

The Systematic Surface Collection

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EARLY INTERPRETATIONS OF the site of Chiripa (Bennett 1936; Kidder 1956; Browman 1977) have characterized the mound as accumulation related to a small village of 14-16 houses, arranged in a circular fashion about a central sunken court. Bennett and Kidder see no evidence of occupation beyond the mound itself, while Browman mentions the presence of a small Tiwanaku III village in the area occupied by the modern *hacienda* house and soccer field to the east of the mound. This shift in the locus of settlement was presumably based on a shift of the functional interpretation of the mound from a residential to a ceremonial space, with the construction of the uppermost sunken temple in the sequence. This theory is based on the Tiwanaku III temple that was excavated by Browman's project and which can be seen by visitors to the site today. Chávez (1988), on the other hand, interprets the Late Chiripa mound occupation (the so-called Upper House Level) as a civic-ceremonial complex, albeit of modest size, dedicated to storage of elite goods and surplus foodstuffs and presumably to ritual activity as well.

Our 1992 excavations in the Santiago and

Llusco areas demonstrated unequivocally that occupation was present in all periods outside the area of the mound itself (Hastorf et al. 1992; Alconini y Rivera 1993). What remained unclear was the extent and nature of this previously unrecognized occupation.

Consequently, our first action in the field in the 1996 season was to carry out a systematic surface collection of the site of Chiripa in order to determine the size of the site and, hopefully, to detect patterns of intrasite artifact distribution. As the majority of the surface of the site is utilized for modern cultivation, and all of the site has certainly been cultivated intermittently over the past 500 years, no surface architectural indications are preserved. All of our conclusions are drawn from artifacts collected from the surface, primarily from plowed or fallow fields.

METHODOLOGY

Our methodology for the collection was determined by a number of factors. First, we had no clear idea of the boundaries of the site, and it was therefore impossible to stratify the study area as required by certain sampling methods. Our

collection was, more than anything, exploratory. In addition, we needed to sample a quite substantial area in a relatively short period of time. These factors indicated to us that the most appropriate technique was systematic sampling using the site grid that had been established in 1992.

Accordingly, the concrete datum point (BM I) that we had established on the NW corner of the mound was assigned the arbitrary coordinates of 1000N/1000E. Beginning from this point, collection units were laid out in a 50 x 50 m grid pattern until the limits of the artifact distribution had been reached and well established. In this manner we were able to define the boundaries of the site.

Each of the 50 x 50 m grid points served as the central point of a surface collection unit. Initially, the unit was to be a circle with a radius of 3.99 m (50m²). If this area failed to yield at least 50 sherds, then the collection was expanded to a circle with a radius of 5.64 m (100m²). In order to standardize the surface visibility of the collected areas as much as possible, the team collecting the unit was permitted to move the center of the circle up to 20 m in any direction from the 50 x 50 m grid point. In cases in which it was impossible to place the entire unit within a plowed or fallow field, areas with different surface types were collected as separate loci, thus stratifying the sample according to types of ground cover. In areas of dense grass cover, grass was scraped with a shovel and passed through a 1/4" screen. This difference in collection strategy was necessary in order to offset very poor visibility in grassy units. Identification and phasing of the ceramics recovered from the surface collection was undertaken by Dr. Lee Steadman.

The total area sampled with this technique included 114 50 x 50 m grid points. This represents an area of 28.5 ha, since each unit sampled a 50 x 50 m (.25 ha) area. Four of these were not collected due to the presence of a modern house (in one case) or of thick alluvium and grass (as in the case of three points located in the *quebrada* to the west of the site). In the end, 110 grid points were collected. Of the 110 loci which yielded artifactual material, 89 (81%) were collected from plowed or fallow fields, 9 (8%) from light grass cover, and 12 (11%) from dense grass cover. The surface characteristics of most of the sample are therefore comparable, and artifact densities should

largely reflect archaeological reality rather than the exigencies of surface visibility. More detailed comparisons between areas of different surface visibility will be undertaken in the future, but for now we assume that collected artifact densities may be compared across the entire site.

RESULTS

The systematic surface collection has indeed demonstrated that prehistoric occupation at Chiripa far exceeded the limits of the mound itself, and even of Browman's Tiwanaku III village. Our results indicate that Chiripa was a major local center on the Taraco Peninsula at least from the Middle Formative period through the Middle Horizon.

Considering the surface ceramic distributions over the more than 2000-year occupation of the site, two general macro-patterns emerge. The first pattern is a relatively continuous distribution, and characterizes the Formative period and Middle Horizon occupations (figures 7a-7c and below). Pattern 2 is characterized by discrete, isolated concentrations (figures 7d-7e and below). While we recognize that a variety of site formation processes could potentially contribute to the formation of these two patterns, we nevertheless feel that the clear distinction between them indicates two general modes of occupation in the site's history. Pattern 2 corresponds to the modern settlement pattern, characterized by individual, isolated farmsteads, separated by actively cultivated agricultural fields. We interpret the first pattern, by contrast, as reflecting what we term 'nucleated habitation'. This term is meant to indicate a higher density of occupation, with no appreciable cultivated tracts interposed between habitation structures.

EARLY AND MIDDLE FORMATIVE PERIODS: THE CHIRIPA PHASES

Due to the fact that virtually all of our collections derive from plowed field contexts, sherds were generally quite broken up, and mean sherd size was small. This made it virtually impossible to distinguish Early, Middle, and Late Chiripa ceramics specifically, and thus the occupation areas dating to these phases individually across the site. The Chiripa phase was therefore

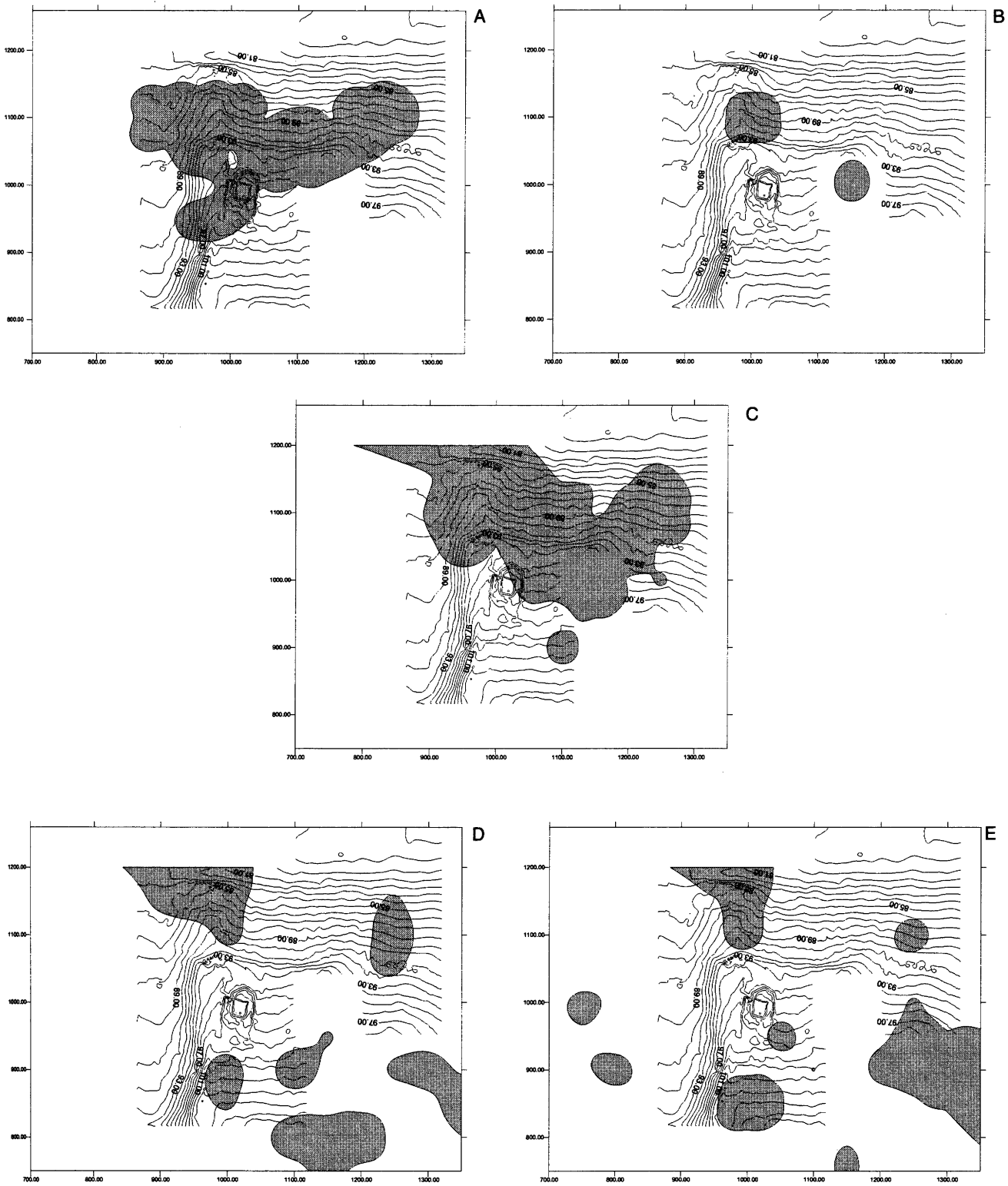


FIGURE 7 Surface ceramic distributions. a: Formative period surface ceramic distribution, b: Tiwanaku I/ III surface ceramic distribution, c: Tiwanaku IV/V surface ceramic distribution, d: LIP/Inka surface ceramic distribution, e: Historic period surface ceramic distribution. The shaded contour is .1 ceramic count per square meter.

considered as one time unit. Chiripa ceramics extend over an area of 7.5 hectares (figure 7a). Of this area, the mound accounts for approximately .36 ha, or 5% of the total site. With an occupation of this size, Chiripa must be counted as one of the largest Middle Formative period sites in all of the Titicaca Basin, far exceeding any of the Formative period sites encountered in the systematic survey of the Tiwanaku Valley (Albarracin-Jordan and Matthews 1990), and comparable to the contemporary Middle Formative center of Palermo near Juli, Peru (Stanish et al. 1997). It is apparent, then, that Middle Formative Chiripa was much larger than a small village of 14-16 houses. This information supports Chávez's (1988) suggestion that the mound, in Chiripa times, was a ceremonial rather than a domestic zone. Our information firmly establishes the existence of large-scale, nucleated habitation at least by the Late Chiripa phase. The extent of the Early and Middle Chiripa occupations must, for the moment, remain a matter for speculation.

LATE FORMATIVE PERIOD: TIWANAKU I-III

As we were unable to distinguish the various Chiripa phases in the surface collection, we were likewise unable to distinguish between Tiwanaku I and Tiwanaku III occupations, particularly as the collection consisted mostly of plainwares. The Tiwanaku I/III phases are therefore treated as a single time unit in this analysis, the Late Formative. Ceramics of this period extended over an area of 4.0 ha (figure 7b). While substantially smaller than the Late Chiripa settlement, this is still a very substantial site for this time. It is also considerably larger than Browman's postulated Tiwanaku III 'village' associated with the mound. We must interpret this information as indicating that Chiripa, far from being abandoned after the burning of the Upper House level on the mound, continued to be an important center, with both residential and ceremonial functions. It is also important to note that the nucleated habitation established at least by the Middle Formative period continued in the Tiwanaku I-III period.

MIDDLE HORIZON: TIWANAKU IV-V

This nucleated settlement not only continues into the Tiwanaku IV-V period but is greatly

expanded. While Chiripa is not normally considered a major Tiwanaku center, the Tiwanaku IV-V occupation extends over at least 13.0 ha (figure 7c). This means that in this period Chiripa was as large as or larger than any site in the Middle or Lower Tiwanaku Valley with the sole exception of Tiwanaku itself (Albarracin-Jordan and Matthews 1990). In the greater region of the southern Titicaca Basin, only Pajchiri, Lukurmata, and Khonko Wankani seem to be larger in this time period. In the future Chiripa must be considered not only as a Formative period center, but as a major regional Tiwanaku IV-V center as well.

LATE INTERMEDIATE PERIOD/LATE HORIZON: THE PACAJES PHASES

The Late Intermediate Pacajes Period witnessed a major shift in settlement at the site (figure 9d). Whereas we have seen that the site was characterized by large-scale nucleated habitation at least from the Late Formative, and possibly much earlier, in the Late Intermediate Period this pattern breaks down. Artifacts are distributed in small (< 1.0 ha), discontinuous concentrations, probably indicating dispersed domestic clusters. Since this same pattern is characteristic of historic and modern ceramics (figure 7e), we infer that the Late Intermediate Period settlement pattern was similar to the modern one. That is, settlement was characterized by discontinuous, isolated household units.

The evidence from the systematic surface collection of the site indicates, then, that previous interpretations of the site as a small village restricted to the area of the mound are entirely incorrect. Chiripa was a major regional center in the Late Formative period, and probably earlier as well, with the mound being the ceremonial focus of the community, and possibly of the region. Through the various phases of the Tiwanaku sequence, Chiripa continued to be an important population center, and was clearly the major Middle Horizon center on the peninsula. In the Pacajes phase, and subsequent Pacajes-Inka phase, Chiripa ceased to be a locus of nucleated settlement. The pattern of small, discontinuous habitations that appeared at this time characterizes occupation at the site up to the present day.

EXCAVATIONS