

#### ARTICI F



# Rituals and abandonment in Juella with the Inca conquest of Humahuaca, Jujuy, Argentina

#### Iván Leibowicz

Instituto Multidisciplinario de Historia y Ciencias Humanas, Consejo Nacional de Investigaciones Científicas y Técnicas (IMHICIHU-CONICET), Ciudad Autonoma de Buenos Aires, Argentina

#### **ABSTRACT**

The opening and closing of spaces have been extensively documented at an ethnographic level in the Andes. In an archaeological context, though I have numerous examples, there are not many examples that testify to the abandonment of a particular enclosure or settlement. However, with research and fieldwork undertaken in Juella, Quebrada de Humahuaca, Jujuy Province, I have made a significant archaeological discovery - that of Enclosure 94 (R94), which includes a door closure, the interment of a foetus in the occupation floor, and the intentional burial of some goods. I consider this activity as part of an occupation that is restricted to the Late Intermediate Period (AD 1250-1450), that the material found and analyzed here is related to ritual and ceremonial activity of the closure and also the symbolic 'death' of this space. Based on radiocarbon dates obtained from this particular enclosure and its relationship to the overall site, I believe that this deposition is not only associated with the abandonment of the structure, but it is closely linked to the site at a time of the Inca conquest of the region.

#### **ARTICLE HISTORY**

Received 1 October 2016 Accepted 21 August 2017

#### **KEYWORDS**

Ceremonies; Inca conquest; offerings; Late Intermediate Period

#### Introduction

With the unique discovery within the site of Juella, Quebrada de Humahuaca, Jujuy, Argentina, I propose in this paper to consider the issues surrounding settlement and abandonment and the ritual character involved. The rituals and ceremonies involved in the opening and/or closing of certain places are practices that have been thoroughly documented at ethnographic level in the Andes. Within the archaeological record, I have numerous examples, such as pots buried under the foundations of buildings, which have been interpreted as ceremonial, usually associated with the opening of a new space. However, examples are not overly profuse regarding the probable ceremonies involved in the closure or symbolic act of 'death' of a particular place or entire site. I believe that the context found in area R94 at Juella, with an inhumation

of an unborn on the floor of occupation, the intentional burial of some objects inside a burned pot and the closing of a door can be related to rituals and ceremonies linked to the closure and the symbolic death of this space.

I address this problem first by briefly reviewing the characterization that other researchers have put forward on the Late Intermediate Period (LIP) as being a period with a consolidated social inequality and a possible hierarchal rivalry between settlements. I explain why I believe that this view is unsustainable, focusing on social relations within these villages and emphasizing the importance they had, the houses and sites themselves, the functionality of axes of life in this type of society, in the development of non-hierarchical social relationships and in the conception and mindset of the world held by village inhabitants.

Next, I will describe the specific findings of R94 of Juella, considering that the archaeology suggests that the site displays part of a deliberate social practice which attempts to generate a memory and give testimony to the beliefs and conceptions of a social group. Finally, in the presence of new radiocarbon dates, I will discuss the implications that could place this event within a framework that refers to the total abandonment of the village and its intimate relationship with the conquest process promoted by the Inca Empire (the Tawantinsuyu) in the first half of the fifteenth century.

## The late intermediate period in humahuaca

Several researchers have mentioned that the LIP in the Quebrada de Humahuaca was characterized by a struggle between settlements and a situation of endemic conflict due to an increasing population growth and the competition for subsistence goods (Nielsen 1996; Palma 1998, 2000). This position, which suggests that during this period there would have been a growing social stratification and competition for leadership in the region (Palma 2000), is based on several different studies that focus on the existence of hierarchies among sites (Albeck 1992; Palma 1991, 1998), funeral rank analysis (Palma 1993), and studies of economic exploitation (Albeck 1992; Nielsen 1988; Olivera and Palma 1986).

The main settlements of the region in this period have among their primary features a lack of fortification but, nevertheless, are in elevated locations on the river terraces. Thus, they were in effect inaccessible by dint of being structurally adapted to the difficult terrain. These locations were therefore naturally defensive against possible aggression. This characterization of the sites is consistent with the hypothesis of endemic conflict that has been proposed previously for the region (Nielsen 1996; Palma 1998).

Based on the size and archaeology of each site, a hierarchy has traditionally been assigned to the settlements of the region, dividing it into areas dominated by a regional head of governance that controlled the productive lands of the main and lateral ravines, a power arrangement that exercised some form of political control over smaller settlements (Palma 1998). However, our studies in Juella, as in La Huerta, make it difficult for us to relate this characterization to the material evidence collected and published from the Quebrada de Humahuaca sites during the LIP (Leibowicz 2007; 2009). I believe that I am dealing with a historical period where status and social distinction were disputed and negotiated (Leoni and Acuto 2008). In this same vein, Acuto (2007) analysed the lack of indicators considered key to explaining rank in social relations, stratification and inequality in the archaeological record of LIP of Northwest Argentina, highlighting the absence of evidence for administration and control of the production of primary goods or appropriation of surplus production that could be used to finance and secure the position of elites and their institutions. Acuto also mentions that there are no demarcated and segregated political/administrative sectors of residential complexes, or structures whose size and quality of construction indicate any kind of centralized political power, or a level of decision-making above the community or household level.

It is considered that during this historical period the spatial organization of villages in Humahuaca and its materiality promoted the perception of there having been commonality of social relationships and even attitudes towards equality, with mechanisms for generating social inclusion.

In terms of applying theoretical context, social groups can be defined both in the permanent order of space and in the course of time (Bouysse-Cassagne 1987, 221), allowing this cultural landscape to be seen as a shared set of social conventions that can be perceived as an extension of social being, providing a set of principles and norms for living in relation to others and their past (Tilley 1996). That is why it is essential, in any spatial arrangement, for the creation of an existential space, a centre, for its inhabitants.

The structures within the village constitute the cultural landscape of social life and can be considered a dynamic element - the settlements and houses have complex and personal life cycles which are shaped by concepts and behavior of the people; by an embodied habitus, and by practical decisions resulting from the course of daily social life over a long period of time (Herbich and Dietler 2009, 12).

I am convinced that these LIP villages and, fundamentally, their homes and backyards became the axis mundi for people who lived in them. Everyday life, the activities, the sensations within the sites, had to be very different from those living in the rural environment – in the agricultural or herding areas for example. Village life had little to do with hunting expeditions, with spending days and even nights among the hills. In large settlements, it is rare to find expressions such as rock art occurring, but it does appear in remote areas such as streams that communicate with the puna area (Nielsen 2003). Feelings of community life and agglomeration of people are contrasted with relative

solitude in these landscapes, shaping different and complementary experiences. The people who lived in Juella or other villages spent much of their time inside the settlements - in and around their homes and in somewhat regular if not constant contact with relatives and neighbours. Thus, the domestic residences became the basic architectural unit in the spatial organization of these settlements (Acuto 2007, 86).

#### Juella

The Quebrada de Humahuaca is a narrow valley that stretches for 150 km; its width varies from 3 km to 30 meters. In the middle of this interregional natural route of communication lies Juella, both the archaeological site and the modern community. It is located in a gorge some 4 km west of the confluence of this and the Quebrada de Humahuaca. The ancient settlement is located on an alluvial spur-shaped fan which widens as it rises in height (Cigliano 1967). It consists of around 420 enclosures built entirely of stone, occupying an area of approximately 6 hectares. Noteworthy is the large altitudinal difference, due to erosion over 40 meters between the alluvial fan and the riverbed. Thus, seen from the river, impressive cliffs rise almost vertically above the site where Juella has been constructed (Figure 1).

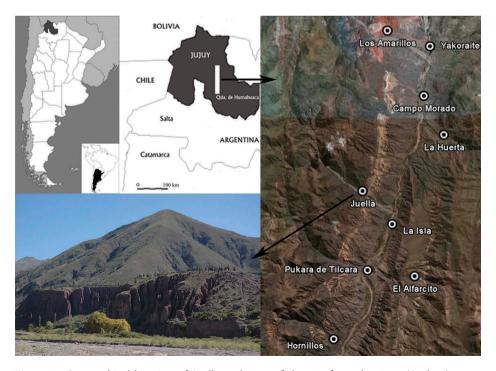


Figure 1. Geographical location of Juella and view of the site from the river. (Author.)

According to the materials found relating to the various tasks performed on site and available radiocarbon dates it has been proposed exclusive occupancy of the site for the Late Intermediate Period II or Late (ca. 1250-1450 AD), highlighting the absence of Inca affiliation materials (Cigliano 1967; Nielsen, Hernández Llosas, and Rivolta 2004; Pelissero 1969). Also, Nielsen and collaborators (2004) relate this phenomenon with the movements and population relocations promoted by the Inca Empire in his conquests.

## The R94 enclosure at juella

The enclosure of 94 (R94) is located within a set of numerous other enclosures. This set of several built rooms in a larger space is repeated throughout the site. I start from the premise that these areas constitute a form of social unity, where each room/space fulfills different functions within the daily life of the family or household group that inhabited it. In the specific case of R94, it was considered that prior to excavation the structure was possibly a roofless enclosure where various activities were performed.

During fieldwork, over 20 square meters of the enclosure was excavated. Uncovered within the structure was an exceptional discovery of 17 ceramic whole or nearly complete vessels (Figure 2). From this, the excavation team has considered this enclosure as a 'supra-domestic' space of production,

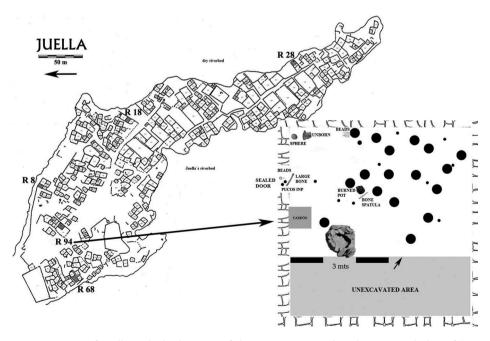


Figure 2. Map of Juella with the location of the sites mentioned in the text, and plan of R94 showing the spatial disposition of buried pots and materials found during excavation. (Author.)

consumption and storage of chicha, a place that at some point in its history could have been a chicheria, supplying alcoholic beverages to a sector of the settlement's community (Leibowicz 2012a). Also worth mentioning, is that in this room there was evidence of the development of other activities related to metallurgy and lithic production (Leibowicz and Jacob 2011).

I consider that this was a meeting and celebration place for an family or factions where they could perform propitiatory activities relating to agriculture and fertility, thus stimulating and strengthening social ties that enhanced the cohesion of the community. Thus, the possible production and storage of chicha within R94, I propose was linked with ceremonies and/or celebrations where alcohol, along with significant quantities of food were served and shared among members of the community (and possibly other community units too).

#### Citation and evocation

Based on the analysis from the wealth of material evidence found, I believe that there was a deliberate intention of those who inhabited or occupied R94 to leave traces of their activity; to generate a memory throughout the time in which the enclosure was inhabited and even later, when this space and probably the entire site was abandoned. There are a lot of materials/artifacts that seem to have been intentionally deposited in what I surmise could have been a closing ceremony linked with the abandonment of the site. The depositing of material objects can stimulate memories of past events or even the distant past. Thus, what is selected to be left in situ becomes a significant legacy. The social practices related to the manufacture, use and subsequent deposition of such objects can be thought of as 'material citations' (Jones 2005, 200). Within this part of the Andes, particularly, 'rituals are based on the concept that things that have had a prior relationship, or evoke similarities with other places, or objects/people may continue to have an effective relationship with their origin or referent' (Sillar 2009, 374). Archaeologist A. Jones considers (and I concur) that this citation process should not be seen as an inherently conservative activity, since the citation of past events through the agency of material culture can offer fresh ways of understanding (Jones 2005, 200). In this sense, the objects have individual biographies, which account for different uses and meanings they had throughout their working life. That is why, in addition to the contexts of use in which I find them, they extend their power by being re-conceptualized through intentional burial, changing from their daily functional, utilitarian role, ceasing to have an active life within the household, and becoming part of a collective memory. In this manner, the notion of citation becomes a useful framework for thinking and reflecting on the networks of relationships in which people are

immersed and allows us to think about the nature of these relationships over time (Jones 2005).

A case that can account for this conceptual transformation in the meanings of objects is that of large vessels that are used as funeral urns in different sectors of the Argentine Northwest. From different investigations conducted in recent years, I observe the use of pots in activities that would seem incompatible and radically separated in our Western conception of life and objects (Acuto, Kergaravat, and Amuedo 2011; Amuedo 2010; Baldini and Baffi 2007; Wynyeldt 2009).

At the site of Mariscal, located in the northern part of the Calchaguí Valley, Salta, Argentina, for instance, in a context of the LIP, it has been observed that pots used at some point in their life story, as culinary or storage activities were subsequently converted into urns for infants (Amuedo 2010). They could be accepted as containing human remains without the assumption being made that their only function was merely as funerary urns. On the outer surface of the pots were marks that denoted a clear exposure to fire: from residues of the inner surface, fatty acid analyzes was carried out which provided evidence that meat, vegetables and honey had been cooked and/or stored there (Amuedo 2010). In the same region, and after analyzing in detail urns from various sites, Baldini and Baffi (2007, 8-9) highlighted recurrent evidence of infant burial remains inside both decorated or undecorated pots possessing traces of soot residues on their exteriors indicating prior use in domestic cooking activities.

Objects that were buried or out of sight were not necessarily out of the mind of the village dwellers; they would probably have been aware that the objects previously used and viewed daily were now residing in cognitively different temporal and spatial dimensions, since things that were now not seen or had a new function made reference to events and things that happened in another time and perhaps in other places (Lucero 2010). The different types of objects and even human remains in its different variants were buried in the floors of the houses providing a continuous connection between the living and the dead, creating, recreating and maintaining the meaning of the site (Jones 2005, 214).

# **Buried objects within R94**

Our work at Juella has provided a variety of particular findings that show us that there were intentional deposits there. There are different types of elements that could have been used in domestic contexts and others that I consider unrelated to these kinds of practices. Thus, some of the objects found (Figure 3) would not have to do with the transformation of their meaning through their burial, but were deliberately buried in the floor of R94 in an act that implied a clear intentionality related to some type of activity of a ceremonial nature.



Figure 3. Some of the objects found buried in R94: A burned pot; fossilized ammonite; hematite female figurine; burned corn grain; carbonized peanut. (Author.)

Among the objects found within the pot shown in Figure 3 is a small anthropomorphic figurine (4.1 x 1.2 cm). This figurine clearly depicts a female figure and was made from hematite (red pigment). I have not found antecedents in the region of figures made of this material. This can be due to the difficulty of preserving the material, but it should be noted that miniatures are frequently used in Andean ritual (Sillar 2009). Inside the jar and next to the figurine was also a fossilized ammonite (6 cm long by 3 cm wide). This fossil has a particular shape, giving phallic connotations. I believe that these objects can be thought of as relating to some type of fertility ceremony or ritual. Such rites not only allude to the sexual fecundity of people, but also refer to fertility in a broader spectrum including the success of crops or the maintenance and growth of herds. I can see here that there is clear evidence of fertility-related materials such as the figurine and ammonite while there are various elements related to food preparation, including the fermentation or storage of chicha the presence of carbonized peanut and corn inside the pot indicate the vegetables most commonly used to prepare fermented beverages in the region. Taken together, these items represent a complex semantic fabric.

### A closed door within site R94

Another important discovery of the site was a closed door with a width of about 75 cm on the SW side of the R94, to 1.10 meters west corner. When this



Figure 4. Excavation revealing the sealed door within R94. (After Nielsen, Hernández Llosas, and Clara Rivolta 2004.)

door was initially identified through excavation, the stones that had been placed to seal the exit were removed and various cultural artifacts/materials were discovered (Figure 4). Although closure of gates is not a rarity at the site (Nielsen, Hérnandez Llosas and Rivolta 2004) there are no records of the finding of materials under the stones that were used to close the access.

In a first level inside the excavation of the door, between the rocks that comprised the new wall and an old step 13 cm high, the remains of two interior black polished pucos (bowls), fragments of a rough pitcher, a long bone belonging to the extremity of a camelid, a 1.8cm-diameter bead necklace made of polished stone and a malachite bead were uncovered. Below, at the level of the occupation floor of the enclosure, at the base of the old door, the team found three grinding stones and more remains of course and decorated pottery. It is important to note that among the rocks used to close this access was a mortar, with its concave part facing the interior of the wall, so that from within the enclosure it was seen simply as merely a stone. This suggests the reuse and resignification of objects: a mortar, an object with a specific function, is removed from those tasks and takes on a different role, a different significance.

To my understanding, the objects found in this context were placed as a kind of offering when closing that access. This is a common and frequent practice in the Andean world. Just as there are foundation offerings such as the burial of pots or camelid foetuses under the walls at the time of building, 'opening' a new space as it were, there are also closing ceremonies before abandoning an enclosure.

Reviewing the findings of Cigliano (1967) on the Juella site, the team found evidence that could indicate the presence of an offering as part of a ceremony of opening an enclosure: in Enclosure 17 below the floor of occupation were fragments of an urn with remains of a child. The ceramic fragment was below the level of the foundations and partly below the wall (Cigliano 1967, 149). This act indicates that the pot could have been buried as an offering before the construction of the walls. The opening and closing ceremonies of all kinds of places are a usual practice in the Andes, being performed both in the past and today (Allen 2002; Arnold 1992; Fernández Juárez 1993). For example, at the site Huaca 20, on the central coast of Peru, the burial of large vessels decorated before the definitive closure of the burial structures has been interpreted as part of a closing ritual, which also included the burial of marine snails and a human cranium (Olivera Astete 2009). In the same region, at the site Huaca Pucllana, a similar situation is explained as 'ritual burials' which involves the deposition of pots as a result of remodeling or abandonment of structures the pots metaphorically representing the 'death' of a settlement (Flores Espinoza 2005). In this case, I do not try to make any analogy with these examples; they are significantly distant in space and time. But I do make it clear that the burial of objects in contexts of closure or abandonment of structures was something repeated in the past.

In the west corner of R94, a few centimeters from the closed door and on the occupation floor, the team made two findings, different from all others made so far. Given their spatial proximity and their characteristics, I think they were associated with events of a ritual event. This does not necessarily mean that the materials were deposited simultaneously, but there may be a relationship in the meaning and purpose of these acts. First, I must mention the presence of human bones belonging, according to bioarchaeological studies, and following the criteria of Fazekas and Kosa (1978) and Scheuer and Black (2000), to an unborn child, aged between 6 and 7 months gestation (De Stefano 2010) (Table 1). They shared the same stratigraphic level with the cultural material found under the nearest closed door and the occupation floor (Figure 5). The majority of the bones were fragmented, overlapping each other due to the post-depositional processes (the probable result of a collapsed enclosure wall). Due to the nature of the sample it was not possible to determine the sex of this individual and only the age was estimated.

Related spatially with the remains of the foetus were two large ceramic fragments, a phalanx of camelid with its polished surface, and a curious lithic sphere (Figure 5(b)). This latter object was within the western corner area of the enclosure on the same stratigraphic level as the unborn child,

Bone portion Ouantity Laterality Humerus 1 Left Scapula 1 1 Left First rib Hemimandible Left Clavicle Right Bone set: 9 Hemi-vertebral arches and 1vertebral body 10 Occipital basis Malar Hemi-frontal Right Skull base Sphenoid 5 Bone set: Skull base fragments Right 1 Paris-lateralis Temporal with petrous portion 1 Left Bone set: Hemimaxilla 1 Left TOTAL 29

Table 1. Details of skeletal remains found in Juella R94.

with a diameter of approximately 9 cm and its entire surface covered with small engraved strokes. To date, archaeologists have only found one possible type of correlation, looking at all kinds of information available, even beyond the southern Andean archaeological literature, with a set of nine sphere-like lithic pieces found in the Cerro Bismarck, in central Chile.

While attempting to compare some aspects of these findings with others made previously in Juella, it is important to bear in mind that the excavations carried out at the site reveal that there is considerable variability in the treatment of the dead: there are burials in well-built stone cists, cists with earthen walls, direct burial (holes in the floor), and single, multiple, primary, and secondary burials. As a recurring characteristic, material accompaniment is scarce, generally limited to the presence of bowls and wooden objects (Cigliano 1967). In the case of infants, most of them (15 out of 19) were found in pots and only three (including R94) over the occupancy level of the enclosures, as inhumations.

Reviewing the results of the excavations of Cigliano (1967) and Nielsen and collaborators (2004) in different sectors of the site, some ancient practices which although not exactly the same, bear some similarity to those perceived in R94.

Cigliano reports that in the north-western corner of Enclosure R8, under a layer of ash that covered the entire enclosure and on the floor of occupation, a child placed on the right side and slightly flexed was found (Cigliano 1967, 141). In addition, under these skeletal remains was found another child inside a coarsely made pot covered with a flagstone. Cigliano also mentions the discovery in the south-eastern corner of R18 of two foetuses aged about eight months of intrauterine life inside a fragmented urn, buried a few centimeters under the floor (Cigliano 1967, 149). Within R28 there was a further discovery that, according Cigliano, is unique to this site. In the NW corner of the room were found a large number of human remains that did not appear to



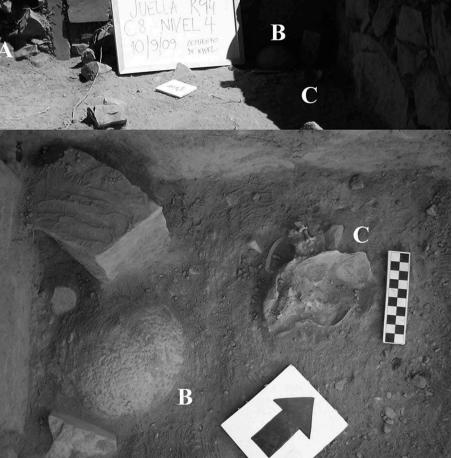


Figure 5. Views of the excavation of R94 Juella: (a) The door walled up. (b) Lithic sphere. (c) Remains of a foetus. (Author.)

be part of a burial (1967, 157). They corresponded to part of the extremities and torso, missing bones of feet, hands and head. Cigliano emphasizes that the bones belonged to a single individual, who was on the floor of the room and appeared to be without the appearance of a funeral package; thus it did not seem to belong to a burial realized after the occupation of the enclosure (1967, 157).

In another enclosure, Nielsen and his collaborators (2004, 108) report within a layer described as 'filling material' deposited after site abandonment, 30 cm from the surface, the burial an infant was uncovered. The occupation floor of this room was found 60 cm below the infant and therefore the authors consider this to be part of a post-abandonment enclosure or re-use phases

of the site. Similar contexts have been documented and assigned to the same historical period at other sites in the region such as Los Amarillos (Taboada 2005, 167) and Pukara de Tilcara (Tarragó 1992, 72).

# Children, foetuses and animals as offerings

Throughout many parts of the world and in different types of society the existence of human and animal sacrifices has been widely documented (Benson 2001). For example, in the Andes, the Incas sacrificed children, mainly in mountain locations in the ritual of the *Capacocha*. Also, numerous child burials have been found at pre-Inca sites suggesting that the offering of children in ritual contexts might have great antiquity in South America (Benson 2001). In Tiwanaku, burying fetal camelids and humans under the floors and walls of residential areas also was a typical ritual practice (Janusek 2004, 142).

Arnold (1992) registered that even now, in the highlands of Bolivia, at the commencement of contemporary construction, offerings are placed under the four corners of the house, highlighting the presence of animal foetuses, mainly llamas. The use of animals in ritual contexts or ceremonies has been widely observed along the Andes from the time of the conquest to the present day. It is defined as an ingredient of particular importance and prestige in the various ceremonial offerings. In the case of the offerings to the *Pachamama*, llama foetuses, those of more significant and symbolic status, are preferably used, while pig and sheep fetuses appear in the offerings dedicated to the *chullpas*, 'los antiguos' (the elders) (Fernández Juárez 1993, 114–115). These practices, being deeply linked to social and kinship relations, are fundamental in the creation of a social memory (Arnold 1992).

From this background, I am interested in thinking about the importance that this kind of ceremonial offering means; here, I draw your attention to human foetuses in Juella. Furthermore, what kind of ritual could this particular type of deposit be linked to? The ritual offering of human sacrifices or human remains seems to have an important significance in the mediation between the living and the dead (Verano 1995, 189). In the ancient Andean world life and death have a circulating character – human remains are compared to seeds that drop from dried pods to begin the round anew (Allen 2015, 310).

In this particular case, it is difficult to conceive the normal development of daily life in this enclosure with the corpse of a child (or a portion thereof) as part of the usual scenario. I refer to the presence of the body on the occupancy floor of the enclosure, since burials inside the room spaces were a common practice and frequent within the villages of Humahuaca (Cigliano 1967; Nielsen 1996; Palma 1998; Taboada 2005; Tarragó 1992, among others). This difficulty to live in these conditions would be transferred to the contiguous enclosures

I. LEIBOWICZ

given the putrefaction of the flesh and the rotten odor. This situation, with the insects and microorganisms that it would attract, does not seem to be the best for a context where chicha was stored and served and people gathered frequently. It has even been observed in Los Amarillos that there are enclosures where cists covered with flagstones suffered architectural modifications that included segregation of the burials of the area where daily activities were ongoing (Taboada 2005, 169). In Juella, the three cases of bodies found on the floor of occupation mentioned above are distributed throughout different parts of the site, without providing any indication that some sector of the site has been abandoned before others. Consequently, I believe that the bodies were deposited when the enclosures were vacated and that this process had a direct relation with the total abandonment of the settlement as well as a profound ritual character.

Possibly a forcible abandonment of the site provoked by the Inca conquest of the region implies that leaving behind the place in which successive generations were born, grew and died, leaving their material and cultural mark, is a situation that could readily lead these people to leave offerings as a material memory.

## The abandonment of Juella: when and why?

In this context, it was necessary to give a more precise chronological framework to the events that took place within R94 with regard to the deposited items. With the intention of strengthening or otherwise our ideas about the connection of these events with the abandonment of the site and the Inca conquest of the Quebrada de Humahuaca, I undertook radiocarbon dating.

Three samples were selected from the materials recovered from Site R94. One was sent to the AMS (Accelerator Mass Spectrometry) Laboratory of the University of Arizona. This sample (CJ 005) was of a camelid rib fragment. It was very close and clearly associated to the first vessel found in this room, a large pot of local style, black on red polychrome. The other two samples from R94 were processed by the Tritium and Radiocarbon Laboratory (LATYR) of the Faculty of Natural Sciences of the National University of La Plata. One of the samples (M1) was a fragment of charred wood, the other (M2) a long camelid bone, which, as previously described, was found along with other materials under the stones that closed the entrance to the enclosure. The calibrated dates obtained are in Table 2.

From the data delivered by the program CALIB 6.0.1 it was observed that the three dates obtained in Juella R94 are statistically significant, concordant and possibly dating the same event.

Nielsen (2007) presents this date range as a temporary limit for the LIP the lapse AD 1410-1430 for calibrations with a sigma and the lapse AD 1400-1435 for those made with two sigma.

Table 2. Radiocarbon dates from Juella R94. Calibrated with CALIB program by Stuiver and Reimer (1993), taking into account the calibration curve for the southern hemisphere (McCormac et al. 2004).

Code	C14 BP	Cal AD 1 sigma	Cal AD 2 sigma
AA-85658 (CJ005)	454 ± 42	1439-1608	1420–1622
AA-85659 (CJ006)	$486 \pm 42$	1421-1475	1405-1614
LP-2544 (M1)	$450 \pm 60$	1432–1618	1419-1626
LP-2556 (M2)	$450 \pm 50$	1438–1614	1419–1626

Table 3. Radiocarbon dates from Juella, Calibrated with CALIB program by Stuiver and Reimer (1993) and taking into account the calibration curve for the southern hemisphere (McCormac et al. 2004).

Code	C14 BP	Cal AD 1 sigma	Cal AD 2 sigma	Reference
IVIC 186	1320 ± 30	662-762	657–773	Cigliano 1967
AA-16237	$655 \pm 49$	1288-1392	1276-1405	Nielsen 1996
A-7733	$635 \pm 140$	1264-1428	1066-1613	Nielsen 1996
M 1639	$630 \pm 120$	1278-1421	1165-1477	Cigliano 1967
GRN 540	$590 \pm 30$	1310-1404	1300-1415	Pelissero 1969
AA-85659	$486 \pm 42$	1421-1475	1405-1614	Leibowicz 2012a
AA-85658	$454 \pm 42$	1439-1608	1420-1622	Leibowicz 2012a
LP-2544	$450 \pm 60$	1432-1618	1419-1626	Leibowicz 2012a
LP-2556	$450 \pm 50$	1438–1614	1419–1626	Leibowicz 2012a

Although the dates obtained are within the range of the LIP, they are late in the context of previous site dating (Table 3). This led the team to think about what contexts and social practices could be found within this dating range, practically juxtaposed with those of Inca times. In this regard, it was important to date an element involved that I considered to be related to the closure and abandonment of R94 (and probably of the entire site). To do this I chose the long camelid bone found under the rocks that closed one of the entrances to R94. The dating of this bone piece would give a time-frame for this event, and would allow us to relate the closure of the door with a possible abandonment of Juella. The date obtained (450 ± 50 AP [LP-2556], aged calibrated to a sigma 1438–1502 DC [p = 0.82], 1593–1614 DC [p = 0.18] and two sigma 1419-1521 DC [P = .68] and 1536-1626 AD [p = .32]) reinforces the idea that a ceremony was probably inaugurated when leaving the enclosure that included the closing of a door and the offering of an unborn child, metaphorically closing that space.

## Inca conquest and radiocarbon dates in humahuaca

It has been proposed that the abandonment of a site of this magnitude must have been deeply related to the policies introduced after the conquest by the Inca administration of the region (Nielsen, Hernández Llosas, and Rivolta 2004). New radiocarbon dates give rise to new questions when confronting these results with those obtained for this same process of conquest in other places of the region.

Nielsen (1996) has proposed as a tentative date for the Inca occupation of Los Amarillos to the year AD 1430. This date is derived from the average age obtained in the following calibrated radiocarbon date:

Los Amarillos	A-9603	520 ± 40	1417–1448	1396-1464	Nielsen 2001

Los Amarillos was the largest village in the region for the pre-Inca era and is located 17 km north of Juella. (The site reached its largest size, c.10 hectares, during the LIP: Nielsen 2007). The domination of the Tawantinsuyu was manifested through a process that was called by the researchers who worked on the site as the 'ritual conquest' (Nielsen and Walker 1999). Nielsen points out that at the end of the LIP the whole sector known as Complex A and part of B at the site were burned and destroyed (Nielsen 2006, 74). From an identified fire within Complex A, two radiocarbon dates were obtained and these indicated the end of one cultural stage and the beginning of another.

For the site La Huerta, Palma (1998) proposes the beginning of the Inca domination of the site within the year AD 1412. This date comes from the radiocarbon dating of the oldest stratum with Inca ceramics in the main site dump. It is important to mention that this date derives from averaging the dates given by the calibration before having the relevant curves in the Southern Hemisphere (AD 1252-1572). Following this criterion with the new calibration the date for the beginning of the Inca conquest in Humahuaca could be AD 1390.

It has been considered that this village located 10 km (as the bird flies) to the north-east of Juella and with an area of eight hectares reached its apogee under the control of the Tawantinsuyu, as witnessed through the growth of the settlement (Leibowicz 2007, 2012b; Palma 1998; Raffino and Alvis 1993). With this architectural remodeling, the site became an administrative center of the Empire (Raffino and Alvis 1993) and specialized as a textile production center (Raffino and Palma 1993).

In order to compare the data obtained in the region for the Inca period with those of Juella, the team processed all the information with the calibration program CALIB 6.0.1 of Stuiver and Reimer (1993), taking into account the calibration curve for the southern hemisphere (McCormac et al. 2004). In Table 4, it can be observed that the known dates for the region, related to the Inca presence, are contemporaneous or sometimes even older than those obtained in Juella.

The largest settlements of the region remained occupied after the Inca conquest; only Juella being a site of such magnitude was completely abandoned. However, this is not an isolated case in the southern Andes. It is a phenomenon strongly linked to the conquest strategies of the *Tawantinsuyu* that promoted the destruction of sacred sites of subjugated populations and the total or partial abandonment of large settlements in the Southern Andes such as Los Amarillos in the Quebrada de Humahuaca, Argentina, Lagaya in

Table 4. Radiocarbon dates related with Humahuaca's Inca occupation and late dates from Juella.

Site	Code	C14 BP	Cal AD 1 sigma	Cal AD 2 sigma	Reference
Puerta de Zenta	AA-16,241	$438 \pm 48$	1444–1616	1431–1626	Nielsen 1996
Los Amarillos	AA-12,136	$450 \pm 50$	1438–1614	1419–1626	Nielsen 1996
Pintoscayoc 1	CAMS-41,069	$450 \pm 50$	1438–1614	1419–1626	Hernández Llosas 2006
Juella	LP-2556	$450 \pm 50$	1438-1614	1419-1626	Leibowicz 2012a
Volcán	Beta 80,119	450 ± 60	1432–1618	1419–1626	Garay De Fumagalli and Cremonte 1998
Juella	LP-2544	$450 \pm 60$	1432-1618	1419-1626	Leibowicz 2012a
Juella	AA-85,658	$454 \pm 42$	1439-1608	1420-1622	Leibowicz 2012a
La Huerta	IAC-0960	$480 \pm 100$	1401-1622	1307-1652	Raffino and Alvis 1993
Juella	AA-85,659	$486 \pm 42$	1421-1475	1405-1614	Leibowicz 2012a
Los Amarillos	A-9600	$505 \pm 50$	1410-1459	1393-1616	Nielsen 2001
Los Amarillos	A-9603	$520 \pm 40$	1417-1448	1396-1464	Nielsen 2001
Volcán	Beta 80,122	530 ± 70	1391–1477	1303–1621	Garay De Fumagalli and Cremonte 1998
La Huerta	IAC-1069	$540 \pm 90$	1318-1485	1292-1624	Raffino and Alvis 1993
Volcán	Beta 80,121	560 ± 60	1397–1442	1317–1458	Garay De Fumagalli and Cremonte 1998
La Huerta	IAC-0963	$580 \pm 80$	1318-1447	1283-1497	Raffino and Alvis 1993
Juire	A-9599	580 ± 55	1326–1439	1304–1453	Nielsen 2001

Lipez, Bolivia (Nielsen 2006), Turi in the Loa River valley, Chile (Cornejo 1999; Gallardo, Uribe, and Ayala 1995) and Tastil in the Quebrada del Toro, Argentina (Cigliano and Raffino 1973; Vitry 2003).

On the other hand, according to the obtained dates and their calibration curves (Figure 6), and continuing with the interpretive lines that other authors (such as Nielsen or Palma) have followed up, it can be argued

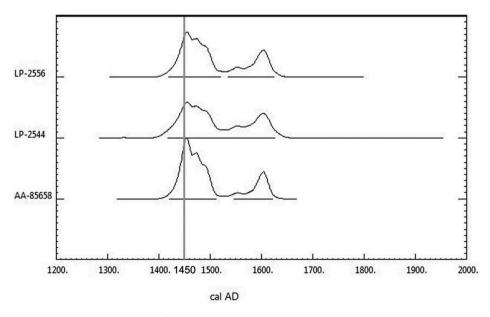


Figure 6. Calibration curves of the three dates obtained in R94 Juella. Image obtained from Stuiver and Reimer 6.0.1.de CALIB program. (Author.)

that Juella was occupied at some time near, or even later than AD 1450. This would suggest that it remained inhabited for at least 20 years after most sites in the region begin to show some manifest signs of the power of the Tawantinsuvu.

From this data, I ask the fundamental question of why in Juella a local occupation remained without traces of Inca material culture, while the rest of the settlements of the region were conquered, occupied or significantly transformed. And why, unlike what happened in other large towns, Juella was completely abandoned and its population possibly relocated elsewhere?

In this regional context where large LIP conglomerates drastically reduce their occupation, other smaller sites such as La Huerta grow and began to gain relevance in the new imperial administration. Here, important agricultural facilities were created and/or expanded in the north and on the eastern slopes of the Quebrada de Humahuaca, it is difficult to think of a settlement such as Juella surviving for some years in the margin of Inca policies. The lack of Inca materiality does not in itself mean the absence of some kind of imperial control over a village, though most of the Inca contexts recorded in the region reveal profound changes in the experiences of the conquered societies. The material correlates to numerous and varied social practices linked to imperial power and ideology that are evidenced in new spaces, rituals and buildings, producing and reproducing unprecedented social inequalities in the area (Leibowicz 2012b).

I do not know if some Inca emissary was stationed in Juella, or if during this time of possible coexistence inhabitants of Juella knew or lived in places already dominated by the Incas. The only material evidence for this possible interaction is a bone spatula found near the burnt jar within R94, whose design with checkered squares and concentric diamonds reminds us of motifs present in Inca artifact record (Figure 7).

Perhaps the inhabitants of Juella could have somehow resisted the Inca conquerors and their allies for some time, but it is difficult to think how this could be so. Even more in considering what happened to larger and perhaps

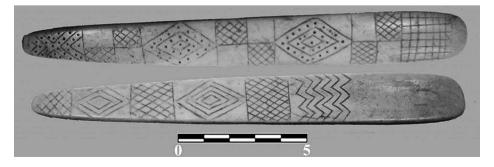


Figure 7. Bone spatula decorated with geometric motifs. (Author.)

more powerful political entities such as Los Amarillos, who failed or declined in the attempt to oppose strong and prolonged resistance to the invader, instead paying with the destruction and burning of certain sectors of the village and forced abandonment of a substantial part of it (Nielsen and Walker 1999).

This vision of a people resisting the dominion of the Inca Empire is underpinned by the fact that Juella, sometime after c. AD 1450, was abandoned in its entirety. There, far from finding material signs of an effective occupation or an interaction with the new power, one notices the signs of a people leaving their place behind, with testimonies of offerings, ceremonies and closure of spaces.

Therefore, whether or not I can effectively prove an active resistance to the expansionist policies of the Tawantinsuyu, I can be sure that the abandonment of the settlement is clearly related to the arrival of the Incas to the region, and that this action could be imposed, involving some form of reprisal towards the inhabitants of Juella, possibly by forcefully relocating to other parts of the Inca Empire.

To conclude, and return to the history of R94 in relation to this situation of abandonment, I see that a pre-Inca community that was about to be abandoned, an abandonment that meant going to live under the rule of a great empire, left behind objects and remains that ritually memorialized its way of life and an ancient worldview. A deep uprooting was suffered which implied a submission to a new power. Life as it was known by the inhabitants of Juella disappeared, to be replaced by another kind of existence in the service of the invader.

## **Acknowledgments**

First, I thank the Juella community to allowing my team to undertake our work there. My gratitude also goes to Cristian Jacob and Dr Felix Acuto for their work support over the years. Thanks are also due to all those who participated in the fieldwork in Juella. Finally, I would like to dedicate this paper to the memory of Dr Jorge Palma.

#### Disclosure statement

No potential conflict of interest was reported by the author.

#### Notes on contributor

Ivan Leibowicz is an archaeologist: Ph.D. University of Buenos Aires, post doc at UNAM (México). Currently he is an Assistant Researcher at CONICET (Instituto Multidisciplinario de Historia y Ciencias Humanas, Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina. His research is on the archaeology of NW Argentina, Inca expansion and Late cultures of this region. He has authored numerous publications, both books and journal articles.

#### References

I. LEIBOWICZ

- Acuto, F., M. Kergaravat, and C. Amuedo. 2011. "Experiencia de la muerte y la representación de las personas en las prácticas funerarias del Valle Calchaguí Norte." Comechingonia 14: 23-54.
- Acuto, F. A. 2007. "Fragmentación vs. Integración comunal: Repensando el Período Tardío del Noroeste Argentino." Estudios Atacameños, Arqueología y Antropología Surandinas 34: 71-96.
- Albeck, M. E. 1992. "El ambiente como generador de hipótesis sobre dinámica socio cultural prehispánica en la Quebrada de Humahuaca." Cuadernos 3: 95-106.
- Allen, C. J. 2002. The Hold Life Has. Coca and Cultural Identity in an Andean Community. Washington, DC: Smithsonian Institution Press.
- Allen, C. J. 2015. "The Sadness of Jars." In Living with the Dead in the Andes, edited by I. Shimada and J. Fitzsimmons, 304-328. Tucson: The University of Arizona Press.
- Amuedo, C. 2010. "La experiencia de la muerte y su relación con las prácticas de almacenamiento y consumo en el Valle Calchaquí Norte durante el Período Tardío." In Arqueología Argentina en el Bicentenario de la Revolución de Mayo, 1810-2010, edited by J. R. Bárcena and H. Chiavazza, 681-686. Mendoza: Universidad Nacional de Cuyo and CONICET.
- Arnold, D. 1992. "La casa de adobes y piedras del Inca." In Hacia un orden andino de las cosas, edited by D. Arnold, D. J. Aruguipa, and J. de Dios Yapita, 31–108. La Paz: Hisbol/ILCA.
- Baldini, L., and I. Baffi. 2007. "Aportación al estudio de prácticas mortuorias durante el período de desarrollos regionales: entierros en vasijas utilitarias del sector central del valle Calchaquí (Salta, Argentina)." Revista Española de Antropología Americana 37 (1): 7-26.
- Benson, E. P. 2001. "Sacrifice?." In Ritual Sacrifice in Ancient Peru, edited by E. P. Benson and A. G. Cook, 1–20. Austin: University of Texas Press.
- Bouysse-Cassagne, T. 1987. La identidad aymara: aproximación histórica (siglo XV, siglo XVI). Lima: Instituto Francés de Estudios Andinos.
- Cigliano, E. M. 1967. "Investigaciones Antropológicas en el Yacimiento de Juella (dep. de Tilcara, provincia de Jujuy)." Revista del Museo de La Plata (Nueva Serie), Sección Antropología 6: 123-249.
- Cigliano, E. M., and R. A. Raffino. 1973. "Tastil: Un modelo cultural de adaptación, función y desarrollo de una sociedad urbana prehistórica." Relaciones de la Sociedad Argentinade Antropología 6: 159-185.
- Cornejo, L. 1999. "Los Inca y la construcción del espacio en Turi." Estudios Atacameños 18: 165-176.
- De Stéfano, J. 2010. "Estudio de restos humanos en el sitio arqueológico Juella." Juella Archaeological Project Report, Unpublished Manuscript.
- Fazekas, I. G., and F. Kosa. 1978. Forensic Fetal Osteology. Budapest: Akademiai Kiado.
- Fernández Juárez, G. 1993. "Sullu, mesa y lógica social aymara." Revista de Dialectología y Tradiciones Populares 48: 85–115.
- Flores Espinoza, I. 2005. Pucllana: esplendor de la cultura Lima. Lima: Instituto Nacional de Cultura.
- Gallardo, F., M. Uribe, and P. Ayala. 1995. "Arquitecturalnca y poder en el pukara de Turi, Norte de Chile." Gaceta Arqueológica Andina 24: 151-171.
- Garay de Fumagalli, M., and M. B. Cremonte. 1998. "Correlación cronológica del yacimiento de Volcán con sitios de los Valles Orientales (Sector Meridional, quebrada de Humahuaca)." Avances en Arqueología 3: 191-212.
- Herbich, I., and M. Dietler. 2009. "Domestic Space, Social Life, and Settlement Biography: Theoretical Reflections from the Ethnography of a Rural African Landscape." In

- L'espaidomestic il'oraanizacio de la societat a la protohistoria de la Mediterrania occidental (lermilleniaC), Actes de la IV ReunioInternacionald'Araueologia de Calafell. Barcelona, edited by M. Carme Belarte, 11-23. Barcelona: Universidad de Barcelona.
- Hernández Llosas, M. I. 2006. "Incas y españoles a la conquista simbólica del territorio Humahuaca: Sitios, motivos rupestres y apropiación cultural del paisaje." Boletín del Museo Chileno de Arte Precolombino 11 (2): 9-34.
- Janusek, J. W. 2004. Identity and Power in the Ancient Andes: Tiwanaku Cities through Time. New York: Routledge.
- Jones, A. 2005, "Lives in Fragments? Personhood and the European Neolithic," Journal of Social Archaeology 5 (2): 193–224. doi:10.1177/1469605305053367.
- Leibowicz, I. 2007. "Espacios de poder en La Huerta, Quebrada de Humahuaca." Estudios Atacameños, Arqueología y Antropología Surandinas 34: 51-70. doi:10.4067/S0718-10432007000200004
- Leibowicz, I. 2009. "Construyendo poder en La Huerta de Huacalera." In Entre pasados y presentes II: estudios contemporáneos en ciencias antropológicas, edited by T. Bourlot, D. Bozzuto, C. Crespo, A. C. Hecht, and N. Kuperszmit, 411-424. Buenos Aires: Fundación de Historia Natural Félix de Azara.
- Leibowicz, I. 2012a. "Arqueología de Juella, Quebrada de Humahuaca, Jujuy, Argentina. Espacialidad y materialidad del Período Tardío." PhD diss., University of Buenos Aires.
- Leibowicz, I. 2012b. "Ideología y Espacio: Conquista Inca en la Quebrada de Humahuaca, Jujuy, Argentina." Revista Chilena de Antropología 25: 65-91. doi:10.5354/0719-1472.2012.20285
- Leibowicz, I., and C. Jacob. 2011. "Materialidad en una tumba Inca de los Andes del Sur. El caso de La Huerta, Quebrada de Humahuaca, Jujuy-Argentina." Revista Haucaypata, Investigaciones Arqueológicas del Tahuantinsuyo 3: 45–59.
- Leoni, J. B., and F. A. Acuto. 2008. "Social Landscapes in pre-Inca Northwestern Argentina." In Handbook of South American Archaeology, edited by H. Silverman and W. H. Isbell, 587-603. New York: Springer.
- Lucero, L. J. 2010. "Materialized Cosmology among Ancient Maya Commoners." Journal of Social Archaeology 10 (1): 138-167. doi:10.1177/1469605309354403.
- McCormac, G., A. G. Hogg, P. G. Blackwell, C. E. Buck, T. F. G. Higham, and P. J. Reimer. 2004. "SHCal04 Southern Hemisphere Calibration 0-1000 Cal BP." Radiocarbon 46: 1087–1092. doi:10.1017/S0033822200033014.
- Nielsen, A. E. 1988. "Un modelo de sistema de asentamiento prehispánico en los valles orientales de Humahuaca, provincia de Jujuy, República Argentina." Comechingonia 6: 127-155.
- Nielsen, A. E. 1996. "Demografía y cambio social en la Quebrada de Humahuaca (Jujuy-Argentina), 700- 1535 d.C." Relaciones de la Sociedad Argentina de Antropología 21: 307–354.
- Nielsen, A. E. 2001. "Evolución social en Quebrada de Humahuaca (AD 700-1536)." In Historia Argentina Prehispánica, edited by E. Berberián and A. E. Nielsen, 171–264. Córdoba: Editorial Bruias.
- Nielsen, A. E. 2003. "La Edad de los Auca Runa en la Quebrada de Humahuaca (Jujuy, Argentina)." Memoria Americana 11: 73–107.
- Nielsen, A. E. 2006. "Plazas para los antepasados: Descentralización y poder corporativo en las formaciones políticas preincaicas de los Andes circumpuneños." Estudios Atacameños 31: 63-89.
- Nielsen, A. E. 2007. "El Período de Desarrollos Regionales en la Quebrada de Humahuaca: aspectos cronológicos." In Sociedades Precolombinas Surandinas: Interacción y Dinámica Cultural del NOA en el ámbito de los Andes Centro-Sur, edited by

- V. Williams, B. Ventura, A. Callegari, and H. Yacobaccio, 235–250. Buenos Aires: Universidad de Buenos Aires and CONICET.
- Nielsen, A. E., and W. Walker. 1999. "Conquista ritual y dominación política en el Tawantinsuyu: el caso de Los Amarillos (Jujuy, Argentina)." In Sed Non Satiata. Teoría Social en la Arqueología Latinoamericana Contemporánea, edited by A. Zarankin and F. A. Acuto, 153–169. Buenos Aires: Ediciones del Tridente.
- Nielsen, A. E. M., I. Hernández Llosas, and M. C. Rivolta. 2004. "Nuevas Investigaciones Arqueológicas en Juella (Jujuy, Argentina)." *Estudios Sociales del NOA* 7: 93–116.
- Olivera Astete, C. 2009. "Análisis de la arquitectura Lima en asentamientos no monumentales: Una visión desde la arquitectura de la zona este del sitio arqueológico Huaca 20." Thesis for a degree in Archaeology. Lima: Pontifical Catholic University of Peru.
- Olivera, D. E., and J. Palma. 1986. "Sistemas adaptativos prehispánicos durante los períodos agroalfareros de la Quebrada de Humahuaca, Jujuy, R.A." *Cuadernos del Instituto Nacional de Antropología* 11: 75–98.
- Palma, J. 1991. "Arquitectura Inca Provincial en Peñas Blancas, Quebrada de Humahuaca." Comechingonia 7: 5–13.
- Palma, J. 1993. "Aproximación al estudio de una sociedad compleja: un análisis orientado en la funebria." *Arqueología* 3: 41–68.
- Palma, J. 1998. Curacas y señores. Tilcara: Instituto Interdisciplinario de Tilcara.
- Palma, J. 2000. "Urbanismo y complejidad social en la región humahuaca." *Estudios Sociales del NOA* 3: 31–37.
- Pelissero, N. 1969. Arqueología de la Quebrada de Juella. Jujuy, Argentina: su integración en la cultura Humahuaca. San Salvador de Jujuy: Dirección Provincial de Cultura de Jujuy.
- Raffino, R. A., and R. Alvis. 1993. ". Las ciudades Inca en Argentina: arqueología de La Huerta de Humahuaca. El sistema de poblamiento prehispánico." In *Inca. Arqueología, historia y Urbanismo del Altiplano Andino*, edited by R. A. Raffino, 37–76. La Plata: Corregidor.
- Raffino, R. A., and J. Palma. 1993. "Las ciudades Inca en Argentina: arqueología de La Huerta de Humahuaca. Los artefactos." In *Inca. Arqueología, historia y Urbanismo del Altiplano Andino*, edited by R. A. Raffino, 93–129. La Plata: Corregidor.
- Scheuer, L., and S. Black. 2000. *Developmental Juvenile Osteology*. San Diego: Academic Press. Sillar, B. 2009. "The Social Agency of Things? Animism and Materiality in the Andes." *Cambridge Archaeological Journal* 19 (3): 367–377. doi:10.1017/S0959774309000559.
- Stuiver, M., and P. J. Reimer. 1993. "CALIB, Radiocarbon Calibration Program." *Radiocarbon* 35: 215–230. doi:10.1017/S0033822200013904.
- Taboada, C. 2005. "Propuesta metodológica para el análisis diacrónico de arquitectura prehispánica y la asignación de significado conductual discriminado. Aplicación en el noroeste argentino." *Anales del Museo de América* 13: 139–172.
- Tarragó, M. 1992. "Áreas de actividad y formación del sito de Tilcara." *Cuadernos* 3: 64–74. Tilley, C. 1996. "The Powers of Rocks: Topography and Monument Construction on Bodmin Moor." *World Archaeology* 28 (2): 161–176. doi:10.1080/00438243.1996.9980338.
- Verano, J. W. 1995. "Where Do They Rest? the Treatment of Human Offerings and Trophies in Ancient Peru." In *Tombs for the Living: Andean Mortuary Practices*, edited by T. Dillehay, 189–227. Washington, DC: Dumbarton Oaks Research Library and Collection.
- Vitry, C. 2003. "Aportes sobre el despoblamiento de la localidad arqueológica de Tastil." *Revista 2 Escuela de Historia* 1 (2): 243–264.
- Wynveldt, F. 2009. La Loma de los Antiguos de Azampay. Un sitio defensivo en el valle de Hualfín (Catamarca, Argentina). Buenos Aires: Sociedad Argentina de Antropología.