# Two Comparative Archaeology Databases

Paula Sabloff, et al. May 4, 2015

### Status-and-role Data

- What are the possible statuses found in an early state? (found 52)
  - What actual statuses are found in 11 early states?
  - Of the 52, which is also found in 5 non-states?
- What are the possible roles people play in an early state?(found 66)
  - What actual roles are found in 11 early states?
  - And perhaps 5 non-states?
  - Which roles are associated with particular statuses?

# Societies in Status-role Study N = 16

#### **Primary states**

China (Shang)
Egypt (Old Kingdom)
Hawai'i(pre-conquest)
Lower Mesopotamia (Early
Dynasty)
Maya (Pre- to Late Classic)

#### Secondary states

Aztec Benin Greece Zapotec

> Inca Japan

#### Non-states

Hopi Tewa

Iceland Iroquois Maasai

# Master Database (abridged)

Fight   Figh		Status Present	Inherits	Is Sacrificed	Monopolizes	Predicts	Rules	Is Ruled	Receives Tribute/tax	Gives Tribute	Controls Bhv	Controls Access	Patronizes	Owns Land/ Property	Farms	Corvée conscript	Bought Sold
Prince 1 1 2 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0	Egypt																
Reger's female kin	Ruler (king, queen)	1	1		1		1	0	1	0	1	1	1	1	0	0	0
Regulty/nobility 1	Prince	1	1	0	0	0	1	1		0	1		1	1	0	0	0
Commoner 1	Ruler's female kin	1		0	0	0	0	1		0		0	1		0	0	0
Serf Slave 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0	Royalty/nobility	1									1		1				
Salve 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Commoner	1												1			
Captive	Serf	1						1			0		0	0	1		
Human sacrifice 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Slave	1		0											1		
Prime minister  1	Captive																
Council member 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Human sacrifice		0	0	0	0		0	0	0	0	0	0	0	0	0	0
Provincial governor 1																	
Territorial official 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0	0	0	0	0	0		0		0		0	0	0	0
Military commander 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0									1				1				
Fief holder 1	Territorial official	1					1				0						
Supervisor 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Military commander	1		0							0		0				
Worker (skilled, unskilled)  Farmer/herder  1  Soldier, police  1  Peddler-merchant  1  0  0  0  0  0  0  0  0  0  0  0  0	Fief holder	1															
Farmer/herder	Supervisor	1									1						
Soldier, police	Worker (skilled, unskilled)	1									1			1			
Peddler-merchant	Farmer/herder	1												1	1	1	
Priest (state, head, etc.)	Soldier, police	1														1	
Chief god 1 1 1 1 1 1 1 Lesser gods 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Peddler-merchant	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lesser gods  1  1  1  1	Priest (state, head, etc.)	1		0							1						
Lessel gous	Chief god	1							1		1						
Ancestor spirit 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Lesser gods	1							1		1						
	Ancestor spirit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

# Preparatory Database 1: China

Associated territory/dates: (Early-Late) Shang China 1600-1050 BCE

Status: King (Wang)

Expected roles	Place in	Reports	Basis of	Comments
	hierarchy	to	legitimacy	
*Rules over a state that	*Top of	Royal	*Born into	*King was not considered
covers most of north-	living beings	ancestors,	ruling clan	"the son of heaven"—the
central China (Campbell	*Gains	chief god	*Oldest son or	representative of the gods
n.d.:3)	divine		next oldest	on earth—until the Zhou
*Travels around the	ancestral		brother of king	Dynasty (A. D. Smith,
territory (Keightley	status upon		(Feng	personal communication
1983:537)	death		2013:103-06;	6/30/2014)
*Delegates authority to			Trigger	
territorial governors			2003:149-50)	
(Trigger 2003:216)				
*Accepts tribute from lords				
living outside the capital				
(Barnes 1999:134)				

### Prepatory Database 2: Basic Information

Region: China

State: Late Shang

Collected by: Paula L.W. Sabloff; checked by Adam D. Smith

Date: June 30, 2014

- (1) Time period of the state
- (2) Location of the state:
- (3) Is the state widely agreed (by scholars) to be a state?
- (4) What are the data like for the state?
- (5) Interpretations of the data
- (6) A general picture of the state's government and leadership
- (7) Any additio nal relevant information:
- REFERENCES

## Longue-durée Data

- From the Middle Paleolithic through state formation (Bronze Age in Eurasia)
- Are there geological, climatic, regional, or societal attributes that
  - Must be present
  - Cluster
  - in order for a society to become a state?
- Is there some mathematical ratio between these features and time to state formation?

# Societies in Longue-durée Study N =19

#### Western hemisphere

Andean coast
Andean highlands
Eastern USA
Mayan lowlands
Oaxaca
Southwest USA
Valley of Mexico

#### **Eurasia**

China (6 areas)
Crete
Cucuteni-Tripolye
Greece
Indus Valley
Japan
Levant
L. Mesopotamia

#### **Africa**

Egypt Jenne-Jeno Nubia

Hawai'i

## Longue-durée Database 1 (abridged)

NUBIA	Upper Paleolithic	Comments	Pre- to Classic Kerma	Comments
A. Dates of tradition (start; end date) B. Climate				
C-D. Population characteristics, skeleta	l evidence			
E. Settlement patterns				
F2. Burial goods (all burials)	0	AW 109: No objects found that could be interpreted as mortuary offerings.	1	FM 148: The dead wore clothing and jewelry that they would have worn in life. EG: Egyptian scarab seal/amulets.
G-H. Domestication of plants, animals				
I, K. Ornaments, pottery, metallurgy				
J4. Pottery uses: Nonutilitarian (display or ritual)	1	FM 200: Pottery was an integral ceremonial component of Nubian culture.		FM 200: Pottery was an integral ceremonial component of Nubian culture.
L-M. Artifacts of bureaucracy, conflict				
N1 Art/ritual artifacts	1	AW 115-116: Rock engravings depict animals &men one of the largest and best-known finds is at Abka, associated with Qadan and Abkan industries of the Final Stone Age(Upper Paleolithic) and Neolithic, ca. 7000-4500 BCE.	1	EG: Painted funerary chapels depict wild animals, scenes of fishing, and boats with soldiers.
O. Tools of shell/bone/wood	1	MRB 35: At Jebel Sahaba, a borer and small spatula are the earliest bone tools recovered.	1	PP 228: Bone tool industries.

# Longue-durée Database 2 Social Organization Attributes

NUBIA	Upper Paleolithic	Comments	Pre- to Classic Kerma	Comments
<ul> <li>I. Social organization: simple kin-based based, class-based</li> </ul>	d, lineage-			
II. Political organization: simple chiefd chief, city-state, regional state	om, paramount		4	FM 23: Kerma is identified as the capital of the first Nubian Kingdom of Kush; appears in Egyptian records (XII Dynasty). EG: Certainly a state by the Classic Kerma period.
III. Bureaucracy: kin tie to leader, hereditary, merit/education				
IV. Legitimacy of the ruler: merit, divine sanction,inherits			1	PP 228-229: City inhabited by a religiopolitical elite.
V. Purpose of public projects: e.g., natural protection, defense, ritual, administration			1	OD 50: Kerma's walls were 10 m. high. BC 617: Wall surrounded by dry ditches to prevent undermining.
VI. Mode of production: by kin, class, gender, specialty				
VII. Delegation of tasks in nonpublic works: e.g., by family, kin group, class			4	PP 228-229: Religiopolitical elite, their servants, and craft specialists, with central functions for Kerma villagers.
VIIIIX Intersettlement interaction (trade, war, contact) & types of of exchange: e.g., none, barter, market, money				
X. Locus of exchange (widest locus possible): within-group, regional, long-distance			3	PP 228: Trade connections with the C-group and Egypt. FM 120: At its zenith, Kerma traded directly with the Hyksos rulers of the Egyptian delta, during the 2nd intermediate period.
XI-XII. Organization of religious tasks:				

## Questions, problems, opportunities

- Access (audience)
  - Scholars of any field
- Units of analysis
  - Status-and-role: society at a sliver of time (e.g., 1500-1200 BCE)
    - Status, role
  - Longue-durée: occupation of a region over time (to state formation)
    - Attribute (presence/absence or ranking scale)

#### Assumptions:

- Time periods are traditions (i.e., some longer than others)
  - Attribute that appears any time in the tradition is assumed to remain through the end of the tradition
- Others?
- Hopes:
  - Connect to Turchin et al. database

## Thanks to

- Citizen-scientists:
  - Shelley Waxman, Jack Jackson, George Haddad,
     Jeff Cohen, and Steve Silver
- Researchers:
  - Rob Weiner, Jonah Nonamaque, Skyler Cragg, and Kong Fai Cheong
- Checkers of data sheets: et al.
- Chief advisors: Henry Wright, Jerry Sabloff, Tim Kohler, Peter Peregrine et al.