



**DATABASE FOR ECONOMIC ANALYSIS OF INSCRIPTIONS**





# Previous work

- Until recently genealogical, narrowly political, narrative
- Acceptance of 19<sup>th</sup> Century ideas of classical, feudal or absolutist Europe as paradigms for early SE Asia
- Cambodian civilisation generated by imposition of Indian culture. Indic elements in Cambodian culture interpreted as having same meaning as in India
- Soviet scholars first to attempt to explain old Khmer society through late 19<sup>th</sup> C society. Marxists focused on the economic role of Angkor temples in order to place Cambodia in relation to AMP – but neglected **changes** in society seen in inscriptions

# What do the inscriptions say?

## A. Sanskrit

- Praise to god
- Praise for king
- Purpose of foundation
- Name of principal donor, or king's subordinate if king is named
- date

# What do the inscriptions say?

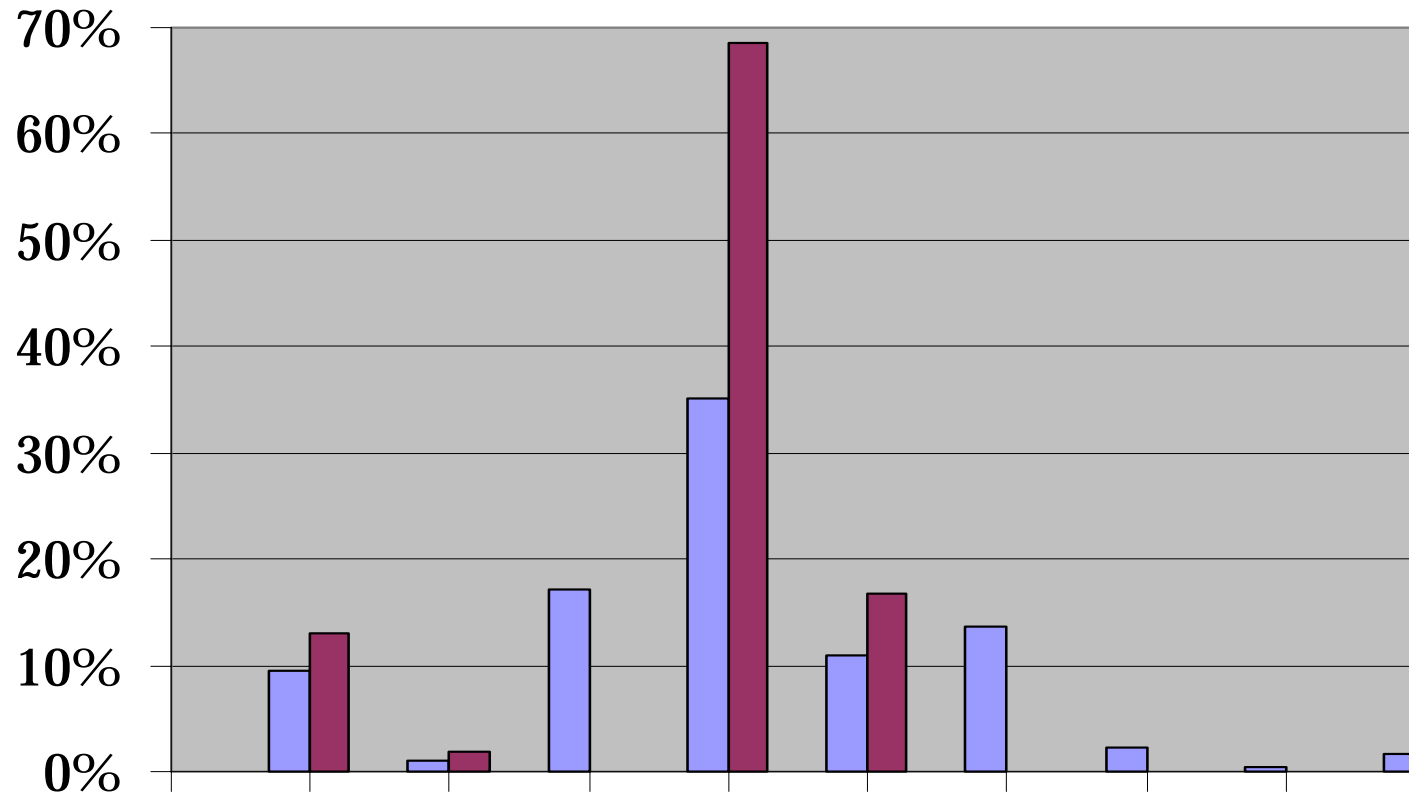
## B. Khmer

- Date and name of king
- Title/names of donors
- Name of god
- Names of people from whom donor obtained land to offer to foundation, history of land, disputes
- Details of prices paid
- Extent, location and capacity of rice fields
- Names and duties of donated temple personnel
- Subsistence given to personnel and gods
- Other lands given
- Precious objects given to foundation
- Statement that revenues to be combined with those of another foundation
- Warning of punishment of anyone abusing belongings of foundation

# Khmer inscriptions: issues

- elite talking about themselves
- frequently very obscure
- units of measurement very variable
- values don't always add up
- difficult to see correspondence between inscriptions and field data
- the lists of temple “junk” and personnel offer no social commentary - **but** do tell us about wealth

# Age distribution of inscriptions



**period caka**

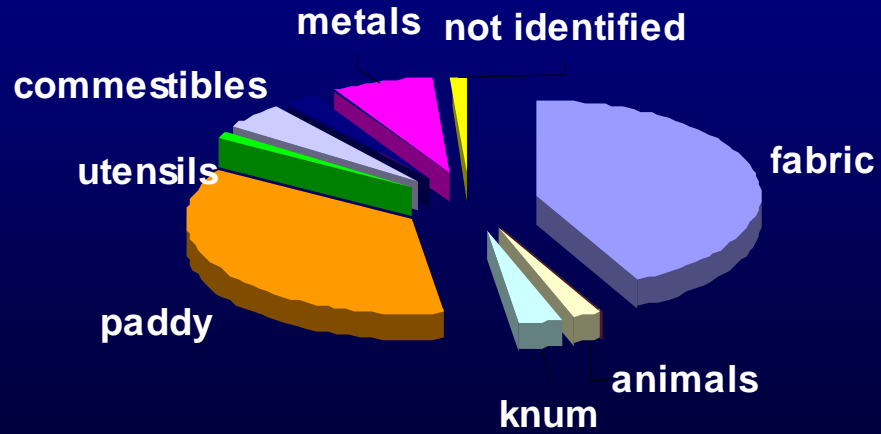
■ Dated Coedes inscriptions (639) ■ Inscriptions with exchanges (54)



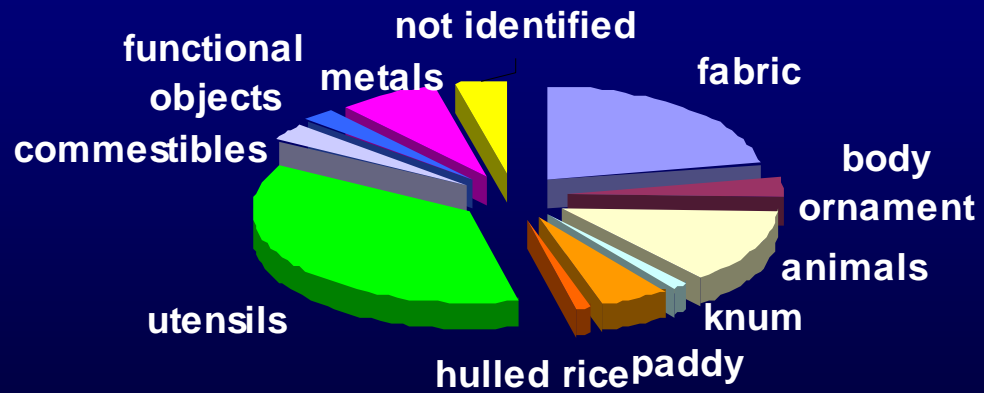
# Key results: exchanges

- Changes in nature of exchanges suggest corresponding changes in society between Pre-Angkorean and Angkorean periods.
  - Few items exchanged in Pre-Angkorean to great variety of items in Angkorean period
  - Exchange items in Pre- Angkorean period sometimes valued in silver (and fabric). Not so in Angkorean period.
- Material of most metal objects not stated
- No constant standard for units of measurement. Different methods used to calculate size/capacity of rice fields.
- Relative values in exchanges seem to make little sense.
- Weights of precious objects exchanged are recorded but rarely so in temple inventories
- Lower classes are frequently exchanged like other commodities

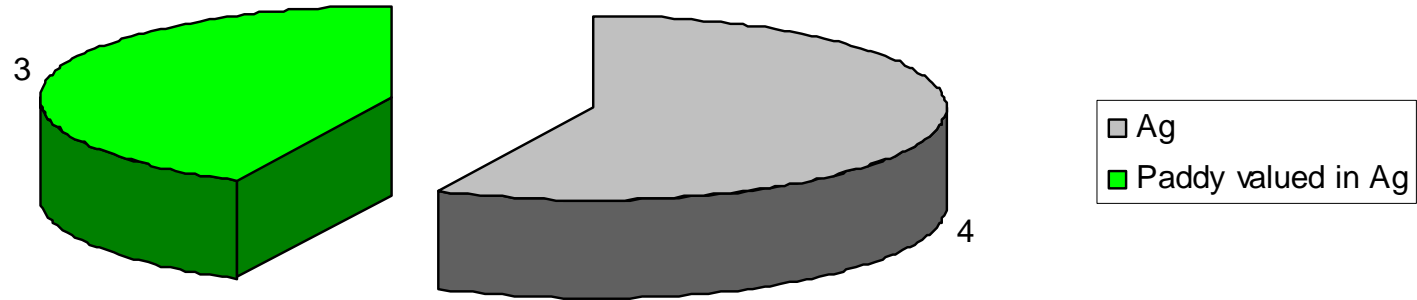
## References to exchanges: Pre-Angkorean



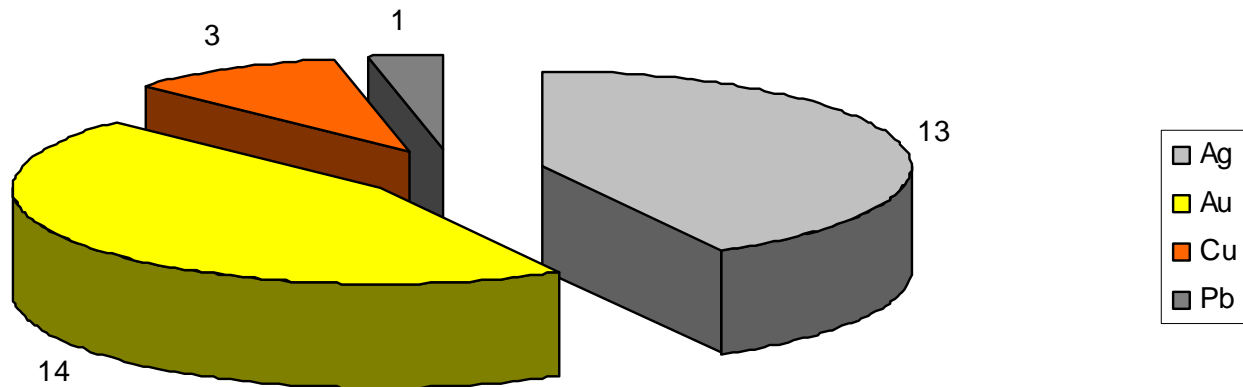
## References to exchanges: Angkorean



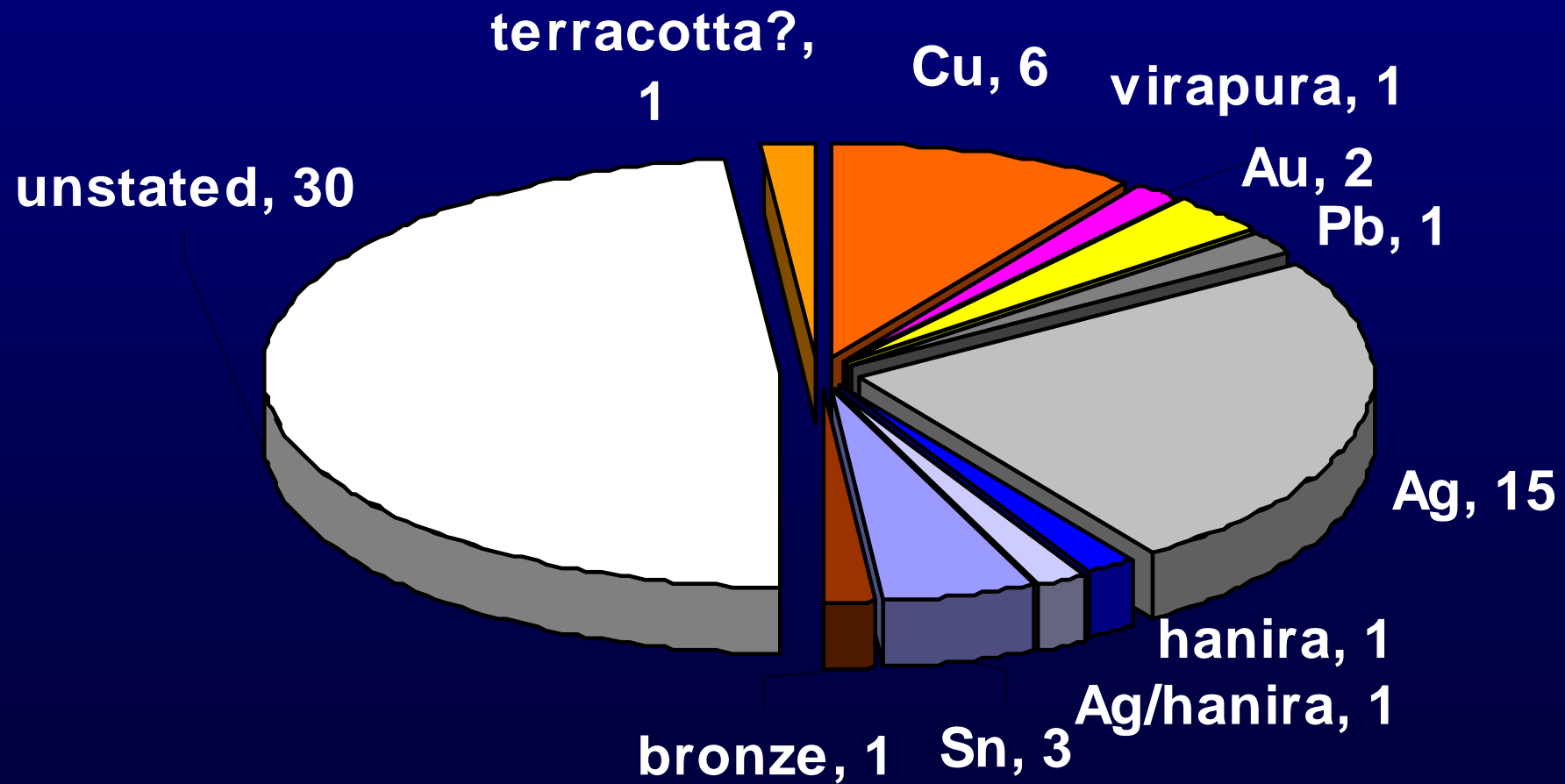
**Temples with exchanges of metals  
550-749 caka - out of 8 temples**



**Temples with exchanges of metals  
850-1049 caka - out of 39 temples**



850-1049 caka - Temples exchanging metal utensils:  
39 temples



# Exchanges K258 ( AD 1067)

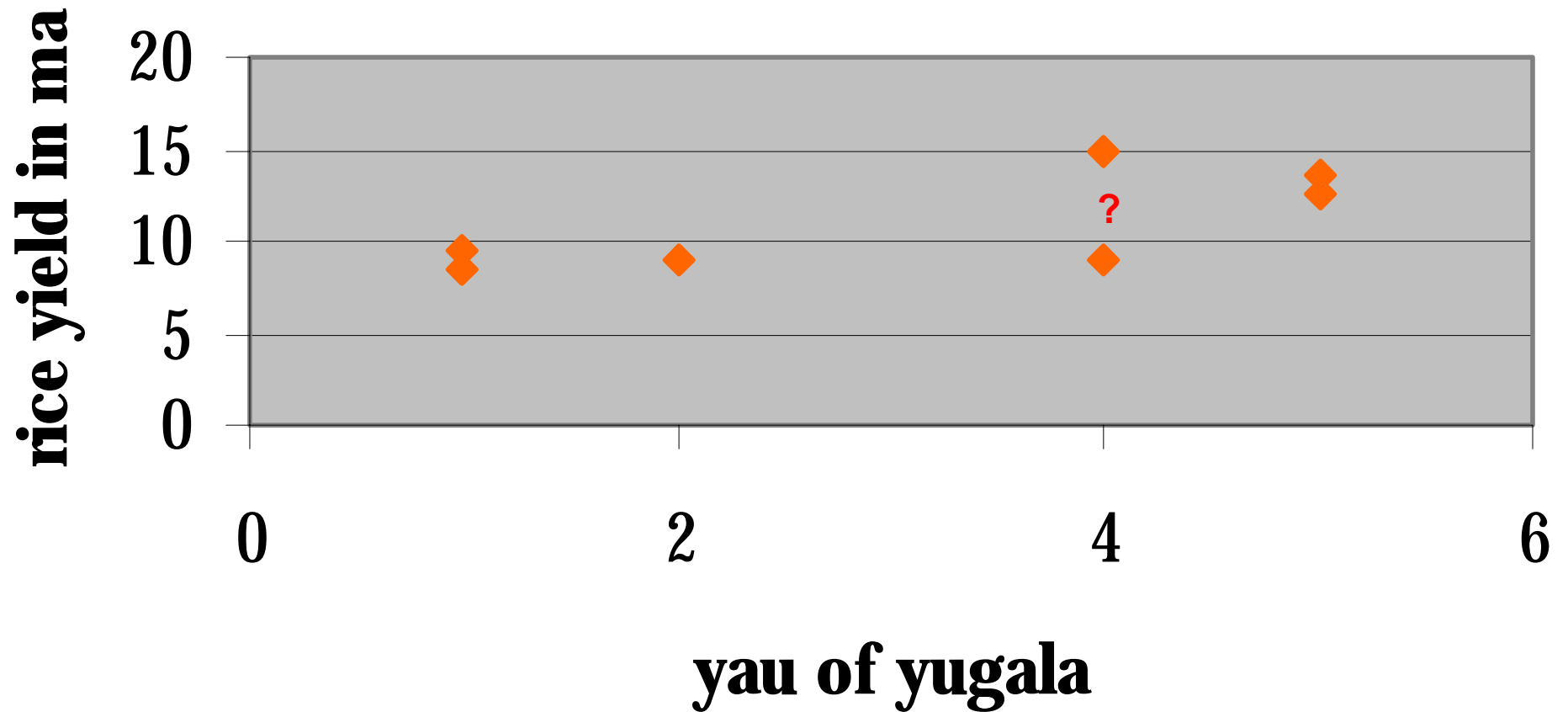
2 Khlon, Sten, 2 Ten	land	100 measures (w forest & hills)	3 gold rings(1 pada, 2 slin), 5 silver bowls (1 jyan) 10 dlah (2 tula 2 jyan 10 lin), 3 tin utensils (10 jyan 10 lin), 2 fast oxen, 15 yo new fabric (10 cubits), 2 goats
	marking boundaries		1 ring (1 jyan), 1 silver bowl (4 lin), 3 dlah (15 jyan), 8 kuntika (1 tula, 10 jyan, 10 lin), 1 tin utensil (3 jyan), 11 yau new fabric (10 cubits), 3 goats, 5 thlvan hulled rice, 3 lih pepper
	foundation of village, erecting image, digging pond, buying knum		1 male horse,.....
5 Khlon	land	10 thlvan	2 gold rings (1 pada), 1 silver bowl (3 lin), silver...(6 lin), silver <i>gum</i> (1 jyan 1 lin), 1 dlah (7 jyan), 5 kuntika (1 tula, 1 jyan 10 lin), 1 vardhani, 2 water vases, 5 plates (total last 3 1 jyan), 3 tin utensils (10 jyan 8 lin), 1 popil (5 jyan), 1... (3 jyan), 1 fine fabric amcuka (20 cubits long), 1.... (10 cubits long), 2 fast oxen, 2 yau new fabric ( 10 cubits), 3 goats
1 Khlon	ricefield	10 thlvan	1 tray (1 lin), 2 vodi, 1 spittoon: (6 jyan), 1 kuntika (6 jyan), 2 yau new fabric (10 cubits)

# Exchanges K255/6 ( AD 968)

field	2 vaudi (5 jyan), 7 yau garments, 73 measures paddy
field	2 vaudi, 2 spittoons
3 fields	2 lin 1 pada gold chaguna, 1 vaudi (6 jyan) 1 cauldron (4 jyan), 20 garments.
x gho 2 tai with child	1 basin, 5 yau garments
len	x yau garments
tai, dalmak	...2 and 1 pada gold
tai with child	a child at the breast, 20 units of paddy
tai	1 vaudi (6 jyan 10 li)
tai	exchange for another knum
tai	15 yau garments
tai w child	1 spittoon (4 jyan), 1 copper utensil (5 jyan)
si	1 belt

# K41 (AD 628)

## Buying value of yugala

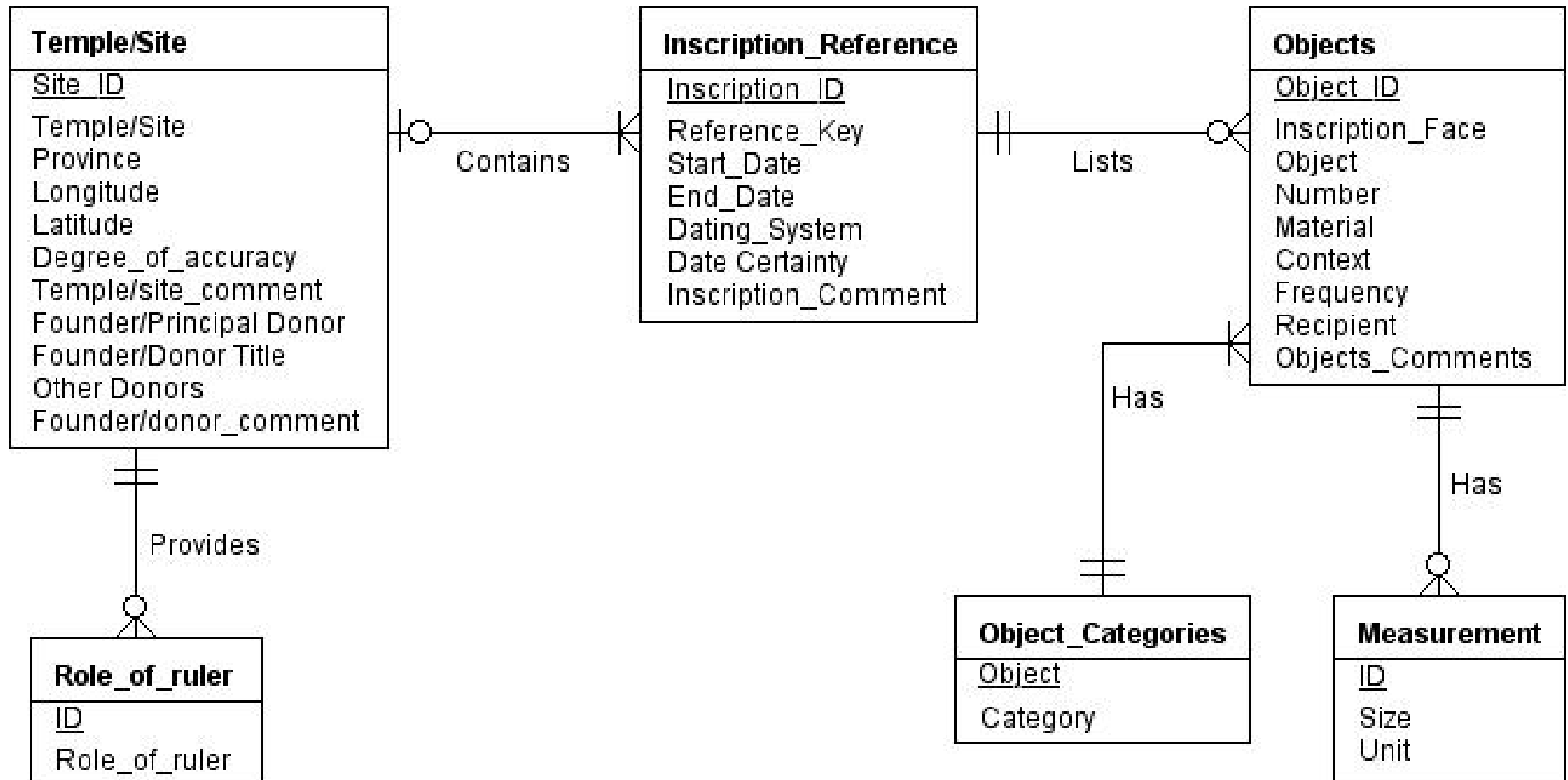


# Exchanges K726 (AD 650)

ricefields:	paddy (valued at 10 tamlin silver)
ricefields:	(only produce) 5 tamlin silver, 1 yau yugala
ricefields:	labour of <i>sampol</i> women exchanged for paddy (valued at 5 tamlin silver)
ricefields	paddy (valued at 4 tamlin silver)
ricefields	10 tamlin silver, x yau yugala
ricefields	4 tamlin silver
ricefields	paddy (equal to 4 tamlin silver, 1 yau yugala)
ricefields	100 measures 7 tlon paddy, 1 yau yugala, 1 yau amval, 2 baskets sandak
lowland	3 yau amval



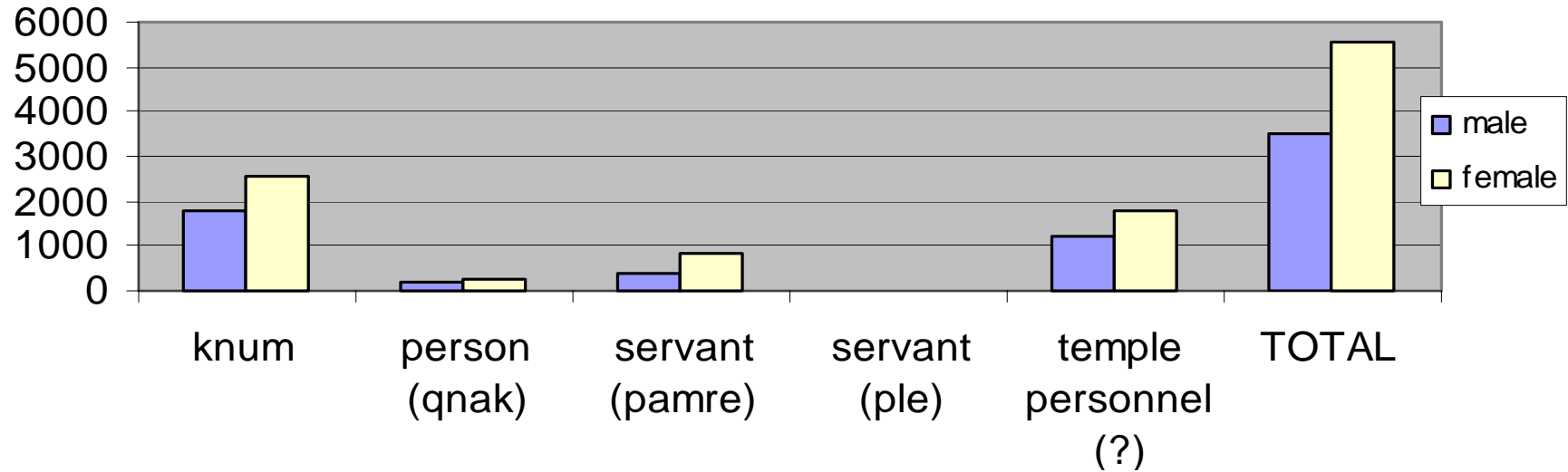
# Database structure



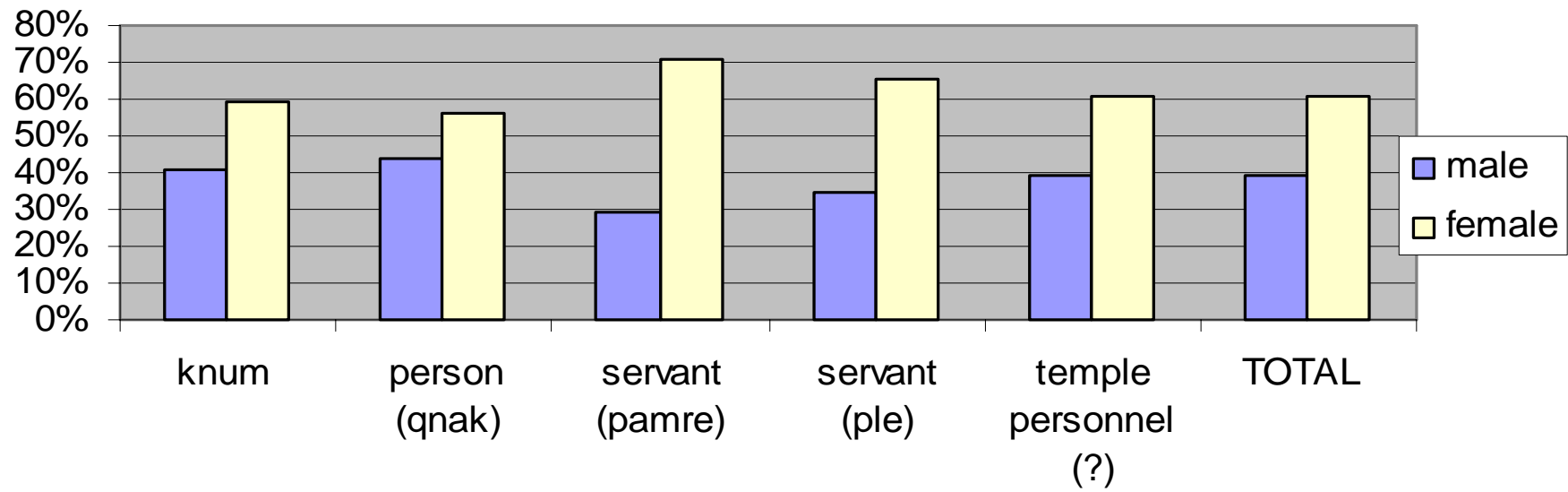
# Trends sought from database of: temple inventories; donations; offerings

- Increasing/decreasing concentrations of wealth over time/space (in stored treasure, number of new foundations, number and status of donors)
- Changes in taxation of the population
- Increasing/decreasing diversity in economy
- Evidence of trade
- Changing status of temple workers

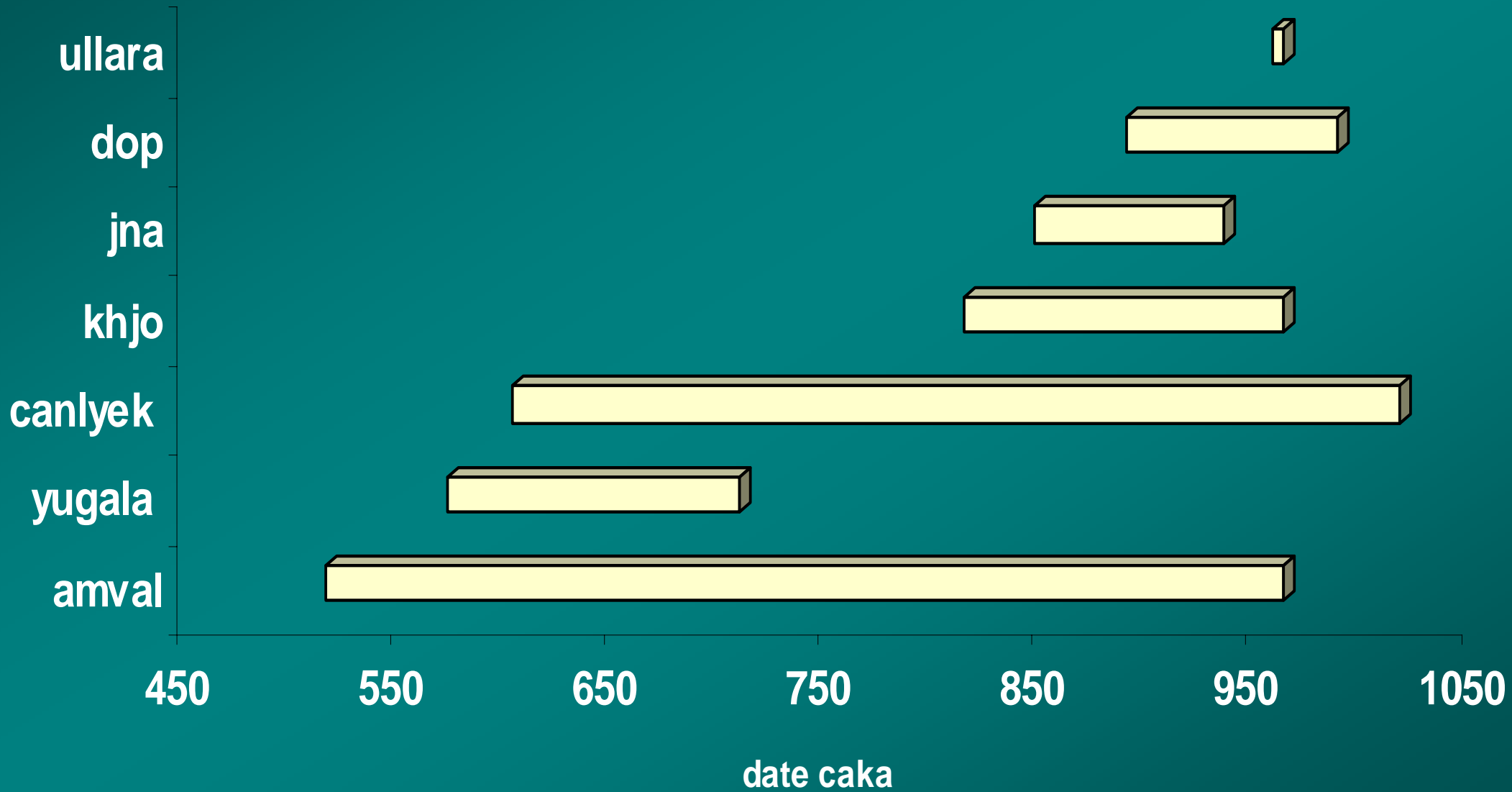
## Male and Female Temple Personnel (264 inscriptions)



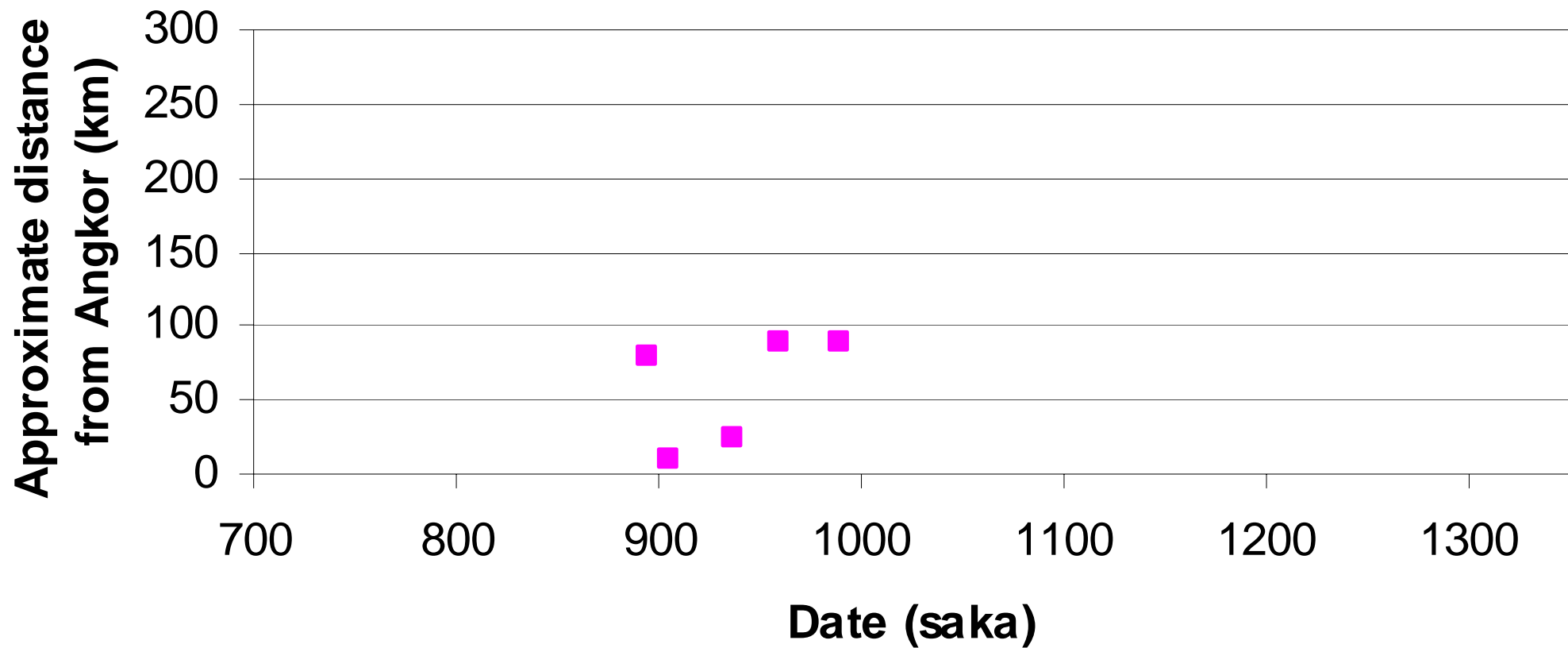
## % Male and Female Temple Personnel (264 inscriptions)



# Time range for some fabrics (264 inscriptions)



## Occurrence of objects made of hanira



Inscr.	Role of ruler	Date Ç
K0953	named	963
K0353	knum donation	968
K0353	ricefield donation	968
K0353	land donation	968
K0913	ordinance re tax	1000
K0991	request to king (incomplete)	1000
K0991	ashram donation	1000
K0991	knum donation	1000
K0760	named	1000
K0150	order re supplies, management of sanctuary	1000
K0690	order to measure land	1000
K0690	order for land to be attributed to god	1000
K0650	joining foundations	1000
K0566	order enquiry re land; boundary marking	1000
K0150	request to king for incorporation of temple	1000
K0566	informed of result of ordeal	1000

# Also tie in with other studies

- Records of Khmer links with other states (diplomacy, trade)
- Studies of other pre-industrial economies
- Explore relationships between the inscription data and spatial data for Angkor, becoming available through remote sensing and mapping
  - eg, distance from seats of power, distances between temples, sizes of temples and trapeang, geography (natural and artificial): mounds, embankments, watercourses and roads