

# Recent Investigations in the Salto de Agua Region: Sites, Territories, and Frontiers to the West of Palenque<sup>1</sup>

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Fifteen years of regional investigations have led to the conclusion that the ancient kingdom of Palenque should not be viewed as an isolated and self-sufficient civic-ceremonial core, but rather a territorial dominion that negotiated complex relationships with the surrounding populations in the definition of territory, frontiers, and routes of communication (Liendo Stuardo 1999, 2001, 2002, 2007; Silva de la Mora 2008). Recent investigations suggest that from the Late Preclassic until the end of the Classic period, the inhabitants of the Palenque–Salto de Agua region, which borders the Palenque kingdom on the west, controlled the most important routes of passage from Palenque to the Tulija river and from the Sierra del Lacandon to the coastal plains of Tabasco. Centers with civic-ceremonial functions, control points, and river landings were maintained to keep watch on the east bank of the rivers Tulija and Michol, these being the most important communication routes for the exchange of goods and ideas, as well as most likely comprising the western frontier of Palenque’s domain. By the application of systematic surface reconnaissance and stratigraphic test-pitting we have at last begun to understand one of the least-known regions in the northwestern Maya lowlands (Bassie-Sweet et al. 2002; Blom and La Farge 1926; Hernández 1984; Rands 1967). This article presents supportive evidence in the form of our own preliminary findings from the region, coupled with a general overview of the study area, including population distribution, territorial characteristics, and reconnaissance of micro-regions. We conclude with a proposal that the western frontier of Palenque’s dominion was marked by the Tulija River.

## The research project

The study area comprises some 120 km<sup>2</sup>, bounded on the north by the Michol River, on the south by the Sierra Norte de Chiapas and the Corozo Valley, on the east by Santa Isabel, and on the west by the Tulija River (Figure 1). The 60 sites that have been registered so far vary from isolated platforms, patio-oriented groups, informally oriented platforms, and sites with civic-ceremonial functions. Among this last category are Ampliación Cerro Norte, El Retiro, Miraflores, Cástulo Pérez, and San Miguel. We have also registered caves with evidence of ritual activity, areas with agricultural terracing, and a quartz and silex quarry, as well as areas

prepared for transit between sites or toward the river valley of the Tulija. In this context, it has been important to identify control platforms in the entries and exits to valleys and along the Michol River, throwing in relief the important role of the Palenque–Salto de Agua region as an area of constant transit of people, resources, and information. We have also classified the study area into geomorphological units, and investigated the use and degradation of soils in order to reconstruct habitation patterns in relation to ecological context. We are currently finishing an analysis whose results are expected to contribute to the reconstruction of settlement patterns; additionally, this work should improve our understanding of the territorial relations between the civic-ceremonial nucleus and the sustainment area of Palenque and the populations to the west.

## The Palenque–Salto de Agua region

The landscape of the region can be classified into five great geomorphological units: upland terrain, foothills, valley, plain with low hills, and fluvial terraces. Based on this classification, we have a point of departure for reconstruction of the population distributions and the territories in relation to the environment. In this regard, the most complex sites in terms of architectural forms (plazas, temple structures, L-shaped platforms, stepped substructures, and ballcourts) correspond to the civic-ceremonial centers and groups of platforms distributed in areas of upland terrain and foothills. Valley entrances and exits were occupied by control platforms characterized by megalithic limestone architecture (Figure 2). Plains and low hills accommodated patio-oriented groups, informal groups, and/or isolated platforms. River banks supported platform groups, as well as the remains of canals and elevated fields

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Figure 1. General location of the study area in the Palenque region. The modern community of Salto de Agua is located at the confluence of the Michol and the Tulija rivers.



Figure 2. Site N2W4-614. Platform with megalithic architecture at the entrance to the Corozo Valley.

associated with the Michol and landings associated with the Tulija (Figures 3–4).

In the uplands another interesting pattern can be deduced from the relationship of platform groups to agricultural terraces. This makes sense given that the most productive soils in both Prehispanic and modern times are leptosols and rendzinas, located in the uplands and on hillsides (Figure 5). While the *World Reference Base for Soil Resources* (FAO 2006) emphasizes the scant productivity of leptosols, it should be noted that this only takes into account current methods of industrialized agricultural production and ignores the fact that numerous societies in Mesoamerica and other parts of the world have achieved advanced modes of settlement and sustainability that should not be compared with the pressures and effects of the current market economy (Ibáñez 2010). In the region, leptosols are rich in organic matter, nutrients, and calcium carbonate, especially those on hillsides that were adapted for terraces; these areas were suited for the cultivation and management of fine wood and fruit trees, as well as various grains and legumes basic to the Prehispanic and modern diet such as maize, beans, squash, and chiles.

The remainder of the geomorphological units present less agriculturally productive soils, such as vertisols, fluvisols, and arenosols. Fluvisols are distributed along the Michol, Agua Blanca, Miraflores, and Tulija rivers. These entail soils built up in alluvial deposits where constant sedimentation in the flood season brings rich nutrients to the soil; as a result, the agricultural potential is elevated. The use of canals in areas of fluvisols during periodic inundations made it possible to recover (through drainage) fresh sediments rich in organic matter for agricultural use. Both in the immediate sustainment area of Palenque and the Salto de Agua region areas with fluvisols show archaeological evidence of canals and raised fields for cultivation (Liendo Stuardo 2007). However, it is important to mention that in the study area the frequency of this evidence decreases in comparison to the Palenque sustainment area, and there seems to have been a preference for locating agricultural fields on terraces in areas of leptosols.

In the case of vertisols, these offer banks of clay with potential for ceramic production, while the arenosols in front of the Sierra Norte are rich in quartz and offer possibilities for ceramic temper. Arenosols can also be used for cement when combined with lime.

Another interesting pattern is found in the foothills, where one frequently finds isolated platforms or dispersed groups of platforms in association with banks of clay, quartz, or siliceous.

The distribution of these sites on a digital elevation model following the AMOEBA clustering method reveals an interesting pattern (Figure 6). It is evident that at the point of maximum occupation during the Late Classic, the population was in general rather dispersed in the uplands in formal and informal architectural groups, while the points of greatest concentration were around

El Retiro. That site and Miraflores were the two most important civic-ceremonial centers in the region (Figure 7). The importance to the ancient inhabitants of visual control of the course of the Michol river is also evident. Downstream of its tributaries, the Agua Blanca and the Miraflores, the Michol is navigable until it discharges into the Tulija. In this context, Las Colmenas and Cástulo Pérez are sites whose complexity and architectural orientation evince the importance of visual control of the fluvial routes of communication. And it is important to mention the concentration of population around San Miguel, a civic-ceremonial site associated with the junction of the rivers Michol and Tulija, as well as two landings constructed on the east bank of the latter (Figures 8).

In general terms, we suggest that the populations in the west are best understood within a context of spatial integration with El Retiro and Miraflores as the nodal points. Departing from the civic-ceremonial nucleus of both sites, the distribution of structures shows continuity within an overall context of dispersion. This is to say that between the two sites there are no empty spaces marking their limits; the entire zone was occupied by areas of agricultural terraces and dispersed formal and informal architectural groups until one reached the densely constructed nucleus of both sites. Moreover, surface reconnaissance recorded an area of approximately 10 km<sup>2</sup> between Santa Isabel and Ampliación Cerro Norte in which the occupation was nil or extremely low. Ampliación Cerro Norte represents the settlement at which the evidence of occupation begins to increase, becoming continuous from the foot of the uplands below Miraflores to the juncture of the Michol and Tulija. It seems that the territory between Santa Isabel and Ampliación Cerro Norte was a type of internal frontier or point of transition from the dominion of Palenque and its sustaining area to the populations of the west.

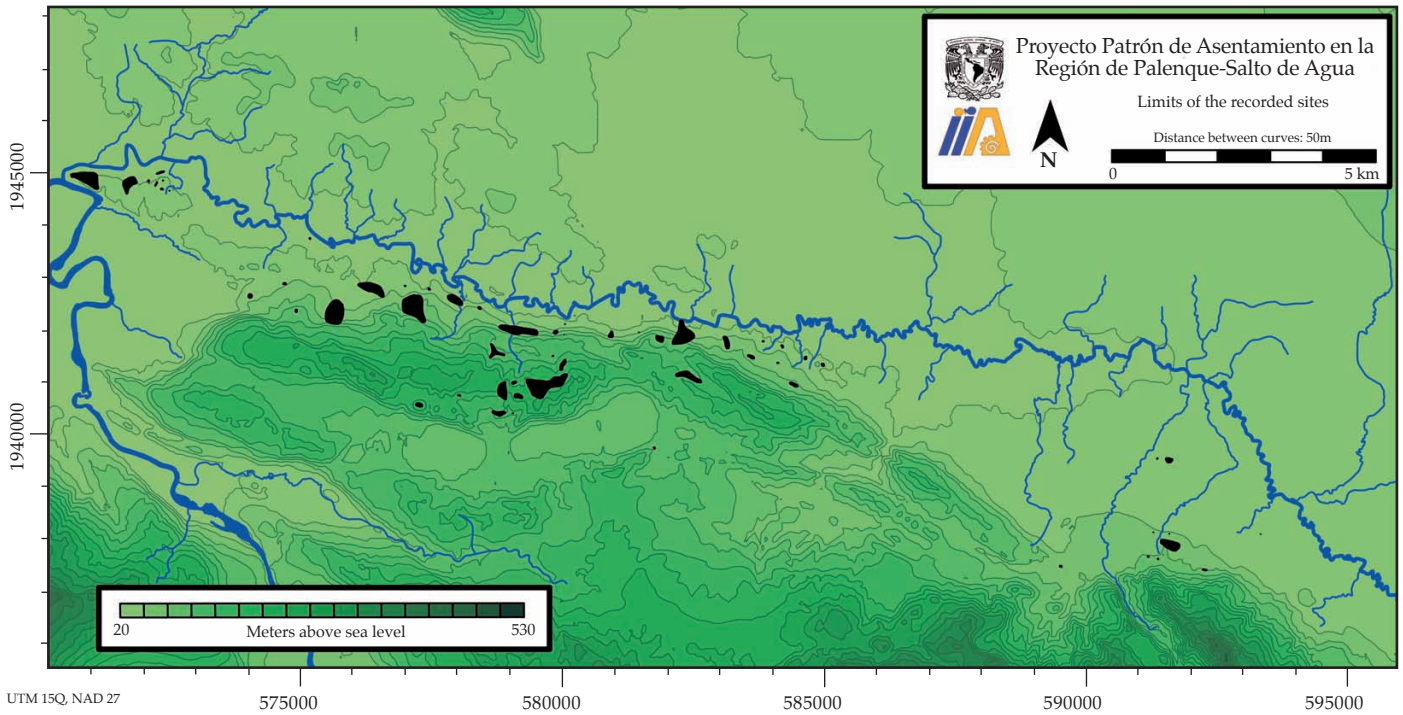
In chronological terms, the preliminary analysis of pottery from surface collections and excavations suggests that one of the earliest sites of the region (along with Miraflores) was El Retiro, whose foundation dates back to the Late Preclassic. There is also evidence of occupation during the Early Classic, though the site seems to have reached its peak occupation during the Late Classic (in the Murcielagos and Balunte phases), and this may have extended into the Terminal Classic after the decline of Palenque (Huipale). The architecture of El Retiro Building 1 (oriented eastwards towards Palenque), shows strong ties to the architectural tradition of Palenque's Otolum period; the building's stucco finish, as well as the proportions of its walls, windows, and doorways, all seem to reference those of Palenque's Temple of the Foliated Cross (Figure 10). Housing platforms associated with the central plaza of El Retiro, Las Colmenas, Modesto Garcia (N2W4-611), and the upland terraced areas, show high occupation during the Murcielagos and Balunte phases. It may be that all of the sites on the ridges of the Sierra Norte date to this period,



Figure 3. Patio-oriented group associated with channels and raised fields on the banks of the Michol River.



Figure 4. Vestiges of landings on the east bank of the Tulija River.



perhaps the point of maximum population in the central part of the Palenque region (Liendo 2007).

### Concluding remarks

The dispersed population of the uplands and foothills outside the civic-ceremonial centers suggests relaxed forms of spatial organization, but at the same time suggests that there was some requirement that these areas (and these areas alone) should be occupied and the valleys, plains and riverbank left unoccupied, the latter areas with relatively low occupancy rates corresponding to sites with earthen rather than stone architecture. In this sense, there appears to have been some relaxation of spatial demands in comparison to the immediate sustaining area of Palenque, where the population seems to have been obligated to reside either within or quite close to the nucleus of the civic-ceremonial center (Liendo 2007), implying distinct forms of settlement and spatial organization. The proximity of the Tulija River apparently influenced the populations of the western periphery to develop linear settlement patterns on the southern and northern foothills of the Sierra Norte, allowing some measure of visual control over the Corozo Valley and the Michol, the only points of access from Palenque to the Tulija (and vice versa). For these reasons, we believe that the important geographical position of the western populations allowed them to maintain a somewhat less hegemonic relationship with Palenque, unlike sites closer to its sustaining area or hinterland (Liendo 2007).

El Retiro maintained close ties with Palenque from at least the Late Preclassic period (Otolum phase) until the Late Classic (Murcielagos and Balunte phases), and these ties are reflected in the presence of diagnostic ceramic forms and similar architectural styles. In terms of a hierarchy of sites from this region, it is clear that El Retiro, Miraflores, Las Colmenas, Ampliación Cerro Norte, and San Miguel are all sites that, because of the complexity of their structures and the presence of ball courts and large open plazas, signal civic-ceremonial activities that permeated the region, denoting hierarchy between the settlements of the study area and representing nodal points of communication. We believe that from Early Classic time onward, Palenque actively negotiated safe transport to and from the Tulija River, and at the same time worked towards defining and delimiting its western frontier.

The homogeneity observed in the forms, decoration, and ceramic pastes recovered both from surface collections and stratigraphic excavations suggests that there was a system of ceramic exchange that was less than heterogenous in character but nonetheless well negotiated, cutting across different nodes of communication and territorial boundaries. At the macroscopic level, and despite that their pastes reveal the possibility of local manufacture, ceramic forms with but a few small variations replicated and made reference to

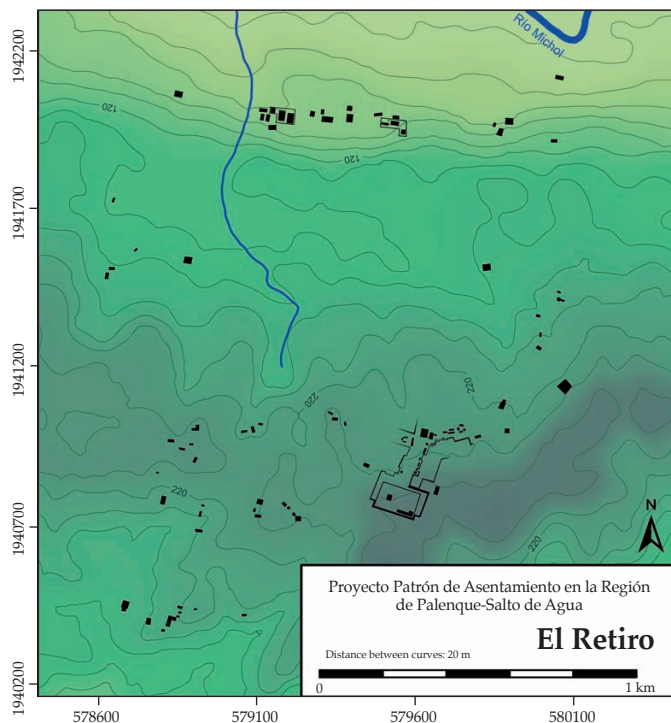


Figure 7. Map of El Retiro.

the Palenque sphere. This echoes the architectural styles of El Retiro and Miraflores, which we have already seen make their own references to Palenque. However, the near absence of architectural groups oriented around patios, the frequent linear settlement patterns observed on ridgelines, the use of agricultural terraces and little use of raised fields, the riverbank specialized in lithic production, the architectural integration and use of megalithic blocks and/or outcrops, and the presence of piers and other elements allow us to speak of substantial differences in settlement patterns from Palenque's immediate sustaining area, where the aforementioned features are absent and where the surrounding environment varies somewhat from that of our study area.

It is clear that formally, in terms of architectural design and settlement patterns, there is a hierarchy of sites in this region. Taking into account the labor invested and the quality of the raw material employed in construction, there were evidently great differences in relative rank among hilltop centers and those located in the foothills, on the plains, or on the river. However, from the perspective of heterarchical organization (Crumley 2003:141), we might suggest that the range and variety of resources in the vicinity greatly diminished the risk of settlement of these territories so close to large centers, while the western population dispersal allowed the maximum amount of local community control over resources, perhaps leading to the spatial relations and settlement patterns observed here. The Palenque-Salto de Agua region offers a variety of resources distributed

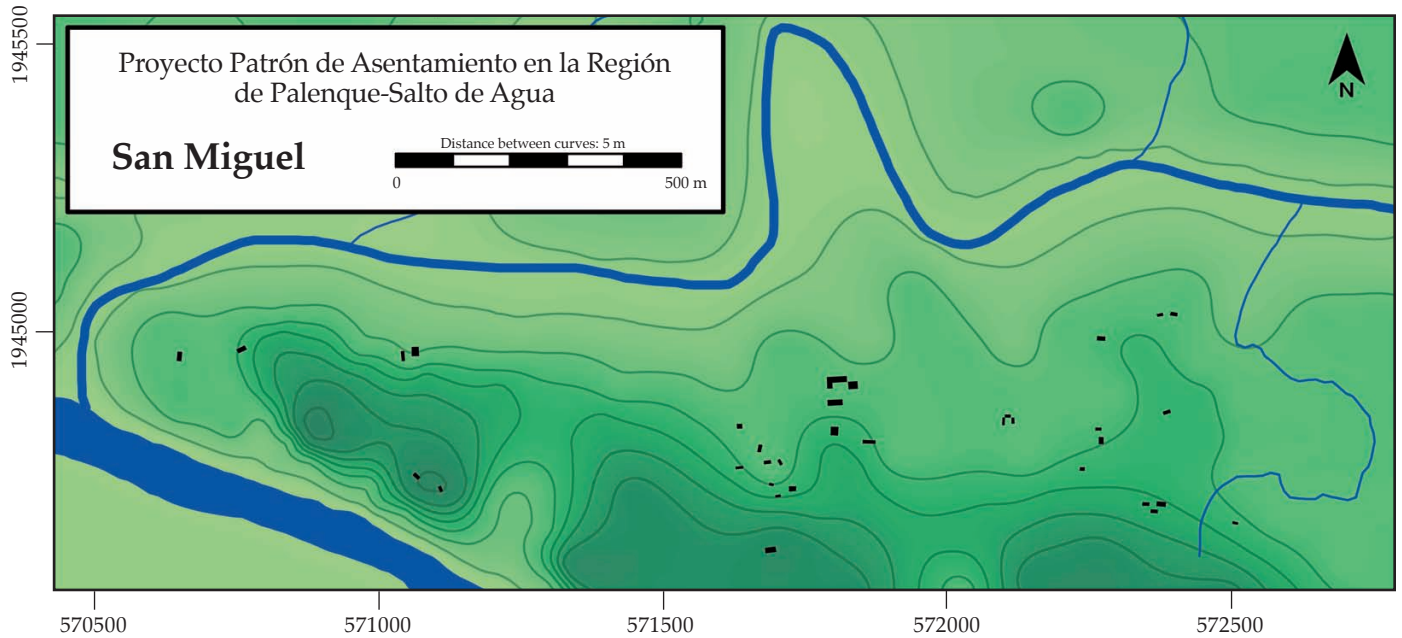


Figure 8. The site of San Miguel at the junction of the Tulija and Michol Rivers.

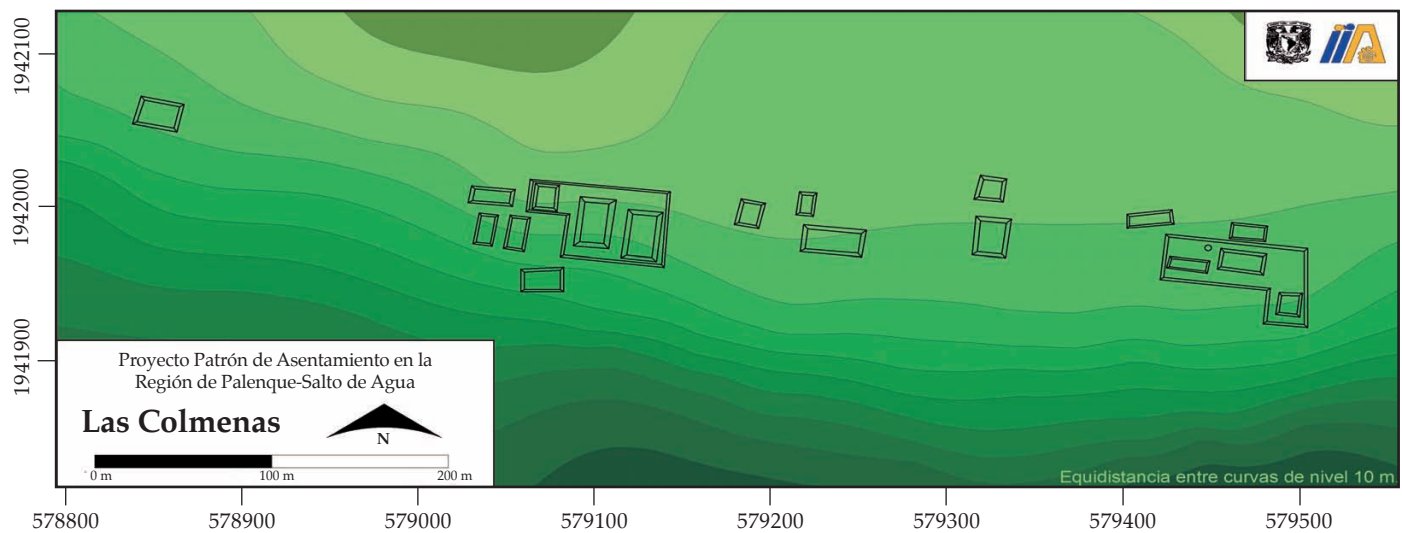


Figure 9. Map of Las Colmenas.

into five geomorphological units, and although the hilltop settlements evidence the highest population densities as well as the most complex civic-ceremonial constructions, it is nonetheless the case that dispersed populations characterize all of the settlements. Therefore we can talk about hierarchical behavior and relationships that coexisted alongside others of a more heterarchical nature.

As we have shown, there is great potential for the study of population dynamics in the western periphery, which permitted the establishment of territories in relation to routes of travel, and the varying use of environmental resources. It is for this reason that we need to complete our analysis and plan additional research which might

allow us to chronologically situate all of the region's sites and activity areas. Extensive excavations will be needed to establish site functions and assist recovery of data on soil types, including macro- and micro-debris that would allow us to develop more specific interpretations of paleosols, paleo-environments, degradation of soils, and the ancient ranges of flora and fauna. In this regard, we would like to highlight that following our comparison of the identified soil groups and their relation to archaeological evidence, we can confirm that the region's ancient inhabitants preferred to settle and exploit uplands and foothills over other geomorphological types. Less complex settlements, including isolated and low-lying platforms, were



Figure 10. Structure 1 of El Retiro.

distributed on terraces and flood plains and associated, to a somewhat lesser extent, with canals and fields. For these reasons, it would be interesting to carry out research that will allow us to obtain patterns on the specific uses of anthrosols and technosols.

We emphasize that the geographical location of our study area includes the essential passage from Palenque to the Tulija River, via the Corozo Valley and Michol River, and also includes one of the most important access routes from the lowlands and coast to the highlands in the entire northwestern Maya area. For these reasons, it is increasingly important that we begin to understand the dynamics of population, settlement, and exploitation of geographic advantage experienced by the ancient inhabitants of the Palenque–Salto de Agua region, as well as their relationship to the development of the Palenque domain and to the other dominions of the west and of the highlands.

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