

## ADDITIONAL EXCAVATIONS IN THE KU SECTOR – N894/E639

*Maria Bruno and Mary Leighton*

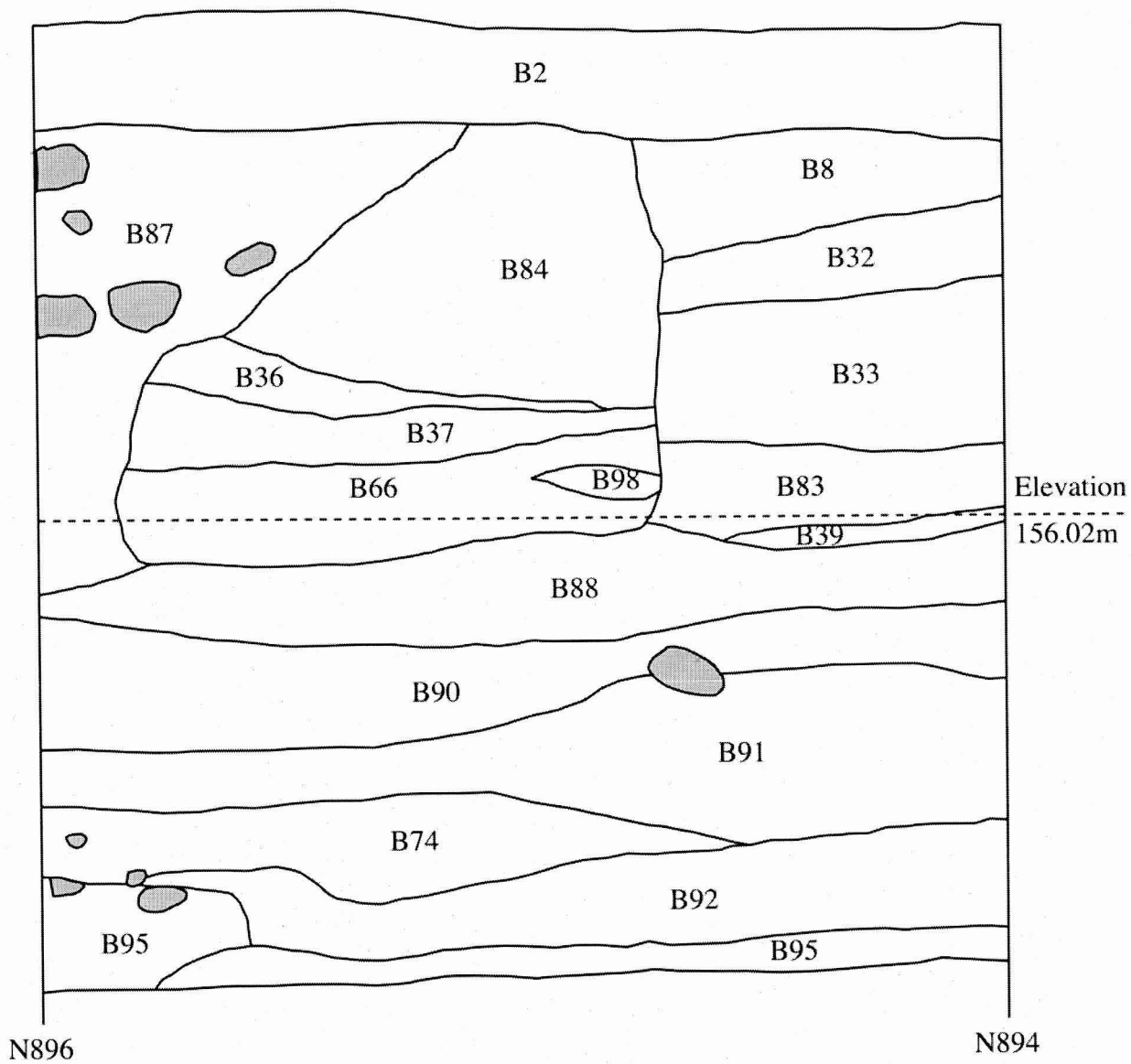
In order to complement the horizontal excavations being carried out by José Luis Paz and Maria Soledad Fernandez in the Kala Uyuni area, we opened a single 2x2 meter unit, N894/E639, with the intention of reaching sterile and obtaining a sample of the entire occupational history of this area (for a map of the KU area, see figure 3.1). In doing so, we hoped to find a complete chronology of the Formative period, particularly the transition between the Middle (Late Chiripa) and Late Formative, since this has not yet been properly dated. Another goal was to get a good chronological sample of Late Formative ceramics so as to better understand and differentiate the two most commonly recognized periods, Late Formative 1 and Late Formative 2 (see Steadman this volume).

Below the plow zone (B2), we encountered a Tiwanaku IV-V occupation that was represented by two horizontal strata, several pits, and two burials. The youngest deposit was B8, previously defined by Paz and Fernandez as "soil with artifacts." We did not have the yellow clay layer (B9) below B8, as Paz and Fernandez did. Instead, we came upon a yellowish-brown mottled deposit of silty clay with inclusions of

limestone flecks and charcoal. The event (B32) had a fairly high artifact density, and we defined it as a medium density midden.

Several pits cut into these Tiwanaku deposits. Feature 8 (B29, B30, B31), Feature 9 (B35, B36, B37, B66, B84, B98), Feature 18 (B42, B43), and Feature 41 (B38, B86, B87) were all pits with mixed fills that contained Tiwanaku VI-V ceramics (see figure 4.5 for Harris Matrix and figure 5.1 for a profile drawing). Feature 41 included a cobble deposit (B38) that may have been related to some type of construction event. We encountered no other evidence of architecture in this unit, however.

Two burials probably supplied the best-defined contexts we had for the Tiwanaku IV-V occupation in this trench. Burial 2 (Feature 14, Events B40 and B41) was a poorly preserved child burial. We believe the pit may have been grass-lined, because we found a white substance that looked like thin layers of fibers. The impressions may be the remaining silica cells (phytoliths) of a degraded grass lining. Burial 4 (Feature 16, Events B45, B46, and B85; figure 5.2) is the tomb of a well-preserved adult



**Figure 5.1** Unit N894/E639, North profile.

accompanied by a *sahumador* and blackware *kero* (figure 5.3). The individual was in a seated flexed position facing east. The grave was a cist or shaft tomb that had several large *batanes* lining and capping the pit.

Based on analysis of the ceramics, it appears that the Tiwanaku IV-V to Late Formative 2 stratigraphic transition occurs about 156.6 meters in elevation with Event B33. This deposit is a heterogeneous, silty clay loam with many inclusions of yellow and red clay, limestone flecks, and charcoal. We described this as a medium-density midden. The ceramic assemblage was primarily Late Formative 2. There was a small quantity (10%) of Tiwanaku IV-V pottery in this stratum, but it may actually derive from the upper fill of Burial 4, which was mistakenly combined with B33 (Locus 5265).

We also encountered pits cut into Event 33. Feature 20 (B47, B48), in the southeast wall of the unit, was filled with ash and charcoal. The ceramics in this pit were mixed Tiwanaku IV and Late Formative 2. Also cut into B33 was a large pit, Feature 22 (B49, B50, B53, B54, B55), that we located in the center of the unit. This pit was about 30 cm deep and varied between 40 and 45 cm in diameter. The pit had very irregular boundaries and was difficult to define during excavations. It contained four sequential fill events, two of which were almost pure ash and charcoal mixed with silty clay (B50 and B54), one that was a fairly dense clay loam of highly irregular thickness (B53), and one that was primarily a dark silty clay loam with some charcoal and ash (B55). The ceramicists inspected but did not formally analyze B50, and reported that the assemblage looked like Late Formative 1 and 2. They did analyze B55, however, and described it as mostly Late Formative 2, with only 3% mixing of Late Formative 1 materials.

Below B33, we uncovered a yellow clay loam that extended through the northern part of the unit. The clay was quite regular and compact and may have been part of a prepared surface (Event B34, Feature 32), although the

limited excavations did not permit us to identify any associated features. The analysts defined the ceramic assemblage from this event as unmixed Late Formative 2. Thus, we might group Event B33 and the pits dug into it as the remains of a Late Formative 2 occupation of the site.

At about this depth, the stratigraphy in the unit became quite complicated and difficult to excavate. This was in part due to the large pit in the center of the unit, Feature 22, that made it difficult to follow any stratum across the unit, but also it seems that there were distinct depositional events in the northern and southern sectors of the unit. For example, to the south of the clay surface, at about the same depth, was a brown clay loam with artifacts (B83) whose origin was not discernible but seemed to abut B34. Due to this complicated stratigraphy and often very subtle changes in the archaeological deposits, many loci had mixed events in this part of the excavation. Below, we provide descriptions of the events as they were encountered during the excavations, and later clarified by examination of the profile and the Harris Matrix.

Beneath the possible clay surface (B34) in the northern area of the unit, we encountered a looser soil that was a brown, slightly mottled, silty clay with pebble inclusions. We interpreted this event (B39) as a medium-density midden, and it contained predominantly Late Formative 1 ceramics. We obtained a date (AA59721) on carbonized seeds from this event (Locus 5274) that fell between 73-237 cal A.D. Below B34, and cut into B39, we found a small ash pit (Feature 27; Events B51 and B52) that has not been analyzed yet but likely dates to the Late Formative 1 period.

Below B30 was a compact clay-to-clay loam deposit with large stains of bright yellow and orange soil and a relatively high density of artifacts. This event, B67, appeared too thick to be a floor and was defined as a possible occupation zone. To the east, the stains of colored clay continued. The entire area seemed to have a similar density of artifacts and seemed equally heterogeneous. Therefore, we excavated



**Figure 5.2**

Burial 4  
(Tiwanaku IV-V).

it as a single event (Locus 5308). In the profile, however, we could see that to the east there were, in fact, two distinct deposits that were not recognized during the excavation. Two new events were defined after their identification in the profile, B68, a fairly homogeneous deposit of yellow clay, and B69, a dark, organic lens.

Beneath the occupation zone (B67) was a distinct deposit of yellow clay loam, with a lower artifact density and with charcoal inclusions, which we defined as a medium-density midden (B89). During the excavation of B89 we also encountered a fairly large ash deposit, B70, that seemed to be somewhat mixed with B89. It appeared that perhaps bioturbation, particularly insects and animal burrowing, probably had disturbed the stratigraphy in the northwest corner of the unit at this depth.

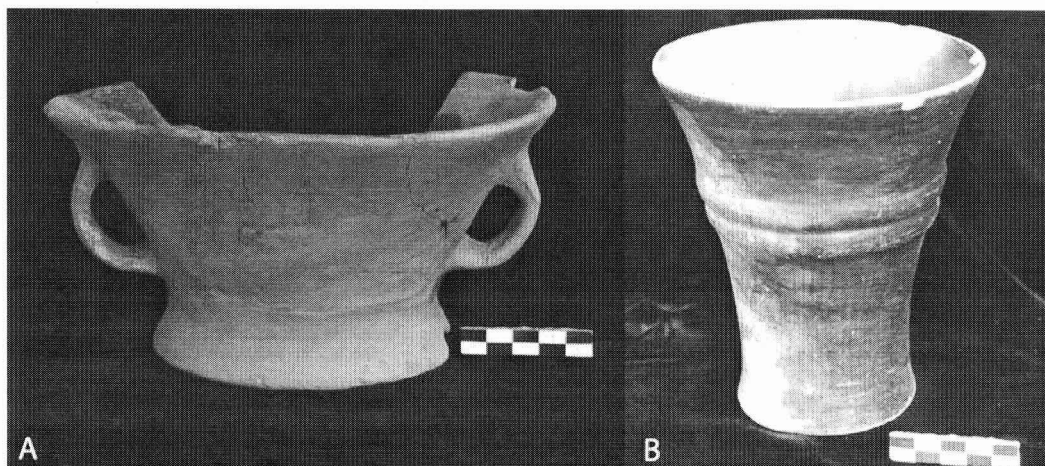
Due to the mixing of these events during the excavation and by post-depositional processes, the contexts were not prioritized for analysis. The ceramicists did analyze an unmixed locus (5310) of the ash deposit, B70, and found it to contain mostly Late Formative 1 ceramics

with 6% Late Chiripa intrusives. This reflects the potential mixing of these deposits. The high level of disturbance may be related to the burial directly beneath these deposits.

Below B89 and B70, in the northwest corner of the unit, we found a pit that contained two burials. The earliest burial (Feature 31, B73, Burial 5) was a fairly well-preserved adult in a flexed position and oriented east-west. It seems to have fallen on its back or was placed lying down. It, unfortunately, extended into the western and northern profiles. When the excavation of the unit finished, we sacrificed the profiles to remove the entire burial, particularly to retrieve the cranium. Placed at the foot of this individual was a small Kalasasaya (red-rimmed) bowl (figure 5.4). This and the accompanying ceramics associated this burial within the Late Formative 1 period. Similar to the later Tiwanaku IV-V burial (Burial 4), the tomb pit (figure 5.5) was lined and capped with large *batanes*. Just above this interment was another, less well-preserved individual (Feature 31, B73, Burial 6). This person was even more embedded in the wall, so we just exposed the elements that fell within the unit, including

**Figure 5.3**

Ceramic vessels discovered in Burial 4.

**Figure 5.4**

Kalasasaya bowl from Burial 5.



parts of both feet and probably the right tibia and pelvis. This also appears to have been an adult or sub-adult, but we found no grave goods associated with it.

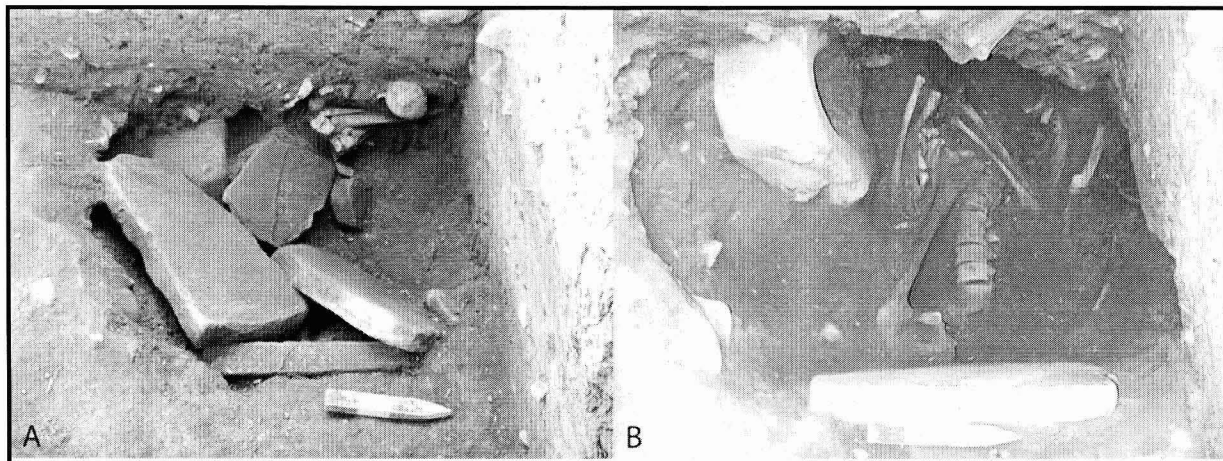
Returning to about the depth of B67 (approximately 156.05 meters in elevation) in the southern area of the unit, we encountered another distinct deposit, B88, a heterogeneous silty clay loam deposit with inclusions of charcoal, limestone fragments, variously colored clay, and pockets of sand. The deposit contained high quantities of ceramic, lithic, and bone artifacts, thus we defined it as a high-density midden. This

event seemed to have been deposited prior to B39, the possible clay surface, but later than B67, the possible occupation zone. The ceramics fall into the Late Formative 1 period.

Directly beneath B88 in the excavations was B90, a medium density midden, comprised of a sandy clay loam matrix with inclusions of charcoal. This stratum appears to have been deposited prior to the midden event B89 found in the northern part of the unit. Unfortunately, the ceramics from these events have not yet been examined.

At about 155.70 meters elevation, we





**Figure 5.5** Burial 5 (Late Formative 1).

finally found a deposit that extended across the entire unit, except where disturbed by the burial (Event B73). Event B91 was a dark brown clay mottled with red, yellow, and orange clays, as well as charcoal. It contained many artifacts of all classes, and we defined it as a high-density midden. The ceramics fall into the Late Formative 1 period. Beneath B91, in the northern sector of the unit, we encountered another high-density midden deposit, B74, that was distinguished by its very high quantities of ash and charcoal. It also contained Late Formative 1 ceramics. The final deposit above sterile soil was another high-density midden, B92, that had a thin lens of ash and fish bones (B97). B92 contained primarily Late Formative 1 ceramics but had a small percentage of Late Chiripa sherds. (Locus 5321 had 2% Late Chiripa, and Locus 5323 had 5%.) We dated carbonized seeds from B97 and obtained a date (AA59713) of 25-214 cal A.D.

These Late Formative 1 midden accumulations are interesting in that a high percentage of the ceramics that we recovered were decorated and quite fine. Kalasasaya zoned incised sherds were relatively common, as were fragments of red-rimmed Kalasasaya bowls (see Steadman, chapter 7 of this volume). Previous excavations have found such ceramics associated

with burials and offerings such as at Tiwanaku (Ponce 1993) and Lukurmata (Bermann 1994). One finely made, red-rimmed bowl was associated with a burial, and we recovered fragments from the midden deposits as well. Paz and Fernandez (in chapter 4 of this volume) suggest the structure (ASD-2) they excavated may have been used for domestic purposes. If the deposits encountered here were associated with the use of the structure, however, we might suggest that the activities resulting in these midden accumulations were non-domestic, but ritual or festive in nature.

At the outset, we were hoping to also encounter Chiripa-period deposits, providing information on the transition from the Middle to Late Formative at the site. The small quantities of Chiripa ceramics in the lowest strata suggest there was a Chiripa-period occupation nearby. Unfortunately, we did not find any unmixed contexts. Although we did not encounter the Middle-Late Formative transition, these excavations provide one of the best Late Formative ceramic assemblages for the region. Analysis of the ceramics and other artifacts will provide, we hope, an improved chronology for the Late Formative periods.