



## Provisioning Inka feasts at Tiwanaku, Bolivia: the geographic origins of camelids in the Pumapunku complex

Kelly J. Knudson<sup>a,\*</sup>, Kristin R. Gardella<sup>b</sup>, Jason Yaeger<sup>c</sup>

<sup>a</sup> Center for Bioarchaeological Research, School of Human Evolution and Social Change, Arizona State University, PO Box 872402, Tempe, AZ 85287, USA

<sup>b</sup> Department of Anthropology, University of Pennsylvania, Philadelphia, PA 19104, USA

<sup>c</sup> Department of Anthropology, University of Texas at San Antonio, San Antonio, TX 78249, USA

### ARTICLE INFO

#### Article history:

Received 28 February 2011

Received in revised form

5 October 2011

Accepted 6 October 2011

#### Keywords:

Andes

Inca

Late Horizon

Middle Horizon

Radiogenic strontium isotopes

Stable carbon isotopes

Stable oxygen isotopes

### ABSTRACT

While political integration can be achieved by many means, here we focus on the use of feasting and statecraft in the Inka Empire of the Andean Late Horizon (c. AD 1400–1532) in South America. In order to examine Inka political integration of the Lake Titicaca Basin of Bolivia, we examine paleomobility and paleodiet through radiogenic strontium and stable oxygen and carbon isotope data in archaeological camelid remains from the site of Tiwanaku. Mean radiogenic strontium isotope values from all archaeological camelid enamel and bone samples is  $^{87}\text{Sr}/^{86}\text{Sr} = 0.70998 \pm 0.00179$  ( $1\sigma$ ,  $n = 48$ ), mean stable oxygen isotope values from a sub-set of archaeological camelid enamel and bone samples is  $\delta^{18}\text{O}_{\text{carbonate}} (\text{VPDB}) = -10.0\text{‰} \pm 2.6\text{‰}$  ( $1\sigma$ ,  $n = 18$ ) and mean stable carbon isotope values from a sub-set of archaeological camelid enamel and bone samples is  $\delta^{13}\text{C}_{\text{carbonate}} (\text{VPDB}) = -9.0\text{‰} \pm 1.7\text{‰}$  ( $1\sigma$ ,  $n = 18$ ). While many camelids consumed in these feasting events were likely local to the Lake Titicaca Basin, others came from a variety of different geologic zones, elucidating our understanding of Inka statecraft and the role of feasting in political integration in empires in the past.

© 2011 Elsevier Ltd. All rights reserved.

## 1. Introduction

While much research on past empires has focused on administrative structure and strategies for controlling subject provinces, scholars are now turning to more nuanced discussions of practices that fostered political integration in ancient empires, including feasting. Here, we use biogeochemistry to investigate imperial feasts in the Inka Empire in Late Horizon (c. AD 1400–1532) Andean South America. We first provide a brief introduction to current theories of statecraft and feasting, followed by a discussion of the Inka Empire. We then describe the use of biogeochemistry in paleomobility and paleodiet studies and the expected isotopic signatures in the study area. After presenting our materials and methods, we present new radiogenic strontium isotope, stable oxygen isotope, and stable carbon isotope data from archaeological camelid remains recovered from the Inka occupation of Tiwanaku, Bolivia. We conclude with a discussion of our interpretations of the paleomobility and paleodiet data, including their implications for our the role of feasting in Inka Empire.

## 2. Feasting and political integration in past empires

Recent approaches to understanding past empires have focused on the variability and complexity of imperial processes over space and time (e.g., Alcock, et al., 2001; Algaze, 1993; Given, 2004; Gosden, 2004; Nash, 1987; Smith and Montiel, 2001; Smith and Schreiber, 2005; Stein, 2005; Woolf, 1992, 1998). A number of scholars have focused on the importance of state-sponsored ritual activities and feasts for integrating disparate groups, demonstrating state power, and creating and reproducing new forms of social identities (e.g., Cook, 2005; Dietler, 1996; Goldstein, 2003; Swenson, 2006), as well as the role of competitive feasting and commensal politics in sociopolitical development more broadly (Dietler, 1996; Dietler and Hayden, 2001; Gero, 1992; Hayden, 1996; Spielmann, 2002; Stanish, 2002).

Given the important role of state-sponsored ritual activities and feasts in imperial integration, biogeochemical analyses can be useful in understanding paleodiet and paleomobility in past empires. Biogeochemical analyses have been used in studies of archaeological empires in the Andes (Andrushko et al., 2009; Finucane, 2007; Kellner and Schoeninger, 2008; Knudson and Tung, 2011; Knudson, et al., 2006; Slovak et al., 2009; Tung and Knudson, 2008, 2010, 2011; Turner, et al., 2009; Wilson et al., 2007) and

\* Corresponding author. Tel.: +1 480 727 0767; fax: +1 480 965 7671.

E-mail address: [kelly.knudson@asu.edu](mailto:kelly.knudson@asu.edu) (K.J. Knudson).

beyond (Buzon and Bowen, 2010; Buzon et al., 2007; Chenery et al., 2010; Dupras et al., 2001; Dupras and Tocheri, 2007; Eckhardt et al., 2009; Fuller et al., 2006; Keenleyside et al., 2009; Killgrove, 2010; Perry et al., 2008; Prowse et al., 2008; Prowse et al., 2004; Redfern et al., 2010; Schweissing and Grupe, 2003a; Thompson, et al., 2008). However, biogeochemical analyses of faunal remains to understand larger imperial processes have been largely limited to a small number of studies at Roman sites (Berger et al., 2010; Schweissing and Grupe, 2003b; Sykes, et al., 2011). Here, we use biogeochemistry to investigate paleomobility and paleodiet in archaeological faunal remains from the Inka occupation of Tiwanaku, Bolivia. By identifying the geographic origins of camelids consumed in Late Horizon feasts at Tiwanaku, we can better understand the complex strategies of political integration used in the Inka Empire.

### 3. Feasting and political integration in the Inka Empire of South America

#### 3.1. The Inka Empire: a brief introduction

At its height, the Inka Empire was the largest in the Americas, stretching from Colombia to Chile (see overviews in D'Altroy, 2002; McEwan, 2008). In order to integrate and administer this vast expanse, ruling elites implemented a number of different imperial strategies that varied over space and time (see overviews in D'Altroy, 2002; Malpass, 1993; McEwan, 2008). For example, the Inka established large provincial administrative complexes (e.g., La Lone and La Lone, 1987), transformed labor and economic activities in a number of tribute areas (e.g., D'Altroy, 1992; Earle, 1994; Stanish, 1997), and utilized complex state rituals and sacred landscapes to integrate their vast empire (e.g., Bauer, 1992; 1996; Ceruti, 2004; Moore, 2004; Wilson et al., 2007).

#### 3.2. The Inka Empire in the Lake Titicaca Basin

The Lake Titicaca Basin in modern Peru and Bolivia was one of the first regions outside of the Inka heartland to be incorporated into the Inka Empire (D'Altroy, 2002, see overviews in Frye, 2005; Julien, 1983; Stanish, 2003). In the Lake Titicaca Basin, the Inka transformed settlement patterns and resettled largely local groups into economically efficient and strategic colonies of *mitmaquna* (Frye, 2005; Stanish, 1997, 2003). In addition, the Inka ruling elites established a large sanctuary complex and pilgrimage center on the Islands of the Sun and Moon (Bauer et al., 2004; Bauer and Stanish, 2001; Stanish, 2003) and created a number of small ceremonial sites throughout the basin (Arkush, 2005).

Recently, Yaeger directed archaeological fieldwork to understand the Inka settlement at the site of Tiwanaku in the southern Lake Titicaca Basin, a site that had been largely abandoned before Inka conquest of the region (Yaeger and López Bejarano, 2004). Tiwanaku was the political and ceremonial center of the Tiwanaku polity, which reached the height of its influence during the Middle Horizon (c. AD 600–1100) (Goldstein, 2005; Janusek, 2004, 2008; Kolata, 1993). The Inka occupation of Tiwanaku focused on the Pumapunku pyramid complex (Yaeger and López Bejarano, 2004). Although built during the Middle Horizon, the Pumapunku had fallen into disuse after the collapse of the Tiwanaku polity (Vranich, 2006), as had the rest of the site's monumental core (Smith, 2002; Yaeger and Vranich, in press). During the subsequent Late Horizon, the Pumapunku pyramid complex became a major focus of the Inka occupation of Tiwanaku and a site for offerings of Inka material culture and human remains (Yaeger and López Bejarano, 2004). Yaeger and López Bejarano (2004) have argued that these offerings were part of a larger Inka strategy to incorporate the largely

abandoned site of Tiwanaku into imperial sacred geography and political history.

#### 3.3. Inka feasting at Tiwanaku: Late Horizon excavations at Pumapunku

State-sponsored feasts in the Inka Empire were a central practice, and were informed by and reinforced an ideology of reciprocity. Inka imperial subjects provided regular tribute of labor and goods and in return were invited to participate in periodic feasts sponsored by the empire, in which copious amounts of food and drink, particularly the maize (*Zea mays*) beer called *chicha*, were provided (Bray, 2003a, 2003b, 2009; Gose, 2000; Murra, 1980). While couched in notions of reciprocity and mutual obligations, feasts revealed the differences in power between imperial hosts and their subject guests, and reinforced the legitimacy of the Inka Empire (Bray, 2003a, 2003b, 2009; Gose, 2000; Murra, 1980).

A number of different lines of evidence indicate the central role of feasting in Inka political economy. First, *kallankas*, which were huge rectangular structures used for feasting events and other political activities, were built at many Inka provincial administrative centers and were often the largest buildings in those sites (e.g., Morris, 1986; Morris and Thompson, 1974). Second, agricultural practices of subject provinces often changed after Inka conquest as tribute demands led to intensified production of valued feasting foods such as maize and camelid (*Lama* sp.) meat (e.g., Bray, 2003a; 2009; Hastorf, 1990, 2003). Finally, paleodietary studies suggest that provincial populations consumed much more maize, likely imbibed as *chicha*, after Inka conquest (Hastorf, 1991).

Several lines of evidence lead us to infer that feasts were hosted in a plaza adjacent to the Pumapunku, and that these feasts were part of Inka political strategies. This open plaza is located adjacent to the north face of the Pumapunku. It was first identified by geophysical prospecting (Henderson and Conyers, 2003) and confirmed through test excavations. Because of its relatively large size, at least 1200 square meters in area, this plaza would have been suitable for Inka feasting and other public activities, albeit not at the same scale as the much larger central plazas at sites like Huánuco Pampa and Cuzco (Moore, 1996). The plaza was demarcated on the east and south by tall Inka galleries built directly on the first terrace of the Middle Horizon Pumapunku. These galleries contained long, very narrow interior spaces but possessed very wide doorways that facilitated visual access between the plaza and the galleries. Large blocks of polished, imported andesite sat on the plaza floor like pedestals flanking the doorways. These wide doorways and the flanking andesite blocks are consistent with the display of important persons or objects, which could have participated directly or indirectly in activities in the plaza that they overlooked.

The northern boundary of the plaza remains undefined, but a complex of at least four rectangular buildings formed its western edge. These buildings were similar in form but much smaller in scale to *kallankas* documented at other Inka administrative sites (Morris and Thompson, 1985). The narrow corridor that connected the plaza and this complex was marked by a double-jamb doorway, an Inka architectural form that demarcated passage into more politically charged and/or sacred space. The corridor also contained a narrow screen wall that closed the viewshed from the plaza into the complex. Thus, the architectural data reveal an open plaza that articulated with two very distinct architectural zones. On the south and east, it is connected to the narrow galleries on the Pumapunku, which are designed to maximize visual access between the plaza and the galleries. In contrast, the complex of rectangular buildings on the plaza's west side could only be reached through a narrow corridor marked by a double-jamb doorway and nearly closed by

Download English Version:

<https://daneshyari.com/en/article/1035900>

Download Persian Version:

<https://daneshyari.com/article/1035900>

[Daneshyari.com](https://daneshyari.com)