

**Urban Ruralism:
Greater Angkor and the Nature of Low-Density Urbanism**

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Introduction

Understanding urban structure is a valuable window into the values and intentions of the people that make up a city. Their choices about how to structure and frame urban space represent either conscious or unconscious decisions about the relative importance of different dimensions of social life. Additionally, it allows for identifying principles that define and bound what a society desires on small and large scales. Theories of the urban have begun to reframe urbanism as not merely a force within the city and its immediate hinterland, but across the whole of society. Brenner's "Planetary Urbanization" theory points to urbanization as a fundamental reconfiguration of society, networks of exchange, and networks of power (Brenner and Schmidt 2017). The expansion of cities and of urban footprints has placed their benefits and costs in greater focus. Cities now, and cities in the deep past have been plagued with poverty, overcrowding, inadequate transportation and public facilities, and most pressingly in the context of COVID-19, disease (McMahon 2020, 290). Conversely, it has been argued that such problems could have been mitigated by the benefits of city life, such as protection, access to a wider array of goods, the potential for social mobility, proximity/access to powerful intellectual or religious institutions, and superior public infrastructure (McMahon 2020, 2019-291).

Much of this thinking around the cost-benefit analysis of cities and city life was developed with a very specific image of the city in mind: the hyper-crowded industrial city, and its historical antecedents. That, however, is not the only type of urbanism that exists. Low-density urbanism is a version of urbanism that fundamentally differs from modern urbanism (or hyper-urbanism), and most types of urbanism in the ancient world (Fletcher 2011). Not only does low-density urbanism integrate agricultural production into the urban fabric, in an extreme version of modern dreams of urban gardening, but it also allows for the general social organization of the society to remain far more stable in the transition between urban

and 'suburban' space (whether or not that exists in a low-density context), and rural space (Murtha 2002). In low-density contexts, typical rural layouts and arrangements can be reproduced within the urban fabric, creating a life that provides many of the benefits of the urban without sacrificing the essential character of a more rural way of life.

At the city of Angkor in northern Cambodia, the division between hyper-urban and rural/suburban exists within the city itself. The city has an elaborate and complex urban network of earthworks, canals, ponds, storage tanks, temples, roads and administrative buildings, along with the structures of everyday life (Evans et al. 2007). The significance of state authority and of religious power is unmistakable in the symbolism of the layout of the city's public works (Gaucher 2002, 29). Even so, the significance and prominence of religious institutions, specifically temples, are no less diminished outside the ceremonial and administrative center, with hundreds ceremonial sites scattered throughout the city. Significantly, this is a comparable practice to rural Khmer villagers, as seen in southern Cambodia (Stark et al. 2015, 1442-1444). The reproduction of rural ways of life within the boundaries of cities extends beyond the low-density capital of the Khmer empire, and can be seen in other examples of low-density settlements globally, most notably, in the low-density cities of the Classic Maya in the Yucatan peninsula and adjacent highlands of Mexico and Guatemala.

This paper will not claim that low-density urbanism at Angkor, or anywhere else, is a full ruralization of urban life. What it argues is that at Angkor, outside of the ceremonial center, settlement structure preserves rural forms without significant modification by urbanism. It then will expand this argument beyond the Khmer, by comparison with the Classic Maya. Furthermore, this paper hopes to expand the base understanding of what low-density urbanism represents, not only a fundamental difference in land use and occupation density, but also the

integration and preservation of rural forms of spatial social organization into urban environments.

Background

Today, the monumental center of the city of Greater Angkor is protected by a UNESCO world heritage site that encompasses 400 square kilometers and protects the great temples and baray (monumental water tanks) of the city center, the Roulous area to the south, and the temple complex of Banteay Srei to the north (UNESCO). The city itself, however, is much larger, encompassing nearly 1000 square kilometers around the edge of Tonle Sap lake into the foothills of Mount Kulen (Evans et al. 2007, 14280). The city of Angkor grew out of earlier settlements at Ak Yum (what is now called the Rolous) and Hariharalaya in the 7th and 8th centuries C.E., which evolved and moved their centers before merging into Angkor, which lasted until the late 15th century (Fletcher 2012, 297). While the political landscape of the city was evolving with the movement of political and administrative centers, a vast water management network was taking shape. The first baray, the Indratataka, was built in the 9th century to serve Hariharalaya, and later in the same century, a new baray was built for the new center further north, Phnom Bakheng (Fletcher 2012, 298). The movement of administrative centers only ceased with the construction of Angkor Thom, a 9 square kilometer moated temple city, which housed administrative buildings, the palace and the state temple, the Bayon (Fletcher 2012, 298). The city's epicenter is even bigger, covering roughly 35 square kilometers, three and a half times larger than the entirety of Babylon at the city's height, and ten times the size of Manhattan's Central Park. (Evans et al. 2007, 12598, Mahan et al. 2020). Within this area and stretching out along roads, the city follows a regular grid pattern, which is more pronounced within the

enclosures of Angkor Thom and Angkor Wat, but is clear throughout much of the city's epicenter, as can be seen in Figure 1 and figure 2.

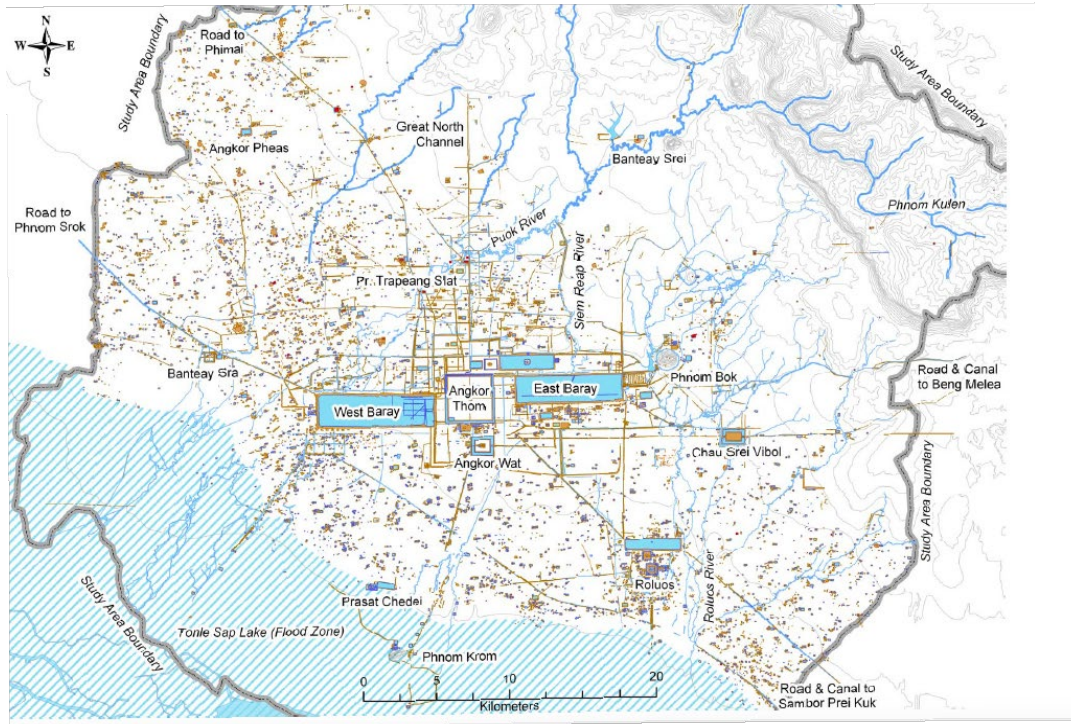


Figure 1. Full map of Angkor from Evans et al. 2007, 14280

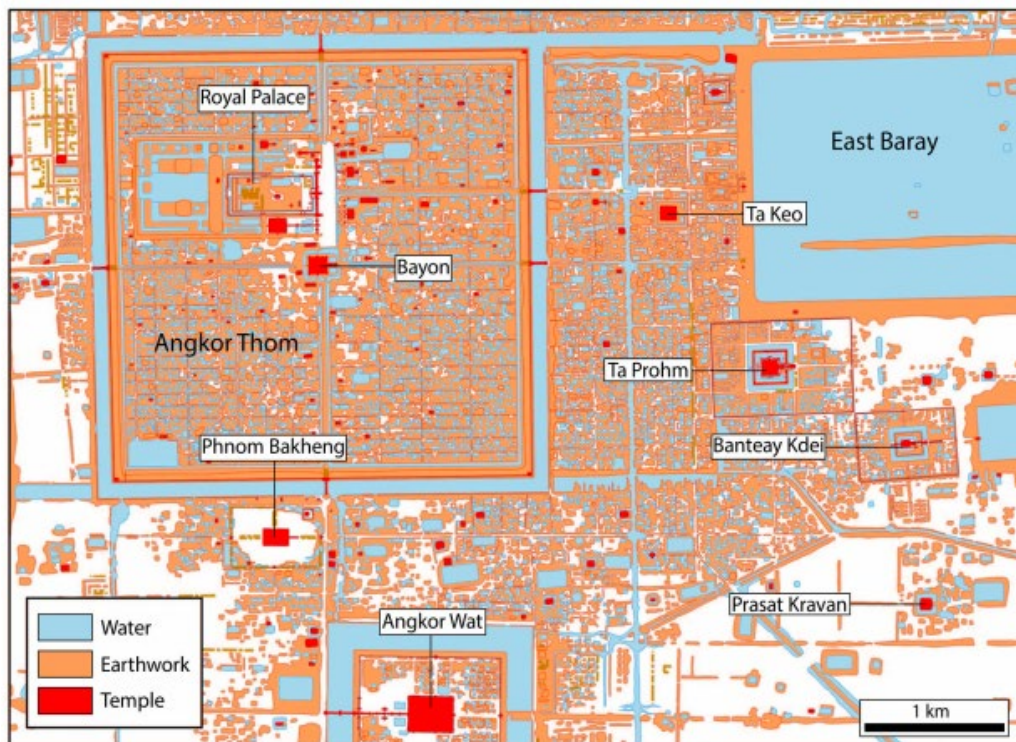


Figure 2. Detailed map of Angkor Thom, Angkor Wat and East Baray area from Carter et al. 2018, 493

The ordered regularity of central Angkor is striking. Not only are residential units repeated (as can be seen in figure 2), but major building projects, roads and temples all follow the same orientation along the cardinal directions and appear unified despite the hundreds of years over which they were built. The symmetry and synthesis of the center is not only visible from the air but is legible from ground level. The city itself was sandwiched between a mountain (Kulen) and a lake (Tonle Sap), and that duality is reproduced throughout Angkor with its temple mountains like Angkor Wat, the Bayon, and many others. East Baray, West Baray, Indratataka, and Jayatataka constituted the lakes in that symbolic duality (Gaucher 2002, 29-30). But it is not only at the grandest scale in which the intentional duality of mountain and lake is reproduced. As can be seen in figure 2, nearly every structure has its corresponding pond. It is certainly an overstatement to claim that the religious functions that are clearly visible at the largest scale are fundamentally the same at much smaller scales, however the repeated form points to the centrality of religious influences over the development of Angkor's urban nexus, and daily life and the same impact can be seen across Khmer settlements (Stark et al. 2015, 1444). At the smallest scale, ponds and water features are associated with dwellings, and temples exist in village level groupings. The association between house and pond can be seen clearly in the temple cities. At Angkor Wat the number of ponds is roughly equivalent to the number of building mounds, with an estimated 250-300 ponds and 283 mounds (Stark et al. 2015, 1444). As can be seen in Figure 2, these form a highly regular system of earthwork and pond in a grid pattern along the primary axes of the site. Even outside of the rectilinear and moated temple islands the regular pattern persists in Angkor's monumental center.

Traditional Khmer settlement patterns are quite different from the regular grid pattern seen in Angkor's epicenter. Broadly, Khmer settlement falls into three modal forms. The first is small clusters of mounds surrounding ponds and a moated mound to serve as a temple (Stark et al. 2015, 1442). This can be considered the "moat-and-mound temple-centered" configuration (Evans 2007, 24-26). There were also larger iterations of the "moat-and-mound temple-centered" configuration which has been interpreted as *phum* or villages, an administrative, settlement, and work unit that persists as the smallest unit of organization in Cambodia today (Stark et al. 2015, 1442). The final settlement form is dispersed moated mounds which are roughly associated with each other, instead of smaller unmoated mounds or mound groups (Stark et al. 2015 1443). I will call this type the "moated group" configuration. These modes existed before the Angkor period and have persisted long after, with only the grid system of Angkor's epicenter appearing with the rise of the city itself (Stark et al. 2015 1444).

Literature Review

Low-density urbanism was not originally an archaeologist's idea. The term was first used in the 1950's by a geographer, Jean Gottman, to describe the conurbation that existed along the east coast of the United States as seen in figure 3 (Fletcher 2011, 285). Gottman was seeking to understand the spatial configuration of what he called the "Megalopolis," or a string of closely interconnected urban sites (Morrill 2006, 155).

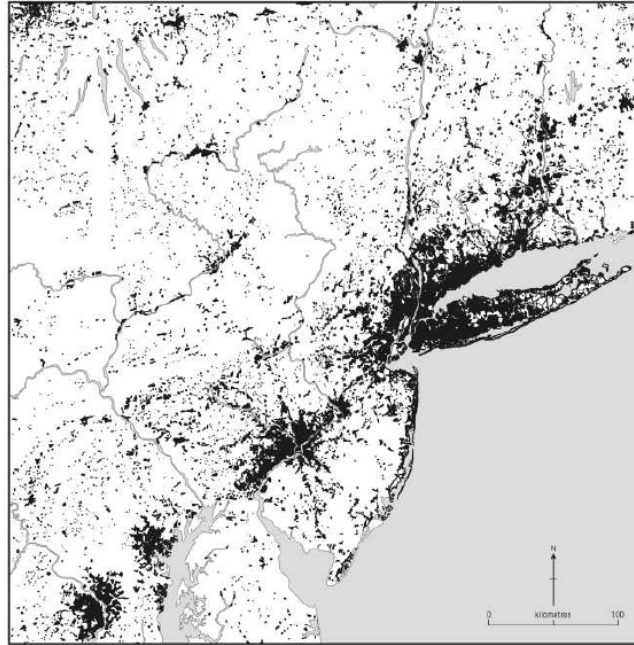


Figure 3. East coast Megalopolis From Fletcher 2011, 286

The crux of Gottman's idea is not that cities grow so large they eventually merge into a single urban entity, but rather that interconnected network of urban corridors incorporate 'rural' hinterland into the urban fabric, erasing urban edges. The urban rural boundary is replaced with isolated pockets of semi-rural life enmeshed within the urban network (Fletcher 2011, 284).

Settlement archaeologists studying the Maya, particularly the great ritual center of Tikal, discovered that these centers were similar to Gottman's concept of contemporary urbanism. They documented that Maya cities were surrounded by dispersed house mounds and plazas interconnected with raised causeways or *sacbe* (Fletcher 2011, 285).

As archaeologists were discovering the possibilities of low-density urbanism for understanding Mayan cities, the comparison was not lost on scholars studying the Khmer. In the 1960s, Bernard-Philippe Groslier began the first mapping of the city of Angkor (Evans et al. 2007 14277). While the project was cut short by the outbreak of conflict and did not uncover the true scale of the city, it did reveal the extensive water management network that bound the city

together and proposed that the system had been essential for Angkor's survival, both for irrigation and to store monsoon flood waters (Evans et al. 2007, 14277). This argument was contested by scholars arguing that the system was not sophisticated enough to accomplish the complex water management system envisioned by Groslier and other archaeologists working at Angkor (Evans et al. 2007 14278). With the advent of satellite mapping, however, many of the criticisms of the technical capacities of Angkor's water management system have been shown not to hold water.

The usefulness of the water management system appears to be threefold. First, the system served as a critical source of irrigation. Low-density urbanism can be considered as fundamentally agrarian with food producing regions enmeshed in an urban fabric. At the scale of preindustrial cities, this is reflected in the vast majority of city dwellers being involved in agricultural production on land directly adjacent, or very close to their dwellings (Fletcher 2011, 291). This is not, however, an exclusive pattern given that some cities in southeast Asia, such as Bagan in Myanmar, have been shown to primarily import their food from over 100 km away (Fletcher 2011, 292). This internal farming required a complex irrigation system in order to supply water to all the numerous fields scattered throughout the city. Second, flood control was an essential technical feature of the Angkor system. Southeast Asia has a marked weather pattern of wet and dry seasons. This seasonality means that the vast majority of rainfall falls within a short window of heavy monsoons that have an enormous effect on the water table and size of lakes and rivers. The Tonle Sap lake to the south of Angkor can expand up to five times its dry season size by the end of the rainy season (UNESCO). All that water would either be lost due to drainage into the Mekong River, or evaporation, and would cause catastrophic flooding if not controlled. All the channel breaks and barays in Angkor can store massive amounts of water, and likely managed to mitigate the impact of heavy rains while providing an extra source for water

for irrigation in the dry season. Additionally, the barays would have supplied drinking water. Along with large scale storage, small ponds are used by households as water sources during the dry season (Stark et al 2015, 1444). Third, the water management system, as well as the encircling cluster of temple mounts, both big and small, had a symbolic character. Not only was this system configuration a reflection of the natural and cosmological order, but it also represented the collection of a sacred substance since the water that flows off Mount Kulen, to Angkor's north was thought to possess healing properties (Chhem 2000, 25).

All of these factors make up the urban fabric of Angkor, but as noted above, the city's urban fabric has, in macro-spatial terms, a two-fold configuration. There is the regular orthogonal grid oriented along the east-west axis of all of the city's ritual structures (Gaucher 2002, 30). The grid system, organized with house mounds, or small groups of mounds with access to ponds, made up the primary structure of the city's center, clearly following a prescriptive orthogenetic form. Outside of the primary center, however, the regularity of the grid network and ordered construction begins to disappear, replaced by pre-existing rural modes of spatial organization (Fletcher 2011, 288). In both cases, water and the management of water delineates the space. In the ritual center, there are many moated temple islands, numerous large canals and barays. Outside the center, smaller moated temples, and communal ponds fill that role.

Methodology

The methodology for this project is relatively simple. First, the settlement pattern at Angkor was examined and compared to the three modal styles of rural Khmer settlement using existing mapping done by archaeologists Damian Evans, Miriam Stark, and Roland Fletcher. This was achieved through visual inspection, since using formal clustering methods was infeasible, and visual scanning was no less effective at capturing the variability of the three settlement types. To

draw further conclusions about the nature not just of Angkorian urbanism, but of low-density urbanism itself, the example of Angkor will then be compared to the best studied low-density urban society, that of the Lowland Classic Maya.

Results

Figure 4 provides reference for the three modal types of Khmer settlement. The figure is a satellite image of the Preah Phkoam area in southern Cambodia from Stark et al. 2015 1443.

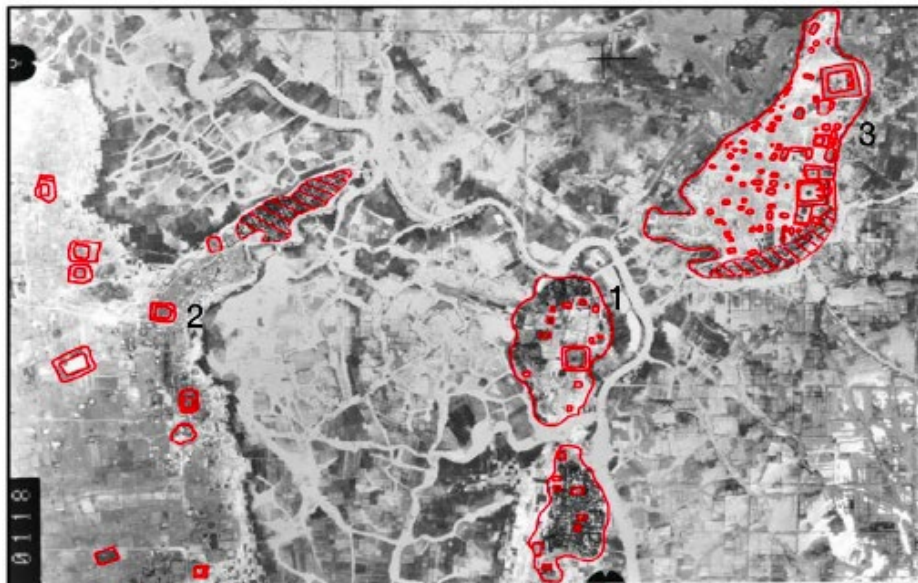


Figure 4. Examples of modal settlement adapted from Stark et al. 2015. Numbers for style reference. 1 is the “Moat-and-Mound Temple Centered” configuration. 2 is the “Moated Group” Configuration. 3 Is the *Phum* configuration

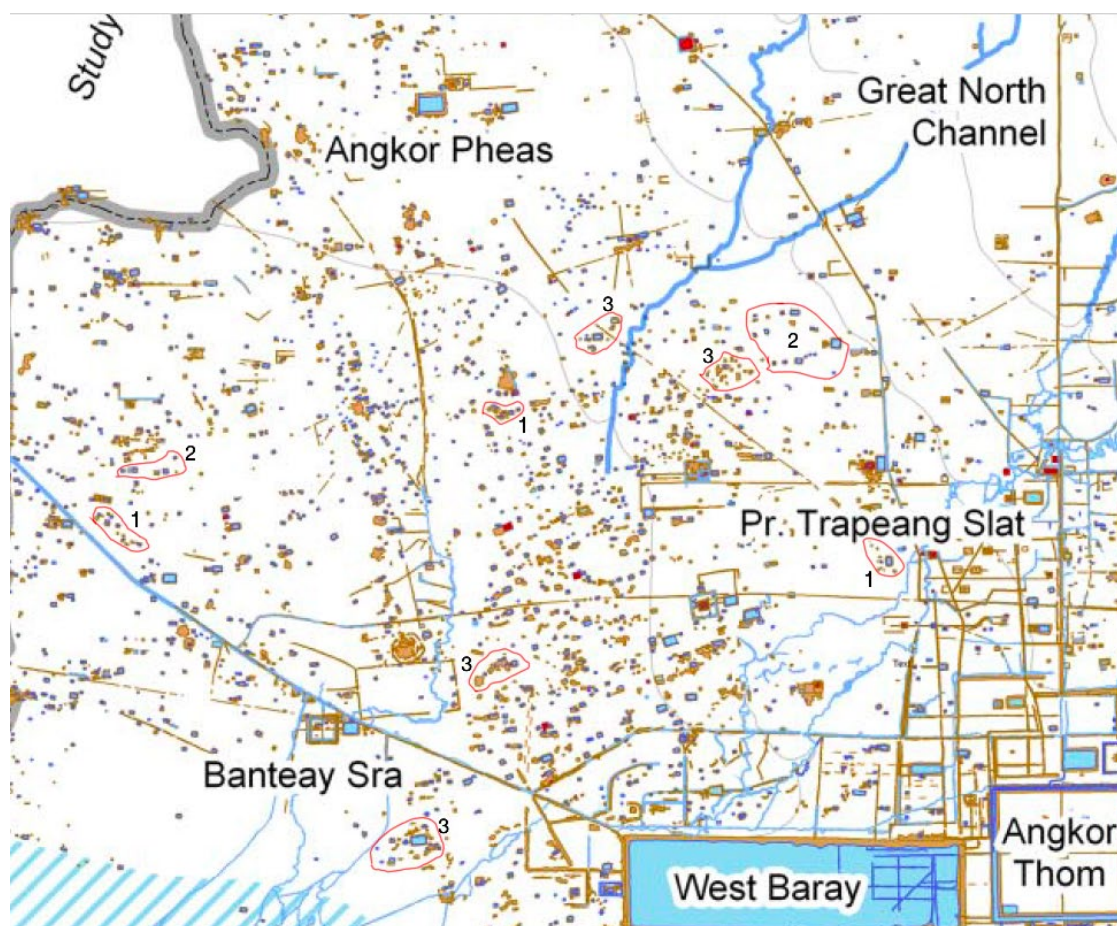


Figure 6. Portion of a map from Evans et al. 2007, 14280. Red markings and numbers added.

As can be seen from Figs. 5 and 6, relatively clear examples of rural residential patterning appear scattered throughout Angkor. The greatest challenge in identifying examples of modal settlement is the lack of spacing between *phum* and other settlement types when compared to the scale of the site as a whole. Each pixel in the satellite imaging on which this mapping was based has a resolution of at best 5 m. At the scale of image files used for published maps, each pixel contains several square meters of information as one single point of data, color coded as either earthwork (yellow) or water (blue), which at times compresses, creating purples and browns at the pixel-by-pixel level. These challenges make providing an exhaustive inventory of modal settlement sites

within Angkor impossible with freely available data. However, the results above should show that these urban forms of settlement do exist, and the reader might be able to identify more on close inspection.

Discussion

Identifying that Angkor shows both a centralized, orthogenetic city structure as well as rural styles of settlement does little to provide lessons about the low-density urban form as a whole. Variable forms of settlement, be they architectural styles, ethnic shops and food vendors, or merely socioeconomic divisions (and the associated forms that come with wealthy or poor neighborhoods) are common in cities today. Urban enclaves which are shaped by outside factors may include, for example, the various “Chinatowns” that exist in major US cities such as New York, Philadelphia, and San Francisco. In Chicago, Hyde Park is a relatively wealthy section of the city consisting of apartments and stately homes, surrounded by neighborhoods with much lower incomes (Crain’s Chicago Business). This can be seen visually, simply noting the difference in the streets and houses after crossing certain primary arteries or travel, and this is reflected in census data, as can be seen in figure 7.

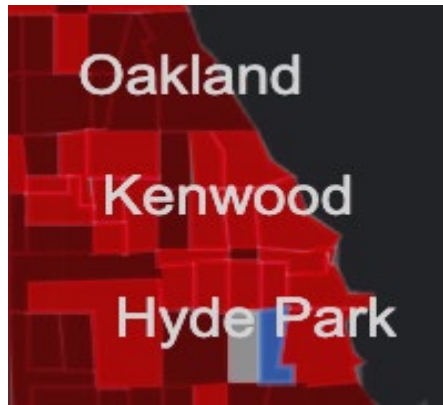


Figure 7 census tracts in Chicago color coded by distance above or below median US household income (red means poorer, darker blue means richer). From “Chicago’s Wealth Divide” by Crain’s Chicago Business. Url:

<https://www.arcgis.com/apps/Cascade/index.html?appid=13f012b816fc417296410bf957948703>

Similar kinds of urban enclaves existed in pre-modern Angkor. What is important to note is that at Angkor examples of rural forms of settlement exist as units within the larger conurbation, and that this settlement form is distinct from the formal orthogenetic pattern that exists within the city center. According to recent research, the regimented and regular forms of settlement at or near the temple enclosures and barays in the city center were used both by the nobility and by poorer families that worked as retainers to the elite inside the temples and palaces (Carter et al. 2018, 503). In some cases, such as at the Angkor Wat complex, full time staff would live within the grounds on a fortnight-on/fortnight-off basis (Stark et al. 2015, 1451). Angkor Thom, as its own unit of analysis, likely housed 16,000 individuals at its peak with a population density of nearly 18 persons per hectare, more than twice the population density projected for the city as a whole, despite large sectors of the complex occupied by the royal palace, the Bayon temple, and administrative buildings (Cater et al. 2018, 504). Gaucher (2003) has even argued that the only truly urban part of the city of Angkor is Angkor Thom, with the rest of the settlement lacking the

requisite qualities of urbanism. To make an argument that this form of settlement is essentially urban, we need to examine other instances of low-density urbanism.

Maya Urbanism

The Classic Maya form of low-density urbanism, like Angkor, has two components. There is the monumental epicenter, structured as open plazas with plastered grounds encircled by large temples, administrative buildings and palaces (Webster 2018, 130). Access to these monumental centers was provided by multiple, large-scale causeways that spread out into the hills surrounding the great centers. Along these transportation corridors, clusters of religious monuments, plazas, markets and ball courts provided goods and services to thousands of household and neighborhood mound clusters that rested atop the hills. Adjacent lands were occupied by agricultural fields, or *bajos* (natural or artificially constructed depressions) that stored water. At Mayan cities, there are fewer orthogenetic urban spaces. Outside the main temple district of these cities, larger houses owned by city elites, as well as reservoirs used for storing water for the long dry season, were constructed. These residential districts beyond the temple-palace complex of the core area follow the same settlement pattern as the rest of the city, only with larger and somewhat more densely packed plaza groups. But this does not display a fundamentally different form of settlement. Additionally, there is much less of a clear geometric structuring component in most Mayan cities. Often, they rise up around springs, as is the case at Tikal (Scarborough et al. 2012, 12408). Figure 8 shows a map of the central area of Tikal. Mayan households created plaza groups of two or more buildings around a central plaza or courtyard, bigger and more complex plaza groups suggest greater wealth and status, but the growth is an elaboration of the smaller plaza style, not its own form of settlement (Webster, 2018).



Figure 8. Map of Tikal in the 9th century AD. From Fletcher 2012, 287

Rural Lifeways and Organization

In extending this comparative analysis of low-density urbanism, as noted previously, Khmer settlement outside of the cities generally follows three modal patterns and were fundamentally organized at the *phum* level. *Phum* are villages, so smaller units of settlement do exist in modal forms 1 and 2, but the *phum* was the lowest level of *administrative* organization. It should be noted that modal form 1 the “Moat-and-Mound Temple Centered” configuration

may also conform to the *phum* system for organizational and administrative purposes (Stark et al 2015, 1443). In terms of lifestyle, Khmer people built their temples in the same moated style and lived-in groups surrounding ponds that served to store water to last the long dry season (Stark et al 2015, 1444). In terms of agricultural production, the Khmer followed similar practices to the Maya, despite obvious differences in staple foods and farming conditions. Both cultures practiced a mix of swidden agriculture and more permanent man-made agricultural installations created to maximize yields (Fletcher 2011, 307). Swidden agriculture is a method of maximizing yield in less productive regions. The practice involves controlled burns on land to be cultivated followed by a short period of cultivation, before abandonment of the area for regeneration (Emerson 1953). The burning is essential in returning nutrients to the soil that would otherwise be depleted by clearing. In the Maya region, these controlled burns are an essential component of the milpa system, which generally involves semi-mobile communities, or permanent villages who grow crops in 2-3-year periods on cultivated land, before leaving those fields for at least 10 years to allow the soil to regenerate (Emerson 1953). The case of the Maya has certain complexities in terms of comparison, with the primary one being the poor quality of the soil in much of the Yucatan, rendering swidden agriculture absolutely necessary for much of the region. The Yucatan Peninsula consists of a massive limestone karst with little surface water and dense tropical forest. In general, soils are thin and nutrient poor, and when trees are removed for cultivation, underlying soil becomes susceptible to erosion which further decreases productivity (Murtha 2002).

In Cambodia, agricultural production is, in general terms, similar. Rice cultivation poses additional organizational hurdles, particularly as banded (flooded field) cultivation requires significant labor investment and is only possible on flat land. On slopes, much like in the

Yucatan, swidden agriculture is practiced with dry rice fields to maximize total yield (Fletcher 2011, 307). Since the agricultural systems of these two, very distinct peoples carry many similarities, it is unsurprising that similar forms of settlement arose in both cases.

Socio-political Organization in Low-density and Incipient Cities

What makes low-density agricultural cities, especially the Maya and Khmer examples, distinct is the integration of agricultural production into everyday life, and into the fabric of the city itself. In other somewhat dispersed settlements, such as the Shang capital of Yin, or early cities in Northern Mesopotamia, more dispersed settlement is thought to function as a tool for creating social distance between kin groups, reducing the potential for internal conflicts that could tear the city apart, while maintaining the kin-relationships that structured daily life (McMahon 2020, 321). This social distance is magnified in low-density cities. Based on the average human walking speed of 5 km/h, it would be challenging for someone on the fringes of Angkor to reach the city center in a single day of walking (Montufar 2002, 90, Evans et al. 2007, 14280). This distance changes the dynamics between family and sub-city units within the city as a whole. In the case of the Maya, the answer is extra-large kinship-based neighborhoods of plaza groups, dispersed primarily around the tops of hills, much in the vein of Maya villages. (Webster 2018, 21, Garrison, Houston, and Firpi 2019). Extended families would live and work together within the same unit with their fields separating them from neighboring kin groups (Webster 2018 21).

At Angkor, outside of the orthogenetic center, this manifested in the reproduction of *phum* villages replete with their own moated temples, ponds and residential clusters that were not exclusively dependent on the massive Angkorian investment in centralized water features and hydraulic systems, and temples. There is not a dispersed network of state run baray, or large monastery/temples throughout Angkor. The density of Angkor's center is unmistakable, and the

scale is far beyond anything outside the city center (Goucher 2002, Goucher 2003). In both the Maya and Angkor cases, however, the pattern of low density, extended urbanism allowed for local practice to exist simultaneously in the shadow of state religion. In the greater Angkor complex, temples number in the hundreds and are essential units of local life outside of the state-run monastic/educational tradition that occurred in the monumental epicenter (Chhem 2000, Evans et al. 2007, 14280).

In the Maya world, outside of the temples and monuments in the city center, or the smaller monuments that were built along radial causeways, the local practice of ancestor worship was still an essential part of Mayan religious life (McAnany and Varela 1999, 156). The practice is actually a challenge to Mayan demographers, since the practice of burying ancestors under abandoned buildings that would subsequently serve as shrines creates a challenge for assessing actual population densities based on structure density. All structures were not inhabited contemporaneously (McAnany and Varela 1999, 156). This practice, like ancestor worship in other contexts, constructs a local community identity, and reinforces intergenerational bonds (McAnany and Varela 1999, 156). The whole of the Mayan city operated on a similar principle with the kings and their ancestors operating as the founding principle and source of local identity, but those social bonds would, by necessity, be more tenuous in their construction when compared to local practices (Webster 2018, 93).

While it is not the purpose of this paper to speculate on the exact causes of the continued assertions of rural lifeways within the low-density urban environment, there may be some hints in the development of the modern city of La Paz, the capital of Bolivia. As the city was growing, there was an influx of Aymara (a local Amerindian ethnic group) into the city's metropolitan area. They resettled in village units in the plain above the city creating a densely packed network of groupings crafted out of a village identity that was carried and reconstituted in the city. This

form persisted before globalization began to erase those boundaries among the youngest generation in what had now become its own city of El Alto (Kolata 2021, personal communication). With the far greater isolation afforded by the very structure of low-density urbanism, and the far more limited forces of ‘globalism’ that might have created new identities out of old ones it is unsurprising that rural practices and lifeways were maintained within cities like Angkor.

Conclusion

The case of Angkor helps to bring the concept of low-density urbanism, and of urbanism itself into focus. To begin, it would be best to consider the modern definition of ‘urban.’ In *The Handbook of Urban Studies*, the city is defined by three factors: ecological, economic, and social (Frey and Zimmer 2001). The ecological element focuses on high population and population density in comparison to the surrounding area; economic, on the high degree of non-agricultural production as a share of total production, compared to the surrounding area. Additionally, urban production involves a greater diversity of goods and services when compared to the surrounding area. The social element is the most difficult to define concretely but urban spaces have some ‘urban mindset’ that is different from their associated rural counterparts. Put another way there is an urban identity that exists in cities, both as cities themselves, and in relation to their associated hinterlands (Frey and Zimmer 2001). It is clear from this definition that ‘urban’ in this form is defined in relation to ‘rural’ forms. Modern examples can serve to illustrate these ideas. Firstly, is the idea of “moving to the big city” which exists globally. While each “big city” carries its own unique meaning (moving from the Sierra Nevada to Los Angeles is certainly different than moving from Hokkaido to Tokyo, or Xinjiang to Shanghai), there is undoubtedly a commonality in the experience of a city’s bigness, which can in part be explained when considering the first two factors. Apart from that, each city has its own identity. For a simple example, consider the

“city that never sleeps”. Due to American cultural dominance in the post-World War II era, New York City has gained enormous cultural cachet, and its cultural institutions, such as the Metropolitan Opera and Broadway are recognized around the world. Centrifugal cultural force and high residential and institutional density characterize “global cities” such as New York.

Low-density cities seem to challenge this definition, which has led to a long-standing debate as to whether they can be considered cities at all (Goucher 2003). While these cities do have greater aggregations of population than village communities, the difference is not as stark as it was at Uruk, Babylon, or Rome. Here the low-density city can draw comparison to the modern megalopolis, which similarly grades out into rural lands without a clearly defined border, and due to heterogeneity, population density is defined more by the scale of analysis. With economic specialization, the gradations follow the model of the megalopolis. Compared to a city like Uruk or Babylon, where surpluses are mobilized from outlying villages in order to feed the urban population, Angkor or Tikal both have a much higher share of agricultural production as the social and economic core of their urban function (Mahan and Hazma 2020, Fletcher 2011). At the same time, these cities produce unique prestige goods, and crucially, unique architecture and architectural forms. Great monasteries, urban grids, and massive barays are not staples of Khmer life, but they exist in Angkor in great abundance (Fletcher et al. 2008).

Urban identity is perhaps the most difficult thing to identify in the archaeological record. This is especially true when rural forms of life intrude on the urban (or as some will argue, vice versa), as is the case at Angkor. If rural identity appears to be visible at Angkor in its suburbs, then is there any urban identity, and if so, does it extend beyond the elite classes who live in the city’s center? I argue, yes. While the trappings of the urban identity would almost certainly be far stronger closer to the core, in an agrarian society, social factors must be more important driving factors behind urban growth. As a general rule, people move to cities because of the economic

opportunities and social capital they provide over rural life (McMahon 2020, 290). At Angkor those incentives might look something like this. Superior hydraulic infrastructure would likely improve the rice harvest and reduce risk during the dry season. The city's religious and economic institutions could provide upward mobility through better employment and the possibility of education, but those opportunities would be limited by the scale of Angkor, and its place as the imperial capital. Finally, the city held the greatest religious institutions in the area, and was itself reproducing part of the local cosmology, rendering the city a holy place. The idea that religious forces might be the binding agent is strengthened by the Mayan example.

The Classic Maya, from what we can understand, lacked even a word for 'city'; place names themselves seem to lack the crucial importance they have in other places, where urban citizenship functions as a personal identifier. Instead, these ideas were bound up in kings, and their relationships to their neighbors, crafting a local identity out of the king's own identity (Webster 2018, 24). This is quite significant considering that Mayan kings styled themselves as divine and had no need to share that divine mandate with a priestly class. Proximity to the ruler in this context can be viewed as proximity to the divine (Webster 2018). Between living close to a divine ruler, or far from one, the benefit of living within the city becomes more clear. Additionally, a motivation outside of economic factors for aggregating would also help explain why the majority of the urban population was still primarily engaged in agricultural production: the focus of the urban was elsewhere.

It can be accepted then that low-density urbanism allows for the reproduction of rural lifeways and economies because it is a type of urbanism that places the function of the urban on religious or cultural forces instead of economic or demographic ones. To return to the concept of the megalopolis, not only does this concept allow for dispersed and unbounded forms of urbanism, but it can also help contextualize Brenner's concept of Planetary Urbanism. Planetary

Urbanism, as Brenner and Schmidt articulate it, describes a world in which the urban has infiltrated every aspect of life. Rural lands, to the extent that they still exist, serve as production resources enmeshed in the global supply chain. They produce goods for urban markets, and consume goods produced in urban markets (Brenner 2020, personal communication). This concept can be inverted. It allows for an intensely integrated urban fabric that still has spaces for something that can be called rural. The rural space that exists under planetary urbanism takes on a different quality than a bucolic fantasy of quiet agrarianism but is nonetheless different in form and experience from other forms of living. While Angkor was by no means a planetary force, or part of any sort of planetary economic network, its urban form creates a small-scale version of this vision, rural life and urban life existing side-by-side integrated into a single entity.

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