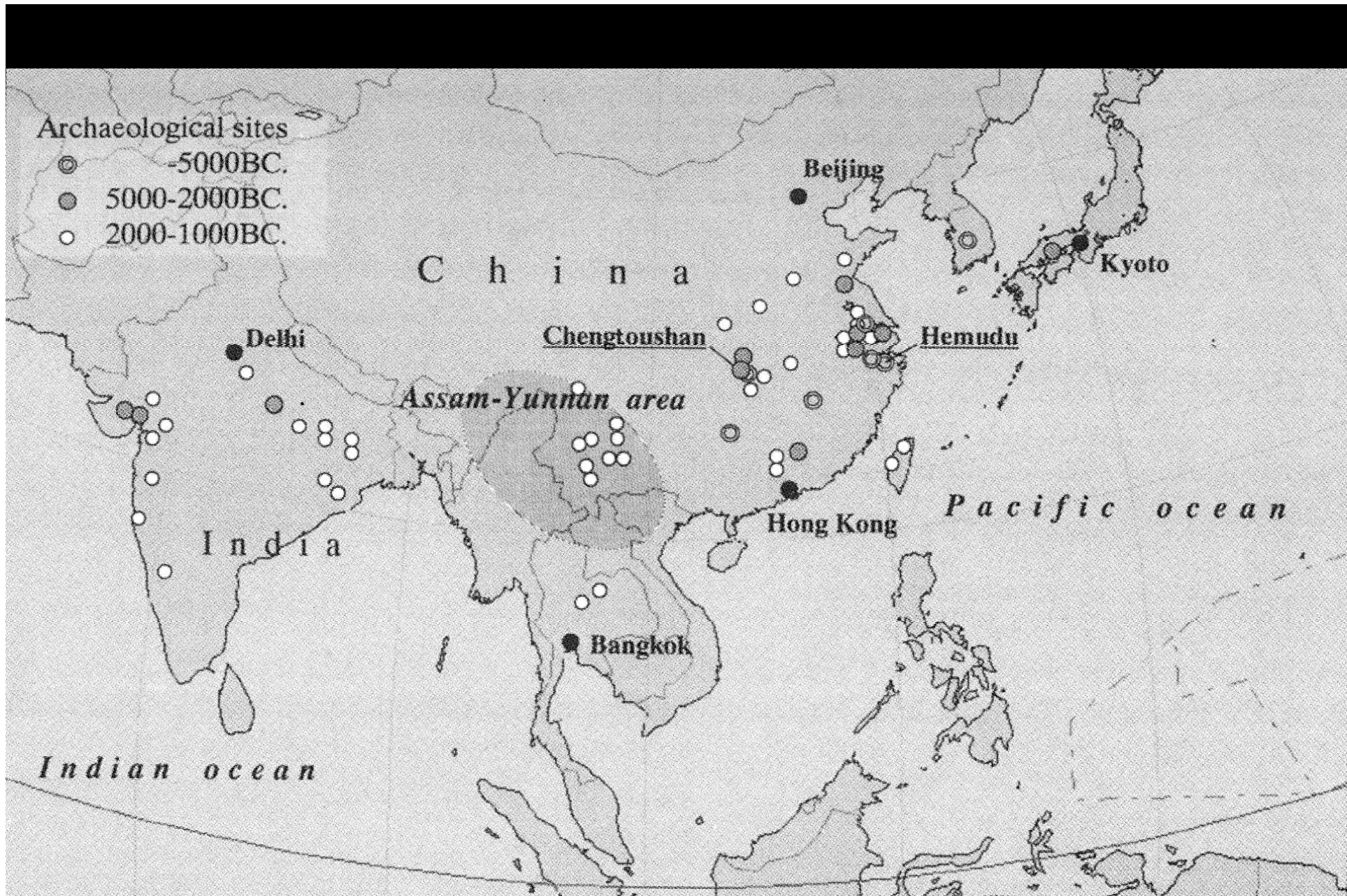




**Terracotta figurines  
Mehrgarh, Baluchistan**

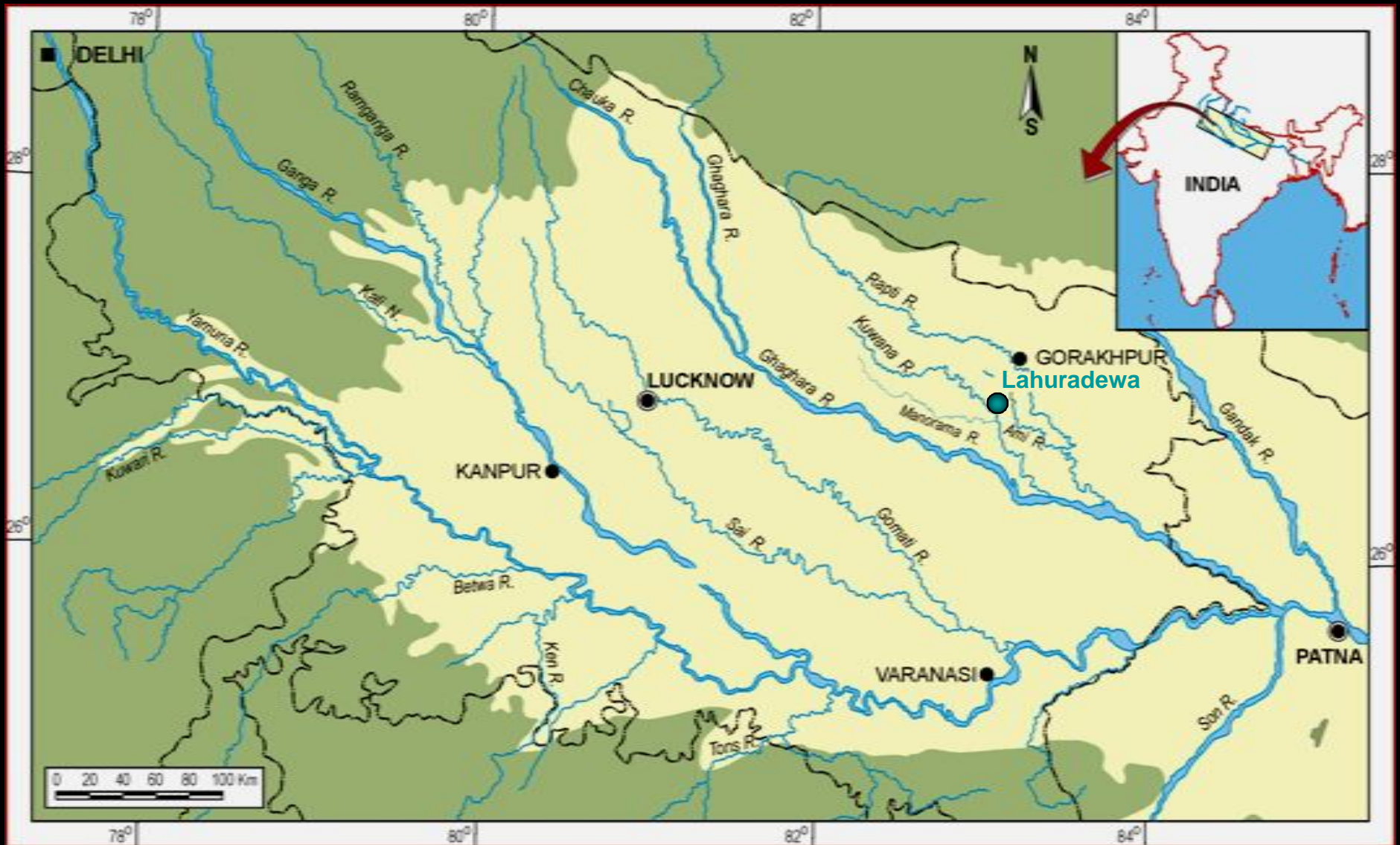
Terracotta  
male figurines,  
central figure  
is wearing  
a female style  
headdress and  
carrying an  
infant, **possible  
transvestite  
figurine**





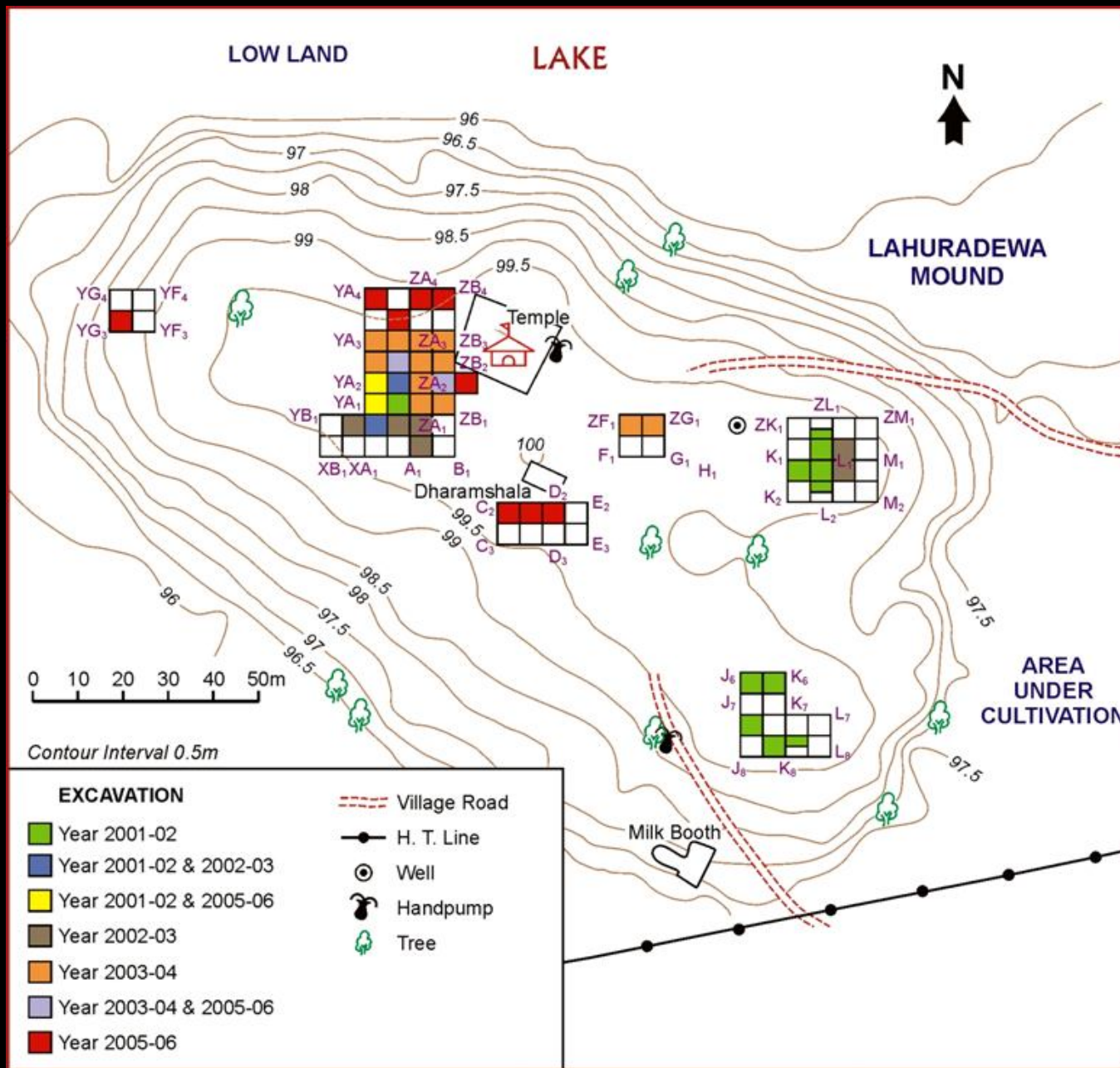


# Location of Lahuradewa





**Lahuradewa: a view from the east**

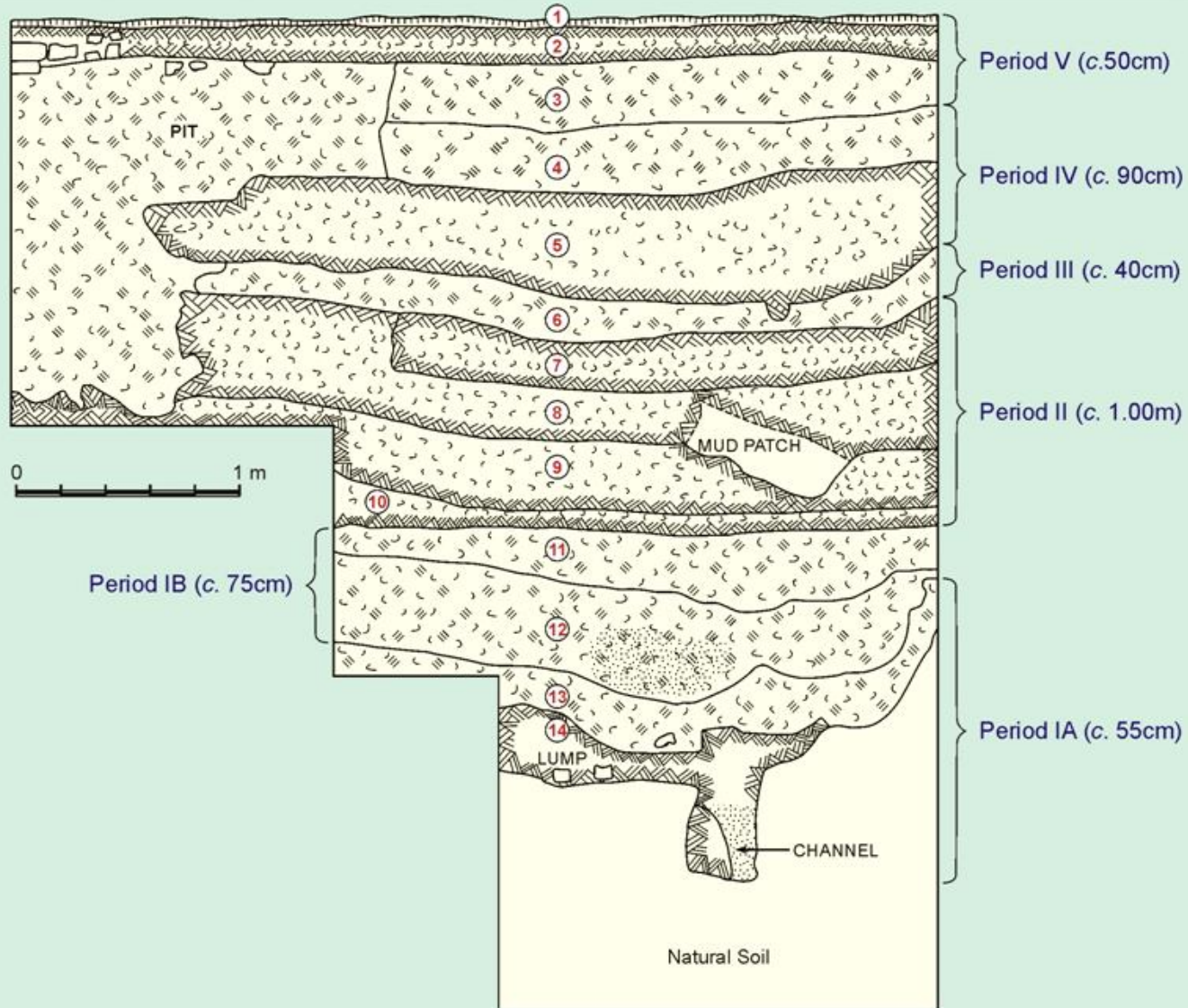


# CULTURE SEQUENCE

- Excavations have revealed about 4.00 m thick habitation deposit representing the five-fold cultural periods:
  - ➔ **Period I: Early Farming Culture (Neolithic)**
  - ➔ **Period II: Developed Farming Culture (Chalcolithic)**
  - ➔ **Period III: Advanced Farming culture (Early Iron Age)**
  - ➔ **Period IV: NBPW phase**
  - ➔ **Period V: Early centuries BC / AD**



# TRENCH No. YA1, Qd. No. 1, SECTION FACING SOUTH



# Lahuradewa radiocarbon ages

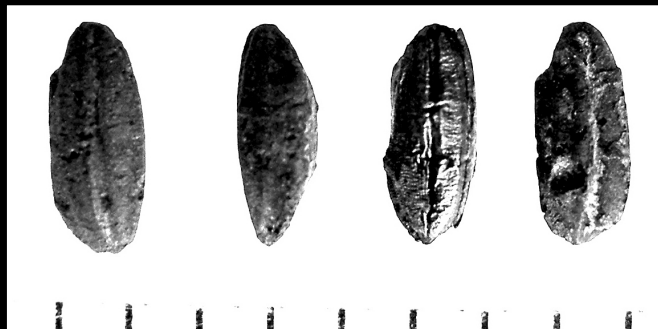
Cultural Period	Representative finds	Cal <sup>14</sup> C dates BC
Period V	RW, brick structures	—
Period IV	Painted NBPW etc.	—
Period III	Continuity of earlier cultural assemblage.	Cal. yrs BP 3317 (3133) 2949
Period II	Painted and plain BSW, BRW, steatite beads, greater presence of dish-on-stand, bowl-on-stand, pedestal bowl.	Cal. yrs BP 3469 (3384) 3349 Cal. yrs BP 3833
Period I B	RW and BRW often bearing corded patterns a few paintings, incised designs, slipped pottery. Introduction of pedestal bowl, dish or bowl-on-stand, charcoal pieces, steatite bead. Cultivated <i>rice</i> and <i>barley</i>	Cal. yrs BP 4221 (4066) 3911 Cal. yrs BP 4869 (4646) 4423 ERL-(AMS): Cal BC 2345 (2273) 2200
Period I A	RW and BRW often bearing corded patterns, charcoal pieces. Cultivated <i>rice</i>	Cal. yrs BP 5040 (4865) 4829 Cal. yrs BP 5313 (5141) 4970 Cal. yrs BP 5604 (5468) 5332 Cal. yrs BP 6270 (6105) 5947 Cal. yrs BP 7414 (7247) 7009 ERL- (AMS): Cal BC 6442-6442–6376
Natural	Natural soil	Natural soil

➔ The shapes include bowls and vessels. Carbonized plant remains, some charred and un-charred bones, a stone piece, post holes, burnt clay chunks bearing reed like impressions are the other cultural components.

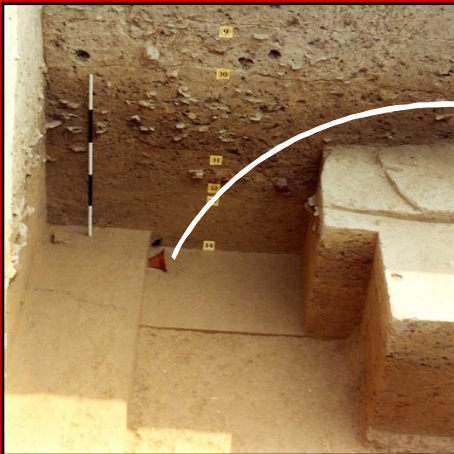
➔ The presence of carbonized grains of wild and domesticated rice (*Oryza rufipogon* and *Oryza sativa*) in the plant remains and matrix of the potsherds are the most important find of this period. An AMS date for the husk of a domesticated rice grain is cal 8360 yrs BP. Conventional radiocarbon dates for the charcoal samples collected from the lower levels range between cal. 7300 and 5000 yrs BP.



## Lahuradewa, Period IA



- ➔ **Sub-period IB (c. 5000 - 4000 yrs BP)** is marked by the appearance of **barley** and **dish-on-stand** along with earlier culture materials. Pedestal bowl and spouted vessel, a few examples of painting on potsherds, steatite beads, lithic artifacts and bone artifacts are the other notable additions.

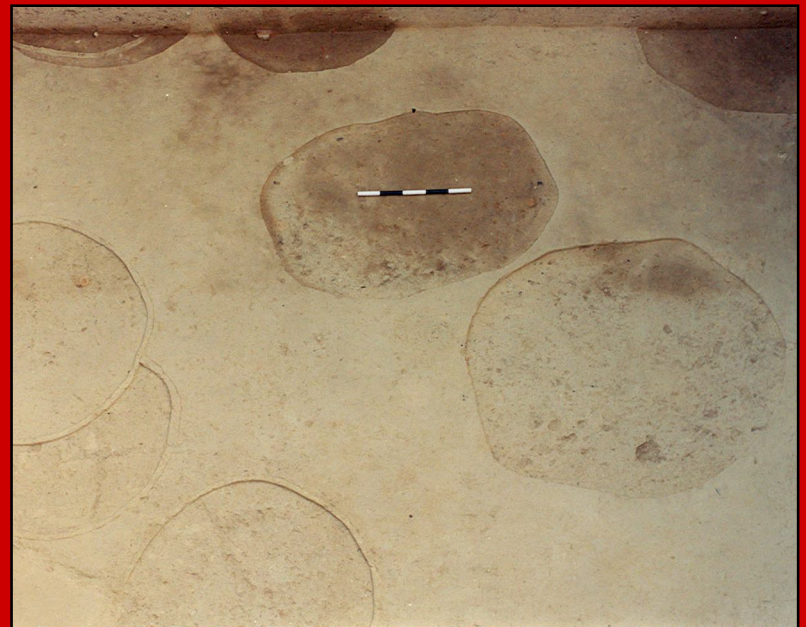


- ➔ A conventional radiocarbon date for the charcoal sample collected from the corresponding levels is **cal. 4700 BP**. While an AMS determination for a carbonized grain of barley is **cal. 4300 yrs. BP**. The beginning of sub-period IB may be placed in the early half of the 5<sup>th</sup> millennium BP.

# Carbonised Rice Grains, Lahuradewa, Pd. IB



➔ **Period II (c.4000-2000 BP)**, beginning in *circa* 4000 yrs BP, characterized by the appearance of **copper objects**, **plain and painted black-slipped ware** and **black-and - red-ware** (good quality), main shapes in pottery include *bowl / dish-on-stand*, *lipped*, *spouted* and *perforated vessels* etc., a large quantity of carbonized plant remains, several **earthen bins**, terracotta tiles, legs of a **chauki** like terracotta object, **steatite beads** and **bone arrowheads** and other artifacts in a considerable number.





Any question?