Excavations in the AC (Achachi Coa Kkhollu) Sector

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Kala Uyuni

An Early Political Center in the Southern Lake Titicaca Basin

2003 Excavations of the Taraco Archaeological Project

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Excavations in the Ac
(Achachi Coa Kkollu) Sector

Amanda Cohen and Andrew Roddick

The Achachi Coa Kkollu (AC) sector of Kala Uyuni is located on communal land, on top of a steep hill (figure 6.1) overlooking the Middle and Late Formative Kala Uyuni village. The 2003 TAP excavations focused on three different areas at Achachi Coa Kkollu—two sunken court structures, lower and upper, and a nearby midden. Our excavations were initially guided by the presence of several large white limestone blocks protruding from the ground in the southwest corner of the area. These blocks had been originally identified by Bandy (2001a: 122) while community members were in the process of digging up and inverting two of the stones as part of a local rain ceremony. Their presence, together with the continued ritual significance of this area to the local community, suggested that this may have been the ceremonial sector of the site in prehistory. The presence of these blocks and the high surface densities of Late Chiripa decorated ceramics, along with lithic flakes, ground stone, and projectile points, as well as specialty items such as stone labrets, beads, and exotic imported ceramics, hinted at subsurface architectural remains.

As indicated in figure 6.1, the 2003 excavations adjacent to the limestone blocks did indeed reveal a sunken court, deeply buried under a thick colluvial deposit (Event A3). We refer to this court as the ‘lower court’ (ASD-1). Further exploration in the area upslope of the lower court identified a line of deeply bedded limestone blocks, as well as a large red sandstone block protruding from the surface. Excavations in this area revealed another sunken court, the ‘upper court’ (ASD-3), with a standing sandstone monolith in the center. Additionally, to the northwest and to the east of the upper sunken court (ASD-3), the surface soil was found to be very dark and exhibited a high density of artifacts, particularly bone, distinguishing it from the surface characteristics of the upper and lower courts themselves. Test excavations in this area revealed the presence of a midden deposit that we interpret as being related to the activities performed in the two courts.

The excavation strategy of the sunken courts focused on identifying the walls in order to reveal the construction sequences and techniques as well as the scale of the structures. This strategy resulted in the location of a few meter-wide sections of each wall, which allows for an estimate of the size of each court to be made. The final construction of the lower court measured approximately 18m x 18m, or 324 m², and the final construction of the upper court...
Figure 6.1  Area AC sunken courts and excavation units. Reconstructed sunken court perimeters and midden areas are indicated.
measured approximately 18m x 15m, or 270 m². These calculations somewhat overestimate the actual area of the structures because they were constructed in the trapezoidal rather than rectangular form (figure 6.1). More precise size calculations would require further excavations.

Lee Steadman's analysis of the ceramics associated with these structures and the radiocarbon results have permitted their placement within the broader chronological sequence of the Taraco Peninsula. Ceramics from the Early and Middle Chiripa phases were identified in this sector of the site, although these courts were not constructed and used until the Late Chiripa phase. The courts were both abandoned late in the Late Chiripa phase, though the AC sector continued to be used at a lower level of intensity during the Late Formative period 1. The excavations and associated finds are briefly discussed below. The stratigraphic sequence of the AC sector is represented on a Harris Matrix in figure 6.2.

Excavation of ASD-1—The Lower Court

South Wall (N964.37/E923.91 and N962/E928)

The excavation of the lower court (ASD-1) concentrated on defining the walls and both the interior and exterior surfaces of the structure. As in most of our Achachi Coa Kkollu units, we began by excavating a thick layer of colluvium (A3), with a highly mixed cultural matrix consisting of Late Chiripa and Late Formative 1 materials, before reaching any unmixed cultural deposits. This dense, hard, clay-rich deposit had the effect of disguising subsurface features as well as slowing excavations. Fortunately, however, the aforementioned limestone blocks were visible on the surface, and the surface topography seemed to indicate the presence of a sunken temple (see contour lines in figure 6.1). We began excavating this part of the site with 2x1 and 3x1 meter excavation units in order to locate the walls. These southern units revealed a highly disturbed context near the wall, with architecture that was for the most part wall-fall, and deep deposits of clays in the trough of the slope. Our first unit (N964.37/E923.91), on the down-slope side of ASD-1, was especially shallow and disturbed, and as we placed the unit parallel to the wall, we simply encountered the top of the wall-fall deposit.

These initial excavations did, however, allow floor and interior fill events to be recorded, as seen in the 3x1 meter unit of N962/E928 (figure 6.3)—a unit that proved to be especially helpful in defining the sequence in the southern section of the court. After removing the post-abandonment depositional events (A3, A5) and the wall rubble events (A4, A6), we encountered the upper interior floor of the structure (A8). This yellow clay floor (8.5 YR 3/2) was very thin and was highly mixed (due to erosion and other post-depositional processes) with the above occupation zone and a lower fill. This floor extended below the southern wall, demonstrating clearly that the wall was built after the floor.

Analyses of ceramics associated with the A8 floor indicate a Late Chiripa use of the surface. Below this surface we encountered a fill level with some cobbles (A11, A9) and a lower clay floor with few inclusions (A12). This earlier floor was highly mottled, with carbon inclusions and a high density of Late Chiripa sherds. The clay was moist and much easier to excavate, but this also made it difficult to distinguish between the occupation zones and the original floor. The ceramics identify this surface with a Late Chiripa construction and use. There seem to have been several resurfacings of the floors, although there was no clear fill between the levels. It is important to note here that the floors of these structures were highly variable and difficult to define; it was only in the process of creating a Harris Matrix (figure 6.2) that the A8 and A12 floors could be respectively linked between excavation units. Below the A12 floor we encountered a subfloor fill (A13), and finally encountered a hard pebbly sterile deposit (A14).

Interestingly, the ceramic assemblages from the lower strata of this unit (A11, A12, and A13) all contained some Middle Chiripa material (up to 20%) mixed in with the Late Chiripa
Figure 6.2  Area AC Harris Matrix
Figure 6.3  Unit N962/E928, East Profile.

Figure 6.4  Unit N962/E928, East Profile.
ceramics. In accordance with this mixed sample, a radiocarbon sample from event A11 dates to the Middle Chiripa phase (1000-811 B.C.). This indicates that there was a Middle Chiripa occupation, or at least some kind of activity, in this sector of the site prior to the construction of the sunken courts, and that some of this earlier material was mixed into deposits related to court construction and use.

**North Wall (N980.4/E928.18 and N979/E935)**

The two excavation units of the preserved north wall of ASD-1 permitted a better view of the lower court and a glimpse into its complex construction sequence, the wall construction technique and the exterior spaces of the court. Our units were placed based on a hypothesized size of the structure, and after a failed attempt (see unit N973.6/E928.11 below), we succeeded in locating the northern wall approximately 18 meters north of the southern wall (figure 6.1).

After excavating the A3 colluvium in unit N980.4/E928.18, we discovered a pit filled (A26) with ash and high densities of fish bones, along with a very low density of camelid bone, which had been excavated into the external sterile surface. As will be seen below, this seems to have been a standard practice for the surfaces surrounding the lower temple. Based on the ceramic analysis, which identified Late Chiripa phase ceramics in the pit fill, these pits seem to be contemporary with the structure. As such, we propose that they represent a repeated consumption activity, perhaps indicating communal feasting within or around the sunken courts.

We encountered a very large limestone block in the center of the unit (figure 6.4). Excavations revealed alternating limestone and cobble blocks, which were mortared with clay-rich soil. The wall in the north section was approximately 1 meter wide, and preserved to approximately 1 meter in height. Many of the upper cobbles had been dislodged and created a wall-fall level (A35) that extended deeply into the court interior and was also associated with a water-deposited sediment derived from the wall (A34).

Below the base of the wall (approximately 10 centimeters beneath the top of the preserved wall)—and in contrast to the southern unit—we encountered the upper floor (A8), which slanted steeply down into the interior of the court. The surface of the A8 floor was irregular. Captured within the undulations of the floor, and sealed beneath A34, was a lens of ash and fish bone (A33). A radiocarbon date on quinoa seeds from this ashy deposit produced a date of 762-402 B.C. This date corroborates the identification of Late Chiripa phase ceramics associated with this event.

Beneath the A8 floor we identified an interior occupation zone (A36) above sterile (A14). It is important to note here that we did not find the lower, earlier A12 floor; it was neither visible in excavation nor in profile. The implications of this are discussed below.

Unit N979/E935 contained the northeast corner of the structure, another fortuitous unit placement, although preservation here was poor. We excavated this 3x1 meter unit to the top of the wall. Outside of the structure, we encountered another fish bone midden pit, filled with ash (A29). The ceramics from this pit were contemporaneous with the use of the court, all pertaining to the Late Chiripa phase. This pit was cut into the exterior surface associated with the court, which consisted of the sterile subsoil. This northeast corner was constructed at an obtuse angle, which suggests that the structure was, in fact, trapezoidal in plan. This fits with evidence seen elsewhere for the Middle Formative period (Late Chiripa and Late Qaluyu) in the Titicaca Basin (Chavez 1988; Cohen 2006; Hastorf ed. 2001; Bandy 2001a: 131-32).

**East Wall and Burial 3 (N972/E933)**

The 2x1 meter unit of N972/ E933 offered another excellent profile of the construction technique of the lower court, with good intact preservation of both cobbles and limestone blocks in the wall (A7)(figure 6.5). It
also offered further evidence for the upper floor being located below the base of the wall (see figures 6.5 and 6.6). As in previous ASD-1 units, the sterile subsoil served as the exterior surface. We identified two additional fish bone and ash pits cut into this exterior surface. Ceramic analysis from one of these pits (A37) identified Late Chiripa phase pottery, consistent with the analysis of the two pits previously discussed. The most notable feature of this unit, however, was Burial 3, located in the clay of the lower (A12) court floor (figure 6.7).

In the process of excavating to the interior A8 court floor, we encountered a cranium embedded in the clay. The cranium was significantly modified, and in poor condition. In this portion of the unit, the A8 and lower A12 floors were intermingled due to the thickness of the A12 floor in this area. As is visible in the profile drawings (figures 6.5 and 6.6), the two floors were separated in most places by a fill event (A11). After excavating the cranium, we located most of the upper body. The individual was buried within the lower floor (A12), on its back, with the cranium disarticulated and placed on its chest (figure 6.7). The left arm was by its side, with the hand under the pelvis, whereas the right arm was raised beside the head. The legs were bent up beside the body, with both femurs running parallel to the wall, and the lower
Center Profile (interior wall, facing East)

Figure 6.6
Unit N972/ E933, Wall Elevation, Interior. A38 is the right femur of the subfloor burial.

Figure 6.7
Unit N973/E933, Burial 3 under court floor.
legs positioned underneath the wall. Analysis revealed that this individual was a 22-25 year old male and that there may have been perimortem trauma to the first two vertebrae, although no cut marks were identified (Deborah Blom, personal communication 2006). The fact that the first two vertebrae were not found directly adjacent to the cranium (an expected occurrence in cases where decapitation is the cause of death) calls into question the circumstances surrounding this individual’s death and the removal of his head.

There were no grave goods found with this individual. The position of the skull and the damage identified to the vertebrae support the interpretation of this individual as a dedicatory or sacrificial offering. This body would have created a significant bump in the floor near the eastern wall, even after the court had been reconstructed, a visible reminder of the individual that was buried there (see figure 6.6 profile). A radiocarbon sample taken from quinoa found in the A12 floor produced dates of 1207-896 B.C. The interpretation of this date is discussed below.

West Wall (N975/E917 and N975/E916)

The western wall of the structure gave us a very different perspective on the court. Here we found the wall construction directly upon sterile soil, with the absence of any limestone blocks interspersed with the cobble wall, suggesting that it represented an earlier manifestation of the court (figure 6.8). On top of this cobble wall we encountered a coursed multicolored adobe/clay wall, with significant melting down into the lower erosional layers. This wall was approximately 25 centimeters wide and thus much thinner than other sections of the structure, which measured up to 75 centimeters wide.

We extended our 3x1 meter interior unit of N975/E917 westward one meter to N975/E916 to investigate the thickness and depth of the cut outside of the wall (figure 6.8). This complex unit showed an interesting sequence of cuts and more pits containing fish bone in the external areas of the court.

Inside ASD-1 (N973.6/E928.11 and N968/E921)

Although most of the excavations of this season concentrated on the perimeter of ASD-1, we also excavated two units within the structure with the aim of identifying the floor construction, its elevation, and any floor features. Only one of these units (N968/E921) reached the level of the floor and below to sterile, while the other was abandoned at an early stage of excavation (upon reaching the top of the wall rubble).

N968/E921

This unit, located within the lower court, was selected in order to identify the floor of the court and any associated materials and activities. Below the root zone, the unit was filled with a thick colluvial deposit (A3). As in other areas, A3 was hard, compact, and contained pottery from mixed time periods and a very low density of animal bone. Within the A3 deposit were found some disarticulated human bones that seem to have been deposited with the colluvium. Another interesting feature appeared to be the remains of a burnt offering, including fragments of a dog or fox jaw and burnt vegetable fibers, likely modern.

We then encountered two colluvial deposits (A19 and A20) that differed from A3. These were characterized by a low density of artifacts and by a distinct soil matrix. Specifically, the clay-rich matrix of A3 was markedly different from the gritty, clay loam matrix of A19 and A20, which were also differentiated by a color change. This suggests that the source matrix of these deposits differed from that of A3, and was possibly related to the erosion of architecture. Beneath the colluvial deposits were two events (A21 and A22) that seemed to be associated with the structure’s abandonment. The matrix of A21 was different in that it contained patches of clay as well as 10-15% pebbles. Event A22 had an even higher percentage (20-25%) of pebbles as well as 1-2% cobbles. Both of these strata were easily distinguished from upper colluvial strata in that they exhibited a higher density of pottery sherds that were better preserved (less eroded). The state of the ceramic preservation suggests
Figure 6.8  Unit N975/E916 and Unit N975/E917, North profile. Dashed boxes indicated micromorphological column samples.
that the sherds were not deposited by a colluvial process, but rather accumulated in situ following the structure’s abandonment. According to Steadman’s ceramic analysis, the pottery in these strata pertained to the Late Chiripa time period. We are therefore able to surmise that abandonment of this structure took place in the Late Chiripa phase.

Excavations in this unit identified two clay floors, indicating that the structure had been remodeled during its use life. The upper clay floor (A8) exhibited one floor feature (Feature 1), a depression that was lined with the same clay that comprised the floor. This feature was filled with a high density of cultural materials and around 50% pebbles. The base of this depression did not show any signs of burning. Neither was this depression the result of slump above a lower pit. Indeed, upon removal of the lining, the pit was found to be cut directly into sterile. It seems that this depression must have served some function related to the use of the structure. The floor (A8) in which this depression was formed was a compact clay with limestone inclusions and exhibited a number of flat-lying artifacts on its surface. Beneath the A8 floor was a fill layer (A23) that was darker in color and contained a higher density of artifacts. The lowermost floor (A12) was patchy and uneven in areas, measuring 1-2 cm in thickness. This poor condition may have been the cause for the reconstruction of the court. The lowermost floor (A12) had been placed above a subfloor fill (A13) consisting of a silty clay, artifact-rich deposit. Interestingly, both floors, the subfloor and the between-floor fill contained both Middle and Late Chiripa ceramics. It is likely that the construction material for these strata was extracted from another part of the AC area, possibly from an earlier midden. This could account for the presence of Middle Chiripa materials in what are clearly Late Chiripa deposits.

**Excavation of ASD-3—The Upper Court**

The main goals in the excavations of the upper court were similar to those of the lower court. Specifically, the aims were to expose the court walls and to determine the relationship between the walls and the floor. Excavations in the lower court had already indicated the construction technique used in the walls, as well as complicated issues such as the floor sequence. We placed units around the structure, initially in the western and southern walls, where we could see limestone protruding from the surface. The location of the northern and eastern walls was estimated from the orientation and size of the lower court, which had already been determined through excavation. Additionally, one 2x2 meter unit was placed around a protruding red sandstone block in what turned out to be the center of the court.

These excavations showed that this sunken court, like ASD-1, was trapezoidal in plan (figure 6.1). Also, the structure is interesting in that it is not entirely semi-subterranean like other sunken courts with which we are familiar. Rather, depending upon the topography, some walls line the cut of the court, while others seem to be almost entirely above the prehistoric ground surface. Still, the floor sloped steeply, so that at the center it was approximately 60 cm below its elevation at the walls. The stratigraphic sequence of each unit is discussed in detail below (and depicted in figure 6.2), along with the sequence of construction and remodeling of the upper court.

**West Wall (N1000/E947)**

This unit was selected due to the position of several white limestone blocks that were slightly protruding from the surface of the slope above the lower court. These blocks were oriented in a roughly north-south linear arrangement and were deeply bedded. We oriented this 1x2 m unit with the long axis across the expected line of the wall, where one large white limestone block protruded from the surface. The west wall excavation unit revealed a very complicated stratigraphic sequence (fig. 6.9).

The upper strata of this unit were similar to those in other parts of the Achachi Coa Kkolhu sector. The A3 stratum was extremely compact, extending more deeply in the eastern part of the unit,
above what was revealed as the court interior. As expected, the unit did identify the remains of a wall—later determined to be the western wall of a sunken court. Beneath the A3 colluvium was a layer of cobbles that we have identified as wall-fall. This wall-fall extended across most of the unit, concentrated to the east, with the highest cobbles over the wall itself. Excavations revealed that most of the wall-fall was within what would be identified as the interior of the sunken court, and a small number of cobbles had fallen to the exterior. The wall-fall (A113) had fallen on top of a stratum of colluvium (A114) that likely collected post-abandonment. This colluvium was above what was later identified as the upper floor of the upper sunken court (A116). This floor was constructed of clay, varying in color from red to yellow. Removal of the wall-fall exposed what remained of the stone base of the wall, consisting of only a few in situ stones to the north of the protruding limestone block.

The interior of the court proved to have a complicated stratigraphic sequence. As noted, the A116 floor was directly beneath a layer of colluvium. The upper floor was above an ash layer (A117) that in turn filled two pits that had been cut into an ashy lens (A118) and the surface of the lower clay floor (A119). Excavation of the lower floor revealed an ashy subfloor layer (A120). Removal of the lower floor revealed a pit (Feature 23) that had been cut into sterile and filled with an ashy, silty clay deposit with charcoal inclusions (A121).

The exterior of the court was much less complicated. The wall-fall was above an occupation zone (A126) that consisted of artifacts embedded in a silty clay matrix. This occupation zone was above sterile, and its excavation revealed a pit (R42) that had been cut into sterile and contained a cobble fill (A161).

This unit was quite shallow as compared with the majority of the units in the lower court. This is likely because this portion of the court was cut shallower into the ground, and the wall would have protruded above the ground surface. The colluvium, therefore, barely covers the lower portion of the wall, and the majority of the wall is not preserved. The wall itself shared similar construction techniques to those seen in ASD-1, with medium-sized limestone blocks interspersed with cobbles. As noted above, this unit exposed two clay floors within the interior of the structure, indicating a reconstruction episode. The large pits and fill events are somewhat enigmatic. They may indicate an abandonment of the courts before they were reconstructed; or they may have pertained to rituals focused around the reconstruction. Also interesting is the earliest pit, cut into sterile and pre-dating the placement of the court. The fill of this pit contained primarily Early Chiripa ceramics, with a 10% admixture of Middle Chiripa sherds. This suggests that the court area may have been used for quite some time before the court itself was constructed, since this Early Formative pit was truncated by the building of the upper court.

North Wall (N1001/E955)

The placement of this unit, opened with the goal of exposing the north wall of the upper court, was calculated based on the dimensions of the lower court, which had already been defined. As excavations revealed, our estimates of the upper court’s dimensions matched closely with those of the lower court.

As with other units in this sector, the uppermost strata are formed by the A3 colluvial deposit (figure 6.10). Beneath A3 was wall-fall, indicating that we were close in our estimates of court size. Removal of the wall-fall (A157), a high density of cobbles within a matrix similar to the A3 colluvium, revealed a dark, ashy deposit (A158). As with the above wall-fall event, this deposit was mixed with cobbles but was characterized by alternating thin lenses of ash, silt, and clay that seemed to have been the result of water deposits. The type of deposit suggests that A158 accumulated gradually, and likely represents court fill that was preserved by the collapse of the wall. Beneath A158 was a thick ash deposit (A159) that had accumulated against the interior wall of the court. The A159 deposit included decorated pottery as well as carbon and was likely a deposit related to the use of the structure. A radiocarbon sample from quinoa...
seeds in the A159 ash deposit produced a date of 373-113 B.C.

Removal of the A159 deposit revealed a similar deposit (A160) that was characterized by alternating deposits of silt and clay within midden. It is likely, then, that A158, A159, and A160 all represent deposits that accumulated during the use of the structure, or immediately post-abandonment. This interpretation is supported by the ceramic analysis, which identified these loci as pertaining to the Late Chiripa phase. These deposits were located immediately above a thick, yellow clay floor (A127), which in turn, was above sterile.

The north wall was the best-preserved wall of the upper court. The sequence of wall construction was different from that in the other units, indicating that it had been built either at a different time or by a different group of individuals. The wall construction sequence was as follows. First, the cut was made into sterile for the construction of the court. Next, a channel was cut into sterile to delineate the position of the wall. This channel was filled with two rows of well-sorted cobbles. Above this were placed the vertical limestone uprights, of which two are located in this unit. Next, the space between the uprights was filled with cobbles to complete the wall. Finally, the clay floor was placed, buttressing up against the wall, with a steeply angled slope. Note that in this segment of wall, the wall is constructed prior to the placement of the floor. This fact, along with the presence of only one floor in this area of the court, is key to our reconstruction of the construction sequence of the court.

South Wall (Unit N984/E955)

The coordinates of this unit were selected due to its proximity to a large white limestone block protruding from the surface. This block was estimated to be close to the southeast corner of the structure. The unit, profiled in figure 6.11, was particularly important for information regarding the construction sequence of the wall itself.

The surface of this unit was covered with a modern rock pile, such as are common on agricultural fields in the region. This rock pile also included a large number of stone artifacts and ceramic sherds. Removal of the superficial rocks revealed that the pile extended beneath the surface; further excavations revealed that this area had likely been a rock pile for a long period of time. This rock concentration was stratigraphically above A3 deposits. A 10% sample of the A135 and A3 deposits were screened in this unit. Removal of the A3 deposits revealed wall-fall (A136) from the south and east walls, along with the fill of the court that was stratigraphically beneath the wall-fall.

Later excavations of the east wall indicated that this unit was very close to the corner of the structure. The fill event (A137) was flecked with yellow and red clay, and carbon, and included a noticeably high number of carbonized ceramics pertaining to the Late Chiripa phase. Removal of this fill event revealed the clay floor and fully exposed the wall.

The floor sloped upwards towards the wall, passing beneath it. The slope of the floor in this unit was extreme. This floor (A116) was compact with yellow and red clay patches, along with carbon flecks and small pebbles, and the occasional cobble, embedded in the surface. The floor was positioned directly above sterile. As there is only one floor in this unit, this serves as a clue to its position in the construction sequence of the court—namely that it was part of the later expansion of the court.

The wall in this unit combined several white limestone uprights interspersed with cobbled sections. Within the wall was one very tall, white limestone block surrounded by smaller cobbles (figure 6.11). Interestingly, however, this limestone block was inserted into a hole cut into sterile and later covered over by the floor. It would have served as an ‘anchor stone’ for the wall. This stone gives us an interesting sequence of the wall construction in this area of the court. The sequence is as follows. First, the cut of the court was made into sterile. The cut was “bowl-shaped,” in this unit sloping down to the
north and away from the wall. Next, the vertical uprights were placed, with at least the one being anchored in a pit. The single clay floor in this unit (A116) was then placed above sterile, joining with the cut behind the wall. Quartzite cobbles were then arranged above the floor and around the anchor stone to complete the wall.

The area behind the wall is not well understood due to the narrow area exposed. Beneath A3 deposits, the exterior floor (A139) was identified, a patchy clay surface with carbon inclusions. Its removal revealed a complicated sequence. It is clear, however, that this area of the Achachi Coa Kkollu sector was in use prior to the construction of the ASD-3 court. In the very small area excavated, earlier pits as well as an earlier floor were identified, indicating that there had been prior use of the area. We cannot at present say, however, whether this earlier use involved architecture. No evidence of earlier architecture was discovered.

**East Wall (N991/E959)**

The location of this unit was estimated based on the measurements and orientation of the lower court. The east wall was poorly preserved due to its location on a low saddle of the mountain. As a result, only a thin layer of the A3 colluvial deposits covered the architecture, providing little protection (figure 6.12). Beneath the A3 deposits were the remains of the wall-fall (A136). The wall collapse was directly above the A116 floor on the interior of the court. The floor was highly deteriorated and difficult to identify in this unit. Excavations indicated that the east wall would have protruded well above the exterior ground surface of the court.

There was only one interior floor in this section of the court. One interesting element of this unit is the presence of midden over the exterior surface of the court. This links the midden to the east of the upper court (see discussion below) with the stratigraphic position of the court and supports the idea that at least some of this midden was deposited during the use of the upper court.

**Center Unit (N993/E952.5)**

The central unit was placed around a protruding red sandstone block that was later identified as a standing monolith (figure 6.13). Excavations went to sterile in the eastern half of the unit, and stopped above the upper floor in the western half. This unit revealed a great deal about the construction sequence of the court and yielded two significant sculptural finds.

The A3 deposits in this central unit were quite deep and included occasional cobble concentrations. Removal of the A3 colluvium revealed a rock pile (A140) that was, in turn, above additional colluvial deposits (figure 6.14). The lower colluvium (A141) was relatively rich with cobbles (about 10% density). All of the colluvial deposits were screened using a 10% sampling strategy.

Removal of the A141 colluvial deposits revealed a stratum of cobbles. This cobble layer was clearly intentionally collected and distributed around the monolith, with the cobbles mounding up towards the monolith in the center of the unit. Excavation of this cobble deposit (A142) revealed a fill layer (A143) that had a lower density of cobbles, but a concentration of very large cobbles and boulders, including a few limestone blocks, arranged in a ring around the base of the monolith. This ring seems to have been used to provide support for the monolith. The A143 fill likely represents the terminal use of the sunken court, or its closure. A date from this event produced a radiocarbon date range of 394-205 B.C., and the associated ceramics pertained to the Late Chiripa phase.

At this stage in the excavations, we chose to excavate the eastern half of the unit, leaving the western half unexcavated. This decision was made so as not to destabilize the standing monolith. Removal of the A143 fill level revealed the upper floor of the sunken court. The floor (A116) consisted of yellowish and reddish patches of clay, with occasional inclusions of pebbles and small cobbles. Beneath this floor was identified another rocky concentration (A144),
Figure 6.10  Unit N1001/E955, West profile.

Figure 6.11  Unit N984/E955 South and West profiles.
consisting of approximately 40% cobbles and 15-20% pebbles, that served as a between-floor fill. A radiocarbon sample on wood charcoal from this fill episode returned a date of 808-541 B.C., placing this event within the Late Chiripa phase. This is consistent with the ceramic analysis from this stratum, which identified Late Chiripa pottery. Within this A144 fill event was a truly unique discovery.

A Yaya-Mama carved stone pestle was recovered from this stone fill (figures 6.15 and 6.16). This small piece of sculpture is carved with a cross formee on the top and symmetrical serpentine patterns on either side. The base of the pestle shows signs of having been used. Sergio Chavez (1971) has published similar examples of this style of sculpture, referring to them as “lightning stones.” The Kala Uyuni lightning stone seems to be the only example recovered from a scientific excavation in a secure stratigraphic context.

Beneath the A144 fill event was the lower floor (A119) of the sunken court (figures 6.14 and 6.17). This was a mottled clay floor that passes under the rocky support for the monolith. Excavation of the floor revealed that it was placed directly above sterile. Interestingly, however, excavation of the A119 floor revealed a pit (Feature 36) that was cut into sterile (figure 6.17). The fill of this pit (A146 and A147) contained cobbles and large chunks of clay similar to that used in the construction of the floor. Analysis of the ceramics from Feature 36 identified them as pertaining to the Early Chiripa phase. A radiocarbon date run on quinoa seeds from event A147 returned a result of 1127-915 B.C., firmly positioning this feature within the Early Chiripa phase. Like the A121 pit mentioned earlier, this could have been an earlier pit truncated by the initial construction of the upper court.

These excavations revealed the full extent of the monolith as it stood above the interior surface of the court (figure 6.13). As noted, none of the structural supports were removed in order to preserve the monolith's stability. The monolith was shaped with a stepped profile, but bore no iconography. Interestingly, the excavations did reveal the construction sequence involved in the placement of the monolith. The lower of the two floors was not associated with the placement of the monolith. Indeed, prior to the placement of the upper floor, a pit was dug for the monolith. The monolith was placed in the pit, with a stone support system wedged into place to prevent movement. The stone fill between the floors was then laid down, after which the upper floor was put in place. The monolith as it stands was therefore put in place at the time the upper court was remodeled.

While the context of the fill above the floor remains uncertain, we do know that the monolith was intentionally partially buried and the upper floor completely covered with a large mound of cobbles, effectively 'closing' the structure. We hypothesize that this event was related to a formal abandonment ritual.

**Excavation of the Midden**

**N990/E968 and N979/E957**

Two units were excavated within the midden deposit to the southeast of the upper sunken court. This area was selected because of the dark soil and the high density of surface artifacts. In particular, there was a high density of animal bone, which distinguished this area from the courts where colluvial deposition resulted in the destruction of most animal bone. This indicated different depositional processes at work in the midden area. Rather than colluvial deposition, it seems that this area was deflated or eroded to some extent. Excavations indicated that the midden area had been plowed for agricultural fields, although the plow marks suggested the use of *chakitaklla* (traditional foot plows) rather than ox-drawn plows.

Within these middens we found a high density of fish and other animal bone, pottery and lithic materials. The ceramics from the court-associated middens are especially interesting (see Steadman's discussion in chapter 7 of this volume). An interesting find was a scattered
Figure 6.12  Unit N991/E959, South profile.

Figure 6.13  Upper court (ASD-3) central monolith under excavation.
Figure 6.14

Unit N993/E952.5, central monolith, in profile.

Figure 6.15  Lightning Stone in situ.
Figure 6.16

Lightning Stone found between floors (a) front view, (b) side view, (c) top view.

(a)

(b)
Figure 6.17

Unit N993/E952.5,
East profile
pile of burnt, well-sorted rocks (large pebble – small cobble size) that suggest a dump after a *huaria* (earth oven) cooking event. The ceramics are particularly intriguing. The lower stratum in each unit (A108 and A112) includes pottery from the Early and Middle Chiripa phases (A108 contains 5% Early Chiripa pottery and 95% Middle Chiripa), while the upper strata are predominantly from the Late Chiripa phase. A radiocarbon sample from locus A108 yielded a date of 1126-844 B.C., which falls within the Early and Middle Chiripa phases. The presence of Early and Middle Chiripa phase strata indicates that there may have been an earlier ceremonial structure, or at least earlier ceremonial activities, on the site of the later ASD-I and ASD-3 sunken courts. This hypothesis is supported by the finding of the floor exterior to the southern court wall, as revealed in unit N982/E955.

**Chronology of Court Construction**

The radiocarbon dates and the analysis of excavated ceramic material from within the sunken courts have provided us with evidence for the chronology of court construction, use, and abandonment. Excavations within the lower court (ASD-1) revealed the construction of both court floors, as well as a subfloor level. This subfloor level (A13) is key to our understanding of the court construction sequence. The material from this court was identified as pertaining to the Late Chiripa phase, with some Middle Chiripa phase ceramics mixed in. Additionally, the first court floor (A12) assemblage from this unit pertained exclusively to the Late Chiripa phase.

The radiocarbon date (AA64924) from the A12 floor (1207-896 B.C.) taken from unit N973/E933 is seemingly contradictory, as it spans Early and Middle Chiripa. The mixed context of the A13 subfloor level presents, however, the possibility that earlier materials were incorporated into the matrix of the floor, resulting in a misleading date. The presence of Late Chiripa pottery in the subfloor level confirms that the earliest construction of the lower court took place in the Late Chiripa phase, or after 800 B.C.

Another misleading date (AA59720) from the lower court (ASD-1) was taken from the fill between the floors and suggested an association with the Middle Chiripa phase (1000-811 B.C.). However, as noted above, ceramic analysis reveals that the lower A12 floor as well as the subfloor level both contained Late Chiripa materials, therefore invalidating the radiocarbon date as contemporaneous with the date of deposition. Rather, intrusive materials from an earlier time period seem to have been mixed in with the matrix of the fill.

The earliest date (AA59712) associated with the upper court (ASD-3) was taken from a pit that predated the construction of the court. This pit was truncated by the construction of the court and was not associated with the court’s construction. This date was quite early (1127-915 B.C.), pertaining to the Early Chiripa phase. It confirms that activities were taking place in the AC Sector that dated to Early Chiripa, but again tells us nothing about the chronology of court construction.

All other dates from the lower court (ASD-1) and upper court (ASD-3) pertain to the Late Chiripa phase. From the lower court, this consists of a single date (AA59717) from ashy deposits associated with the use of the upper A8 floor (762-402 B.C.). This implies that the upper floor of the lower court was already in use before 400 B.C.

Dates from the upper court (ASD-3) include one sample (AA59711) from between the early (A119) and late (A116) floors (808-541 B.C.). This date is corroborated by the ceramic analysis, in which all materials pertaining to the early floor (A119) and to the late floor (A116) contain Late Chiripa phase ceramics. This implies that the upper floor of the upper court was constructed no earlier than about 800 B.C. (a fact we could have deduced from the ceramic evidence alone) and no later than about 550 B.C.

The remaining two dates seem to pertain to the terminal use of the upper court. One sample (AA59714) from fill over the uppermost
floor that may represent materials associated with a final, closing ceremony, produced a date of 394-205 B.C. Similarly, an ashy deposit located immediately beneath the collapse of the northern wall was dated (AA64923) to 373-113 B.C. These dates imply that the abandonment of the upper court took place at some point after approximately 375 B.C. and before 100 B.C.

Both the sunken courts, ASD-1 and ASD-3 seem, therefore, to have been initially constructed during the Late Chiripa phase, and probably early in that phase. The lower court was remodeled sometime before 400 B.C., and the upper court before 550 B.C. The extreme similarity in form, design, and construction technique between the final construction stages of the two courts might suggest that they were remodeled together. If so, this might have taken place in the early sixth or seventh century B.C. They continued to be used throughout the Late Chiripa phase, until sometime near its end, between 373 and 113 B.C.

Discussion

Kala Uyuni’s ASD-1 and ASD-3 structures are very important for our understanding of Formative Period sunken courts, as well as of their role in society at this time. At the moment, these structures comprise two out of a total sample of five excavated courts from the Titicaca Basin Middle Formative period. The sample is larger, of course, from the Formative period as a whole. Two examples of Middle Formative courts have been excavated at the site of Chiripa, also located on the Taraco Peninsula: the Llusco structure and the court complex of the Mound (Hastorf ed. 2001; Hastorf 2003). One Middle Formative period court has been excavated at the site of Huatacoa, located in the northern Titicaca Basin (Cohen 2006). The Kala Uyuni structures, therefore, are an integral part of this incipient study of Formative Period ritual architecture and religious activity.

The two sunken courts excavated in the AC area have much in common with one another, including form, orientation, ritual activities, and construction sequence and technique. Both are trapezoidal in form, with the longest wall of the trapezoid facing south. The trapezoidal shape seems to have been maintained between the initial court construction and the later expansion. The construction of sunken courts with a trapezoidal plan is becoming a diagnostic for Middle Formative courts, also existing at Chiripa (Bandy 2001a, 2006; Hastorf 2003) and at Huatacoa in the northern Titicaca Basin (Cohen 2003, 2006).

Their size, with the lower court (ASD-1) measuring approximately 18m x 18m and the upper court (ASD-3) measuring approximately 18m x 15m (both measurements after the court expansion), places them as the largest known courts from this time period (Cohen 2006). The size of the sunken court within the Mound at Chiripa cannot be determined due to its reconstruction during the Late Formative period, although it has been suggested that it was significantly larger (Hastorf 2003).

An interesting feature at Kala Uyuni is the presence of two contemporaneous sunken court structures. As presented above, the contemporaneity of these two structures cannot be disputed, based on evidence from both radiocarbon dates and ceramic analysis. Indeed, they seem to have undergone simultaneous expansions with shared architectural styles. This is, potentially, an unusual characteristic of sunken courts. It is possible that the courts at Chiripa were in simultaneous use (as argued by Hastorf [2003]), but they certainly did not form a unit in the way the ones at Kala Uyuni seem to have. Whether this indicates a different social structure, such as the existence of moieties, is yet to be determined.

While the original courts were constructed in the Late Chiripa phase, little of those original structures has survived. The west wall of the lower court gives us a good idea of what this structure may have been like. The initial cut of the court was lined with a cobble wall. This earlier wall included no limestone blocks and is therefore clearly different from the
later walls. The first clay floor was laid down after the wall was constructed. Above the base of the wall was an upper construction of alternating bands of yellow and red clay. It is unclear why, when all other walls were reconstructed, this single western wall of ASD-1 maintained the original wall construction. This may have been due to its state of conservation, or it may have held some special meaning; this specific part of the court wall would have been visible from the village (the KU area) below.

Sometime later, both sunken courts were remodeled. This remodeling involved an increase in the dimensions of the structures, with expansion taking place to the north and east (as indicated by the presence only of the later of the two floors adjacent to the north and east walls of both structures). In most cases, the walls were dismantled and reconstructed at the time of the expansion. As noted, the western wall of the lower court is an exception. It seems, in the case of the upper court, that white limestone anchor stones were set in place to delineate the line of the wall. Next, the northern wall was constructed, incorporating a well-built cobble foundation. The next step seems to have been the placement of the upper clay floor, which was laid over the lower floor and any subsequent fill or sediment accumulation. Finally, the remainder of the wall was constructed, incorporating both white limestone blocks and unmodified cobbles.

This style of wall construction becomes standard in the Late Formative I period, and can be seen in the sunken courts at such sites as Tiwanaku, Ch‘isi, and Khonkho Wankane in the southern basin. At present, however, this is the first known example of this type of wall construction.

In the case of the upper court (ASD-3), it seems that a large sandstone monolith was erected at the time this remodeling event took place. It is possible that the installation of the monolith was the motivating factor behind the expansion of the courts. Whether or not there was a central monolithic sculpture in the lower court (ASD-1) remains unknown, since the center of the court was not excavated, and the colluvium filling the structure is much deeper.

The spatial segregation, elaborate architecture, and identification of a distinct set of activities as evidenced by discrete ceramic assemblages, among other behavior, indicate the special, religious nature of this sector of the site. This differentiation seems to have begun in Middle Chiripa and becomes clear in Late Chiripa. The clear separation of sectors of the site has allowed Steadman (chapter 7 of this volume) to identify a distinct ceremonial assemblage for the Late Chiripa phase. The ceramics from the AC sector are recognizable for the presence of larger cooking and serving vessels than those available in the domestic sector of the site (AQ) (Bruno, chapter 3 of this volume) as well as a higher occurrence of decorated wares. Additionally, special forms that have been identified as religious paraphernalia (K. Chavez 1988), the ceramic trumpet and incensarios, emerge in Late Chiripa and are more common in the courts. Interestingly, these special purpose ceramics seem to have been introduced after the expansion of the courts, as they are associated with the upper floors. Steadman also identifies a distinct assemblage that seems to have been indicative of the preparation of food outside of the courts. This utilitarian assemblage is not, however, domestic in nature, but rather seems to have supported ceremonial or public activities within the courts.

Non-ceramic evidence also supports the attribution of a ritual function to the AC area at least in the Late Chiripa phase. One example is the consistent presence of pits containing high densities of fish bones associated with the exterior surface of the lower court. These concentrations may be interpreted as further evidence of feasting in the courts.

Another example of ritual activity is the placement of a human sacrificial offering beneath the east wall and floor of the lower court. The symbolic placement of the individual’s head upon his chest supports the interpretation of this burial as a sacrifice. Further, the splayed position
of this individual is suggestive of the treatment given to captives, enemies, or offerings, rather than to revered ancestors. Similar examples of human sacrificial offerings related to sunken court construction events have been found at the roughly contemporaneous sunken court at Huatacoa in the Pukara Valley (Cohen 2006).

The ritual activity identified at Kala Uyuni is consistent with that previously identified at the site of Chiripa for the Late Chiripa phase. As Steadman points out, however, the activities at Kala Uyuni seem to have been taking place on a smaller and more local scale than at Chiripa. These data, however, are integral to our understanding of the formation and development of the religious behavioral complex that has been referred to as the Yaya-Mama Religious Tradition (K. Chavez 1988). Whether these structures and the religious and social activities focused within their vicinities pertained to the recognition of ancestral groups (Hastorf 2003), served as the playing field for political competition expressed through feasting, or were centers of unification and gathering for moiety-like social groups, remain important questions for future investigations of the sunken court complex. The evidence from Kala Uyuni constitutes a significant contribution to these studies.