



The Tiwanaku Camelid Sacrificer: origins and transformations of animal iconography in the context of Middle Horizon (A.D. 400–1100) state expansion

Sarah I. Baitzel and David E. Trigo Rodríguez

Prehispanic Andean iconography communicated ideology and structures of power. On the coast, iconography depicting violence and fertility legitimized elite power. In Tiwanaku (A.D. 400–1100), such iconography is considered to have been absent. We re-examine the theme of the Sacrificer in Tiwanaku iconography that originated during the Formative period in the south-central Andes. This figure, which we term Tiwanaku Camelid Sacrificer (TCS), takes on a new appearance: a human-camelid body carrying a a trophy head or axe. The TCS imagery is often depicted on portable prestige objects, many of them found in the Tiwanaku hinterlands that relied economically and socially on caravans. We propose that the TCS represents aspects of Tiwanaku ritual and ontology, by which camelids and humans shared acts, essence, and form. The states of being (camay) and becoming (tucoy) embodied by the TCS testify to the unique positions of power camelids held over life in Tiwanaku's agropastoralist society.

La iconografía prehispánica de los Andes comunicó ideología y estructuras de poder. En la costa, la iconografía describe violencia y fertilidad legitimando el poder de las élites. En Tiwanaku (400–1100 d.C.) se ha considerado que dicha iconografía estuvo ausente. Empero en el presente artículo re-examinamos el tema del "Sacrificador" en la iconografía Tiwanaku, misma que se originó durante el periodo Formativo en los Andes Centro-Sur. En este caso denominamos a una variante de dicho tema como "Sacrificador Camélido Tiwanaku" (TCS), el cual adquiere una nueva apariencia: Un cuerpo humano y de camélido, y porta una cabeza humana trofeo o un hacha. Las imágenes del TCS son representadas usualmente en objetos portátiles de prestigio, muchos de los cuales se encuentran en el interior de Tiwanaku, sociedad que se basa económica y socialmente en el caravaneo de camélidos. Proponemos que el TCS representa aspectos del ritual y la ontología de Tiwanaku, mediante los cuales los camélidos y los humanos compartieron actos, esencias y formas. Los estados de ser (camay) y llegar a ser (tucoy) encarnados por el TCS atestiguan las posiciones de poder únicas que mantuvieron los camélidos durante la vida en la sociedad agro pastoralista de Tiwanaku.

Sarah I. Baitzel, Department of Anthropology, Washington University in St. Louis, 1114, One Brooking Drive, St. Louis, MO 63130, USA (sbaitzel@wustl.edu)

David E. Trigo Rodríguez, Unidad de Arqueologia y Museos de Bolivia (UDAM)/Ministerio de Culturas y Turismo de Bolivia, La Paz, Bolivia (david_falcoragrest@hotmail.com)

Nawpa Pacha, Journal of Andean Archaeology, Volume 39, Number 1, pp. 31-56. © 2019 Institute of Andean Studies. All rights reserved.

Keywords: Tiwanaku, iconography, Sacrificer, camelids, Middle Horizon

Palabras clave: Tiwanaku, iconografía, Sacrificador, camélidos, Horizonte Medio

T conography played an important role in the mate-**⊥**rialization and legitimation of ideologies in the pre-Columbian past (DeMarrais et al. 1996). In the ancient Andes, images of natural and supernatural figures and objects were essential for communicating world order and social hierarchy. For example, the material remains found in royal burials bear a striking resemblance to artistically represented personages on the North Coast of Peru (Alva and Donnan 1993; Cordy-Collins 2001:21-33). Whereas Moche and Nazca iconography invite ready comparison with archaeological assemblages, the iconography of the central and southern Andes continues to generate debates among archaeologists regarding the iconicity of its themes (Conklin 2009; Cook 1994; Isbell and Knobloch 2009). A recurring iconographic theme (sensu Knight 2013) that epitomizes the interconnectedness of the natural and mythical worlds in the ancient Andes is the Decapitator or Sacrificer. This theme consists of a human-animal figure grasping a knife or disembodied (trophy) head. Archaeological burial assemblages suggest that on the North Coast Sacrificers were enacted by costumed human persons during large-scale rituals (Sutter and Cortez 2005). The prominence of the Moche Sacrificer on architecture and elite-sponsored prestige objects attests to the personage's importance.

The Sacrificer theme forms part of the Southern Andean Iconographic Series (SAIS) tradition (Isbell and Knobloch 2006, 2009). The SAIS – derived from several regional traditions during the Formative period and Early Horizon and later shared by the Wari and Tiwanaku states – centers on the Central Deity (also Staff God or Front-face Deity) and its Attendant Figures. In Tiwanaku iconography, the Sacrificer constitutes a separate theme, in which a standing or running anthropomorphic figure with the head of a camelid carries a trophy head, axe, or staff (Conklin 2009; Cook 1994; Torres 1987).

The Sacrificer, much like the Central Deity and related depictions (e.g. Chavín Staff God) embody what Cook describes as the "life-death continuum" (2012:110). Symbols of life, fertility, and abundance are juxtaposed with symbols of death, violence, and blood, depicting the cyclical relations and mutual dependence of life and death as a fundamental tenon of Andean ontology (Proulx 1999).

In this paper, we propose the Tiwanaku Camelid Sacrificer (TCS) to represent a convergence of camelid and Sacrificer motifs found in earlier iconographic traditions throughout the south-central and southern Andes, specifically in the Lake Titicaca

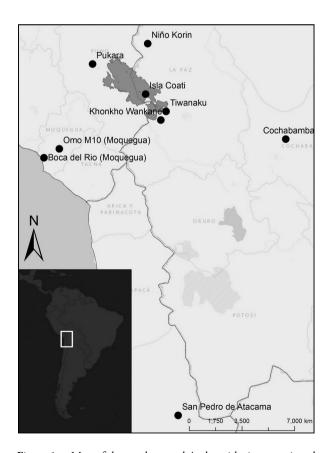


Figure 1. Map of the south-central Andes with sites mentioned in text (Map: SB).

Basin and San Pedro de Atacama (Figure 1). Following our iconographic analysis of Tiwanaku camelid imagery we identify a small corpus of TCS images. We argue that TCS imagery, found on different media, at varying scales, and in diverse contexts and regions, was associated with elites, caravans and the state's periphery. Although the TCS originated in the Formative period, we propose that by the Middle Horizon it had become linked to maleness and violence, a shift from earlier portrayals of camelids in *altiplano* art. We hypothesize that the chimeric TCS figure represents a transformative state. It may represent a costumed human figure performing rituals that highlight the economic and ideological importance of camelids in Tiwanaku society. Alternately, we propose that the TCS embodies processes of being and becoming that reflect Tiwanaku human-animal relationships rooted in Andean ontologies.

History of the Sacrificer in Tiwanaku Iconographic Analysis

Here, we define the Camelid Sacrificer as a motif, or visual theme (Knight 2013:94), in which sacrifice, or head-taking, is associated with a human-camelid figure. As a motif, the Camelid Sacrificer is usually found in isolation, although the argument has been made that it forms part of the Central Deity/Attendant composition (see below). The motif consists of several elements, namely the camelid, its accessories, and the trophy head, that hold meaning outside the motif.

Previous Studies of Tiwanaku "Sacrificer" Figures

The Central Deity stands at the center of Tiwanaku's iconographic repertoire. This anthropomorphic figure portrayed in a frontal position has a large rayed head and extends its arms grasping staffs. The association of the Central Deity with political or religious authority in Tiwanaku society is evident from media where it is rendered in painted ceramics,

lithic sculpture, gold, and tapestry (Korpisaari 2006:53–83, 85–114; Young-Sanchez 2004).

In the Tiwanaku Central Deity composition, the Central Deity outsizes the rows of smaller Attendant figures converging upon it. Cook (1987, 1994, 2012:109) has described Middle Horizon Attendant Figures, some of which are shown holding trophy heads, as "Sacrificers," referring to the pan-Andean iconographic motif of a figure engaged in disembodying a human head displaying it. Additionally, these sacrificers are recognizable by their paraphernalia of elaborate headdresses, belts, and garments. Cook (2012:109) refers to "hybrids" of sacrificers and profile staff bearers, suggesting some overlap, transformation, shift in the role or position of this figure.

Cook (1994), Isbell and Knobloch (2009), and Conklin (2009) agree that the origin of the Sacrificer-as-Attendant Figure lies in different regional iconographic traditions. Snuff tablets found at the Late Formative Quitor 8 cemetery in the San Pedro de Atacama Oasis (300 BC-AD 200) depict human sacrificers (Isbell and Knobloch 2009:165-210; Torres 1987:44-45, 55, fig. 4.20). Sacrificers are also found on Provincial Pukara textiles from the Siguas valley, possibly influenced by South Coast iconography (Haeberli 2001: Fig. 6), and on Pukara ceramic vessels (Rowe and Brandel 1971: Plate II). Squatting Sacrificers holding trophy heads are depicted on Pukara stone stelae (Young-Sanchez 2004: Fig 3.6). Cook (1994:193-194) suggested that the Sacrificer occupied a central position in the religious ideology of various ethnic groups across the southern Andes by the Late Formative period; each group depicted the figure with slightly different supernatural qualities or attributes.

Two early Middle Horizon stone architraves at Tiwanaku show the integration of possible Sacrificers into the Central Deity scene, as argued by Isbell and Cook (1987:31, Cook 1994:196). On the Kantatayita lintel, a row of kneeling Attendants holding staffs and unrecognizable objects face the center of the doorway (Figure 2a). On the Linares lintel, the arm holding the trophy head has become replaced (obscured) by a large wing (Figure 2b). The absence of clearly identifiable trophy heads or

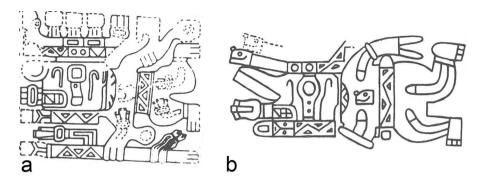


Figure 2. Attendant figures from: a) Kantatayita lintel (object length: 168 cm) (Conklin 1991: Figure 5); and b) Linares lintel (Conklin 1991: Figure 1).

axes in either rendering makes their identification as a Sacrificer tenuous. These Attendants have anthropomorphic bodies, although their claws, canines, round noses, and beaks give them a zoomorphic appearance similar to Attendants depicted in other Central Deity scenes. Position and size of these Attendant-Sacrificers relative to the Central Deity and the replacement of axe and trophy heads with wings and trumpets, so Cook (1994:202) proposes, reflects the subjugation of the Sacrificer by the Central Deity. As such, the evolution of the Tiwanaku Sacrificer figure would mirror the integration of Formative period cultural and political diversity under the auspices of the new state.

Recent discoveries of Camelid Sacrificer images at Tiwanaku sites allow for a re-assessment of the origin and transformation of the Tiwanaku Camelid Sacrificer (TCS) and its role within Tiwanaku iconography and society (Tables 1 and 2). Proposals made by Cook, and others present an excellent point of departure, from which we first examine the roles and depictions of camelids in Formative-period communities. We then turn to Tiwanaku camelid iconography more broadly, distinguishing between depictions of camelids in their natural state and the parallel iconographic development of camelids as Sacrificers. Taking into consideration the different media of TCS imagery and the contexts of their discovery, we conclude that the TCS was not an Attendant Figures; instead we propose that its features speak to shifts in gendered associations with fertility and violence, to the performance of rituals of power, and ontological relationships between humans and camelids in Tiwanaku society.

Camelids in Southern Andean Iconography, Subsistence, and Society

Formative Period (500 BC – A.D. 400)

Camelid husbandry played an important role in the rise and maintenance of ritual economies in the northern Titicaca Basin (Warwick 2012), so much so that in Pukara (200 BC-AD 200) iconography, camelids joined humans and felines in the pantheon of Formative period ideology. The camelid accompanies the female figure in the dyad of Feline Man and Camelid Woman (Chávez 2002). The frontal posture and large head of Camelid Woman forecast the Central Deity (Figure 3a). She holds a staff in one hand and in the other grasps a rope tied around the neck of a llama. Chavez links her to economy and fertility. Feline Man, on the contrary, dominates Pukara ceramic iconography and is associated with trophy heads, guanacos, and other symbols of power and violence, the same as other Pukara Sacrificers such as Birdman (Chávez 2002:64) (Figure 3b and c).

In the southern Lake Titicaca Basin, camelids were also pillars of Formative period agropastoralist economy, trade, and ceremonialism. The ritual center of Khonkho Wankané was a point of convergence for camelid caravans and a production site for

Table 1. List of images with context and source information.

Figure No.	Name	Site/Region	Period	Context	Source	
2a Kantatayita lintel		Tiwanaku (Bolivia)	Tiwanaku IV(?)	unknown	Conklin 1991:fig.5	
2b	Linares lintel	Tiwanaku (Bolivia)	Tiwanaku IV(?)	unknown	Conklin 1991:fig.1	
3a	Camelid Woman	Pukara	Formative Period	monumental architecture	Chavez 2002:fig.2.2c	
3b	Birdman	Pukara	Formative Period	monumental architecture	Chavez 2002:fig.2.8b	
3c	Jinch'un Kala monolith	Khonkho Wankane	A.D.150–300	monumental architecture	Ohnstad 2013:fig.5.3	
3d	Tata Kala monolith	Khonkho Wankane	A.D.300–500	monumental architecture	Ohnstad 2013:fig.5.5	
3e	Snuff tablet	San Pedro de Atacama (Chile)	L. Formative Period	Solcor 3, Tomb 44	Torres 2004a:fig.7 (redrawn by DT)	
4	Tazon	Tiwanaku (Bolivia)	Tiwanaku IV	unknown (código CFB 1331, Museo de Metales Preciosos de La Paz)	Drawing: D.E.T.R.	
5a	Tiwanaku incensario	Tiwanaku (Bolivia)	Tiwanaku IV-V	unknown (Código 000712 MRT, Museo Regional de Tiwanaku)	Photo: D.E.T.R.	
5b	Tiwanaku incensario	Lukurmata (Bolivia)	Tiwanaku IV-V	unknown (Código 000715 MRT, Museo Regional de Tiwanaku)	Photo: D.E.T.R.	
5c	Chiji Jawira kero	Chiji Jawira sector, Tiwanaku (Bolivia)	Tiwanaku IV-V	offering deposit	Photo: D.E.T.R.	
6	Bennett Monolith	Tiwanaku (Bolivia)	Tiwanaku IV	monumental architecture	Kolata 2004:fig.4.15	
7	Silver plaque	Isla Coati (Bolivia)	A.D.400–1000	Isla Coati (Staatliches Ethnologisches Museum Berlin VA 611517)	Photo: Martin Franken	
8	Hettner lintel	unknown (probably Tiwanaku)	A.D.400–1100	unknown	Photo: Martin Franken	
9	Akapana bone tube	Akapana East sector, Tiwanaku (Bolivia)	AD.800–1000	household	Janusek 1994:fig.10.18	
10a	Putuni Kero	Tiwanaku (Bolivia)	Late Tiwanaku IV	elite burial	Couture and Sampeck 2003:fig.9.28	
10b	Kero fragment	Tiwanaku (Bolivia)	Middle Horizon	unknown	Kolata 2004:fig.4.11	
11	La Kk'araña vessel	La Kk'araña sector, Tiwanaku (Bolivia)	Middle Horizon	domestic context	Photo: D.E.T.R.	
12	Niño Korin tablet	Niño Korin (Bolivia)	Middle Horizon	adult male cave burial	Photo: D.E.T.R.	
13	Mizque bone tube	Sauces-Mizque (Cochabamba)	A.D. 650–750	domestic midden	Photo: Muñoz and INIAM-UMSS 2011	
14	Omo bone tube	Omo M10 (Moquegua)	Middle Horizon	Female adult burial	Baitzel and Goldstein 2014:fig. 8	
15	Omo tapestry	Omo M10 (Moquegua)	ca. A.D. 772–981	Subadult burial	Baitzel and Goldstein 2014:fig. 6b	
16	Rio Muerto tapestry	Rio Muerto M43A (Moquegua)	A.D. 800–1000	Subadult burial	Plunger 2009:fig. 33	
17	Boca del Rio Tapestry	Boca del Rio (Moquegua)	L. Middle Horizon/E. Late Intermediate Period	disturbed burial	Conklin 1983:fig. 31	
18	Coyo Oriente tablet	San Pedro de Atacama (Chile)		Coyo Oriente, T. 4141	Torres 2004a:fig.5	

Table 2. List of camelid and TCS images and their material and iconographic attributes.

Figure No.	Media	Camelid Attributes				TCS Attributes						
		Body	Nose	Dentition	Rope	Headdress	Ears	Split- toe	Bundle	Trophy Head	Axe	Туре
2a	stone carving	2-legged	circle	mixed	?	yes	?	no	?	no	no	Attendant Figure
2b	stone carving	2-legged	straight	mixed	no	yes	?	hand	no	?	?	Attendant Figure
3a	painted censer	4-legged	circle	none	yes	yes	pointed	yes	yes	no	no	camelid
3c	stone carving	4-legged	circle	molars	?	yes	rounded	yes	yes	no	yes(?)	camelid
3d	stone carving	4-legged	?	?	no	no	rounded	?	yes	yes	no	(Sacrificer) camelid
3e	wooden snuff tablet	4-legged	circle	mixed	yes	yes	pointed	yes	yes	no	no	camelid
4	painted tazon	4-legged	circle	molars	yes	no	pointed	yes	yes	no	no	camelid
5a	painted censer	4-legged	circle	mixed	yes	?	pointed	yes	yes	no	no	camelid
5b	painted censer	4-legged	circle	molars(?)	yes	?	?	?	yes	no	no	camelid
5c	painted kero	4-legged	circle	mixed	no	yes	pointed	yes	?	no	no	camelid
5	stone carving	4-legged	circle (?)	mixed	yes	yes	?	yes	yes	no	no	camelid
7	hammered silver	4-legged	circle	mixed	yes	no	?	yes	no	no	no	camelid
8	stone carving	2-legged	circle	mixed	yes	yes	pointed	no	yes	yes	no	TCS?
)	bone tub	4-legged		molars	yes	yes	rounded	yes(?)	yes	yes	no	TCS?
10a	painted kero		pointed	mixed	no	yes		•	?	?	yes	TCS?
10b	painted kero	2-legged		(?)	yes	yes(?)	pointed	no	no	yes	yes	TCS
11	ceramic effigy vessel	4-legged	circle	mixed	?	no	pointed	yes	no	yes	yes	TCS
12	wooden snuff tablet	2-legged	circle	molars	yes	yes	NA	yes	no	yes	no	TCS?
13	carved bone tube	2-legged	circle	mixed	yes	yes	pointed	no	yes	yes	no	TCS
14	engraved bone tube	4-legged	circle	mixed	yes	?	pointed	yes	no	yes	no	TCS
15	tapestry tunic	2-legged	circle	mixed	yes	yes	pointed	yes	yes	yes	no	TCS
16	Tapestry tunic	2-legged		mixed	yes	yes	pointed	•	no	yes	no	TCS?
17	tapestry tunic	2-legged		molars	yes	yes	pointed	no	no	yes	yes	TCS
18	wooden snuff tablet	2-legged		mixed	yes	yes	pointed		?	yes	no	TCS

monoliths. Two of four monoliths found at Khonkho display camelids (Janusek 2015:350). The back of the Jinch'un Kala monolith (A.D. 150–300) shows a "llama impersonator" (Janusek 2015:355), a winged camelid with four legs and split-toes holding out a staff (Figure 3c). Ohnstad (2013:58) likens this figure, which he describes as a "winged cameloid creature," to Pukara-style art. Like the Jinch'un Kala monolith, the Tata Kala (A.D. 300–500) shows a "dancing" camelid figure in profile wielding a trophy head with human features (projecting nose and round eyes) (Figure 3d) (Janusek 2015:358;

Ohnstad 2005). Khonkho's camelid iconography likely celebrated and institutionalized the importance of camelid pastoralism and exchange through public ritual (Janusek 2015:358).

Camelid iconography in the southern Andes also reflects the importance of pastoralist economies and long-distance exchange. In Formative Period San Pedro de Atacama, camelids are a motif commonly found on wooden snuff paraphernalia. The animals are shown in a naturalistic style carrying a bundle or sprouting plant (Isbell and Knobloch 2009:165–210; Torres 1987) (Figure 3e).

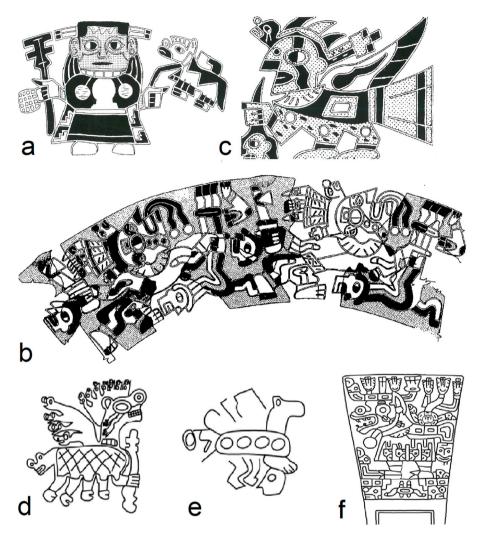


Figure 3. Formative Period camelid iconography: a) Pukara Camelid Woman (figure height: ca. 6 cm), b) Feline Man (figure height: ca. 6 cm), c) Birdman (figure height: ca. 6 cm) (from Chavez 2002: Figure 2.2c, 2.8b, 2.19); Khonkho Wankane d) Jinch'un Kala monolith (figure height: ca. 70 cm) (Stela 2) (from Ohnstad 2013: Figure 5.3) and e) Tata Kala monolith (figure height: ca. 60 cm) (Stela 3) (from Ohnstad 2013: Figure 5.5); f) San Pedro de Atacama snuff tablet (Solcor 3, Tomb 44) (figure height: ca. 6 cm) (redrawn from Torres 2004: Figure 7 by DT)

Middle Horizon (A.D. 400–1050)

Around A.D. 400, the site of Tiwanaku emerged from among neighboring competing ceremonial centers in the southern Lake Titicaca Basin, including Khonkho Wankane, as the principal place of economic, political, and religious activity. This is reflected in the expansion of its ceremonial architecture, a rapid growth in urban population, and the re-organization of hinterlands (Janusek 2004, 2008; Kolata 2003). Tiwanaku's populace consumed camelid meat

and made use of the animals' fiber, hide, bone, and dung (Webster and Janusek 2003). Access to camelid products, especially meat, may not have been equal and was determined by status or ethnicity (Berryman 2010; Rivera Casanovas 2003; Vallières 2012).

The importance of camelids for Tiwanaku ritual cannot be overstated. Interments of camelids of all ages alongside human remains or preciosities in buildings sanctified the urban landscape (Janusek 2003, 2004; Kolata 2003). In some instances, the violence exerted on the bodies is evident in skeletal remains

and disposal of the dead (e.g. Verano 2013). Tools and ritual paraphernalia were fashioned from camelid bone, such as mandible tools and bone tubes, and camelid-hair tapestry were important for depicting sacred imagery. The impact of Tiwanaku's demand for camelids can be seen far beyond the city's boundaries, as inhabitants of the city's hinterlands resettled and dispersed to maximize pasture access at the expense of prior social networks (Vining 2016).

The importance of camelids in Tiwanaku culture is reflected in Tiwanaku art. Naturalistic depictions of camelids painted on *tazones* dating to the Tiwanaku IV-V period show the animals (ring noses, long ears, and split toes) carrying stacked bundles and tied together with rope and led by a caravan driver (Figure 4) (also Janusek 2004: figure 5.6g). The depicted relationship between humans as guides and camelids as pack animals is grounded in behavioral



Figure 4. *Tazon* from Tiwanaku showing camelid caravan (código CFB 1331, Museo de Metales Preciosos de La Paz, Bolivia) (Drawing: DT).

and economic realities of mobility and trade (Abercrombie 1998; Bolin 1998; Nielsen 1997).

More commonly, camelids are depicted on modeled ceramic vessels, either as effigy censers (elongated body, feet with split toes, a tail, and head) (e.g. Janusek 2003: Figure 3.62d) or round HBLB (hollow-base libation bowl) censers to which a modeled camelid head is attached. The head is characterized by a "ring" nose, pointed ears, a long snout and a mixed dentition of molars and canines (Figure 5a). Other versions of these censers show felines or birds of prey, placing camelids on par with predatory Andean fauna. The painted bodies of the camelid censers present plantlike elements sprouting from a bundle with a human face (Figure 5b), similar to camelids shown on San Pedro snuff tables (Figure 3e) (Torres 1987:44-45). HBLBs originated in the Late Formative 2 period at Tiwanaku and remain a popular form throughout the Middle Horizon (Janusek 2003:47-55, 73).

A pair of *keros* (Figure 5c) from an offering deposit in the Ch'iji Jawira sector of Tiwanaku have a modeled camelid head attached to the vessel body (Rivera Casanovas 1994:93 fig. 8.21). The head has a ring nose, long snout, mixed dentition; the long ears are painted on the vessel body. The vessels are further painted with faces atypical for Tiwanaku iconography of this period (Tiwanaku IV-V). Inside the *keros*, archaeologists recovered a human head modeled in clay and a vessel decorated with coffee-bean eyes. Rivera Casanovas (1994:93) proposed that the camelid iconography on the vessels, the foreign



Figure 5. a) Tiwanaku camelid *incensarios* from Tiwanaku (Código 000712 MRT, Museo Regional de Tiwanaku); b) Tiwanaku camelid *incensarios* from Lukurmata (Código 000715 MRT, Museo Regional de Tiwanaku); c) ceramic *kero* from Chiji Jawira (Código 000706 MRT, Museo Regional de Tiwanaku) (Photos: DT).



Figure 6. Detail from back of Bennett Monolith (redrawn from Kolata 2004: Figure 4.15).



Figure 7. Camelid imagery on hammered silver plaque (Isla Coati, Ethnologisches Museum Berlin VA 611517) (Photo: Martin Franken).

influence seen in the painting of the *kero*, and the association with a human head signals the role of camelids in long-distance exchange and decapitation rituals.

A camelid figure also forms part of the processing Attendant figures on the back of the Bennett monolith (Kolata 2004: Fig. 4.15) (Figure 6). Its body position is 4-legged. A rope with pendant covers the neck and a bundle sprouts from its back. The mixed dentition and round nose convey its animal nature, whereas the headdress and adorned body reflect similar attire worn by the other procession attendants on the monolith.

Finally, a hammered metal plaque (Young-Sanchez 2004: Fig. 1.8) (Figure 7) renders a depiction of a camelid in silver. It shows a four-legged figure with split toes, a long snout, mixed dentition, and a round nose. The silver plaque also includes the rope and sash, but no ears.

Defining Camelids in Tiwanaku Iconography

This corpus of camelid-related artifacts, together with Torres' (1987, 2001, 2004a, 2004b) analysis of snuff tablet iconography, allow us to define the salient characteristics of Tiwanaku camelid imagery. This is a necessary first step for understanding the TCS. They can broadly be summarized as a trunk on four legs with split toes and a drooping tail. The elongated neck supports a head with a projecting snout, a circle or ring nose, and pointed, sometimes floppy ears. The dentition often includes prominent canines, a feature unique to young male camelids used for inter-male fighting among llamas and guanacos (Niehaus 2009:281).

Camelids are accessorized with a rope or collar around the neck that is tied into a knot (indicated by a circle) and the end of which hangs loosely. The camelid is frequently shown carrying a bundle or package, perhaps a plant, from which branches protrude upward. Sometimes the back of the animal is covered with a sash that reaches down to the tail. The head is adorned with a headdress decorated with profile faces, feathers, and circles.

Several of these characteristics (circle noses, canines, and rope) are shared with other animal depictions, especially felines, which makes the identification of camelids at times ambiguous. A point to consider is the fact that camelid and TCS imagery is often rendered on different media (stone, painted, ceramic, pyroengraved bone tubes, carved wooden tablets, and tapestry textiles).² Each of these media has its limitations for displaying features in detail. We must therefore keep in mind that any rendering may fall short in showing aspects of these features while still attempting to portray a camelid. We consider the following iconographic elements to be the most

diagnostic for identifying camelids, and thus also the TCS, in Tiwanaku art: four legs, split toes, pointed ears, and the sprouting bundle on the back. The sash or wings, headdress, staff, belt, which are often used to adorn the TCS, seem to form an attire that signals the ritual or altered state of the figure, as this is shared with other animal and human figures in the iconographic corpus. Tables 1 and 2 show the images under discussion, along with their context and list of their attributes.

The Tiwanaku Camelid Sacrificer

The anthropomorphization of camelids in Formative iconography at signals a departure from the realistic depiction of camelids in Pukara and San Pedro art and the human-animal relationship they imply. Winged and holding trophy heads, the Sacrificer Camelids of the Late Formative period became Camelid Sacrificers in the Middle Horizon recognizable as such by the trophy head and axe or knife. Because trophy heads are not a common motif in Tiwanaku iconography, they warrant some discussion on their own.

Imagery of Trophy Heads and Violence in Tiwanaku

Trophy head are disembodied sometimes modified heads suspended from a cord or hair. Trophy heads first appear in Paracas assemblages around 900 B.C. They originate as the remains of defeated warriors displayed as trophies (deLeonardis 2000; Tung 2008, 2012), or votive objects for ancestral veneration and fertility (Paul 2000; Proulx 1999, 2001). In the south-central Andes, Haeberli (2001:130) proposed a common South Coast origin for trophy heads in Provincial Pukara, Sihuas, and Nazca iconography. Arnold and Hastorf (2008) have also argued for the symbolic associations of heads with fertility, death, power, and human essence.

Kolata argued that Tiwanaku elites were "obsessed" with violence as a source of power (2003:191). This violence was commemorated in the form of Chachapuma statues (Kolata 2004: Fig. 4.13) – recognizably

feline with short snouts and square noses, four-toed paws, and large round eyes. Head-taking practices in Tiwanaku rituals would also account for the presence of disassociated crania in Tiwanaku dedicatory offerings (Couture and Sampeck 2003; Verano 2013). There is no evidence so far for trophy head preparation like that seen in Wari (Tung 2012). Head images on Tiwanaku art associated with feasting wares and human remains would suggest that violence, warfare, and death were foundational tenets in Tiwanaku social hierarchy and ideology (Kolata 2004:107).

TCS Images at Tiwanaku

Compared to the Tiwanaku Central Deity, condors, pumas, and other figurative motifs, the TCS theme is rare in Tiwanaku iconography. This may be due to its depiction primarily on bone and textile artifacts rather than lithic or ceramic objects. Here, we consider TCS imagery on lithic sculpture in addition to other artifact classes at the Tiwanaku capital and beyond, from which new forms and meanings of the theme emerge.

Although the Kantatayita Attendant figure carvings (described above) are too eroded to identify trophy heads with certainty. Four possible TCSs with trophy heads can be made out on the Hettner lintel (AD 400–1100) (Eisleb and Strelow 1980:80, fig. 270) (Young Sánchez 2004) (Figure 8). A head-bundle with sprouting plant rests on the back of



Figure 8. Drawing of Tiwanaku Camelid Sacrificer from Hettner Lintel (Ethnographisches Museum Berlin, Code VA10883) (from Eisleb and Strelow 1980: figure 270). (Photo: Martin Franken).

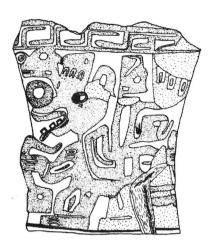


Figure 9. Roll-out drawing of pyro-engraved camelid bone tube from Akapana East 1, Tiwanaku (from Janusek 2003: fig. 10.25a)

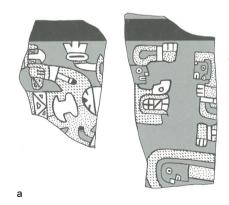
this upright kneeling figure with a human body (and feet) and camelid head characterized by the ring nose, long pointy ears, and mixed dentition. The figure wears a headdress and rope around the neck, indicated by the pendant circle (compare also Figures 12 and 17). The Hettner lintel figures most closely fits the characteristics of the TCS seen in other media.

A pyroengraved bone tube from a household in the Akapana East 1 sector dates by association to A.D. 800–1000 (Janusek 1994: 305–307 fig. 10.18; 2003: 264–295 fig. 10.25a) (Figure 9).³ The figure of a possible TCS is shown standing upright in profile with a human body. The extended hand

grasps a stylized trophy head. On the figure's back is a bundle with a sprouting plant, although the possibility exists that this element represents wings. The head is that of a camelid with split eye, long ears, a round nose, and a headdress. The mouth, tongue protruding, contains square molars but no canines. A circular pendant hangs from the neck.

Tiwanaku Camelid Sacrificers are rarely painted ceramic vessels and as such only have been found in elite spaces at Tiwanaku (Couture and Sampeck 2003:241, Fig. 9.28; Kolata 2004: Fig. 4.11) (Figure 10 a and b). They show the human body of the TCS upright and running, holding out a trophy head and an axe. The head features a camelid's pointy ears, but the snout, nose, and teeth are missing.

An unusual ceramic vessel, recovered in Tiwanaku's La Kk'araña sector in 1996 by local excavators, and later registered by Oswaldo Rivera, features a modeled Camelid Sacrificer effigy vessel (Figure 11) (Código TWK-MC-01150 MRTI 3653) (Rivera 1996). This torus-shaped effigy vessel with a vertical spout stands on four legs ending in split-toe hoofs. The modeled appliqué on top of the torus-shaped body consists of a human torso and human-camelid head. In his hands, the male figure holds a *tumi* knife; he grasps the hair of a captive draped across the top of the vessel body in low relief. The Sacrificer's head appears human in shape, but the ringed nose, pronounced canine, and long pointed



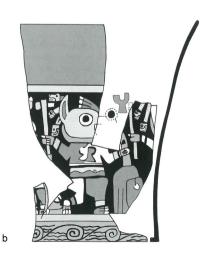


Figure 10. Painted *kero* fragments from a) Putuni elite burial (Tiwanaku) (Couture and Sampeck 2003: Figure 9.28); b) Tiwanaku (vessel height: ca. 15 cm) (Kolata 2004: Figure 4.11)



Figure 11. Glazed effigy vessel from La Kk'araña of "Chacha-Karwa" (Código TWK-MC-01150 MRTI 3653, Museo Regional de Tiwanaku) (Photo: DT).

tasseled ears allude to a male camelid. Rivera (1996) named the figure "Chacha-Karwa," or Camelid Man.⁵

The Chacha-Karwa figure is iconographically problematic. Although it conforms to the TCS theme as a human-camelid hybrid engaged in the act of head taking, several attributes break with the established characteristics seen in other TCS depictions. The vessel inverts the typical relationship of human body:camelid head. The Chacha-Karwa's hat alludes to the four-pointed hats associated with Tiwanaku elites, yet the TCS typically wear a headdress with multiple appendages.

In sum, depictions of the TCS at Tiwanaku are rare, especially considering the large number of decorated artifacts recovered at the site. The rarity of Camelid Sacrificers on lithic sculpture in favor of winged Attendant is notable, as is their conspicuous absence from ceramic vessels that show the widest array of iconographic motifs in Tiwanaku art. The Chacha-Karwa vessel from La Kk'araña poses a challenge because of its unsecured provenience but possible authenticity.

TCS Imagery in Tiwanaku's Hinterlands and Coastal Valleys

Llama caravans facilitated Tiwanaku's expansion across the south-central Andes beginning in the late 7th

century A.D. They disseminated Tiwanaku stylistic and economic influence across the southern Andes. Models proposed by Browman (1978:331, 1984), Lynch (1983), and Nuñez and Dillehay (1995) stress the confederate, autonomous nature of caravan structures and interactions, placing Tiwanaku as a nexus in a coordinating role within regional caravan networks. The strategic placement but ephemeral character of caravan stops leading southeast (Smith and Janusek 2014) and west (Briones 2006; Stanish et al. 2010) out of the altiplano give credence to models of self-administered caravan trade in conjunction with the corporate, multiethnic organization of the Tiwanaku state itself (Goldstein 2015; Janusek 2008). Middle Horizon-period geoglyphs of profile camelid figures along routes into the Moquegua Valley (Goldstein 2005) and the coastal valleys of Northern Chile (Briones 2006; Gallardo et al. 2012; Nuñez 1976) were constant reminders for provincial Tiwanaku residents of the anticipated arrival of trade caravans that brought meat, camelid fiber, and prestige objects, such as carved bone tubes, fine tapestries, and coca, from the altiplano and beyond. It is thus unsurprising that camelid and TCS imagery should appear on the periphery of Tiwanaku influence.

Niño Korin Cave Tablet

A decorated wooden snuff tablet was found among the grave offerings of a medicine man in the Niño Korin cave ca. 100 km from Tiwanaku in the Eastern Andean Cordillera en route to Amazonian lowlands (Wassén 1972). The tablet depicts a possible TCS and has been dated stylistically to the early Middle Horizon period (Cook 1994:201). The frontal standing human figure wears a belt and tunic decorated with a human head (Figure 12). It holds a staff and a trophy head suspended from a rope or braid of hair. The ring nose, headdress, and molars are suggestive of an animal head, but the protruding tongue obscures the canines. The frontal feet appear to have split toes and a pendant can be seen below the elbow.



Figure 12. Wooden snuff tablet from Niño Korin, Bolivia (Code 1979.19.1a, Världskultur Museerna, Göteborg) (Photo: DT).

Cochabamba

Pre-existing interactions between the Cochabamba valley and Tiwanaku intensified during the late 7th century without introducing significant political or economic changes in the region (Anderson 2009, 2013; Higueras 2001). The incorporation of highland culinary and ritual practices into local Cochabamba culture and the prevalence of Cochabambino ceramic styles in some neighborhoods of Tiwanaku suggest pervasive ties between the two places (Rivera Casanovas 2003). Linking the two regions, camelid caravans traversed the Desaguadero valley to cross the Eastern Cordillera along paths of relatively easy access (Smith and Janusek 2014).

A pyro-engraved bone tube (Figure 13) was found at the Tiwanaku-affiliated settlement of Sauces-Mizque in 1958 in a domestic midden (Disselhoff 1962:437, 443; INIAM-UMSS Catalogo 4: 221-223). Nearby cemeteries yielded Sauces-style material (Ibarra Grasso 1973:209-210, 242-243), which Anderson (2013) dates to A.D. 650-750, the initial phase of Tiwanaku presence in this region. The carved bone tube shows a TCS in running posture (similar to Kolata 2004: Fig. 4.11). The figure has human feet, wears a belt and a sash. In his hand, he grasps a rope from which a turbaned, disembodied head hangs. The trophy head's mouth is open, and the upper part of the neck abruptly terminates. The rope around the neck is indicated by the pendant circle below the elbow. The ring nose, mixed



Figure 13. Photos of carved camelid bone tube from Mizque-Cochabamba (Codigo 03607-INIAM-UMSS) (object height: 9 cm) (Photo: Courtesy of Dr. Muñoz and INIAM-UMSS 2011).

dentition, pointed ears, and parts of a headdress are also present.⁶

Moquegua

Tiwanaku communities established agricultural colonies in the Moquegua valley in the late 7th century A.D. These settlements were inhabited over many generations, maintaining highland lifeways related to architecture, diet, cranial modification, and burial practices (Baitzel 2016; Blom et al. 1998; Buikstra 1995; Goldstein 2005, 2013a; Hoshower et al. 1995). Biogeochemical analyses have identified firstgeneration immigrants and sojourners (Knudson et al. 2004; Knudson et al. 2014). Diverse subsistence economies included heavily agriculturalist and agropastoralist lifeways (Goldstein 2005). Camelid remains make up over 95% of the faunal assemblages at provincial Tiwanaku sites (Goldstein 1989: Table 19), slightly higher frequencies than those found at Tiwanaku (75-80% camelid) (Webster and Janusek 2003:345-356). Camelids provided fuel, wool (all funerary garments found in thousands of provincial Tiwanaku burials were made from camelid fiber), and transportation for moving lowland products to the Tiwanaku capital. It is therefore conceivable that camelids were intimately linked to the cultural

identity of provincial Tiwanaku populations. As was the case in Cochabamba, caravans were the economic and social lifelines connecting highland and lowland.

Four artifacts featuring TCS or probably TCS imagery have been recovered in Moquegua. At the provincial center of Omo M10, a pyro-engraved bone tube (M10 = 8943) was found in the tomb of an adult female (M10S-12) along with ceramic vessels, baskets, a wooden spoon, and a comb (Baitzel and Goldstein 2014: Fig.8). The TCS on the bone tube has an upright human body in kneeling posture, with split-toes characteristic of camelids (Figure 14). The sash and body overlap so much that it remains unclear whether its end is the garment or a tail. The TCS holds a modified trophy head (with mouth sown shut) by the hair. A rope around the neck terminates below the chin. The split eye, floppy ears, round nose, and fanged dentition are those of a camelid. Instead of a headdress, a braid emerges from the top of the head ending in a feather element.

Nearby, the burial of a child (M10S-16) contained several high-quality garments, decorated baskets, gourds, a spoon, and pair of sandals (Baitzel and Goldstein 2014:6b). One of the textiles (M10 = 8964(3)) used to wrap the body of the child was a dovetail-tapestry tunic woven from a coarse thread. The tunic features two TCS figures facing each other (Figure 15). Their human bodies are adorned



Figure 14. Roll-out drawing (left) and photo (right) of pyroengraved camelid bone tube from Burial M10S-12, Omo M10, Moquegua (M10 = 8943, Museo Contisuyo, Moquegua) (Image: SB)

with belts and in kneeling posture. The feet have split-toes. A rope separates the head from the neck. On the figure's back is a bundle with face sprouting a plant. The TCS holds a rope or staff, the lower end of which ends in a turbaned head with a split eye. The head of the TCS is characteristically camelid with pointy, floppy ears, mixed dentition, a ring nose, and a headdress. A radiocarbon date from the textile dates it to cal A.D. 772–981.

Excavations of a looted subadult burial (Burial feature R-52) at the site of Rio Muerto (M43A) downriver from Omo M10 yielded a classic polychrome camelid-fiber tapestry tunic of red bands interspersed with repeating panels that feature a possible TCS figure (Plunger 2009:fig.33) (Figure 16). Kneeling but upright, the figure has a human body and feet. The back is adorned with a sash, the head with a headdress. The sash portrays human faces often seen in the bundles (see Figures 8, 15). Pointy ears, mixed dentition, and a circular pendant hanging from the back rather than the front of the next conform with known attributes of the TCS. The figure grasps a staff from which a turbaned human figure is suspended. We include this as a possible TCS image. Although it presents some aspects of camelid imagery, human-shaped attributes dominate this image.



Figure 15. Detail from tapestry tunic in funerary bundle from Burial M10S-16, Omo M10, Moquegua (M10 = 8964(3), Museo Contiusyo Moquegua) (figure height: 50 cm) (Image: SB).

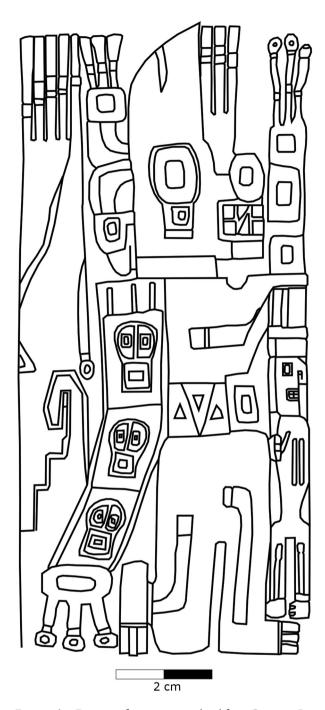


Figure 16. Drawing of tapestry tunic detail from Cemetery Rio Muerto M44A, Moquegua (figure height: ca. 12 cm) (redrawn from Plunger 2009: Figure 33).

A similar textile was found at the disturbed Terminal Middle Horizon Boca del Rio cemetery in the lower Moquegua valley (Conklin 1983: Fig.7) (Figure 17). This camelid-fiber tunic matches the

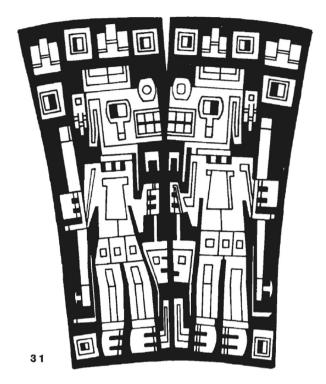


Figure 17. Drawing of tapestry tunic from Boca del Rio, Moquegua (from Conklin 1983: Figure 31, T7).

garment from Omo M10 in terms of its technical attributes. The threads are coarse, resulting in largescale, blocky design contrary to the extremely fine thread and delicate multi-paneled design found on classic Tiwanaku tapestry tunics. On the Boca del Rio tapestry, the two TCSs facing each other occupy the full length of the tunic. The figures are depicted in standing posture. A belt wraps around the waist. In one hand is a long-handled axe, in the other a trophy head suspended from hair. The rope around the neck connects with the head of the camelid, identifiable by its split eye, round nose, floppy ears, headdress, and molars. Given the low quality of the tapestry weave in this garment, it is possible that pointed or curved canines exceeded the abilities of the weaver and do not reflect an intentional omission.

San Pedro de Atacama

Tiwanaku's interactions with San Pedro de Atacama intensified during the Middle Horizon. Llama caravans

exported Tiwanaku textiles and ceramics to San Pedro, where they fueled local socio-economic competition (Stovel 2001; Torres-Rouff 2008). In return psychotropic drugs and other substances traded throughout the southern highlands found their way to Tiwanaku. Decorated paraphernalia for psychotropic substances, including snuff tables, tubes, and spoons, are a hallmark of local San Pedro elite culture; their diverse iconography reflects the international nature of San Pedro society (Llagostera 2006:83–111; Llagostera, Torres and Costa 1988:61–98; Torres 2001:427–454). Most Middle Horizon snuff tables bearing Sacrificer imagery at San Pedro de Atacama lack the diagnostic camelid-head attributes of split-hoofs, mixed dentition, rope, and long ears seen (Isbell and Knobloch 2009: figure 15d-e). However, one wooden snuff tablet recovered from Tomb 4141 at the Coyo Oriente cemetery shows an upright figure holding a staff to which a human head is attached (Torres 2004a: Fig.5) (Figure 18). The figure has human feet, a headdress, and a sash flowing down its back, but the pointed ears, circle nose, and mixed dentition of the head, its pendant lend it animalistic, probably camelid attributes.

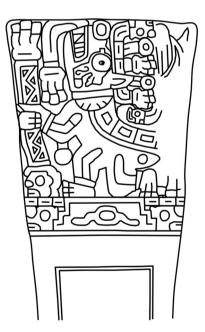


Figure 18. Drawing of wooden snuff tablet from Tomb 4141, Coyo Oriente, San Pedro de Atacama (redrawn from Torres 2004a: Figure 5).

Discussion

As the above described examples show, identification of the TCS rests on two criteria: the presence of a trophy head or axe, on the one hand, and the suite of elements representing the camelid. These elements, as we proposed earlier in the paper, consist of pointed ears, split toes, and a bundle resting on the back. Sacrificer imagery in Tiwanaku art is not limited to and also found with camelids is (Chachapuma), so that other attributes of the TCS – such as mixed dentition, headdress, round nose are not diagnostic of the TCS but rather more generally of animalistic or supernatural personages.

Of the 24 objects we presented of camelid-themed Tiwanaku art from the Middle Horizon, nine depict camelids in a natural or supernatural state without trophy heads or axes (Table 2). Two images, on the Kantatayita and Linares lintels, were previously interpreted as possible Sacrificers (Isbell and Cook 1987); based on our analysis, we classify them as Attendant figures because they lack the diagnostics features of Sacrificers or camelids. Of the remaining 13 images, one (Figure 15) features the full suite of elements associated with the TCS, while five others (Figures 8, 9, 11, 13 and 14) show three of the four diagnostic elements. The remaining seven images show only two or fewer elements; two of them are damaged or not readable for a full assessment. We would like to present some scenarios to explain the observed variability before proceeding with the discussion of the broader implications of TCS imagery in Tiwanaku

Even when including images that feature most, if not all, diagnostic elements of the TCS, the total corpus of objects with this motif in Tiwanaku art is exceedingly small. Identification is made difficult in part by chronological distortion, the use of different media, and artistic conventions. The study of the small number of probable TCS artifacts is complicated by the relative dating of many of the objects by style or association. For most of the artifacts, a Middle Horizon affiliation (7th to 11th century A.D.) is widely accepted; only the Boca del Rio tapestry probably postdates this period. We therefore

cannot speak to stylistic developments that might have occurred in representations of TCS imagery during the Middle Horizon, and that may account for some of the observed variability.

TCS imagery is displayed in carved stone, wood, and bone, painted and modeled ceramics, and tapestry weave. Each medium holds inherent technological limitations; for example, the shape and size of bone tubes required artists to reproduce the TCS image on a small scale in the round, whereas tapestry provided a large, two-dimensional canvas. These differences likely caused artists to make concessions and choices in their portrayal of the TCS. It is also possible that this variability in media and the broad geographic distribution of TCS imagery contributed to stylistic innovations or erroneous reproductions of the image, demonstrating a lack of understanding among artists unfamiliar with full renderings of the theme.

Perhaps more importantly, omission of certain elements could have resulted from the use of metonymy or synecdoche, in which artists used one element (such as split toes, pointed ears, *or* bundles) as stand-in for the camelid as a whole, effectively doing away with the need for the simultaneous use of *all* diagnostic elements. The artists' variable uses of camelid, animal, and human elements in TCS imagery is probably also shaped by the transformative nature of the figure, as we discuss below.

We identified only a single unequivocal TCS using the criteria proposed here along with several other depictions that show enough elements to allow tentative identification of the TCS. Nevertheless, we believe that the unusual representation of a camelid in the role of the Sacrificer provides information about the economic and ideological importance of these animals in Tiwanaku, and Tiwanaku ontology regarding human-animal relationships.

Origins of the TCS

We agree with Menzel (1964), Cook (1994), Isbell and Knobloch (2006, 2009), and Conklin (2009) that the Tiwanaku Camelid Sacrificer originated in

earlier iconographic traditions. Stylistic and thematic similarities to the broader SAIS tradition attest to this continuity. It is also possible that the "winged" Attendants that Menzel (1964) and Cook (1994) identified in the Central Deity theme derive from the Formative Sacrificer Camelids and Pukara's Feline Man ad Birdman, especially if we consider the "wings" of the Khonkho monolith camelid. Nevertheless, the "wings" that Ohnstad (2013) identified on the back of the Khonkho camelids may alternatively represent a plant bundle that sprouts from the back of other southern Andean camelid figures, perhaps alluding to the fertility and livelihood that springs from the cargo of camelid caravans.

Some of the images discussed here have been stylistically dated to the early Tiwanaku IV (A.D. 600-800) period, but others are dated directly or by association to the 9th through 11th century. This timeline offers an alternative scenario to Cook's proposition that the Camelid Sacrificer became a winged Attendants and was symbolically subjected by the Central Deity during the emergence of a stateaffiliated art style. Instead, we find that throughout the Middle Horizon period the TCS constituted an autonomous iconographic theme with distinctive visual elements and depicted apart from the Central Deity composition. The TCS also appears separate from popular iconographic motifs of animals, humans, or geometric figures, which suggests a degree of thematic independence.

The Middle Horizon TCS theme likely derives from earlier Formative Sacrificer Camelid images found throughout the southern Andes, especially the Lake Titicaca Basin. Its association with trophy heads and violence sets the TCS apart from naturalistic camelid depictions. The TCS is often defined by its human appearance below the neck. It is shown in profile, kneeling or standing, and thus distinct from the frontally posing Central Deity. Around the waist, the figure wears a belt, and its head is adorned with a platform headdress. Aspects of the full-figured Sacrificer Camelid of the Khonkho iconographic tradition are retained in the head of the TCS: the ring nose (alluding to the rounded nostrils of the animal), the mixed dentition of square molars and

pronounced canines, and pointed ears standing up or hanging down. Accessories associated with camelids in Formative and Middle Horizon San Pedro and Tiwanaku art are also associated with the TCS: the rope collar ending in a circular pendant, a sash, and a plant bundle. The act of head-taking depicted in south-central and southern Formative period iconographic traditions is perpetuated in the trophy heads the TCS suspends by the hair. In some instances, the trophy head's closed eyes, stitched lips and severed neck clearly signal its deceased state; in others, the attached neck, shoulders, and open eyes leave doubt about the condition of the victim. In many depictions, the TCS has traded the axe or knife of the Formative Human Sacrificer and Sacrificer Camelid for a staff, symbol of authority in Andean society.

Status, Gender and Human-Animal Relationship in TCS Imagery

To assess the broader ideological and social role of the TCS, we must consider the medium, scale, and contexts in which the images are produced and consumed. Aside from the Hettner lintel, all TCSs are depicted on portable objects in the Middle Horizon. Bone tubes and textiles appear to serve as the primary media for portraying the theme. The materials and knowledge involved in producing these objects likely included specialized labor and workshops (Janusek 2004:225; Oakland 1986:208), and the reproduction of the Camelid Sacrificer image may have been controlled by artisans or elites. Bone tubes, textiles, and ceramics are light, portable, and associated with elite dress and ceremony. Biogeochemical analysis of animal bone and fiber could be applied to identify the artifacts' geographic origin to determine the range over which such objects were distributed. The wealthy grave assemblages of the Niño Korin burial and of two burials from Omo M10 associated with TCS imagery suggest that the distribution of this iconography lay in the hands of the Tiwanaku elite. The participants of this exchange may have been highland and

provincial elites, or at least persons of some standing in the community.

In Tiwanaku art, human gender is represented through secondary sexual characteristics, such as breasts and facial hair, or cultural attributes such as hair style and dress. In animals, representations of male and female sex are less clear. The pronounced canines of the TCS can be interpreted as a sign of the supernatural state of the figure, as they are also seen on human and feline figure. We propose that the canines could identify the figure as male in the Tiwanaku iconographic corpus. These "fighting teeth" are removed in young male herd animals to avoid injury. Prominent canines may signal a state of aggression or the wild nature of the camelid, for example the guanaco. Chavez (2002) argued for a link between Pukara Feline Man, guanacos, and violence, which may be echoed in the canines of the TCS. By the Middle Horizon period, the association of camelids and women as fertile life-bestowing organisms shown in Pukara iconography seems to have been replaced in favor of the violent, male aspects of the species, representing a possible shift in perceptions and ritual enactments of fertility symbolism. The rope of the TCS, first seen in Camelid Woman and her domesticated llama, represents an instrument of human control. It is also found in felines on painted Tiwanaku ceramic vessels. In modern times, caravan drovers preferentially use male animals for caravanning because of their larger size and greater strength, so that the rope also identifies the TCS as male. Because the rope hangs loosely and is no longer held by a human, we tentatively propose that it may represent a reversion from a controlled or domesticated to a wild or feral state.

Lastly, we would like to focus on the shift from the zoomorphic to the anthropomorphic appearance that occurs between the Formative and Middle Horizon periods; or in less evolutionary terms, the representation of the camelid in humanoid form in the role of the Sacrificer in Middle Horizon Tiwanaku art. One explanation may be that the TCS depicts a costumed human figure performing the act of headtaking unlike the Sacrificer Camelid of Khonkho Wankané which symbolized the power and influence

of camelids in the *altiplano*. The tradition of costuming and masking is widespread in the Andes today in ritual and procession, and may have its origins, as mentioned in the beginning of this paper, among Early Horizon and Early Intermediate period societies of the northern Andes and coast. The only mask found at a Tiwanaku site to date was made from canes and dyed camelid fiber (Goldstein 2013b: Figure 5.17), perishable materials that are not expected to preserve in most Tiwanaku contexts. This would make the TCS's act of head taking one of few concrete insights we have into the actions and positions of ritual actors who stood at the core of Tiwanaku's power as a state.

Chachapuma imagery, felines engaged in head taking and violence, dot Tiwanaku's urban landscape. Felines and raptors follow suit with other Andean artistic traditions in portraying apex predators as power animals. Therefore, the choice of placing a camelid in the role of the Sacrificer extends and amplifies earlier ideas about the threatening and asymmetrical power relationship between humans and camelids. The TCS's act of human head taking presents an inversion of the relationship between humans and camelids, in which humans often assume control over the lives of camelids. Such an inverse, complementary act of violence may have followed Andean beliefs in re-establishing balance between two opposing forces (Platt 1986).

Similar to rituals of respect and fertility performed by modern Andean pastoralists (Abercrombie 1998; Bolin 1998), the intimate relationship between humans and camelids in Tiwanaku society would require rituals of renewal. These rituals would have resonated with greater force among those members of society for whom camelids were lifelines for physical reproduction (through meat, wool, dung) and social reproduction, in which camelids supplied provincial Tiwanaku communities with material and immaterial resources from the homeland. At the Tiwanaku capital, elites promulgated an ideology centered on the Central Deity, one in which the TCS played a minor role, perhaps in the form of an Attendant to the Central Deity, as proposed by Menzel (1964) and Cook (1994). Beyond the city,

however, community leaders would have performed rituals and distributed imagery related to the TCS – promoting an alternative source of power and fertility that struck more closely to the hearts and imagination of those living outside the capital.

We propose a second, ontological explanation for the chimeric human-animal appearance of the TCS. While the variability seen in execution of TCS imagery may be caused by different media, artisans, or styles, it is possible that it seeks to represent the transitional nature of the figure as it transforms from human to camelid or vice versa. Camay is the principle that binds lives and landscapes in the Andes, a kind of essence, force or power of being (Bray 2009:358). Shared in different forms and prototypes by all living things, camay animates the world in which humans live (Salomon and Urioste 1991:16). Camay thus is the essence, or interiority sensu Déscola (2014:275), shared by camelids and humans whose different forms (or physicalities) condition how they experience and embody *camay*. This affinity is reflected in the rituals of respect of Andean pastoralists evoked above, but also in Tiwanaku ritual contexts where camelids were sacrificed and interred in kind with humans (Couture 2003; Janusek 2004).

The TCS appears to undergo or have undergone a transformation between human and animal form, although the directionality of the act eludes us. This transformation or becoming, tucoy in Quechua, contrasts with camay, the essence of being (Salomon 1998:12). Tucoy describes the process of assuming a new form, allowing for communication across diverse states of being (Salomon 1998:12–14). transformations between animals and humans have been proposed elsewhere in Andean iconography regarding the fluid state of shamanic beings (e.g. Burger 1992:156; Weismantel 2014). The TCS appears to be in the act of tucoy. In order to communicate with beings of similar essence (camelids or humans), the TCS takes on a new outer aspect or form. This explanation does not contradict the possible scenario of a costumed human (or camelid) figure, possibly a shaman. In fact, costuming and masking materialize the process of tucoy during which the person gains access to the essence of other forms. It is in this context of *tucoy* that the act of human head taking is socially sanctioned as life-taking and life-giving.

Conclusion

Camelids were undeniably a pillar of Tiwanaku life. Their contribution to the subsistence, economy, and transportation needs of Tiwanaku communities throughout the southern Andes is widely recognized in the prominence of camelid faunal remains in the archaeological record. Camelids were a source of economic and ideological power in agro-pastoralist societies prior to the rise of the Tiwanaku state. It had previously been argued that the Sacrificer Camelid of the Formative period was integrated into the new Tiwanaku pantheon by becoming a subjugated Attendant to the Central Deity (Isbell and Cook 1987). In this paper, we have presented iconographic evidence of a figure we call the Tiwanaku Camelid Sacrificer (TCS). This figure shares features with Formative Sacrificer (trophy heads) and southern Andean camelid imagery (split toes, pointed ears, plant bundles) that are suggestive of cultural continuity. The re-combination of these elements results in an autonomous, chimeric figure in a transformative or supernatural state that joins the better-known human, feline, and avian figures found in Tiwanaku visual art.

Our survey of TCS images on a small corpus of artifacts reveals a strong association with portable prestige objects found in elite contexts of the Tiwanaku capital and periphery. We have argued that the association of the TCS with male camelids and caravans highlights the possible importance of this image across the Tiwanaku sphere of influence. Furthermore, Formative-period associations with female figures and fertility become replaced with symbolism of violence and head-taking. Like other supernatural figures in Tiwanaku and other Middle Horizon iconography, the TCS varyingly incorporates elements that speak to its fluid human-animal state. It may represent a costumed elite figure like those seen in other prehispanic Andean cultures, engaged in

the ritual act of sacrifice to invoke fertility and balance as human-animal roles are inverted. At the same time, whether the TCS represents a real human person or not, the chimeric state of the figure suggests a shared essence of humans and camelids in Tiwanaku ontology, accessible through changed forms.

Although the TCS presents but a minor part of Tiwanaku iconography, its rarity, material forms of representation, and idiosyncratic use of the camelid in the role of a violent, chimeric figure provide an entry point to understanding how art and iconography are shaped in the context of social, economic, and ontological changes. Unlike the Middle Horizon Central Deity or related iconography that have been the subject of discussion, the TCS draws on camelids - the most important organism by which members of Tiwanaku society interacted with and experienced nature. As other scholars have done before us, we can only speculate to the realness of the Sacrificer or Decapitator figure in Andean iconography; unlike the North coast of Peru, Tiwanaku provides less direct material evidence of head-taking or other rituals of violence. Nevertheless, it is only in the south-central Andes during the Formative and Middle Horizon periods that the camelid assumes the role of the Sacrificer. As such, it allows us a view of broader dynamics related to Tiwanaku socioeconomics, ritual, and ontology as seen from the position of humans and the camelids as purveyors of life and death. Our discussion has been focused on the camelid as an animal with close ties to human society and life in the Andes. We hope that the perspectives and positions put forth in this paper will provide a starting point for reevaluating other human-animal relationships materialized in the iconography of the ancient Andes.

Acknowledgments

We would like to thank the Ministerio de Cultura Peru, Patricia Palacios and Museo Contisuyo Moquegua, Clemente Ticona, Maria de Los Angeles Muñoz (Instituto de Investigaciones Arqueologicas and Museo Arqueologico de la Universidad Mayor de San Simon de Cochabamba), Velia Mendoza (Laboratorio de Arqueozoologia de la Carrera de Arqueologia de la Universidad Mayor de San Andres de La Paz), Adriana Muñoz at the World Cultures Museum in Goteborg, Sweden, Sergio Chavez (Michigan University), Antti Korpisaari, the de Investigaciones Arqueologicas, Centro Antropologicas y Administracion de Tiwanaku (CIAAAT), and the many scholars and institutions who granted us permission to reproduce their art and images in this article. We also extend our thanks to David Browman, Matthew Sitek, Helina Woldekiros, Arturo Rivera, and Chris Milan for comments on earlier drafts of this paper. The feedback of Jerry Moore and two anonymous reviewers enabled us to improve the manuscript significantly and we want to thank them for their help and patience.

Funding

This work was supported by the National Science Foundation under Grant BCS-SBE 1240007, the Fulbright-Hays DDRA, the Dumbarton Oaks Library Fellowship Program, the Department of Anthropology at UC San Diego.

Disclosure statement

We the authors have no financial interests or benefits that have arisen from this research.

Notes

- 1 The Central Deity in Tiwanaku iconography first appears during the Tiwanaku IV (Early Middle Horizon) period, almost simultaneously with the appearance of a similar figure in Wari iconography 800 km to the north. The connection between the Tiwanaku and Wari polities and Central Deities remains a subject of debate among Andean scholars (Conklin 2009; Cook 1994; Isbell y Knobloch 2009; Menzel 1964).
- 2 Indirect dating of many of the objects pertaining to this study complicates the temporal assessment of iconographic change. Only one of the objects

- discussed here was directly dated, and several objects are without known provenience. We will therefore rely on the stylistic seriation by as Cook (1994), Isbell and Knobloch (2009), Conklin (1991, 2009) and Janusek (2004), although such assignations may have low temporal resolution and may span multiple centuries.
- 3 The bone tube was found with spatulas made from camelid scapulae decorated with the image of a grasping human hand on the handle. Janusek observed Kallawaya *curanderos* in Bolivia using similar objects today.
- 4 Trigo and Hidalgo in a forthcoming publication posits that Figure 10a may represent a Deer Sacrificer (2018:144) based on headdress symbolism. However,the figure is missing the diagnostic set of antlers that Trigo and Hidalgo identify elsewhere in Tiwanaku and Wari iconography. The overlap between the newly identified Deer Sacrificer and the Camelid Sacrificer discussed in this paper give room for additional speculation about the fluidity of human-animal identities.
- No similar vessels have been excavated at other Tiwanaku sites. Its glazed slip is very rare in Tiwanaku and prehispanic Andean ceramic industries, although not unprecedented. The Camelid Sacrificer effigy vessel from La Kk'araña is not directly dated and its provenience lacks documentation, but similarities between the La Kk'araña ceramic offering and finds from the island of Pariti support the object's authenticity. It points to the possible existence of a small Tiwanaku workshop or community of potters familiar with glazing technique.
- 6 In a previous analysis of this piece, Menzel (1964:132–149) suggested that this bone tube related to the Wari-Atarco style of the Middle Horizon 2 period, contemporaneous with Tiwanaku V. The Atarco style is characterized by figures with feline heads that hold out a staff, and which wear a sash or cape that terminates in a three-pronged appendage, possible an allusion to the winged Attendants of the Central Deity.
- 7 Elsewhere in Andean iconography, women and fertility are strongly associated with death (Bourget 2006).

References Cited

Abercrombie, Thomas A

1998 Pathways of Memory and Power: Ethnography and History Among an Andean People. University of Wisconsin Press, Madison, WI.

Alva, Walter, and Christopher B. Donnan

1993 *Royal Tombs of Sipan*. Fowler Museum of Cultural History, Los Angeles, CA.

Anderson, Karen

2009 Tiwanaku Influence on Local Drinking Patterns in Cochabamba, Bolivia. In *Drink, Power, and Society in the Andes*, edited by J Jennings, and BJ Bowser, 167–199. University Press of Florida, Gainesville, FL.

2013 Tiwanaku Influence on the Central Valley of Cochabamba. In Visions of Tiwanaku, Edited by Alexei Vranich and Charles Stanish, 87–112. Monograph 78. Cotsen Institute of Archaeology, Los Angeles, CA.

Arnold, Denise Y., and Christine Hastorf

2008 Heads of State: Icons, Power, and Politics in The Ancient and Modern Andes. Left Coast Press, Walnut Creek, CA.

Baitzel, Sarah I.

2016 The Politics of Death and Identity in Provincial Tiwanaku Society (A.D. 600–1100).
Unpublished Ph.D. Dissertation, Department of Anthropology, UC San Diego, La Jolla.

Baitzel, Sarah I, and Paul S. Goldstein

2014 More Than The Sum of its Parts: Dress and Social Identity in a Provincial Tiwanaku Child Burial. *Journal of Anthropological Archaeology* 35, 51–62.

Berryman, Carrie Anne

2010 Food, Feasts, and the Construction of Identity and Power in Ancient Tiwanaku: A Bioarchaeological Perspective. Unpublished Ph.D. Dissertation, Department of Anthropology, Vanderbilt University, Nashville, TN.

Blom, Deborah E., Benedikt Hallgrimsson, Linda Keng, María C. Lozada, and Jane E. Buikstra.

1998 Tiwanaku "Colonization": Bioarchaeological Implications for Migration in the Moquegua Valley. World Archaeology 30(2):238–261.

Bolin, Inge

1998 Rituals of Respect: The Secret of Survival in the High Peruvian Andes. University of Texas Press, Austin, TX.

Bourget, Steve

2006 Sex, Death, and Sacrifice in Moche Religion and Visual Culture. Thames & Hudson, London.

Bray, Tamara L

2009 An Archaeological Perspective on the Andean Concept of Camaquen: Thinking Through Late Pre-Columbian Ofrendas and Huacas. *Cambridge Archaeological Journal* 19(3): 357–366.

Briones, Luis

2006 The Geoglyphs of the North Chilean Desert: An Archaeological and Artistic Perspective. Antiquity 80, 9–24.

Browman, David L

1978 Toward the Development of the Tiahuanaco (Tiwanaku) State. In *Advances in Andean Archaeology*, edited by David L. Browman, 327–350. Mouton Publishers, The Hague.

Browman, David L.

1984 Tiwanaku: Development of Interzonal Trade and Economic Expansion in the Altiplano. In *Social and Economic Organization in the Prehispanic Andes*, edited by David L. Browman, Richard L. Burger, and Mario A. Rivera, 117–142. BAR International Series 194. BAR, Oxford.

Buikstra, Jane E.

1995 Tombs for the Living ... or ... For the Dead: The Osmore Ancestors. In *Tombs for the Living:*Andean Morturary Practices. A Symposium at Dumbarton Oaks, 12th and 13th October 1991, edited by Tom D. Dillehay, 229–280. Dumbarton Oaks Research Library and Collection, Washington, DC.

Burger, Richard L

1992 Chavin and the Origins of Andean Civilization. Thames & Hudson, London.

Chavez, Sergio

2002 Identification of the Camelid Woman and Feline Man Themes, Motifs, and Designs in Pucara Style Pottery. In *Andean Archaeology*, edited by William H. Isbell, and Helaine Silverman II, 35–69. Kluwer Academic/Plenum Press, New York, NY.

Conklin, William J

1983 Pucara and Tiahuanaco Tapestry: Time and Style in a Sierra Weaving Tradition. *Nawpa Pacha* 21, 1–44.

Conklin, William J.

1991 Tiahuanaco and Huari: Architectural Comparisons and Interpretations. In *Huari Administrative Structure: Prehistoric Monumental Architecture and State Government*, edited by William H. Isbell, and Gordon F. McEwan, 281–292. Dumbarton Oaks Research Library and Collection, Washington, DC.

2009 The Iconic Dimension in Tiwanaku Art. In *Tiwanaku: Papers from the 2005 Mayer Center Symposium*, edited by Margaret Young-Sánchez, 115–132. Denver Art Museum, Denver, CO.

Cook, Anita G.

1987 Middle Horizon Ceramic Offerings from Conchopata. *Nawpa Pacha* 22–23, 49–90.

1994 Wari y Tiwanaku: entre el estilo y la imagen. PUCP, Lima, Peru.

2012 The Coming of the Staff Deity. In *Wari: Lords of the Ancient Andes*, edited by Susan E. Bergh, 103–121. Thames and Hudson, New York.

Cordy-Collins, Alana

2001 Decapitation in Cupisnique and Early Moche Societies. In *Ritual Sacrifice in Ancient Peru*, edited by Elizabeth P. Benson, and Anita G. Cook, 21–33. University of Texas Press, Austin, TX.

Couture, Nicole C.

2003. Ritual, Monumentalism, and Residence at Mollo Kontu, Tiwanaku. In Tiwanaku and Its Hinterland: Archaeology and Paleoecology of an Andean Civilization, edited by Alan L. Kolata, 202-224. Smithsonian Institution Press, Washington, DC.

Couture, Nicole C., and Kathryn Sampeck

2003 Putuni: A History of Palace Architecture at Tiwanaku. In *Tiwanaku and Its Hinterland:* Archaeology and Palaeoecology of an Andean Civilization, edited by Alan L. Kolata, 226–265, 2: Urban Rural Archaeology. Smithsonian Institution Press, Washington, DC.

DeLeonardis, Lisa

2000 The Body Context: Interpreting Early Nasca Decapitated Burials. *Latin American Antiquity* 11(4):363–386.

DeMarrais, Elizabeth, Luis Jaime Castillo, and Timothy Earle

1996 Ideology, Materialization, and Power Strategies. *Current Anthropology* 37(1):15–31.

Déscola, Philippe

2014 Modes of Being and Forms of Predication. *HAU: Journal of Ethnographic Theory* 4(1):271–280.

Disselhoff, Hans-Dieter

1962 Probleme der Bolivianischen Archaeologie (Vorlaeufiger Bericht Ueber Vier Grabungen). In Akten des 34. International Amerikanistenkongress, 437–445. Horn: Ferdinand Berger.

Eisleb, Dieter, and Renate Strelow

1980 *Tiahuanaco*. Vol. III. Altperuanische Kulturen. Museum fuer Voelkerkunde, Berlin.

Gallardo, Francisco, Gloria Cabello, Gonzalo Pimentel, Marcela Sepulveda, and Luis Cornejo

2012 Flujos de información visual, interacción social y pinturas rupestres en el desierto de Atacama (norte de Chile). *Estudios Atacameños* 43, 35–52. Goldstein, Paul S.

1989 Omo, a Tiwanaku provincial center in Moquegua,

Peru. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Chicago, Chicago, IL.

2013a Tiwanaku and Wari State Expansion: Demographic and Outpost Colonization Compared. In Visions of Tiwanaku, edited by Alexei Vranich, and Charles Stanish, 41-63. Monograph 78. Cotsen Institute Archaeology, Los Angeles, CA.

2013b Embedded Andean Economic Systems and the Expansive Tiwanaku State. In *Merchants, Markets, and Exchange in the Pre-Columbian World*, edited by Kenneth Hirth, and Joanne Pillsbury, 361–387. Dumbarton Oaks Research Library, Washington, DC.

2005 Andean Diaspora: the Tiwanaku Colonies and the Origins of South American Empire. University Press of Florida, Gainesville.

2015 Multiethnicity, Pluralism, and Migration in the South Central Andes: An Alternate Path to State Expansion. *Proceedings of the National Academy of Sciences* 112(30):9202–9209.

Haeberli, Joerg

2001 Tiempo y tradición en Arequipa, Perú, y el surgimiento de la cronología del Tema de la Deidad Central. In *Huari y Tiwanaku: modelos vs. evidencias. Segunda parte*, edited by Peter Kaulicke, and William H. Isbell, 89–137. Boletin de Arqueologia 5. PUCP, Lima, Peru.

Higueras, Alvaro

2001 El Período Intermedio (Horizonte Medio) en los valles de Cochabamba: una perspectiva del análisis de asentamientos humanos y uso de tierras. In *Huari y Tiwanaku: modelos vs. evidencias. Segunda parte*, edited by Peter Kaulicke, and William H. Isbell, 625–646. Boletin de Arqueologia 5. PUCP, Lima, Peru.

Hoshower, Lisa M., Jane E. Buikstra, Paul S. Goldstein, and Ann D. Webster

1995 Artificial Cranial Deformation at the Omo M10 Site: A Tiwanaku Complex from the Moquegua Valley, Peru. *Latin American Antiquity* 6(2): 145–164.

Ibarra Grasso, Dick E.

1973 *Prehistoria de Bolivia*. Los Amigos del Libro, La Paz, Bolivia.

Isbell, William H., and Anita G. Cook

1987 Ideological Origins of an Andean Conquest State. *Archaeology* 40(4):26–33.

Isbell, William H., and Patricia Knobloch

2006 Missing Links, Imaginary Links: Staff god Imagery in the South Andean Past. In *Andean*

- Archaeology, vol. III: North and South, edited by William H. Isbell, and H. Silverman, 307–351. Springer, New York.
- 2009 SAIS-The Origin, Development, and Dating of Tiahuanaco-Huari Iconography. In *Tiwanaku: Papers from the 2005 Mayer Center Symposium at the Denver Art Museum*, edited by Margaret Young-Sánchez, 165–210. Denver Art Museum, Denver, CO.

Janusek, John W.

- 1994 State and Local Power in a Prehispanic Andean Poliy: Changing Patterns of Urban Residence in Tiwanaku and Lukurmata, Bolivia. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Chicago, Chicaco, IL.
- 2003 The Changing Face of Tiwanaku Residential Life: State and Local Identity in an Andean City. In *Tiwanaku and Its Hinterland: Archaeology and Palaeoecology of an Andean Civilization*, edited by Alan L. Kolata, 2: 264–295. Smithsonian Institution Press, Washington, DC.
- 2004 *Identity and Power in the Ancient Andes.* Routledge, New York.
- 2008 Ancient Tiwanaku. Cambridge University Press, New York.
- 2015 Of Monoliths and Men. Human-Lithic Encounters and The Production of an Animistic Ecology at Khonkho Wankane. In *The Archaeology of Wak'as: Explorations of the Sacred in the Pre-Columbian Andes*, edited by Tamara L. Bray, 335–365. University Press of Colorado, Boulder, CO.

Knight, Vernon J

2013 Iconographic Method in New World Prehistory. Cambridge University Press, New York, NY.

Knudson, Kelly J., T. Douglas Price, Jane E. Buikstra, and Deborah E. Blom

2004 The Use of Strontium Isotope Analysis to Investigate Tiwanaku Migration and Mortuary Ritual in Bolivia and Peru. *Archaeometry* 46(1): 5–18.

Knudson, Kelly J., Paul S. Goldstein, Allisen Dahlstedt, Andrew D. Somerville, and Margaret J. Schoeninger

2014 Paleomobility in the Tiwanaku Diaspora: Biogeochemical Analyses at Rio Muerto, Moquegua, Peru. *American Journal of Physical Anthropology* 155(3):405–421.

Kolata, Alan L

2003 The Social Production of Tiwanaku: Political Economy and Authority in a Native Andean State. In *Tiwanaku and Its Hinterland:*

Archaeology and Palaeoecology of an Andean Civilization, edited by Alan L. Kolata, 2: Urban and Rural Archaeology, 449–472. Smithsonian Institution Press, Washington, DC.

Kolata, Alan L.

2004 The Flow of Cosmic Power: Religion, Ritual, and the People of Tiwanaku. In *Tiwanaku: Ancestors of the Inca*, edited by Margaret Young-Sanchez, 96–125. Denver Art Museum, Denver, CO.

Korpisaari, Antti

Death in the Bolivian High Plateau: Burials and
 Tiwanaku Society. British Archaeological
 Reports International Series (1536), Oxford.

Llagostera, Agustín

2006 Contextualización e iconografía de las tabletas psicotrópicas Tiwanaku de San Pedro de Atacama. *Chungará* 38(1):83–111.

Llagostera, Agustín, Constantino Torres, and M. A. Costa 1988 El complejo psicotrópico de Solcor-3 (San Pedro de Atacama). *Estudios Atacameños* 9, 61–98.

Lynch, Thomas F

1983 Camelid Pastoralism and the Emergence of Tiwanaku Civilization in the South-Central Andes. *World Archaeology* 15(1):1–14.

Menzel, Dorothy

1964 *La Cultura Huari*. Vol. VI. Las grandes civilizaciones del Perú. Compañía de Seguros y Reaseguros Peruano-Suiza S.A., Lima, Peru.

Niehaus, Andrew

2009 Dental Disease in Llamas and Alpacas. *Alpaca and Llama Health Management* 25(2):281–293.

Nielsen, Axel E.

1997 El trafico caravanero visto desde La Jara. *Estudios Atacameños* 14, 339–371.

Nuñez, Lautaro

1976 Geoglifos y tráfico de caravanas en el desierto chileno. Universidad del Norte, Chile, Tarapacá,

Nuñez, Lautaro, and Tom D. Dillehay

1995 Movilidad giratoria, armonía social y desarrollo en los Andes Meridionales: Patrones de tráfico e interacción económica. Universidad Católica del Norte, Antofagasta, Chile.

Oakland, Amy

1986 Tiwanaku Textile Style from the South Central Andes. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Texas, Austin, Austin, TX.

Ohnstad, Arik

2005 La escultura de piedra de Khonkho Wankane. In Khonkho Wankane: Primer Informe preliminar del Proyecto Arqueológico Jach'a Machaca, edited by

John W. Janusek, 52–68. Research Report presented to the Bolivian Viceministry of Culture and The Unidad Naciona de Arqueología, La Paz, Bolivia.

2013 The Stone Stelae of Khonkho Wankane: Inventory, Brief Description, and Seriation. In Advances in Titicaca Basin Archaeology 2, edited by Alexei Vranich, and Abigail R. Levine, 53–66. Cotsen Institute of Archaeology, Los Angeles, CA.

Paul, Anne

2000 Bodiless Human Heads in Paracas Necropolis Textiles Iconography. *Andean Past* 6, 69–94.

Platt, Tristan

1986 Mirrors and Maize: the Concept of Yanantin among the Macha of Bolivia. In Anthropological History of Andean Polities, edited by John V. Murra, Nathan Wachtel, and Jacques Revel, 228–259. Cambridge University Press, Cambridge.

Plunger, Elizabeth M.

2009 Woven Connections: Group Identity, Style, and the Textiles of the "A" and "B" Cemeteries at the Site of Rio Muerto (M43), Moquegua Valley, Southern Peru. Unpublished M.A. thesis, University of California San Diego.

Proulx, Donald

1999 Kopfjagd und rituelle Verwendung von Trophäenköpfen in der Nasca-Kultur. In *Nasca: Geheimnisvolle Zeichen im Alten Peru*, edited by Judith Rickenbach, 79–87. Museum Rietberg, Zurich.

2001 Ritual Uses of Trophy Heads in Ancient Nasca Society. In *Ritual Sacrifice in Ancient Peru*, edited by Elizabeth P. Benson, and Anita G. Cook, 119–136. University of Texas Press, Austin, TX.

Rivera Casanovas, Claudia

1994 Ch'iji Jawira: Evidencias sobre la Producción de Cerámica en Tiwanaku. Unpublished Licenciatura de Arqueología, Universidad Mayor de San Andrés, La Paz, Bolivia.

Rivera Casanovas, Claudia

2003 Ch'iji Jawira: A Case of Ceramic Specialization in the Tiwanaku Urban Periphery. In *Tiwanau and Its Hinterland: Archaeology and Paleoecology of an Andean Civilization, 2: Urban Rural Archaeology*, edited by Alan L. Kolata, 296–314. Smithsonian Institution Press, Washington, DC.

Rivera, Oswaldo

1996 Nuevas variantes para el estudio de la cerámica Tiwanaku. In *Cosmovisión Andina*, 497–540. Centro de Cultura, Arquitectura y Arte, La Paz, Bolivia. Rowe, John H., and Catherine T. Brandel

1971 Pucara Style Pottery Designs. *Nawpa Pacha:* Journal of Andean Archaeology 7&8, 1–16.

Salomon, Frank

1998 How the *Huacas* Were: The Language of Substance and Transformation in the Huarochiri Quechua Manuscript. *RES:* Anthropology and Aesthetics 33, 7–17.

Salomon, Frank, and George L. Urioste

1991 The Huarochiri Manuscript, a Testament of Andean and Colonial Andean Religion. University of Texas Press, Austin, TX.

Smith, Scott C., and John W. Janusek

2014 Political Mosaics and Networks: Tiwanaku Expansion Into the Upper Desaguadero Valley, Bolivia. *World Archaeology* 46(5):681–704.

Stanish, Charles, Edmundo de la Vega, Michael Moseley, Patrick Ryan Williams, Cecilia Chávez J., Benjamin Vining, and Karl LaFavre

2010 Tiwanaku Trade Patterns in Southern Peru. Journal of Anthropological Archaeology 29(4): 524–532.

Stovel, Emily

Patrones Funerarios de San Pedro de Atacama y el Problema de la Presencia de los Contextos Tiwanaku. In Boletín de Arqueología PUCP vol.
 Huari y Tiwanaku: Modelos vs. Evidencias, Part 2, 375–395. PUCP, Lima, Peru.

Sutter, Richard C., and Rosa J. Cortez

2005 The Nature of Moche Human Sacrifice. *Current Anthropology* 46(4):521–549.

Torres, Constantino

1987 The Iconography of South American Snuff Trays. Etnologiska Studier 37. Elanders Boktryckeri Aktiebolag, Göteborg.

2001 Iconografía tiwanaku en la perefernalia inhalatoria de los andes centro-sur. In *Boletín de Arqueología PUCP*, edited by Peter Kaulicke, and William H. Isbell, No.5: Huari y Tiwanaku: Modelos vs. Evidencias, vs. 2da parte: 425–545. PUCP, Lima, Peru.

2004a Imagenes legibles: La iconografía Tiwanaku como significante. *Boletín del Museo Chileno de Arte Precolombino* 9, 55–73.

2004b Tiwanaku Snuffing Paraphernalia. In *Tiwanaku:*Ancestors of the Inca, edited by Margaret Young-Sánchez, 114–120. Denver Art Museum,
Denver, CO.

Torres-Rouff, Christina

2008 The Influence of Tiwanaku on Life in the Chilean Atacama: Mortuary and Bodily Perspectives. American Anthropologist 110(3): 325–337.

Trigo, David, and Roberto C. Hidalgo Rocabado

2018 El decapitador venado en la iconografía Tiwanaku: orígenes, desarrollo y significados. *Arqueologia Boliviana* 4(4):131–162.

Tung, Tiffiny A

2008 Dismembering Bodies for Display: A Bioarchaeological Study of Trophy Heads from the Wari Site of Conchopata, Peru. American Journal of Physical Anthropology 136, 294–308.

Violence, Ritual, and the Wari Empire: A Social Bioarchaeology of Imperialism in the Ancient Andes. University Press of Florida, Gainesville, FL.

Vallières, Claudine

2012 A Taste of Tiwanaku: Daily Life in an Ancient Andean Urban Center as Seen Through Cuisine. Unpublished Ph.D. Dissertation, Department of Anthropology, McGill University, Montreal, Canada.

Verano, John W.

2013 Excavation and Analysis of Human Skeletal Remains from a New Dedicatory Offering at Tiwanaku. In *Advances in Titicaca Basin Archaeology - 2*, edited by Alexei Vranich, and Abigail R. Levine, 167–180. Monograph 77. Cotsen Institute of Archaeology, Los Angeles, CA.

Vining, Benjamin

2016 Pastoral Intensification, Social Fissioning, and Ties to State Economies at the Formative – Middle Horizon Transition in the Lake Suches Region, Southern Peru. In *The Archaeology of Andean Pastoralism*, edited by José Capriles, and Nicholas Tripcevich, 87–118. University of New Mexico Press, Albuquerque, NM.

Warwick, Matthew

2012 In the Shadow of the Penon: A Zooarchaeological Study of Formative Diet, Economy, and Sociopolitics in the Rio Pukara Valley, Peru. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Wisconsin, Milwaukee.

Wassén, S. Henry

1972 A Medicine-Man's Implements and Plants in a Tiahuanacoid Tomb in Highland Bolivia. Etnologiska Studier 32. Elanders Boktryckeri Aktiebolag, Göteborg.

Webster, Ann D., and John W. Janusek

2003 Tiwanaku Camelids: Subsistence, Sacrifice, and Social Reproduction. In *Tiwanaku and Its Hinterland: Archaeology and Palaeoecology of an Andean Civilization*, edited by Alan L. Kolata, vol. 2, 343–362. Smithsonian Institution Press, Washington, DC.

Weismantel, Mary

2014 Inhuman Eyes: Looking at Chavin de Huantar. In *Relational Archaeologies: Humans, Animals, Things*, edited by Christopher Watts, 35–55. Routledge, London.

Young-Sánchez, Margaret (editor)

2004 *Tiwanaku: Ancestors of the Inca*. Denver Art Museum, Denver, CO.