"The diversity of types of civic buildings in premodern cities"

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Metadata on cross-cultural/temporal variation in civic building types by society. Prepared for the Working group, "Evolution of collective computational abilities of (pre)historic societies," at the Santa Fe Institute, Nov 2-4, 2020.

INTRODUCTION

I define "civic buildings" as follows: Civic buildings are:

- NOT primarily residential or commercial
- Where people gather or attend activities
- Pertain to more than one household or extended kin group

Commercial structures are excluded because they serve different functions than civic buildings, which are important in the political and public life of cities (Moore 1996). Most infrastructure is excluded (walls, gates, canals) because such features are not gathering points. Civic buildings are places where "collective events" (Zuiderhoek 2017) take place; another term for these buildings and gatherings is "social infrastructure" (Klinenberg 2018).

Royal palaces are included not because they were residences of kings, but because of the myriad other activities that took place in most such palaces (Smith n.d.:Chapter 7). Although nonroyal elite residences could have civic functions in some traditions, I do not include them. I try to avoid counting unique buildings (apart from royal palaces and large temples).

These data pertain to societies, and not to individual cities. A better (and far more time-consuming) approach would tally civic structure by city, and then perhaps aggregate to the societal level. Having data on the numbers, sizes, and distributions of civic buildings within individual cities would be informative, but I am not able to do that.

I'm not sure what I am going to do with this; I'm not sure it is sufficiently rigorous for publication. Comments and critiques are welcome. Below are the sources I used.

1. MEDITERRANEAN

Building type	Egypt	Sumer	Minoan	Athens	Rome	Medeiva
# of types of civic building	3	3	2	7	11	4
Administration:						
Basilica					х	
Library					X	
Office for officals				x		
Palace	x	x	х			
prytaneion				х		
Governing assembly building				x	X	
eligion:						
Large temple	x	х				x
Small temples/shrines	x	x	X	x	X	x
Smaller cult buildings				x	Х	
Seclusion compound						X
Hospital						Х
ntertainment:						
Amphitheater					X	
Circus					X	
Odia					X	
Stadium					X	
theater				x	X	
Recreation:						
Bath					X	
Gymnasium				х		

Egypt, Middle Kingdom (3 types)

- **Sources**: (Kemp 2006:Chapter 5; Moeller 2016)
- Comments: I am classifying storehouses as commercial facilities, not civic buildings.

Mesopotamia, Early Dynastic (3 types)

- *Sources*: (Kubba 1987; Lloyd 1978; Roaf 1995; Woolley and Moorey 1982)
- **Comments**: I am not considering the workshops and storage facilities associated with the Temple Oval of Khafajeh as civic structures.

Minoan (2 types)

- Sources: (Letesson and Knappett 2017; McEnroe 2010; Whitelaw 2017)
- **Comments**: I classify what McEnroe calls "public shrines" as small temples. Whitelaw describes a number of "institutional structures," but these appear to be craft workshops, not civic buildings.

Athens (7 types)

• **Sources**: (Hansen and Fischer-Hansen 1994; Morgan and Coulton 1997; Wycherly 1962)

• **Comments**: The target period is Classical Athens. I classify the *bouleterion* as a Goerning assembly building.

Roman Empire (11 types)

- **Sources**: (MacDonald 1986)
- **Comment**: MacDonald lists 16 different types of buildings, plus several transportation features (e.g., streets); I removed the commercial types, and consolidated the others to be comparable to the other urban traditions.

Medieval (4 types)

- Sources: (Langton 1979; Lilley 2002; Pounds 2005; Schofield and Vince 2003)
- **Comments**: My target period is the late medieval period in Britain and northernEurope. All civic buildings fall under the category "religion," although many served non-religious functions as well. The temple types are cathedrals and parish churches. The category of friary includes monasteries and secular colleges. Compared to other urban traditions medieval towns and cities have an unusually large number of commercial buildings, including shops, bakeries, workshops, forges, dyeworks, guildhalls, and warehouses.

2. OTHER OLD WORLD

Shang (2 types)

- Sources: (Chang 1980; Thorp 2006)
- Comments: These data pertain to Anyang. Chang mentions two types of civic architecture: palaces and long buildings that may have been temples. Thorp also describes two types: palaces and mortuary temples.

Buildidng type	Shang	Chang'an	Angkor	W Africa
# of types of civic building	2	8	3	2
Administration:				
Basilica				
Library		х		
Office for officals		х		
Palace	Х	х	Х	х
prytaneion				
Governing assembly building				
Religion:				
Large temple		X	X	
Small temples/shrines	х	X	Х	х
Smaller cult buildings				
Seclusion compound		X		
Entertainment:				
Amphitheater				
Circus		Х		
Odia				
Stadium		х		
theater				

Chang'an (8 types)

• Sources: (Heng 1999; Steinhardt 1990)

• **Comments:** It appears that much of the variation in building types occurred within the large walled palace compounds. But such inner buildings are not civic structures, unless urban residents entered the palace compound to go to the building.

Angkor (3 types)

- **Sources:** (Coe and Evans 2019; Jacques 1999)
- **Comments:** Although historical sources state that Jayavarman built hospitals throughout the empire, in the absence of specific information I have not included hospitals for Angkor.

West Africa (2 types)

- **Sources:** (Hull 1976; Krapf-Askari 1969; Ojo 1966)
- Comment: The target area is late pre-European West Africa. Hull covers nearly all of pre-European sub-Saharan Africa, and these data may pertain to that entire area. He says: (p.112): "Without substantial revenue, an educated elite, and a large labor force, it would have been impossible for a town or city to undertake the construction of public buildings on a monumental scale. That so little monumental architecture exists in sub-Saharan Africa is probably a reflection of the difficulty in accumulating the necessary wealth and labor, particularly in societies with underdeveloped monetary systems." (112)

3. MESOAMERICA

Building type	Olmec	Maya	Teo	Aztec	Hohokam	Inka
# of types of civic building	3	7	4	6	2	5
Administration:						
Palace		x	x	x		X
Governing assembly building	х			х		X
Throne platform						
Religion:						
Large temple-pyramid		X	x	х		X
Temple	x	X	x	x		
Shrine		X	x	х		X
Ceremonial platform		X			x	
Observatory		X				
Seclusion compound						X
Entertainment:						
Ballcourt	х	X		х	х	

Olmec (3 types)

• *Sources:* (Flannery and Marcus 2012; Marcus and Flannery 2004; Redmond and Spencer 2008)

• **Comments**: I am considering both the Olmec settlements on the Gulf Coast—La Venta and San Lorenzo—and Early to Middle Formative settlements in Oaxaca and other areas. I interpret the "Men's houses" as governing assembly buildings.

Maya (7 types)

- **Sources**: (Andrews 1975) is my main source. (Pollock 1965) is useful, but has too many minor and idiosyncratic forms. Also, (de Montmollin 1995).
- Comments:

Teotihuacan (4 types)

- *Sources*: Personal knowledge.
- **Comments**: There has been no study of civic buildings at Teotihuacan, apart from studies of individual structures. Likely civic buildings exist, and some have been excavated, but they have not been described or studied. Although a possible ballcourt was excavated in the pre-Ciudadela deposits, this was destroyed and built over; unlike most other Mesoamerican cities, ballcourts were not part of the urban landscape of Teotihuacan.

Aztec (6 types)

- Sources: (López Luján 2006; Marquina 1964; Smith 2008)
- Comments: These data pertain to Tenochtitlan and to most known Aztec city-state capitals (Smith 2008). For the sacred precinct of Tenochtitlan, I include the Eagle Warriors House (López Luján 2006) as a Governing assembly building, and many of the specialized structures (Matos Moctezuma 2009) as Temples, Shrines, or Ceremonial platforms. Circular temples diverge from other temples in several respects (Smith 2008), but they are not separated here.

4. OTHER NEW WORLD

(SEE TABLE ABOVE)

Hohokam (2 types)

- Sources: (Abbott 2003; Bayman 2001).
- Comments:

Inca (5 types)

- **Sources:** (Farrington 2013; Gasparini and Margolies 1980; Morris and Thompson 1985; Protzen and Batson 1993)
- Comments: I categorize the kallanka as a Governing assembly building, and the Ushñu as
 a Throne platform. I do not include the fortesses at Cuzco and Ollantaytambo as civic
 buildings.

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