Introduction
Urbanism in Mesoamerica is a much-debated topic. In their 1989 paper "The Mesoamerican Urban Tradition", Sanders and Webster drew distinctions between Maya and Central Mexican cities, identifying the former as "regal-ritual" cities and the latter as "administrative" cities (classification system after Fox 1977). In a rebuttal paper, Chase, Chase and Haviland (1990) argued that Sanders and Webster had underestimated the urban qualities of Classic Maya cities. Just last month David Webster sent me a new paper that continues the debate. In this paper, Sanders and Webster take their distinctions a step further, ultimately suggesting that the central Mexican cities are so far advanced beyond their Maya counterparts that they "should probably never have applied the word city even in a qualified sense" to the centers of the ancient Maya (Webster and Sanders 2001). On the one hand, I concede their point. The central Mexican cities were much more urbanized than those built by the Maya. On the other hand, I take exception to their assertion that the centers of Classic Maya civilization should not be called cities. Just because they did not reach the same degree of urbanization as Central Mexico is not grounds for removing them from the category of city. Urbanism, by definition, is the way of life within a city. Based on the core qualities commonly cited as indicative of urbanism, the recently completed Palenque Mapping Project map provides new information supporting Palenque's identity as a city. This paper will discuss Palenque's urban qualities, not in comparison to Mesoamerica as a whole but rather specifically within the context of Classic Maya culture. Some of the more common characteristics used to define urbanism

A high resolution version of this map suitable for printing is available at www.mesoweb.com/palenque/resources/maps/print.html.
will be reviewed for their presence or absence at Palenque. That data in turn will be compared to what we know of other Classic Maya cities.

**Settlement Density**

The Palenque Mapping Project (PMP) recorded 1481 structures and 16 linear kilometers of terracing in a 2.2 sq. km area (Map 1 total map). The area covered by the map should be considered Palenque's "core" settlement, not the core and periphery combined for the site's total settlement area. Even more so than Tikal's core bounded by bajos and earthworks (Haviland 1970) or Copan's alluvial valley floor (Willey, Leventhal and Fash 1978), Palenque's plateau location provides a clear boundary for its core area. However, unlike Tikal and Copan, Palenque's immediate periphery has an extremely low settlement density, almost negligible compared to the city's core.

The surrounding mountainsides were apparently too steep for building and the plains to the north were seasonally inundated (Map 2). Palenque is isolated by geographic circumscription. There is simply a lack of habitable land around Palenque's center. Blom and La Farge (1926-27) estimated Palenque's settlement to extend 16 square kilometers around its center. While it is true that ruined structures are found that far outside the center, they are so infrequent that it would be misleading to call them peripheral settlement. My research indicates that Palenque is at most 3 sq km of core surrounded by small pockets of peripheral settlement.

All excavation evidence to date suggests that Palenque, similar to many Classic sites, reached its population peak in the Late Classic. For the purposes of this discussion, we will assume that the majority of the city's structures were occupied during that time period. Table 1 compares an estimated Palenque Late Classic settlement density peak to data reported from contemporary cities. The results indicate Palenque was second only to Copan in the degree to which its community was nucleated.

**Population Size**

Table 2 shows Palenque's population density is high, but its lack of peripheral settlement makes its overall population size small compared to contemporary Classic Period cities. Current evidence of core settlement at Palenque supports no more than 6220 people at its peak population. Though continued survey of the city's scant periphery will doubtless increase that number, it will never rise to the

<table>
<thead>
<tr>
<th>Site</th>
<th>Core Area (km²)</th>
<th>Structures / km²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copan</td>
<td>0.6</td>
<td>1449</td>
</tr>
<tr>
<td>Palenque</td>
<td>2.2</td>
<td>673</td>
</tr>
<tr>
<td>Dzibilchaltun</td>
<td>19.0</td>
<td>442</td>
</tr>
<tr>
<td>Caracol</td>
<td>2.2</td>
<td>300</td>
</tr>
<tr>
<td>Siebal</td>
<td>1.6</td>
<td>275</td>
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<tr>
<td>Tikal</td>
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</tr>
<tr>
<td>Becan</td>
<td>3.0</td>
<td>222</td>
</tr>
<tr>
<td>Sayil</td>
<td>2.4</td>
<td>220</td>
</tr>
<tr>
<td>Quirigua</td>
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<td>Uaxactun</td>
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</tr>
<tr>
<td>Nohmul</td>
<td>4.0</td>
<td>58</td>
</tr>
</tbody>
</table>

*(Adapted from Sharer 1994 and Rice and Culbert 1990).*

**Table 1. Core area urban settlement densities at selected Classic Maya sites.**
levels known to have lived within sites like Tikal, Caracol and Copan.

**Social Diversity**
Social diversity is a key component of the urban setting but can be difficult to detect in an abandoned and ruined city. Archaeologists typically look for differences in housing types and burial goods and evidence of occupational specialization through presence of craft workshops. In Palenque, the great variation in building sizes and patio arrangements is evidence in support of social diversity. Palenque's many burials excavated by Blom in the 1920's showed great diversity in accompanying goods (Blom and La Farge 1926-27). As for craft workshops, however, only two possible areas have been thus far discovered; an incensario workshop area found by Rands (1974) in the 1970's approximately one kilometer east of the Palace and a possible masonry workshop found in Group H during the 1998 season of the PMP. Though this is indeed little evidence of craft production, bear in mind that the absence of craft workshops in Maya sites is common. At Tikal only two ceramic workshops (Chase, Chase and Haviland 1990) have been found. At Sayil, only one ceramic workshop was found (Symth and Dore 1994). The new paper by Webster and Sanders (2001) cites Copan specifically as an example of a site that has been intensively surveyed and yet produced very little workshop evidence.

**Roads**
Not a single road or causeway was found during the course of the PMP survey. The two bridges crossing the Otulum and the Murcielagos seem likely to have been linked by a causeway but that area is now covered by a prepared tourist trail.

Two potential roads have been located outside of Palenque's core. The first, identified but not investigated (Liendo 1999), runs roughly east-west along a series of low hills in the plains below the city. The second is located roughly three kilometers east of the city. Unlike the long straight roads and causeways of Yucatan and the Peten, these roads, if they are indeed roads, curve frequently and cannot be easily tracked through destroyed sections. Neither of these hypothesized roads have been tested archaeologically or shown to lead into Palenque's urban core. In sum, while intra-site transportation undoubtedly occurred at Palenque, no archaeological evidence has been found attesting to it.

**Subsistence**
A community with a significant portion of its population separated from farming activities needs the support of an intensive agricultural system. Rodrigo Liendo (1999) has identified

![Map 3. The Ach’ Group and connecting terracing.](image-url)
irrigation canals and agricultural terracing in the plains directly below the city's plateau. Some of those terraces, the ones within and to the east of Mayabell Campground, were mapped during the PMP survey (Map 3). The terraces are wide, gently sloped and do not have structures built upon them. They also connect to the only off-plateau public plaza at Palenque, the Ach' Group. The Maya "L", the dominant structure of that 80x80 meter plaza, has a distinctly public architectural form.

Figure 1 is Heather Hurst's reconstruction drawing of the Maya "L". Its 30-meter wide staircase leads six meters up to a 50-meter long, L-shaped superstructure. Its front face had fourteen entry points into the structure. Fifty

Map 4. Potential tree grove locations.
column stubs are still visible on the super-structure surface. Its direct association with agricultural terracing and irrigation canals makes it logical to assume it too is involved in subsistence activities, perhaps as a farmers market, co-op or surplus redistribution center.

There is growing evidence of potential tree groves within Palenque's core settlement. In modern and historic times, Tabasco and Northern Chiapas have been centers for the arboriculture industry. The region is known for its cacao in particular. At Tikal, Haviland (1970) proposed that its inhabitants' diets were supplemented by breadfruit trees grown within and around patio groups, not unlike the in-fields described at Sayil (Symth and Dore 1994). It is proposed here that a similar subsistence strategy was employed at Palenque. The Map 4 demonstrates six areas suspiciously free of ancient structures. These same areas have sporadic tree groves within their boundaries. This is mentioned not to suggest that the same groves have been there since antiquity but rather to note that the area can support groves.

Palenque's ancient name was Lakam Ha', translating "Big Water". The glyph translated as Lakam, however, is actually an iconographic representation of a tree (Figure 2). Its translation is based on phonetic substitutions found at other sites. If Palenque, as hypothesized here, was using fruiting trees for subsistence and trade, then it may give rise to a rethinking of why the hieroglyph Lakam, meaning "big" is iconographically represented as a bent over tree.

Wrapping around Pakal's sarcophagus are relief carvings representing a sequence of royal ancestors that had come before him (Figure 3). Each ancestor is depicted emerging from a fruiting tree, trees with leaves very much like the Lakam of Palenque's toponym. As noted by Merle Greene Robertson (1983) and McAnany (1995), each tree has a different kind of fruit. In McAnany's interpretation the trees symbolize the longevity of the royal lineage. It is suggested here that the trees, while definitely symbolizing the lineage, were also emphasizing one of their most valuable resources, fruiting tree groves.

Public Works
Terracing encountered outside of Maya city centers is typically determined to be agricultural. At Palenque, terracing appears instead to have been employed to stabilize hillside residential sectors. Groups both east and west of Palenque's center contain residential terracing. Most groups contain multiple terraces running over 100 meters in length. In total, over 16 linear kilometers of terraces have now been documented at Palenque. The important point to note here is that these hundreds of terraces were neither ritual nor agricultural in function. They were put in place to allow residential settlement of Palenque's hillsides and to protect structures on the plateau from soil

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Figure 2. Palenque's toponym for its central precinct.

Figure 3. The west side of Pakal's sarcophagus (drawing by Merle Greene Robertson).
erosion. Major city labor and material resources were spent to increase habitable land so that a sizable, non-elite population could live close by the center.

The Xinil Pa' Group alone contains over a kilometer of interconnected terracing (Map 5). The scale of these terraces clearly required the supervision of skilled engineers and an organized labor force of a size beyond extended family numbers. The sophistication of their erosion-control building techniques is testified to by the fact that the terraces have remained in place against over a millennium of rainy seasons (Figure 4).

These terraces had to withstand the forces of intense rainy season water flow down the hillsides and direct it away from the habitation. Another aspect of Palenque I would term "public works" is the city's intensive water management system, found not only in the center but in the neighborhoods as well.

Conclusion
This paper has attempted to be objective, illuminating points for and against Palenque's identification as an urban center. In terms of settlement density, or nucleation, Palenque is second only to Copan. Current estimates of population size, however, are relatively small. The intensive agriculture systems found beneath the city support the belief that Palenque's core population was separated from farming, but evidence of social diversity within the core is still lacking. In this author's opinion, it is Palenque's "public works" that hold the city's greatest evidence of urbanism. In the many terraces and canals, we see major city resources expended not on the glorification of the royal family and not exclusively in the city's central precinct. These major constructions outside the central precinct seem to have focused on opening and securing habitable land within the city, denoting a civic-mindedness rarely evidenced among the Classic Period Maya.

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Figure 4. Year 2000 photo of an intact terrace segment in the Encantado Group.
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