Introduction: Mesoamerica is a cultural and geographic area known for its wide diversity of civilizations that spanned from Northern Mexico down South to the borders of modern El Salvador and Honduras. In the middle of this territory, the ancient Maya civilization flourished and developed. The emergence of socio-political complexity is linked with the establishment of plaza-pyramid complexes in southern Mesoamerica from as early as the Middle Preclassic Period (1000BC-700BC). Recent research suggests that plaza-pyramid complexes in early Maya centers, understood as public ritual spaces, came into being through participation in larger interregional interactions with contemporary centers in Mesoamerica (Snavely et al. 2012). This study assess the role played by Preclassic Usumacinta River Valley sites regarding interregional interactions with contemporary centers, specifically that of the site of La Técnica, with the western most E-Group of the Maya area, with its contemporary centers.

Methodology: the study incorporates GIS spatial analysis to assess least cost paths (LCP) between Middle Formative Chiapas and Gulf Olmec sites to that of the Maya site of Seibal, where clear interregional interactions are evidenced as early as 1000BC. Additionally, viewsheds were also calculated to assess the area of visibility of the La Técnica Area as well as visibility of the Least Cost Paths between the Olmec sites and Seibal. Considering the evidence of an E-Group assemblage at La Técnica, the study aims to verify if LCPs between the Olmec and Seibal pass through the Usumacinta River Valley sites that would account for the adoption of this architectural assemblage at the site. Furthermore the study seeks to evaluate the role of La Técnica among contemporary Usumacinta Valley sites.

Discussion of Results: If we observe maps B, C and D, we can appreciate that the LCPs from the MFC and Golf Olmec sites completely avoid La Técnica and its contemporary Preclassic Usumacinta Valley sites. Additionally, the viewsheds from the Preclassic Usumacinta sites do not coincide with the LCPs outside of the valley. This would initially suggest that the Preclassic sites in the Usumacinta River Valley were not near the most probable exchange routes between larger Preclassic centers, thus may not have a significant role in these cultural exchanges. In fact, it is important to consider that the LCP from La Técnica to La Venta (yellow) and Seibal (dark blue) deviates from the larger path between MFC and Seibal. This does not imply, though, that sites in the Usumacinta River were unaware of cultural and architectural developments outside of the valley (inferred by the Preclassic E group at La Técnica).

Another interesting result, as observed in maps B and C, is that the northwest LCP from La Técnica to Rancho Bufalo (the western most Usumacinta site in this study) passes through or near contemporary centers, excluding Macablero and Na Witz. These Preclassic Usumacinta sites have not yet been systematically studied, yet due to the evidence of the most probable foot paths between them it would be interesting to consider similarities and longevities in occupation between them. If we look above at map B, we can appreciate that none of the viewsheds between these centers are totalizing, limited to various kilometers from the site center, thus no site had complete visibility of the valley during this time period.

Initial Conclusions and Future Projects: The Usumacinta River has been populated by the Maya as early as the Middle Preclassic Period (1000BC-400BC) and its occupation spanned until the Classic period (AD250-900). This long a tradition of shifts in civic planning and rituals (Golden et al. 2006). Middle Preclassic settlements along the Usumacinta are characterized by diverse civic planning that represents selected features of larger architectural assemblages popular at the time, possibly pointing to specific ritual activities taking place at each site. Serving as complementary ritual centers, sites along the Usumacinta present a different view of society in the past, diverging from models that emphasize single monumental sites as the driving force in ritual and political complexity.

The relative distance from the most probable paths of exchange between MFC sites and Seibal support the theory of Usumacinta sites’ relative isolation and divergent path in Socio-Political complexity. Furthermore, LCP within the Usumacinta Valley pass through many Preclassic centers, suggesting a link between these centers that is yet to be determined. I would argue that this limited visibility of each site within the valley may suggest that no site had overarching control over the valley, a theory that Golden and Scherer (2012) have suggested. Doyle (2012) has suggested that E-Groups at Central Petén sites are located on prominent hill-tops with extensive viewsheds. The limited viewshed of the E-Group at La Técnica contrast this. Although data is very much limited I would argue that the E-Group at La Técnica, due to difference in height location at the site, may have had a different function for people at the Usumacinta Valley.

GIS spatial analysis have allowed to further refine research questions and points of interest that would have otherwise would have been inaccessible due to monetary and time constraints. Further LCP and Viewshed analysis of the Usumacinta River Valley will take into consideration the probable vegetation at the time and the difficulty of river crossing.


