

12-15-2013

Reserch Reports on Andean Archaeology Andean Past 11

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Recommended Citation

Grossman, Joel W.; Barnes, Monica; and Patane, Javier J. (2013) "Reserch Reports on Andean Archaeology Andean Past 11," *Andean Past*: Vol. 11 , Article 19.

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RESEARCH REPORTS ON ANDEAN ARCHAEOLOGY

PERU

A Low Status Late Intermediate Period Offering Pit in Andahuaylas, Apurímac, Peru

Joel W. Grossman (Pace University: jwgnyny@gmail.com) reports on field-work accomplished in 1971. The present tense used in this report is the ethnographic or historical present. That is, it refers to conditions as they were in 1971.

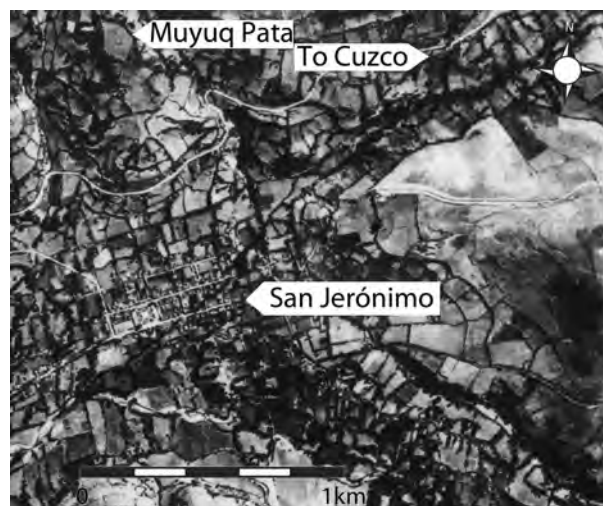


Figure 1: Aerial photograph showing the site of Muyuq Pata (Ap2-58) above the modern town of San Jerónimo east of Andahuaylas, Apurímac Region.

Grave lots have long been seen as units of association and contemporaneity for the study of stylistic variation through time (Rowe 1962). While not necessarily associated with human interment, ritual offerings can often serve the same analytical purpose. The vessels found together in such an offering represent a stylistic unit of contemporaneity and range of stylistic variation for a single period of time associated with the deposition of the feature contents.

Such a find was made through a chance encounter in August 1971 towards the end of my stay in Andahuaylas following the stratigraphic excavation of the site of Waywaka on a hill-top ridge across the valley (Grossman 1972, 1983).



Figure 2: View of offering pit exposed between furrow of modern cultivation zone and LIP refuse on the surface of Muyuq Pata.

While making surface collections at the site called Muyuq Pata (Figure 1) at an elevation of 3168 m.a.s.l. and above the north slope of the Andahuaylas Valley, overlooking the valley, and immediately north of the district of San Jerónimo, I came across a small open pit which had been accidentally struck by a farmer's plow or hoe (Figure 2). The hole or pit contained large ceramic fragments with chunks of burned corn. Both the stylistic characteristics and the ensuing radiocarbon determination dated this find to the time of the Chanka occupation in Andahuaylas, at the end of the Late Intermediate Period (LIP;

Bauer *et al.* 2010; Rowe and Menzel 1967). Although small and humble in appearance, this find provides a unit of contemporaneity and association for the study of stylistic range of variation in Chanka Phase ceramics from the Late Intermediate Period (Bauer *et al.* 2010:73-95).

This chance discovery is also important for another reason. Several lines of evidence (archaeological, ethnographic, and ethnohistorical) support the idea that this association of ceramics and corn represents a ceremonial or religious offering.

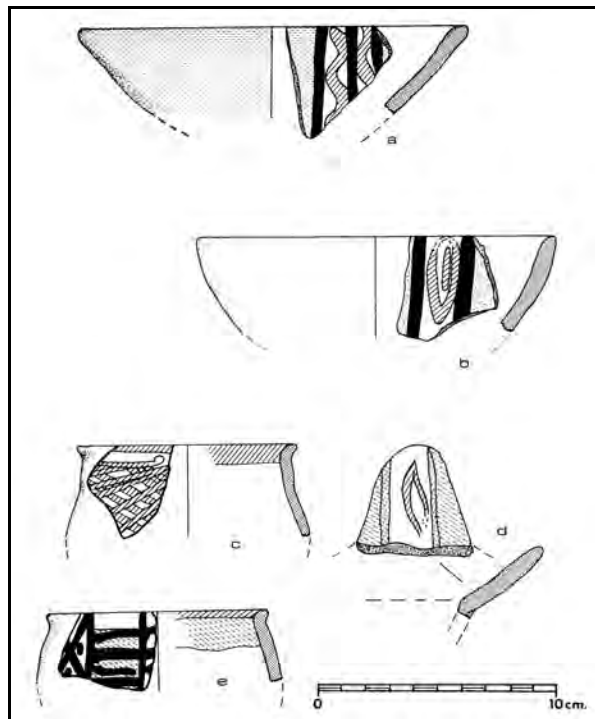


Figure 3: LIP Waywaka style (Rowe 1956) or Chanka Phase (Bauer *et al.* 2010:176-177) sherds from the surface of Muyuq Pata.

The site of Muyuq Pata and evidence of associations

From the air, Muyuq Pata is a large tear-shaped area covering approximately three acres, on a ridge immediately above and to the north

of the modern town of San Jerónimo (13°38' 34.42"S, 73°22'1.71"W). It is also locally referred to as Chacra Zuñiga, because the entire site is under cultivation and is presently the home of a farmer, Sr. Zuñiga. The surface of the site, coinciding with the modern plow zone (c. 10-12 centimeters deep), is covered with a thin, heavily mixed stratum of refuse. Although badly broken, much of this surface pottery coincides stylistically with Waywaka ceramics and is also the same as Chanka Phase pottery (Bauer *et al.* 2010:176-177). Both designations can be placed somewhere within the Late Intermediate Period (Figure 3).

Muyuq Pata was also the site of earlier occupations. A modern embankment cut on the eastern side of the crest exposed nearly a meter of subsurface refuse, or midden. In the center of the site there is a large rectangular compound, heavily overgrown with bushes and weeds. The walls of the platform or compound were constructed of two rows of uncut fieldstones which presently rise approximately twenty to thirty centimeters above the surface. The small amount of wall debris in the vicinity suggests that the double-element field stones represent the remains of a foundation that may have been topped with adobe walls in antiquity.



Figure 4: View of surface of Muyuq Pata showing assistant collecting sherds at offering pit.

The pottery cache was found in and alongside a hole on the northern edge of the rectangular building foundation (Figures 2, 4). It was a freshly opened shallow pit which extended from the surface to a depth of fifty centimeters. The pit was irregular in shape and slightly wider at the bottom than at the opening. When my field assistant, Roque Lizunde Cordova, and I arrived, the soil was damp and Sr. Zuñiga was in the process of turning this portion of the site with a hand hoe. We asked Sr. Zuñiga about the pit and he explained that he came across it while turning over the soil the day before. The condition of the soil and the soil cuts around the edge of the pit or cavity supported his assertion. Fresh blade marks were clearly visible at the edge of the pit (Figure 2).

Large sherds of several vessels were piled at the edge of the cavity and some could still be found inside it. The sherds both in the pit and at the edge are similar and represent a unit of contemporaneity. Examination of the sherd edges at the site revealed that the pottery had been broken in antiquity and not recently by Sr. Zuñiga's cultivation.

At the edge of the pit was a large fragment of an undecorated neckless olla (about half the original vessel) that was charred on the inside. Resting in the large sherd were several large (10-15 centimeter) nodules of completely carbonized maize kernels, tightly packed together in a solid mass, which amounted to several hundred grams of carbon. The corn sample yielded a radiocarbon determination of 600 +/- 50 years BP (uncalibrated), or the fourteenth century A.D. (UCLA 1808H). It is published here for the first time. Both the stylistic characteristics of the pottery and this fourteenth century determination identify the pit and its contents as being very late in the Late Intermediate Period.

The Offering Pit Contents

The pit contained the broken remains of four large vessels designated vessels 1 through 4 (Figures 5-10). Three of these vessels are partially complete, large, decorated, necked jars. The fourth vessel is a large neckless olla without surface decoration. The three large jars share common features of form, decoration, and technology and are closely related in style. Each of the jars shows a fragile, granular, friable paste that nearly crumbled when handled. I found it impossible to extensively reconstruct any of the sherds into whole vessel forms. As soon as two large sherds were glued together, their combined weight would cause the partially reconstructed vessel to break at some other point. As a consequence, it was only possible to illustrate the more complete upper portions of each jar.



Figure 5: Vessels 1-3, large jar neck fragments recovered from the edge and inside of offering pit.

In most sections, the large jar fragments show a uniformly light tan to light brick-red cross section. At other points, however, some of the sherds are light gray in color, indicating that the vessels were poorly fired in a non-uniform atmosphere. Some parts of the vessel are oxidized and others are not. Each of the jar fragments shows a characteristic, ten to thirty percent density of small irregular (1-1.5 mm.) white quartzite-like inclusions. Each of the jars is decorated with thin watery slip which varied in color depending on the density of each application. These slip colors include a thin rust-red, a thin dark purple, and a uniformly thicker off-white or light cream slip.



Figure 6: Vessel 4, side view of partially restored olla. Fragments were found both in, and at the edge of, the offering pit.

The three large jars are similar in form. The necks have straight or slightly convex sides with flaring rims. The necks are as high, or slightly higher, than they are wide. The degree of flair varies for each jar. Two of the rims flare outward in a downward curve. The lips are uni-

formly rounded and without any internal or external thinning at the edge.

Each of the vessels has a similar decoration on the top and inside of the rim. Irregular vertical lines extend from the outer lower edge of the lip across the top of the rim to a depth of 1 to 1.5 centimeters below the lip on the inside of the neck. On two of the jars, these vertical lip lines are painted over a thin horizontal band of red background slip extending around the inside of the rim (Figures 5, 7, 8). The third jar lacks this band (Figure 5, 9), and the vertical rim lines are simply applied onto the unslipped clay surface.

Two of the jars have vertical strap handles applied to the center of the neck. They are similar in size, proportion, and placement to Inca style strap handles. However, in contrast to the Inca handles, the Muyuq Pata cross sections are convex-concave instead of being flat or slightly convex-convex. In addition, the Muyuq Pata handles are rounded at the edge instead of squared off or angled, as was the custom among Inca potters.

Instead of handles, the Vessel 1 neck (Figures 5, 7) has two of what must have been three nubs just below the midpoint of the neck. These nubs divide the neck into three sections which are in turn decorated with three vertical design panels in the spaces between the nubs.

Beyond these common features, the three jars have distinct design compositions. However, while the actual compositions vary, all three of the designs show a seemingly careless application of the slips. The juncture of distinct colors of slip, or wash, are irregular and often separated by a space, or are sometimes overlapping. The designs consist of straight and curvilinear lines, which follow the same rules of composition, with an apparent lack of concern for detail.

All of the offering-pit vessels are much larger than the size of the other Late Intermediate Period Waywaka style (Rowe 1956:143; Grossman 1972:133, 1983:74) or Chanka Phase (Bauer *et al.* 2010) sherds commonly found at LIP sites such as the surface midden at the site of Waywaka (Ap2-2; PAA72) and at the surface of Muyuq Pata itself; (Figure 3). The neck diameters of each vary from fourteen to seventeen centimeters, indicating that the original vessels may have been as tall as seventy centimeters, or perhaps even taller. While it is not possible to reconstruct their overall shape, fragments indicate that at least two of the jars had rounded conical bases and probably oval bodies.

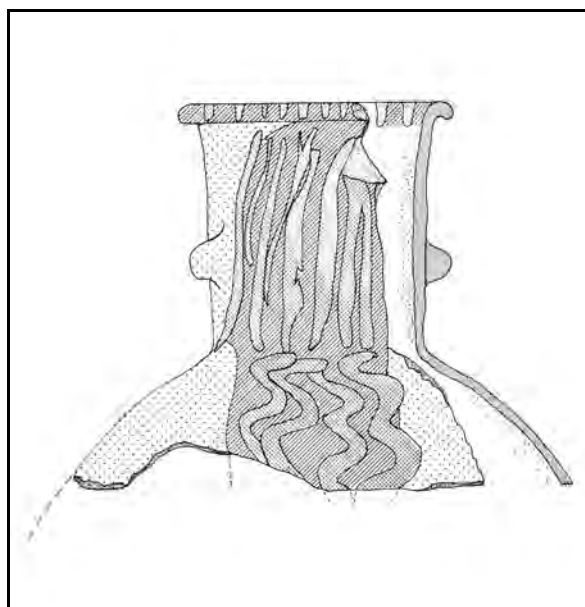


Figure 7: Vessel 1, necked jar.

Vessel 1, Necked jar fragment (Figures 5, 7)

This vessel has three vertical design panels which extend down from the rim and over the shoulder of the jar. The three panels of thin red slip are applied over, and separated by, undecorated zones of equally wide and thick off-white background slip. On the neck portions of the red design, panels are filled with slightly

undulating vertical purple lines which join and overlap at irregular points. These vertical lines stop at the juncture of the neck and the shoulder. Here the red panel is slipped with four distinct and slightly wider purple lines. These shoulder lines are applied in parallel rows in a series of zig-zag curves. Again their application was done with apparently little concern for the limits of the panel. One of the lines overlaps onto the white background covering the majority of the jar surface.

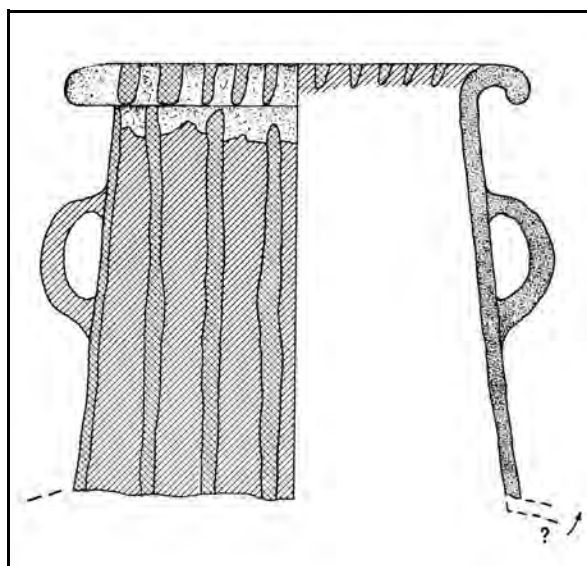


Figure 8: Vessel 2, necked jar.

Vessel 2, necked jar fragment (Figures 5, 8)

This neck fragment lacked the thick background off-white slip of the first jar and showed only vertical design panels applied to the unslipped surface. Within each of these design panels were wavy vertical purple lines (0.5 centimeters wide) spaced 1.3 to 1.5 centimeters apart. Only a relatively small neck portion of the jar fragment was recovered and it is not clear how many panels were originally present or how far they extended down onto the body of the jar.

Vessel 3, necked jar fragment (Figures 5, 9)

Like vessel No. 1, this jar fragment has a background slip of thick off-white or cream applied over the entire surface of the neck. Over this are a series of wavy, roughly parallel lines which are similar to those on the shoulder portion of vessel 1.

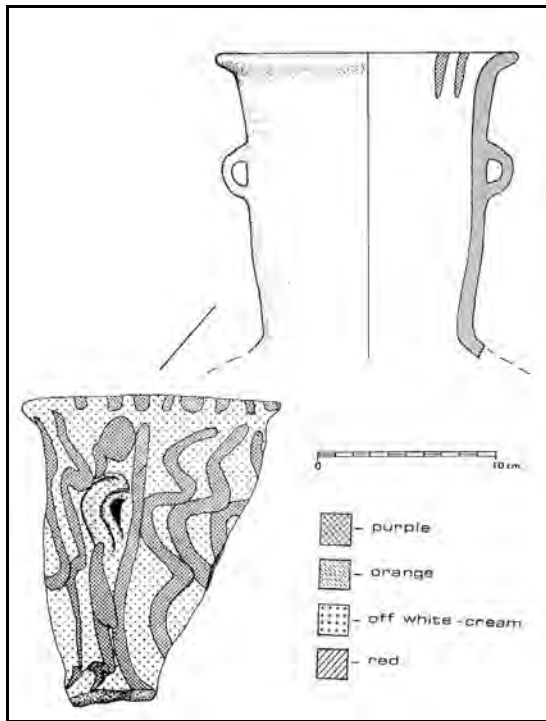


Figure 9: vessel 3, necked jar.

Vessel 4, complete olla (Figures 5, 10)

In terms of technical features the large olla can be contrasted with the three jars. It measures 21.6 centimeters on the outside of the lip and has a diameter of 51 centimeters at its widest point. The rim flares outward to form a slightly angled horizontal lip. The lip tapers abruptly to form a sharp edge. The olla lacks any decoration and appears to have been smoothed over while leather hard, because no burnishing marks are apparent. The olla is a light brick-red color and is harder and stronger than the three jars. Its hardness and color suggest that it was better fired and more oxidized than the jars.

While it is contemporary with the jars, technical contrasts suggest that the olla came from an altogether different source.

The base of the olla is slightly conical. The sides are nearly straight below the lip and curved gently below the midpoint to form a smooth curve with the shoulder. Two large 2.0 centimeter thick and 4.5 centimeter wide strap handles oppose each other on the straight upper portions above the shoulder. Like the jar handles, a cross section is convex-concave with rounded edges.

Discussion

Several lines of evidence suggest that these four large vessels represent a religious or ritual offering. This interpretation is based on correlations between ancient and more modern examples of religious offerings in the Andes and the association of charred corn with the pottery.

In the first place, the four vessels are all large and show evidence of burning before burial. Offerings of oversized vessels with indications of burning are significant features of the Middle Horizon Wari around the eighth or ninth centuries A.D.

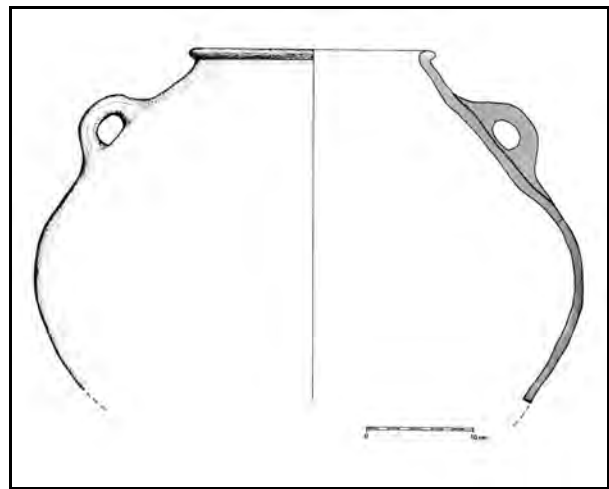


Figure 10: Vessel 4, neckless olla.

Both on the coast and in the highlands, large deposits of elaborately made elite vessels have been encountered. Broken fragments of over-sized and smashed jars indicate that they are the remains of offering ceremonies (Cook 1987, 2001; Cook and Glowacki 2003; Glowacki 2012; Menzel 1968:49-52). During the Middle Horizon, the practice of making offerings was apparently restricted to members of Huari society holding high positions in the social structure (Menzel 1968:90-92). Glowacki observes that the oversized vessels from Middle Horizon contexts were manufactured for “immediate and short term ritual purposes” (Glowacki 2012: 146), a practice that appears to be replicated by the Muyuq Pata find, and that the ceramic smashing tradition “continued to the late phase of the Wari period.” (*ibid.*:153). Although the Muyuq Pata examples lacked either face-neck or elaborate human or mythical depictions, their friability does suggest that they had been specifically manufactured for ritual purposes. In addition, both their stylistic characteristics and radiocarbon determination suggest that the offering tradition of shattered ceramics was not limited in time to the Middle Horizon.

While the Muyu Pata deposit or cache is clearly too small and not fancy enough to be classified as an elite offering, it most likely reflects a continuation of a Middle Horizon religious practice into the Late Intermediate Period. In addition, the probably ceremonial function of the offering pit and its contents is indicated by the similarity in appearance of the charred corn to what is described in ethnohistorical accounts as a special kind of ritual corn offering made in the highlands. The charred corn in the Muyuq Pata offering was preserved as large agglutinated nodules of whole kernels. It was not ground. Neither does it seem to have been burned as a soup or broth. A broth would have left a lens or flat layered deposit, not large globular chunks. Because of this, the Muyuq Pata charred corn seems to conform to

early sixteenth century descriptions of a special maize preparation called *sancu* used only in ritual contexts, often specifically offering deposits.

Sancu is variously described as a corn pudding, porridge, or ball of unground or coarsely ground maize (Arriaga 1968 [1621]:46; Molina 1973 [1570-1584]:24). In his description of Inca rituals, Cristobal de Molina related how the high priest of Inca Cuco made offerings of *sancu* during the festival of *Situa* in August to bless the llama herds and to ward off evil and sickness (*ibid.*). In addition to its association with official Inca religious ceremonies, *sancu* was also used in the provinces by non-elite members of Inca society for more humble individual and household offering ceremonies (Arriaga 1968 [1621]: 46; Molina 1973 [1570-1584]:25). While the Muyuq Pata deposit was in all probability neither an Inca, nor an elite offering, it may represent a small community or household ceremonial offering.

This interpretation based on ethnohistorical sources receives some support from the observations of ethnographer, William Mitchell, who has worked with the inhabitants of Quinua, a town in Ayacucho approximately one hundred kilometers north of Andahuaylas). I described the Muyuq Pata find and its associated corn, and showed Mitchell photographs of both the small pit and its contents. I asked him if it looked like anything he had seen in Quinua. His reaction was immediate and definite: “Ah!” he said, “that’s a *pagapu*” (from the Spanish word *pagar*, to pay). “. . . one has to give a *pagapu* to the mountain spirit *Urqu tayacha* whenever one disturbs the soil” (Mitchell, personal communication, 1971; see also Mitchell 1991:132-133).

While the Muyuq Pata deposit may not have been an offering to *Urqu tayache*, its similarity to both past and modern offerings suggests that it too represents a ceremonial or ritual deposit.

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John L. Cotter's Excavations at Huánuco Pampa and his Role in the Regional Survey (1964)

Monica Barnes (*Andean Past* and American Museum of Natural History: monica@andeanpast.org) reports on John L. Cotter's participation in "A Study of Provincial Inca Life", a project directed by John Victor Murra from 1963 until 1966, and centered on the great Inca site of Huánuco Pampa.¹

John L. Cotter (1911-1999) had a long, full, and distinguished career in American archaeology (Roberts 2007). After completing his master's thesis on the distribution of the first one thousand plus Clovis points to have been found, he excavated at several type sites in the American southwest (*ibid.*: 3) beginning in 1935 with the Lindenmeier, Colorado PalaeoIndian, Archaic, and late prehistoric site (*ibid.*: 270), famous for its large Folsom component. During the next two years he worked at the Clovis, New Mexico site (*ibid.*: 271). In the late 1940s, after serving in the Second World War, Cotter dug at the Middle Woodland Bynum Mounds site and at the Mississippian Emerald Mound temple, both in the state of Mississippi (*ibid.*: 279). However, by the mid-1960s Cotter was developing an excellent reputation as a historical archaeologist through his work at Jamestown, Virginia and in urban Philadelphia.

In 1961 Cotter apparently met John Murra in Philadelphia at a panel discussion sponsored by the Society for American Archaeology entitled "The Meaning of Historic Sites Archae-

ology". Cotter chaired the event.² At the time, Murra was planning his Huánuco field-work. Murra intended the project to have ethnographic, ethnohistorical, ethnobotanical, and archaeological components. Although Murra had had some archaeological experience in Ecuador (Collier and Murra 1943), he needed to recruit specialists in that field. In addition to enlisting Donald Thompson (b. 1931), Murra, impressed with Cotter's integration of historical sources and archaeological evidence, invited Cotter to participate in the planned work (Cotter file, Murra Archive, Bird Lab, AMNH).

At the time of Murra's project, Craig Morris (1939-2006), who soon became famous for his own work at Huánuco Pampa, which he continued in the field until the early 1980s, was a graduate student. Under Murra's overall direction he excavated approximately twenty percent of the *colcas* (storehouses) and the entire North Kallanka or great hall (Lynch and Barnes 2007: 63). Daniel Shea (1941-2011), who also became a professional archaeologist, was then a graduate student, too, working principally on and around the Huánuco Pampa *ushnu*, but he also excavated a human burial in the avenue of the aligned portals (Barnes *et al.* 2012:268). Several Peruvian archaeologists, including Luis Barreda Murillo (1929-2009), Manuel Chávez Ballón (1918-2000), Ramiro Matos Mendieta (b. 1937), and Rogger Ravines Sánchez (b. 1940) also worked with Murra at Huánuco Pampa.

In 1964 Cotter was employed by the National Park Service. Prior to the commencement

¹ A version of this paper was presented at the 42nd Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory at Northern Illinois University, 23-24 February 2013.

² Program, John C. Cotter file, John Victor Murra Archive, Junius Bird Laboratory of South American Archaeology, Division of Anthropology, American Museum of Natural History, New York City (hereinafter Cotter file, Murra Archive, Bird Lab, AMNH); letter from Murra to Cotter 10 June 1963, Cotter file, Murra Archive, Bird Lab, AMNH.

of Murra's project, neither Cotter nor Murra had ever been to Huánuco Pampa (letter from Murra to Cotter, 2 Sept. 1963, Cotter file, Murra Archive, Bird Lab, AMNH). Cotter did not read Spanish well, and seems not to have had any prior archaeological experience in South America (letter from Cotter to Murra, March 20, 1964, Cotter file, Murra Archive, Bird Lab, AMNH). Cotter prepared himself by studying Peruvian artifacts in the University of Pennsylvania Museum (Cotter 1964a). He was able to obtain only one month's leave from the Park Service and wished to see Machu Picchu while in Peru. That meant that Cotter spent just two weeks in Huánuco. This report is a sort of footnote to his career, and is based upon his photographs and field-notes, now housed in the Archives of the University of Pennsylvania Museum of Archaeology and Anthropology, and photographs and documents in the American Museum of Natural History's Junius Bird Laboratory of South American Archaeology.

Cotter flew in stages from Philadelphia to Huánuco, the modern city approximately 150 kilometers by road from Huánuco Pampa, arriving early in July. He left Peru on 2 August 1964 ("Travel Schedule for Trip to Peru", Cotter file, Murra Archive, Bird Lab, AMNH). The portion of Cotter's field journal that covers his work in Huánuco begins on July 10, 1964. It continues until July 23, 1964 (Cotter 1964b). It consists of twenty-two typed and hand-written pages.

Cotter's photographs of Huánuco Pampa

Cotter began his work by photographing the site of Huánuco Pampa (called Huánuco Viejo in his notes). Cotter's photographs are important because they were taken just one year before the monumental portion of the site was reconstructed by a team of young archaeologists, including Morris and Shea, Peace Corps volunteers, and local subsistence farmers, operating

under John Murra's aegis (Barnes *et al.* 2012:267-268). While in Huánuco, Cotter shot more than four hundred black and white negatives in addition to Kodachrome slides (Cotter to Murra, September 18, 1964, Cotter file, Murra Archive, Bird Lab, AMNH). The present location of the negatives is unknown. A few small vintage prints made from some of the negatives are in the archives of the University of Pennsylvania Museum of Archaeology and Anthropology. Thirty eight by ten inch black and white vintage prints and forty-two five by seven color prints from the slides are in the Junius Bird Lab at the AMNH.³ The subjects include Huánuco Pampa and the sites of Wisa Jirka and Aukimarka. Cotter's original color slides are in the possession of David Orr of Temple University (personal communication, David Orr, 28 January 2012).

Cotter's observations on Huánuco Pampa

Ushnu drain. Cotter made several interesting observations about the site. For example, he confirmed that a hole in the east side of the *ushnu* platform, penetrating the platform's fill "definitely shows traces of masonry siding below the surface" (Cotter 1964b: 1). This supports a similar determination made by Emilio Harth-Terré (1964: figure X), perhaps basing himself only upon C. Reginald Enock's observation of "indications of a subterranean entrance on the east side" [of the *ushnu* platform] (Enock 1912: 234; Harth-Terré 1964:7). A stone-lined hole, disturbed by treasure hunters, is visible on some of John Murra's photographs (Figure 1), was excavated by his team, and can be seen at the site today (Mahlon Barash, personal communication, January 2013). Carlo José Alonso Ordóñez Inga reports an offering pit (*pozo*) in the fill of the *ushnu* platform. This rectangular pit is

³ "Peruvian Black and White Enlargements from 35mm Kodak XXX Pan Huánuco Viejo and Aukamarka Trips, July, 1964" (Murra Archive, Bird Lab, AMNH).

defined by a course of undressed stones with clay mortar. The pit was filled with a large number of round stones, apparently serving as a drain for liquid offerings such as chicha or blood (Ordóñez: n.d.). It is unclear whether or not the feature observed by Ordóñez and that reported by Enock, Harth-Terré, and Barash, are one and the same.



Figure 1: East interior wall of ushnu platform, Huánuco Pampa, October 1965. Arrow marks the stone-lined hole excavated by Daniel E. Shea. Murra Archive, Bird Lab, AMNH, Rollo 33, foto 17.

Such drains are considered by Tom Zuidema to be one of the defining features of *ushnus* (Zuidema 1989). A broadly similar stone-lined sink was found at the comparable site of Pumpu on the Junín Pampa (Matos 1994:215, figures 74b, 75a, 75b). At the Ayacucho site of Inca-pirqa/Warminan there are three shafts with clear ritual purposes, cut into the *ushnu* platform (Meddens *et al.* 2010: 177, 180-186). However, Daniel Shea, who excavated the ushnu platform, thought that the apparent shaft he found was part of a Spanish colonial structure (Shea, The Central Plaza Feature of Huánuco Pampa, p. 6, Murra Archive, Bird Lab, AMNH, no date).

Ushnu stairs. Although many observers have depicted the entrance to the Huánuco Pampa *ushnu* platform as a ramp on its southern side (cf. Squier 1887:217), it is actually a staircase,



Figure 2: East (front) and south (viewer's left) sides of ushnu platform, Huánuco Pampa, 1922. Arrow marks rough construction made from outer casings of the staircase. Photo CSA46495 by John Todd Zimmer courtesy of the Field Museum.

with the outer casings having been stripped away at some point in the past. By combining Cotter's observations with a photograph in Chicago's Field Museum taken in 1922 by ornithologist John Todd Zimmer, we can determine what happened to the stairs. According to Cotter, a local man, Zósimo Loyola (called Loyola Sosema by Cotter) told Murra that in Loyola's father's time the stairs were removed to make a cross for the Señor de Mayo or Lord of May celebration. Cotter comments that "there is a pile of stone, some cut, at the southeast corner of the *castillo* [*ushnu*] platform, but if this was the site of the 'cross' there are not enough stones to account for the steps" (Cotter 1964b:1). However, Zimmer's photograph of that corner of the *ushnu* platform shows a large pile of ashlar supporting a small cross (Figure 2). The Señor de Mayo celebration still takes place at Huánuco Pampa, now with the encouragement of the Peruvian government (personal communication, Carlo José Alonso Ordóñez Inga, 21 May 2013).

Indigenous terms for the Huánuco Pampa barrios

Cotter, again using Zósimo Loyola as an informant, recorded local names for the sectors of Huánuco Pampa, names that seem not, for the most part, to have been recorded elsewhere, and which appear, in some cases, to reflect retention

of local knowledge about the site's past functions.⁴ According to Cotter, the Hill of the Colcas was called "Pirwa-Pirwa" (*ibid.*). This is appropriate because *pirwa* is the local term for a bundle of potatoes or other tubers, separated and wrapped for storage by straw, and fastened with rope (Morris 1967:92-93, 96-97). In his doctoral dissertation Morris notes that both presumably ancient and modern *pirwas* were encountered within the *colcas* (*ibid.*: 97). Repeating a word is one way of pluralizing it in Quechua. Thus "Pirwa-Pirwa" seems an appropriate term for the storehouses or their contents.

Cotter also noted that "the hill south of the pond" is known as the "Pillo Cocha". *Pillu* is a crown or garland (Cusihuamán 1976: s.v.), probably from *pilluy*, to twist (Quesada 1976: s.v.). A prominent manmade pond is still a feature of Huánuco Pampa. "Pillo Cocha" most likely refers to the pond itself, *cocha* being the Quechua word for any body of standing water. In an on-line article Carlo José Alonso Ordóñez Inga mentions a pond called "Piogocha" in the southern portion of the site.⁵ This is probably the same body of water.

The "northern plaza complex", according to Loyola as transcribed by Cotter, is "Ayarachara". Probably Cotter meant the enclosed buildings with one access point immediately to the north of the *ushnu* plaza, in Sector VB of the

site according to Morris and Thompson's division (see Morris and Thompson 1985: figure 11). This was designated the "cuartel", or barracks, by Harth-Terré (1964: figure II) and identified as a possible *accllawasi* or house of chosen women by Morris and Thompson (1985:70-71, figure 8). *Ayara* is a wild plant, especially quinoa (Academia Mayor de la Lengua Quechua 1995: s.v), and *chara* is probably a variation of *chacara* or cultivatable field. Thus Ayarachara can be translated as field of wild quinoa. However, it could also be translated as "field of the dead" from *aya* (corpse).

Cotter notes that the western side of the site was called "Alalla Concha" by Loyola. This means rectilinear enclosure, *alalla*, according to Loyola, being a term in Quechua for rectangular. *Cconcha* or *cancha* is an enclosure or courtyard.

The bath plaza was "Cushipata" or Happy Plaza from *cushi*, meaning happy, and *pata*, meaning terrace, plaza, or other flat piece of ground. The bath is today also called the "Inca Fountain".

Cotter indicated that the "two large room complex" to the east of the *ushnu* plaza, probably what is now known as the North and South Kallankas, was called "Rogra". Ramiro Matos (personal communication, 31 October 2012) suggests that *rogra* may be a mistranscription of *ragra* meaning an opening, quebrada, or crack. Perhaps Loyola referred not to the buildings themselves, but to the opening between them.

A shepherd whom Cotter met on 11 July 1964 said that the northernmost part of the site was called "Antamina" (Cotter 1964b: 4). *Anta* means cloudy, misty, or foggy. Many of Murra's photographs show this part of the site enveloped by fog. *Mina* can be a Spanish loan word in Quechua, retaining its meaning of mine or underground water source.

⁴ For Pumpu Ramiro Matos Mendieta recorded local names for portions of the site that also reflect a continued understanding. These include "hatun-ñan" or "inka-ñan" (highway or Inca road), "inka-chaka" (Inca bridge), "acclla-wasi" (house of chosen women), and "golga" or "ccollcca" (storehouse; Matos 1994:214). According to Carlo José A. Ordóñez Inga, in the Huánuco Pampa area, the Inca road is called "Incanañi" (Ordóñez: n.d.)

⁵<http://www.scribd.com/doc/179094598/Nuevos-Centros-de-Almacenamiento-Inca-en-Huanuco-Pampa> (consulted 29 October 2013).

Ushnu plaza buildings occupied during colonial times

Although the great *ushnu* plaza at Huánuco Pampa is usually depicted as empty, apart from the *ushnu* platform itself (cf. Sobreviela and Sierra 1786; Morris and Thompson 1985: figures 5, 11), it, in fact, contains a total of seventy-eight or seventy-nine rooms in thirty-eight standing buildings, mostly grouped into seven compounds (Morris *et al.* 2011:62, figure 31). This is in addition to other buildings on the plaza that are only visible on air photos. The buildings visible from the ground are usually thought to have been built, or at least occupied, during the months between the Spanish takeover of the site in 1539 and the early 1540s when the site was abandoned to ranching, small scale potato farming, and use as a minor tambo (*ibid.*: 59-77). One of Cotter's purposes in coming to Huánuco was to determine, through excavation, the nature and period of occupancy of these structures (Cotter 1964b: 1).⁶ In so doing, Cotter made what are among the first scientific excavations undertaken at Huánuco Pampa.

Excavations

North Building (Acclawasi). On 16 July 1964, Cotter, assisted by Craig Morris and César Fonseca, dug a one meter by one meter test pit to a depth of up to forty-seven centimeters below the sod (Pozo No. 2) in what he called the "North Building" or "North Complex". This is the complex identified as a "Cuartel" or barracks, by Harth-Terré (1964: figure II), and a probable *accllawasi* by Morris and Thompson (1985:70-71). Cotter describes his test excavation as being in the "areaway" of Structure 3 (Cotter 1964b: 11). Unfortunately it is impossi-

ble to identify the location of this pit for certain and little can be said about it.

Structure 2. The next day, 17 July 1964, Cotter began work on the *Ushnu* plaza which he called the "Great Plaza", at a single-room structure approximately seventy-five meters east-southeast of the southeast corner of the *ushnu*, which Cotter calls the "Citadel" (*ibid.*: 12). This narrows the location of his excavation to one of two structures. A white enamel glazed sherd was found four meters from the northeast corner of Structure 2 and was a factor in the choice to excavate this particular building. Excavators included, in addition to Cotter, César Fonseca Martel, Craig Morris, John Murra, Donald Thompson, Zósema Loyola, and Santiago Japa, another local man who worked for Murra. The rectilinear building was stone-built, apparently of double walls with adobe-rubble cores, and was laid out almost to the magnetic cardinal directions. The structure measured approximately 12 meters by 6.5 meters in exterior dimensions. The walls stood above ground surface from half a meter on the west wall to 1.54 meters on the east wall, the most intact.

Cotter's team cleared the interior wall fall to a distance of 3.5 meters from the west inside wall. Surface artifacts were collected from the sod between the stones and designated "Level 1, Lot 80". Unfortunately, all the artifacts from this phase of work at Huánuco Pampa have been lost.⁷

The next level down, below the sod, was designated Level 2 and its finds called Lot 81. Mammal bone fragments were found, as well as three worked green slate stones. One was circular, twenty centimeters in diameter, and about five centimeters thick. A broken green slate

⁶ By the late eighteenth century the occupied portion had shifted to the area immediately north of the Inca palace (Sobreviela and Sierra 1786).

⁷ Letter from Craig Morris to Terence N. D'Altroy, November 17, 1976, Craig Morris papers, Terence N. D'Altroy file, Bird Lab, AMNH.

plaque was also roughly circular and fourteen centimeters in diameter, and two and a half centimeters thick. The third was oblong and measured thirty-six centimeters by eighteen centimeters (Figure 3). An oblong green slate stone, fifty-nine by nineteen by twelve centimeters was found in the sod 2.3 meters from the inside corner of the northwest wall. This may have been a lintel. All of the green slate stones had been worked by rough chipping. Two unmatched fragments of a roughly circular mortar were also found. When complete the mortar would have been fourteen centimeters in diameter (Cotter 1964b: 12-13).



Figure 3: Structure 3 after excavation by John L. Cotter. Figure is John Victor Murra. The flat objects to Murra's true right are the green stone plaques.

The finds from sixteen centimeters of chocolate brown, "tough" humic earth between the bottom of the sod and an uneven deposit of pebbles were designed "Level 3, Lot 82". Most of the sherds recovered from the excavation were found here, in direct contact with the pebbles. The soil in the central portion of the structure was darker than that of the corners. Some pieces of charcoal were found in the dark area and at

the south wall there was evidence of fire in the form of earth burned to a reddish color.

In order to reveal deeper layers, a meter-wide test strip was laid out from north to south. Half of this, a strip fifty centimeters wide, was dug to a depth below the pebbles that seemed to be a natural deposit forming the floor of the structure (Figure 3). They were shown to extend at least fifty centimeters below the bottom of the sod, beneath seven centimeters of sherd-filled humus.

At the north side of the test strip, near the wall, were three more green stone slabs lying at a gentle slope down from the wall. Another trimmed, flat, white limestone slab, sixty-two centimeters long, twenty-five centimeters wide, and five centimeters thick, was also found here. One of the green stones was biconically drilled at one end. Its function is unknown (*ibid.*: 14). At the south end of the test strip there were several flat green slate slabs of varying sizes which showed definite signs of burning. Portions of a whole pot lay just west of the slabs and portions of another whole pot were beneath the slabs (*ibid.*: 13). There was a concentration of sherds near the door (*ibid.*: 15).

Cotter concluded that the fill beneath the sod showed evidence of fire, but not of a fireplace. There was not enough charcoal present to account for a burned roof. Nothing suggested prolonged use. Cotter was not, however, able to demonstrate that this building was a Spanish construction.

Regional survey

Although never fully published, a regional archaeological survey was an integral part of Murra's "Provincial Inca Life" project (various authors, Murra archive, Bird Lab, AMNH, field-notes). Partial results of this survey are scattered in the publications of Craig Morris, Donald

Thompson, Ramiro Matos, and Rogger Ravines. Cotter participated for a few days in this survey.

Wisa Jirka. On 15 July 1964, accompanied by Donald Thompson and John H. Rowe, Cotter visited Wisa Jirka, a cemetery and residential site about two miles from Huánuco Pampa, on the west-north-west edge of the Pampa de Huánuco. He observed “large rectangles of sizeable stones ranging up to 4 feet across and weighing a ton or more” and a “large rock masonry structure . . . 36 meters wide (NS) and approximately 100 meters long (EW)” (Cotter 1964b:7). Cotter likened this to a “giant amphitheater” (*ibid.*). Low conical mounds were also present. One that was three to five meters high was called Wisa Hilco, Wisa Jirka, or Mata Puytusha and was badly pot-hunted. There was also a stone figure resembling a “tigre” or large cat and a pecked boulder. To the northeast were artificially flattened rocks at ground level and “carved bosses” on boulders (*ibid.*). Cotter included a sketch map of one of the Wisa Jirka buildings in his field-notes (Figure 4).

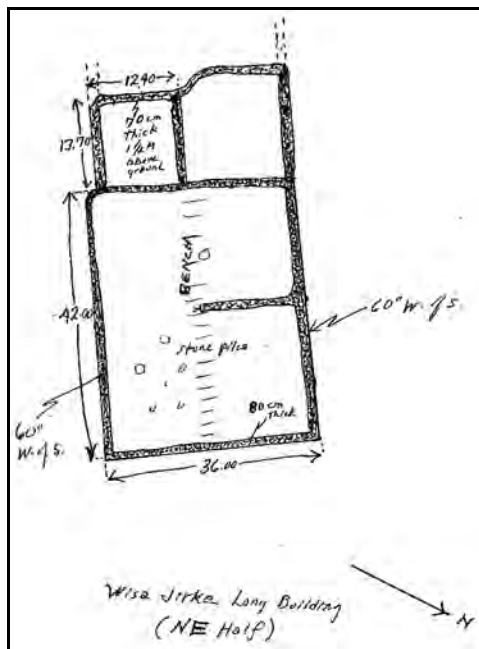


Figure 4: Wisa Jirka building by Cotter, courtesy of the U. Penn. Museum of Archaeology and Anthropology.

Inca Hamana/Inca Khamana. That same day, Cotter visited a site whose name he recorded as Inca Hamana (Cotter 1964b). Ramiro Matos suggests that this may also be written as *jamana*, a term that appears frequently in local toponyms. Because the local term for “to rest” is *jama*, the toponym Incajamana could be translated as “resting place of the Inca” (Ramiro Matos, personal communication, 31 October 2012). That is, *jamana* consists of the root *jama*- plus the Quechua nominalizing suffix *-na*.

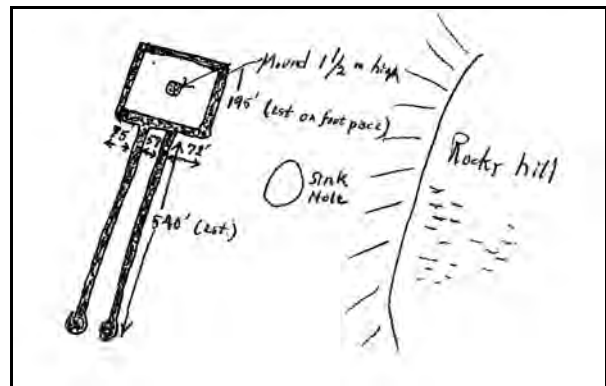


Figure 5: Cotter's field sketch of John Murra's Inca Khamana site on the Pampa de Huánuco, courtesy of the University of Pennsylvania Museum of Archaeology and Anthropology.

Cotter's written notes on Inca Khamana and his sketch plan (Figure 5) diverge. According to his written description, Cotter considered this site to be twin temple mounds, one forty-two by thirty-three feet, and one forty-two by thirty feet, with the larger being a truncated pyramid or terrace one and a half meters high and the

smaller one meter high.⁸ These may be paired *ushnus* like those observed by Meddens *et al.* at Usccunta, Ayacucho (2010:278). Cotter noted stone steps on the south and west sides of the larger structure. On the surface was a “fair representation” of black-and-orange Inca aryballos sherds. Cotter noted that the *ushnu* of Huánuco Pampa was 45 degrees east of south from this site and suggested that sunset in relation to these twin mounds should be noted from the *ushnu*. Thus, a possible astronomical and calendric significance to the *ushnu*’s placement was postulated by Cotter. This was later demonstrated by José Luis Pino Matos (Pino 2005).



Figure 6: Inca Khamana site (center). The “sink hole”, probably an artificial pond, appears both on John Cotter’s sketch and in the middle ground of this photo. Murra Archive, Bird Lab, AMNH, Roll 7, photo 5.

However, both Murra’s photographs (Figure 6) and Cotter’s sketch plan indicate that Inca Khamana (as Murra spelled it) is a site half a mile to the southwest from that which Cotter called Inca Hamana in his written notes. This,

according to local Indians, was an Inca garden. However the site is enigmatic and, judging from the lack of any associated ceramic material, may be Preceramic. A square “mounded linear heap of rocks” was approximately 204 by 195 feet according to measurement by pacing. From this, two slightly diverging heaps of rocks extended about 540 feet, ending in mounds. Within the enclosure is a mound about one and a half meters high (Cotter 1964b: 9).

Kukucan, Puyakan, and Aukimarka

On 22 July, after leaving Huánuco Pampa en route to Huánuco, Cotter, along with John Murra, Donald Thompson, Craig Morris, César Fonseca, Santiago Japa, and Japa’s father traveled up the Marañón above Huánuco to the community of Tomayquichua, in the pre-hispanic and early colonial Chupaychu ethnic group’s territory, from where they explored three uphill sites, Kukucan, Payakan, and Aukimarka.

Cotter had little to say about the Kukucan and Puyakan sites, not having even dismounted from his mule at Kukucan. According to Cotter, Puyakan is about three acres in extent and had a circular wall of six to twelve inch long, flat rocks laid in adobe. There was a “good concentration” of sherds, mostly brown and red slipped or painted wares. There was a percussion-trimmed, oblong green slate slab nearly a meter long, and thirty to forty centimeters wide, as well as “considerable numbers” of fragments of green and dark gray slate (*ibid.*: 1).

⁸ Cotter mixed metric and English measurements in his Huánuco field-notes.



Figure 7: Craig Morris at the Aukimarka site, Huánuco Department, 1964. Photo by John L. Cotter scanned from a print in the Murra Archive, Bird Lab, AMNH.

The next day, the group proceeded to the highest site, Aukimarka, characterized by flights of terraces (*ibid.*: 2). It had been badly treasure-hunted. Nevertheless, sherds and green slate objects were collected. Nearby, at what Cotter called the “Spur site” there were both round and square stone structures (Figure 7). Aukimarka has been published by Morris and Thompson (1985:143-148).

Conclusions

Not surprisingly, given that he only spent two weeks working on the archaeology of Huánuco, John Cotter was unable to make a major contribution to John Murra’s “A Study of Inca Provincial Life” project. However, he played a supporting role, made some original observations found only in his field-notes, and contributed to an endeavor which still remains unpublished to a large extent.

ACKNOWLEDGEMENTS

Alessandro Pezzati, Archivist, and Eric W. Schnittke, Assistant Archivist, at the University of Pennsylvania Museum of Archaeology and Anthropology granted access to John L. Cotter’s field journal and photographs created

while he was in Huánuco. Without the continuing friendship and support of Sumru Aricanli, Senior Scientific Assistant, Division of Anthropology, American Museum of Natural History, my research on John Murra’s “Study of Provincial Inca Life Project” would not be possible. Nina Cummings, Photo Archivist at the Field Museum, drew my attention to John Todd Zimmer’s photographs. Ramiro Matos Mendieta, Museum Specialist at the Smithsonian’s Museum of the American Indian, advised me on Quechua translations and other matters pertinent to Huánuco Pampa and its history. Likewise, former Peace Corps volunteer Mahlon Barash shared his recollections of work at Huánuco Pampa. Jean-Jacques Decoster, Director of the Machu Picchu Museum, Cusco and Carlo José Alonso Ordóñez Inga, director of excavations at Huánuco Pampa provided information on the Señor de Mayo celebration. Jean-Jacques and John E. Staller assisted with the bibliography. I thank these colleagues for their help in preparing this report.

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ARGENTINA

The Pukara de Aconquija: Recent Research Including Two New Radiocarbon Dates

Analysis of Inca conquest and control is a theme that receives constant attention in the archaeology of northwestern Argentina (NOA). Recent studies undertaken in various parts of the southern Andes have been designed to evaluate the relationships among expansionist policies, defense systems, and the development of interaction norms in frontier contexts. These have begun to generate promising areas of debate. Here **Claudio Javier Patané Aráoz** (Universidad Nacional de Córdoba, e-mail: patanearaoz@yahoo.com) reports results from his ongoing excavations at the Pukara de Aconquija (or Andalgalá) and laboratory analyses of materials produced by the excavations, including two radiocarbon dates from this Inca fortress on the southeastern Inca frontier (see Hyslop 1990:182-190).

The Pukara de Aconquija is in the easternmost part of the Department of Andalgalá, Province of Catamarca, in the eastern foothills of the Andes. These border a tectonic depression towards the southeast that is known as the Campo del Pucará. The site is on a large hilltop approximately 2110 m.a.s.l. at 27°42'30.8" south and 65°59'53.4" west (Figure 1). It occupies a strategic position and is naturally protected by steep hillsides.

The Pukara de Aconquija is within the Bolsón de Andalgalá, a part of Collasuyu, the southeastern quadrant of Tawantinsuyu, the Inca polity, and within the Inca province of Quire-Quire. Archaeological sites with different functions have been registered in this region and are products of intensive imperial policies in *bolsones* or strategically located productive

"islands" or niches (Williams and D'Altroy 1998). These are connected by the Qapaqñan or Inca royal highway. The nearby administrative center of Potrero Chaquiago has yielded calibrated radiocarbon dates with ranges that extend from cal. A.D. 1302 (1421) 1483 to cal. A.D. 1449 (1525, 1558, 1631) 1663 (*ibid.*: 176-177).

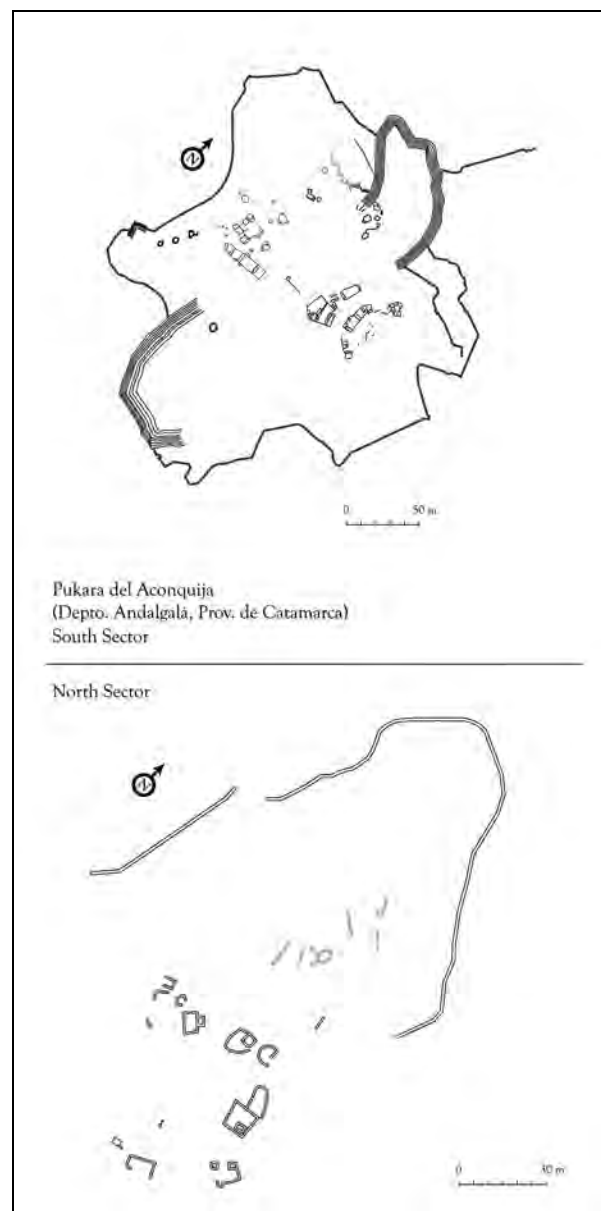


Figure 1: Plan of the Pukara de Aconquija, showing both sectors (after Ratto 2000).

The *pukara* shares the architectural traits of clearly Inca sites including *canchas* or enclosed compounds, rectangular houses and patios (Figure 2), *collcas* or storehouses, *kallankas* or great halls, and walls reinforced with built-in benches and punctuated with niches (Raffino *et al.* 1978:104-105). The site is distinguished by clear planning of building complexes, divided into two sectors, North and South (Kriscautzky 2002-2004). The site is surrounded by defensive walls of various heights, with a total length of 3000 meters (Figure 3). A well-preserved stretch of the Qapaqñan is associated with the site (Orgaz *et al.* 2007:523). This indicates that the *pukara* could have constituted an important link in the southeastern frontier, designed to contain incursions by the Lules of the Santiago Plain. Ana María Lorandi (1980:158) has suggested that it was occupied by populations (*mitmaq-kuna*) recruited from Tucumanaho (the pre-hispanic Tucumán region), for the protection of the inner boundaries of the central mountain valleys.



Figure 2: Partial view of a group of structures in the South Sector.

The accomplishments of my project, begun in 2009, include archaeological excavations, analysis of architecture, and laboratory analyses of materials recovered. Surface collections and systematic survey of villages were also undertaken.

This report summarizes some of the results obtained up to 2011. Excavations, including both test excavations and complete excavations of areas enclosed by walls (*recintos*), were made in both sectors, eleven in the South Sector and three in the North Sector (Figure 4).



Figure 3: (A) The arrow indicates the location of the pukara, as seen from the northeast; (B) the arrow indicates a portion of the pukara's perimeter wall, as seen from the northeast.



Figure 4: Structure (Recinto) 8 after excavation.

Significant materials relating to the construction and occupation of the site were found during excavation. Results obtained in the two sectors indicate the same cultural and functional logic in each. In any case, one can only distinguish one level of occupation. The finds are composed mainly of material associated with various aspects of domestic life. In some structures interior furnishings were rare. This could

be the case with structures reserved for storage, rectangular and circular *collicas*. In particular, the ceramic assemblage was analyzed in order to discuss the function of the complex as a whole, and of each room in particular.

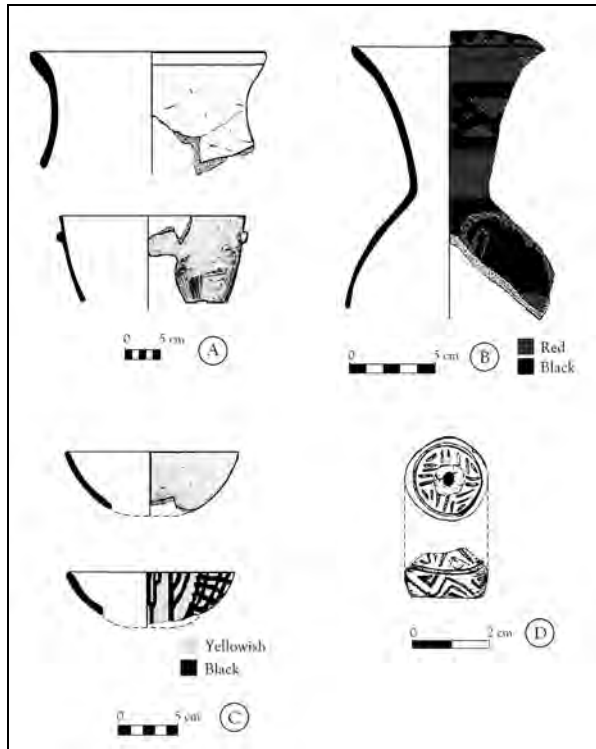


Figure 5: Ceramic forms found in excavations: (A) rough open-form vessels; (B) aryballoid vessel; (C) bowls; (D) spindle whorl.

In the analysis of the ceramic assemblage (Figure 5) I followed the suggestions and observations of Calderari and Williams (1991) and Bray (2003). A large component of Inca provincial ceramics was found and, to a lesser extent, Inca phase pottery. The forms typically found in Inca provincial assemblages were represented. Based on an analysis of morphological-functional characteristics, I estimate that the forms found served storage functions and were used for the serving and consumption of food and drink. These forms pertain to the preparation of food (ollas), the service and consumption of solid foods (bowls), and the storage of beverages

(aryballos). Local ceramic types were present, although in lesser proportions. These include Santamariano Bicolor from the Santa María Valley, Catamarca Province, Belén from the Hualfín Valley, and Famabalasto Black-on-Red from what is now Santiago del Estero province. These emerged during the Regional Development Period (A.D. 900 to A.D. 1470). We also found spindle whorls (Figure 5D) in three locations. These may indicate the presence of *mitimaes*, populations resettled away from their home territory, by the Incas. No Cusco Inca material was found.



Figure 6: Structure (Recinto) 2, North Sector. Large quartz and feldspar rocks built into the south wall are enclosed within the box.

Among those portable objects that one can infer were made for armed conflicts and/or hunting, were a few worn granite spheres, averaging fourteen centimeters in diameter, which had been polished with care, and some quartz

spheres. These were found both in surface collections and during excavations. Only one projectile point was found during excavations.

As mentioned above, the architecture is distinguished by its typically Inca spacial organization. Distinctive technical traits mark contrasting cases. Generally the walls of the rooms were made with flat stones placed horizontally with clay or mud mortar, forming double walls. In particular cases other primary materials, such as quartz or feldspar, were intercalated with flat stones (Kriscautzky 2002-4). It has been proposed that certain wall construction techniques indicate the participation of different ethnic groups (Hyslop 1990:183; Kriscautzky 2002-4:177). My excavations reveal another feature. In the South Sector the excavated structures show a recurrent pattern of foundations constructed with flat stones placed horizontally above one another. By contrast, in two of the structures excavated in the North Sector an alternative technique combined flat stones placed horizontally with large triangular rocks (Figure 6).

One of the principal objectives of this research is to refine the chronological and stratigraphic frameworks of the occupation of the site. Two organic samples, taken during excavations in structures in both sectors, were radiocarbon dated. The dating samples were obtained from controlled stratigraphic contexts and were found deposited directly on the occupation floors.

The samples were analyzed in 2011 in the laboratories of the Universidad Nacional de La Plata (LATYR), and at the Center for Applied Isotope Studies of the University of Georgia, U.S.A. Calibration was made using the Southern Hemisphere curve SHCal04 (McCormac *et al.* 2004) using OxCal v. 4.1 software (Bronk Ramsey 2009; Table 1, Figure 7). Given that the dates have an overlap in their ranges, there is the possibility that both radiocarbon dates are estimating the same “true age”. I evaluated this statistically, performing Ward and Wilson’s T test for homogeneity (1978; Table 2). This indicates that the two dates are statistically indistinguishable.

Pukara de Aconquija-Structure & Sector	Type of date	Sample	Laboratory No.	¹⁴ C years B.P.	δ13C,‰	Calibration	
						1 sigma (68.2%)	2 sigma (95.4%)
PA-E4 South	AMS	collagen: camelid phalange	UGAMS-8560	460±25	-15.8	1443-1478 (68.2%)	1434-1499 (91.9%) 1598-1610 (3.5%)
PA-E10 North	Conventional	charcoal	LP-2499	480±60	-24±2	1414-1498 (65.4%) 1601-1607 (2.8%)	1397-1518 (74.6%) 1538-1626 (20.8%)

Table 1. Radiocarbon dates from the Pukara del Aconquija.

T Test (Ward and Wilson 1978)			
Test T	Degrees of freedom	c2 (= .05)	Result
0.1	1	3.8	indistinguishable

Table 2. Ward and Wilson's T test for homogeneity. Note that the results are statistically indistinguishable.

In summary, the dates help to answer the questions that have guided research.

(a) Independent methods of analysis corroborate a single occupation, based upon observable stratigraphy, homogeneity of ceramic types and forms, and evidence of construction during just one phase.

(b) Site occupation could have been by multiethnic transplanted populations, the *mitmaqkuna*, coming from neighboring areas to the east and west.

(c) The occupation dates of both sectors show a marked contemporaneity. Possibly occupation was relatively brief. There is also a clear correspondence between the dates from the Pukara de Aconquija and those from nearby Inca sites such as those those obtained by Verónica Williams at Potrero Chaquiago (Williams and D'Altroy 1998:176-177).

In recent decades some specialists have begun to revise and discuss the time of entry of the Incas into the southern Andes, usually considered to be between 1471 and 1480 A.D. Work in several regions of NOA, Bolivia, and Chile has produced numerous absolute dates (^{14}C and thermoluminescence) which appear to contradict this assumption, placing the entry several decades earlier. Nevertheless, new research must incorporate new data (see Barcena 2007). The new dates from the Pukara de Aconquija constitute a new contribution to these discussions.

Undoubtedly the Pukara de Aconquija is a clear material manifestation of imperial power. Research there has yielded important data that help continue the clarification of the process of expansion and effective government in the Bolsón de Andalgalá. By taking a step forward we can begin to contextualize and articulate these studies with those developed in the other regions that formed part of the large imperial southeastern frontier.

Translated from the Spanish by Monica Barnes

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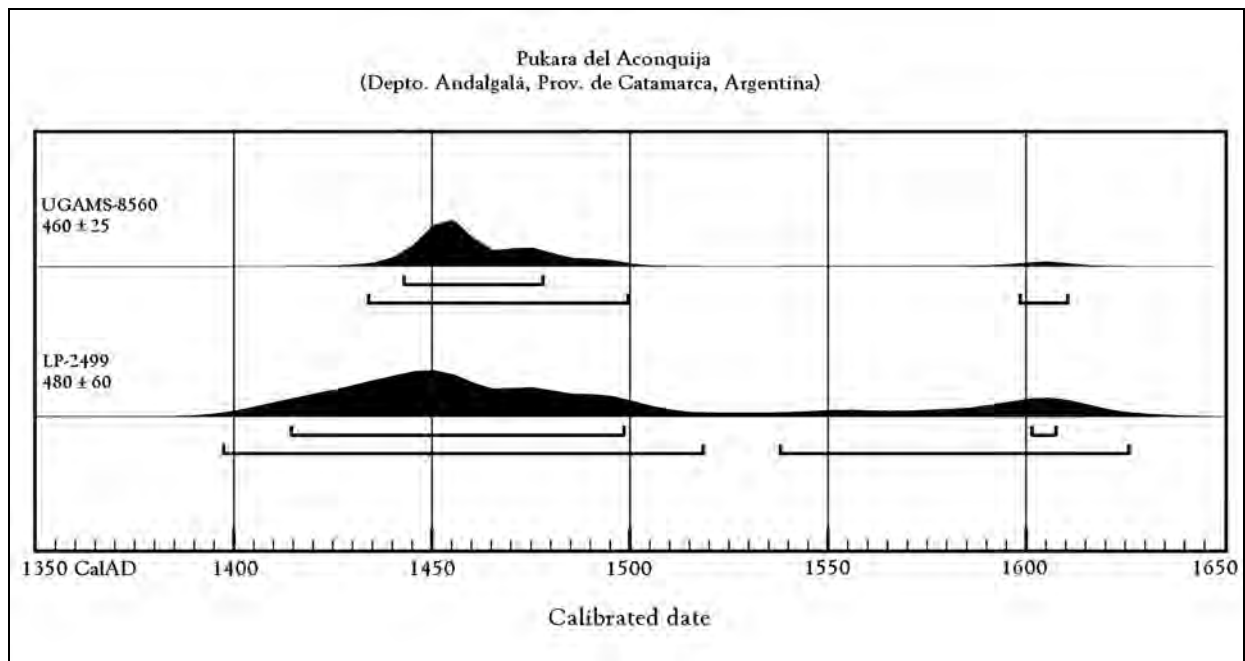


Figure 7. Calibrated ranges for new radiocarbon dates for Pukara del Aconquija.