## **Supplemental Materials**

### Supplemental Text 1. Reconstructing the spatial extension of Dos Ceibas’s Preclassic hamlet

In the main text, we present construction and artifactual evidence to reconstruct the extension of Dos Ceibas’s buried Preclassic hamlet. In the following, we discuss three issues with the ceramic sherd distribution. First, we explain why we excluded residential groups with a low total number of dateable sherds in Figure 4. Second, we discuss whether the higher visibility of waxy wares boosted Preclassic sherd numbers. Third, we compare surface and excavation frequencies to study potential excavation biases.

In the main text we include a diagram (Figure 4) that shows the frequency of Faisan Chicanel sherds in the ceramic assemblage of investigated residential groups. Dateable sherd totals from residential groups fall into three clusters: 32–135 sherds (average of 70.1), 153–409 sherds (average of 251.0), and 554–1191 sherds (average of 801.3). Some of the residential groups in the first cluster have up to 15% Faisan Chicanel sherds; however, their overall sherd totals are so low that a single Preclassic sherd boosted Preclassic sherd frequencies. In Figure 4, we removed residential groups with less than 135 dateable sherds and conclude that the North Plaza and Group MP16 are the only groups with a substantial number of Preclassic sherds.

The waxy slip and pronounced thickness of Paso Caballo Waxy sherds makes Preclassic sherds often easier to identify than Late Classic ceramics and may lead us to overestimate the frequency of Preclassic wares. Therefore, we also tabulated the spatial distribution of Preclassic rim sherds (Supplemental Figure 1). The latter’s frequency varies more than the one of all Preclassic sherds but this reflects again residential groups with a low number of dateable sherds. The frequencies of rim and all Preclassic sherds correlate very strongly and significantly (Pearson’s *r* = 0.824 with *p* < 0.001). We conclude that the higher visibility of waxy ceramics did not bias our findings.

Our project attempted to investigate as many residential groups as possible systematically. However, the number of test pits, cleaned looted buildings, and extensive excavations vary in each group. To see whether these differences impacted our findings, we compare Preclassic sherd frequencies on the surface and the combined investigations in each group (Supplemental Figure 2). In other words, we test whether a survey alone would have concluded that Dos Ceibas’s Preclassic settlement is restricted to its center. The North Plaza has the highest concentration of superficial Preclassic sherds, followed by Groups MP21 and MP22. Group MP16 forms part of six residential groups with approximately 0.5 Preclassic sherds per square meter. All other groups yielded no superficial Faisan Chicanel sherds. A survey would have pointed to a Preclassic settlement below the North Plaza that may have extended west and south. The frequencies of Preclassic sherds from surface and entire excavations correlate moderately (Pearson’s *r* = 0.546 with *p* = 0.005). This likely reflects the dense Preclassic construction fills that impede later disturbance.

### Supplemental Text 2. Preclassic settlements at Aguateca, Bayak, and Punta de Chimino

In the following, we summarize the evidence for Late Preclassic settlements at Aguateca, Bayak, and Punta de Chimino (Figures 1 and 8). We then discuss whether these sites formed communities. Investigations elsewhere in the Petexbatun region have encountered Preclassic artifacts but no building activity (e.g., Foias and Bishop 2013:55, 77–78). While some scholars hypothesize Preclassic inhabitation from the presence of artifacts alone, we have found little evidence to support this (discussed in Eberl, et al. 2023:45). We limit ourselves here to the Petexbatun region; of course, Preclassic settlements existed in the wider Pasion River valley (Johnston 2006; Munson and Pinzón 2017; Willey 1973).

Aguateca’s Preclassic occupation centers on the Guacamaya Group in the western part of the site (Figure 8a; Inomata 2008:129–136). Structure K6-1 forms a pyramid that measures approximately 25 m by 20 m and is 6 m high. To its west is Platform K6-1 with Structure K6-7 on top; to its east is Platform L6-2 with two buildings on top. Excavations revealed a Preclassic predecessor for the pyramid. Platform L6-2 had a Late Preclassic and a Late Classic construction episode; Platform K6-1 was built during the Late Preclassic. In 2002, Bachand (2002) cleaned a looter’s pit into the top of Structure K6-1 and discovered a well-preserved Preclassic façade. An additional test pit suggests that this pyramid may have had a triadic group of buildings on top.

Bayak is a settlement at the shore of the Petexbatún Lake, discovered during surveys of the Petexbatun Regional Archaeological Project (O’Mansky, et al. 1994; Van Tuerenhout, et al. 1993). Sixteen structures group around Structure 10, a 20 m by 20 m and 3–4 m high platform (Figure 8c). Seven test pits investigated Structures 1, 2, 8, and 10 (O’Mansky 1996). Except for test pit 7, all test pits produced exclusively Preclassic artifacts. In the case of test pits 1, 2, 3, 5 and 6, Late Preclassic levels occurred over Middle Preclassic remains; test pit 4 had a Late Preclassic level over a mixture of Mamon-Chicanel ceramics. In test pit 7 over Structure 8, excavators found a Late Classic burial that intruded into a Preclassic construction. Bayak seems to date predominantly to the Preclassic.

Investigations at Punta de Chimino started during the Petexbatun Regional Archaeological Project (Figure 8d). After surveying and mapping the site (Demarest and Houston 1989:130–152), excavations focused on its fortifications and revealed a predominantly Late Classic and Terminal Classic settlement (Demarest, et al. 1996; Demarest, et al. 1994:372–402; Wolley 1991; Wolley and Wright 1990). Early investigations suggested a possible Preclassic predecessor of the ballcourt but were refuted by more extensive studies (Morgan 1994:379, 1996:38). Several years later, Bachand (2006) returned to Punta de Chimino and uncovered its Preclassic predecessor below the Main Plaza. His excavations in the West Group yielded no evidence for a Preclassic occupation in the western part of the peninsula. During the Preclassic, Punta de Chimino seems to have centered on a 1–2 m high Acropolis with a large Main Plaza and an E Group. Structure 6 was a pyramidal structure 40 m wide, 15 m deep, and about 3 m high. Bachand (2006:470–471) argues that Punta de Chimino was a “sparsely occupied ceremonial hub” during the Preclassic. Elites presumably directed its construction. However, no excavations have been conducted in the Acropolis to test for Preclassic residences and elite domestic spaces in particular.

At last, we discuss whether Aguateca, Bayak, and Punta de Chimino formed communities during the Late Preclassic. Like Dos Ceibas, each site had monumental architecture and a public space that allowed social interactions and offered a focal point for community identities. Debatable is the presence of permanent residents. The archaeological evidence differs for each site (with Dos Ceibas the most extensively studied) and often focuses on its monumental architecture. Preclassic residential architecture have only been found at Dos Ceibas and likely Bayak (Structure 8). Bayak’s other low rectangular Preclassic platforms are formally like Structure 8 and arguably served similar domestic purposes as well. At Aguateca, the entirely Late Preclassic Platform K6-1 suggests that Structure K6-7 on top is Preclassic; it may have been a residence due to its formal similarity to buildings at Dos Ceibas and Bayak. Punta de Chimino offers a conundrum because Preclassic constructions have only be found below its Acropolis; excavations outside of the Acropolis have not encountered Preclassic residences. Due to the absence of more test pits in the Acropolis, we are hesitant to subscribe to Bachand’s (2006:475) characterization of Preclassic Punta de Chimino as a “sparsely occupied ceremonial hub,” though. Recent studies have questioned the theoretical assumption of uninhabited early ritual centers (e.g., Clare [2020:83–84] for Göbekli Tepe). Our investigations at Dos Ceibas exemplify the difficulty of reconstructing the extension and character of Preclassic settlements; at nearby Itzan, Johnston (2006:187–188) was able to identify potential Late Preclassic domestic buildings only due to a random road cut. In sum, we argue that Aguateca, Bayak, and Dos Ceibas were likely small communities with a monumental focal point surrounded by residences during the Late Classic. The residential evidence from Punta de Chimino is too limited at this point.