



# SPATIAL CONFIGURATION IN TIWANAKU ART. A REVIEW OF STONE CARVED IMAGERY AND STAFF GODS

## CONFIGURACIÓN ESPACIAL EN EL ARTE TIWANAKU. UNA REVISIÓN DE LA IMAGINERÍA TALLADA EN PIEDRA Y LOS DIOS DE BÁCULOS

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This article highlights the scenic potential of Tiwanaku stone carved iconography (South-Central Andes, ca. AD 600-1000). It argues that aspects of Tiwanaku carved imagery may be approached as potential scenes of ritual action. The paper develops by taking into account the spatial configuration of the imagery that surrounds a specific set of anthropomorphs referred to as Staff Gods. An examination of Staff God imagery reveals how some elements in the iconography indicate that these personages may be human representations engaged in ritual action rather than representations of divine figures, i. e., cases of Andean divine anthropomorphism. Comparisons with Moche and Recuay scenic configurations also give further meaning to such a hypothesis.

**Key words:** Tiwanaku, stone sculpture, pre-Columbian art, scene, Staff God, anthropomorphism, Andes

*Este trabajo destaca el potencial escénico de la iconografía tallada en piedra en Tiwanaku (Andes centro-sur, ca. 600-1000 DC). El artículo propone una manera en la que se pueden abordar las imágenes talladas en piedra de Tiwanaku como posibles escenas de acción ritual. Además, muestra la configuración espacial de la iconografía que va asociada a un tipo de personajes referidos como "dioses de báculos". El análisis de ciertos aspectos de estos personajes indica que podrían ser representaciones de individuos involucrados en acción ritual en lugar de divinidades (como casos de antropomorfismo divino). La hipótesis según la cual se representaban en Tiwanaku escenas de acción ritual se apoya también en comparaciones con iconografías y configuraciones escénicas Moche y Recuay.*

**Palabras clave:** Tiwanaku, escultura de piedra, arte precolombino, escena, dioses de báculos, antropomorfismo, Andes

## INTRODUCTION

Tiwanaku stone sculptures are among the finest examples of monumental craftsmanship in the ancient Andes. They mark a distinctive visual tradition that developed at and around the Tiwanaku archaeological site, at an altitude of ~3850 MASL on the southeastern shores of Lake Titicaca (fig. 1). This complex is idealized as the centre of the Tiwanaku state; this state reached full development during the Middle Horizon (AD 600-1000). By AD 800, Tiwanaku had become a large urban centre comprised of various monumental ceremonial structures (Vranich 2001; Janusek 2006; Vranich 2006, 2009; Vranich & Stanish 2013). The city participated in, and managed diverse allegiances with neighboring communities and its influence has been noted as far as southern Peru, eastern Bolivia, as well as parts of Chile and Argentina (Moseley 1992; Kolata 1993a; Janusek 2008).

The best-known Tiwanaku monoliths include monumental portals or gateways, as well as representations of human figures that most likely embodied ruling elites or ancestors (Bennett 1956; Kolata 1993a, 2004; Couture 2004; Janusek 2006; Isbell 2008; Makowski 2009; Bandy 2013). Studies have shown that the intricate imageries carved on stone sculptures bear strong textile-like qualities, representing items of elite clothing such as head bands, skirts or *fajas*, and ankle garments (Bennett 1956,

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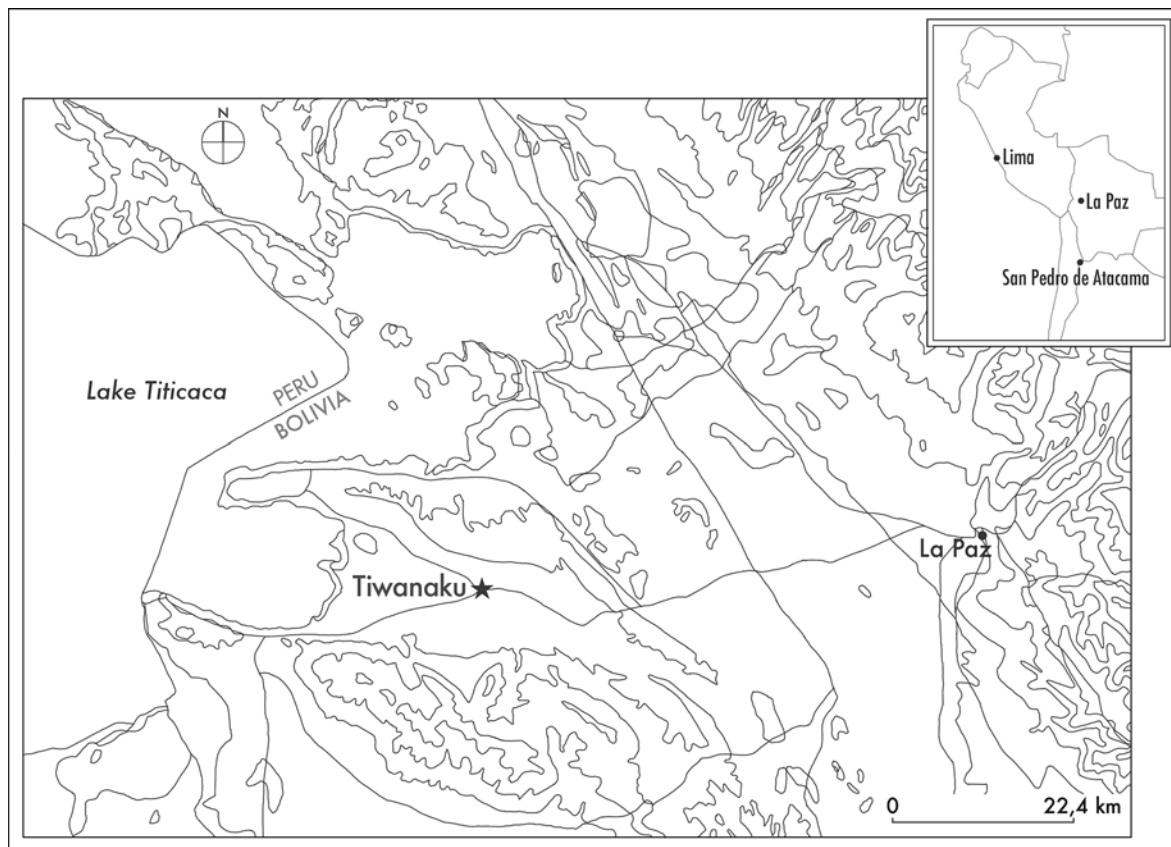


Figure 1. Map of the southeastern shore of Lake Titicaca showing the location of Tiwanaku and La Paz.

*Figura 1. Mapa de la costa sureste del lago Titicaca con la ubicación de Tiwanaku y La Paz.*

1963: 308; Sawyer 1963; Conklin 1970, 1986, 1991, 1996, 2004, 2009; Torres & Torres 2014). Some images also seem to have been carved as “textiles draped over stone” (Stone-Miller 2002: 133). This article reviews recent advances in Tiwanaku iconography with the aim of further examining how aspects of Tiwanaku carved imagery may be approached as potential scenes of ritual action.

## SCENES AND NARRATIVES IN ANDEAN ART

An appropriate point of entry to our discussion is the reported absence of scenes within Tiwanaku stone carved imagery, a fact noted in other studies (e. g., Posnansky 1945; Kubler 1984; Makowski 2001a, 2009). In this sense a more precise definition of the term “scene” is needed. Traditionally, a scene is associated with Western theatre, emphasizing the functional content of action; a continuous act detached from a broader narrative—a scene, in theatrical terms, thus implies the (known) presence of a narrative. In contrast, and perhaps in more contemporary

terms in relation to the study of world art, a painted or sculpted pictorial scene forms a “genre of action” (Lau 2011: 213-215). For the purposes of this essay, a scene is understood as the pictorial unity emphasized by the conceptual relationship between the different elements in the pictorial landscape. Perhaps the most explicit example of such pictorial scenes in the Andean context is the widely cited Moche art scenes.

In his seminal work on Moche iconography, Donnan (1979) argued that while Moche art is found painted on thousands of ceramics it actually consists of a few “basic themes.” As in Christian art, specific individuals (and objects) persist throughout Moche imagery and are seen in a variety of pictorial contexts. The underlying model builds on Kubler’s (1967) linguistic approach where repeated patterns in the available visual information were interpreted as “rules of expression:”

[...] in many respects, this system is similar to the symbolic system of a language. In language, the speaker can modify what he is saying about an object (noun) by selecting a set of modifiers (adjectives and adverbs) and inserting them in their proper place in the message according to a set of rules

(grammar)... Moche art can be interpreted by observing the patterns that result from artists working according to rules of expression (Donnan 1978: 8).

Various themes have been identified in Moche art, the details of which have been described in numerous publications (e. g., Hocquenghem 1987; Castillo 1989; Quilter 1990, 1997, 2002, 2008, 2010; Donnan & McClelland 1999; Donnan 2004: 113-115; Makowski 2005; Bourget 2006; Bourget & Jones 2008; Jackson 2009). Perhaps the best documented Moche scene is that of the Presentation Theme (Donnan 1978: 158-173, 1979), now generally referred to as the Sacrifice Ceremony. Including several individuals, animals, and objects (Donnan 1978: 158-160), the Ceremony plays out a scene where a many-rayed anthropomorphic personage is presented with a ceremonial goblet by another individual displaying ornithomorphic attributes (fig. 2).

Quilter (1990, 1997) and others,<sup>1</sup> extended Donnan's thematic model arguing for a narrative configuration of Moche iconography. He expanded the idea of the theme towards a depiction of a theatrical scene thereby depicting an isolated action as part of a broader narrative. The registered themes were like "fragments of ancient narrative [that] can be pieced together to retrieve the myths that this art illustrated" (Quilter 1997: 113). More importantly, he argued for the concept of visual narratives as vehicles for the transmission of religious ideas through time. The narrative model emphasizes the need to approach Moche themes not solely as still, "snapshot" photographs of any given activity, but rather as parts of broader story lines. Summarized by Quilter (1997: 113), "it is, in a sense, an attempt to progress from still photography to motion pictures, to move from isolating characters and the scenes in which they appear to viewing the characters as actors in a story that can be seen mostly in segments and, rarely, in longer 'clips' of

film." This move then from themes to narratives reveals myths that explain the past, present, and future of Moche existence (Quilter 1997: 130).

Here we develop on this concept, exploring the idea that Tiwanaku artists may also have represented scenes, albeit employing a unique conventionalized pictorial approach and technique proper to Middle Horizon art. The convention appears to have organized scenes using an empirical approach that followed rules of proportional representation (Panofsky 1970). However, while perhaps applying a different pictorial convention, the overall elements in the imagery shows consistency with the means by which different anthropomorphs are organized in some Moche, and even Recuay scenes that date to the Early Intermediate Period (AD 1-700). Aside from this, a study of Tiwanaku iconography furthers our current knowledge into inscribed mnemonic devices of ritual action in this area of the ancient Andes.

### Middle Horizon Iconography

While the narrative and scenic character of Moche iconography has been amply shown and discussed through the years, the possibility of equivalent scenes and narratives in Tiwanaku imagery is normally excluded from current scholarship. Tiwanaku iconography is often exemplified by the well known Gateway of the Sun monolith, now standing on the northwest corner of the Kalasasaya platform (fig. 3). The imagery is often described in terms of conventionalized symmetrical motifs, emphasizing various sets of anthropomorphic and ornithomorphic personages often at odds with realism (Kubler 1984: 453; Makowski 2001a, b). Most Tiwanaku images, on stone or ceramic, are approached in terms of independent units of imagery, emphasizing little, if any, emblems of action and/or pictorial unity. The imagery is seen, rather, as



Figure 2. Moche Sacrifice Ceremony (adapted from Donnan 1979: 409, fig. 1).

Figura 2. Ceremonia de sacrificio Moche (adaptado de Donnan 1979: 409, fig. 1).



Figure 3. The Gateway of the Sun (photo: M. Viau-Courville).  
 Figura 3. La Puerta del Sol (foto: M. Viau-Courville).

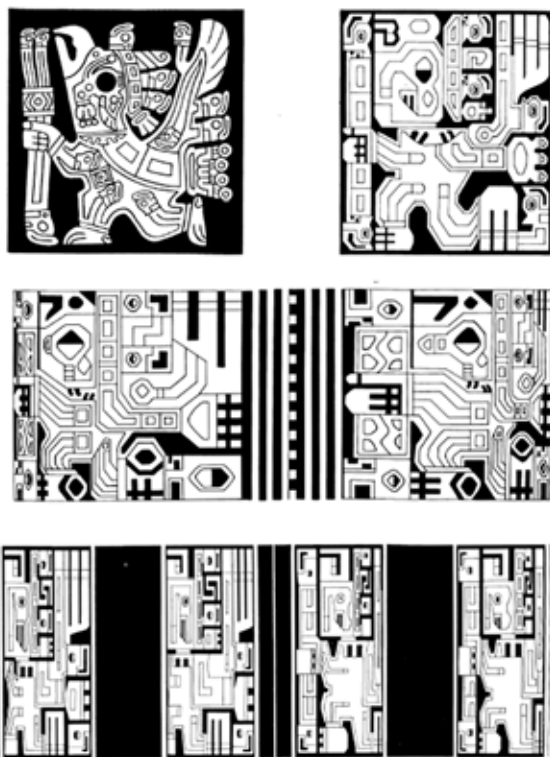


Figure 4. Tiwanaku lateral distortion (adapted from Sawyer 1963: fig. 1).  
 Figura 4. Distorsión lateral Tiwanaku (adaptado de Sawyer 1963: fig. 1).

highly symbolic, unlikely to represent or be based on actual ritual action as seen, for instance, in Moche art (Alva & Donnan 1993; Bourget 2006).

A limited number of studies developed a dialogue emphasizing the uniqueness of Middle Horizon art. This research provided the basis for a scenic approach to Tiwanaku art. Based on observations made by Spielvogel

(1950: 53-55), Sawyer (1963) and Conklin (1986) argued how Tiwanaku and Wari imageries appeared to have developed a fundamentally different set of visual conventions from those visual patterns proper to the Early Intermediate Period. Identified differences included matters of visual perspective, representation of depth, directionality of the images, as well as the spatial organization of the personages. Both their studies focused on woven imagery. Textiles have been central to the understanding of the Andean past, used both as objects for social regulation and as a means to distributing vital information concerning people's worldviews (Murra 2004). Unfortunately, no textiles have been found at Tiwanaku given that environmental conditions in the highlands are not particularly conducive for organic preservation. The study of Tiwanaku woven imagery mainly developed from analyses and comparisons between carved imagery stone monoliths from Tiwanaku and Tiwanaku-influenced images found on textiles from San Pedro de Atacama (northern Chile) (Oakland 1986, 1994; Oakland & Cassman 1995; Uribe & Agüero 2001, 2004; Agüero 2007). Preservation of textiles at San Pedro de Atacama was possible given the dry desert climate in existence there.

Sawyer's analysis of Tiwanaku textiles and tunics showed how woven designs tended to expand or compress, depending on a motifs' relationship to either the edges or the centre of the textile, he termed this "lateral distortion." Such visual distortion on tunics, he argued, was indicative of an evolution in the designs from what he felt were more "realistic" carved images as seen on the Gateway of the Sun monolith to their more "abstract" and intricate counterparts woven on tunics, estimated to date to a later stage of development (fig. 4). To account for the reasons behind this standardized visual distortion, Sawyer thought that it would "appear to have been deliberately applied to counteract the twin dangers of monotony inherent in the severe simplicity of the garments themselves and the strict limits of the iconography they carried" (1963: 31). In effect, the lateral distortion would have been applied to create the illusion of false perspective in order to overcome what he called the "flat sandwich board effect" of the attire. These observations suggested an overall conventionalized pictorial pattern, one forming "a logical system which allowed the weaver considerable flexibility in their combination and emphasis, enabling him to achieve a rich variety of effects while maintaining the distinctive appearance and symbolic meaning required of garments worn by the Tiwanaku official clan" (Sawyer 1963: 38).

Conklin (1986) later proposed an alternative interpretation to this model, one in which he considered

the visual distortion as being rather indicative of the designer's cosmic point of view. Following previous observations made by Kroeber (1949: 442), he also argued how the Tiwanaku stone sculptures represented textiles, and not vice versa.

Conklin discussed what he felt was the correct orientation and viewpoint of the designer/weaver. He argued that textiles were actually designed and crafted by joining two *horizontal* separate pieces of cloth and that the weaver actually meant to configure the visual information as horizontal images—which were later positioned vertically to “fit” the textile into its tunic utility. Based on this new line of reasoning, he argued that Sawyer's lateral distortion was more consistent with what he called a convergence toward a “vanishing horizon” as sets of horizontal lines organized logarithmically (Conklin 1986: 124). The vertical lines, in turn, would serve to divide ‘image units’ that are never logarithmic (Conklin 1986: 125) (fig. 5).

Conklin (1986: 126) applied his analysis of textile imagery and configuration model to the Gateway of the Sun, arguing that the monolith was constructed using similarly configured horizon lines as those on tunics. He concluded that instead of approaching and representing depth using a vanishing point format as seen in Western art, Middle Horizon imagery and architecture appear to have developed a vanishing line format as a conventionalized rule for the representation of visual perspective.

Sawyer's and Conklin's contributions—based on previous observations made by Spielvogel and Kroeber—provided details on how the visual configurations and pictorial modes may have been transformed dramatically during the Middle Horizon in comparison to imagery from earlier Andean periods—such as Moche. Even though these articles are a few decades old, their ideas on the existence of perspective—Sawyer (1963)—and how it may have been conceptualized—Conklin (1986)—remain

relevant today given that they offer an important insight into how to approach Middle Horizon visual art, insofar as iconographic analysis in this area of the Andes, often divorced from a reliable archaeological context or from written sources, is usually, if ever, absolute.

This relationship between Tiwanaku sculpted and woven designs remains generally accepted in current scholarship—particularly how sculpted images appear to imitate textiles and parts of their designs. However, there remains a need to further detail how the underlying pictorial convention directly applies and how it adapts to stone sculpture, specifically.

While textile design configuration may be governed by a fundamental pictorial convention including visual distortion and/or a vanishing line format, images carved on stone do not depend on an equivalent application of the same pictorial convention. For instance, Sawyer (1963: 29) explains how compression and expansion in textile imagery are achieved by “the simple expedient of adding or subtracting from the number of weft threads used to form the elements in a given zone.” In the view of this author, there are no such registered compressions or expansions on Tiwanaku stone carved imagery.<sup>2</sup> Also, while the back of the Gateway monolith may present a horizon-based logarithmic pattern—as noted by Conklin (1986)—the rule does not appear to have been applied on the carved imagery found along the front surface, given that all personages flanking the central personage are not compressed. In fact, the imagery appears to follow a basic equidistant grid.

Instead of examining stone carved imagery in terms of perspective (Sawyer 1963) and technique (Conklin 1986) this article considers the scenic value of the imagery by taking into account spatial organization, i. e., the orientation and position, or locale, of motifs within a given pictorial environment. Moreover, the scenic value is examined by taking into account the imagery that surrounds a specific set of anthropomorphs referred to as Staff Gods.

### Calendar configurations at Tiwanaku

A tool for iconographic analysis is the rollout drawing of a given pictorial environment carved on stone. Using rollout drawings made out of the Tiwanaku stone sculptures, the carvings have often been approached in terms of flat, two-dimensional designs emphasizing patterns and visual conventions such as symmetry, repetition and status (e. g., Posnansky 1945; Makowski 2001a). The motifs carved on the Gateway of the Sun have been interpreted as forming a celestial calendar divided in twelve months (Posnansky 1945; Makowski 2001a;

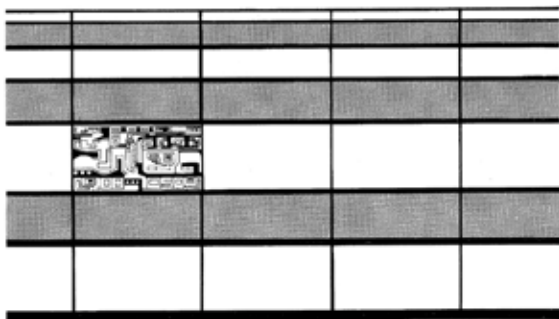


Figure 5. Logarithmic vanishing line with vertical image units (adapted from Conklin 1986: fig. 6).

*Figura 5. Línea de fuga logarítmica con unidades de imagen vertical (adaptado de Conklin 1986: fig. 6).*

Benitez 2006, 2009; Isbell 2008). Indeed, a majority of studies into Tiwanaku imagery have developed from archaeo-astronomical data in an attempt to shed further light on the cosmological ideals of the Tiwanaku culture. For instance, when the Bennett Monolith was discovered in 1934 at the Semi-Subterranean Temple, located east of Kalasasaya, rollout drawings were made. Based on these renderings some argued that the iconography—if treated as a flat, two-dimensional pictorial environment—may have represented a calendar system similar to the one carved on the Gateway (Posnansky 1945, Vol. II: 186; Bellamy & Allan 1959). More recently, Zuidema (2009) has suggested a revised version of the Bennett calendar focusing on the month of December. These interpretations assume a vertical, two-dimensional, approach to the imageries whose symbolic meaning reveals (at least) a mathematical template indicating either solar or lunar cycles (Zuidema 2009). Similar calendar configurations were emphasized based on rollouts of other Tiwanaku stone sculptures such as the Ponce Monolith found at the Kalasasaya in 1957 (Makowski 2001a: 343-345). Such astro-archaeological models are of course not unreasonable given the wealth of literature on the importance of calendar systems in Andean worldviews (Urton 1988; Meddens et al. 2014).

Though not necessarily in disagreement with existing calendar interpretations, this essay aims to examine the imagery from a different standpoint—that is, with a particular interest into further assessing how the different anthropomorphs may relate one to another in forming coherent scenes. While most studies focus on calendar interpretations, others have considered the imagery using a political and social perspective (e. g., Berenguer 1998). This essay explicitly follows this model. Furthermore, it reconsiders the imagery by focusing on pictorial organizations around the Staff God personages specifically. Also central to the present study, is the idea that Staff Gods are not necessarily, or solely, supernatural representations. Some of the images, it is argued, often suggest anthropomorphs of a human nature.

## ANDEAN STAFF GOD IMAGERY

In Andean studies, Staff Gods have played a major role in the development and classification of an Andean culture history; not least because Staff Gods were identified early on as one of few underlying and long-lasting images in Andean prehistory—depicted in various types of media including ceramics, stone sculptures, textiles, and wooden artifacts. Because of their similarity in time and space, these so-called Staff

deities, have served as catalysts (Kolata 1993b: 200) for discussing some of the core concepts in Andean studies such as style (Stübel & Uhle 1892; Uhle 2003 [1903]), stylistic influences and interaction (Rowe 1971), ideology (Lumbreras 1974; Menzel 1964, 1977), as well as religion (Rowe 1946; Demarest 1981) and cosmology (Zuidema 2009).

While its tradition, as a particular type of image, may perhaps be traced back to the Chavín culture on the north-central Andean slopes of Peru (Rowe 1967, 1971), the cult of the Staff God—together with the attendant anthropomorphs that usually flank the Staff deity—has been recognized as the primary and recurring motif of a corporate “international style” shared by the two main Middle Horizon polities, on the one hand Tiwanaku in the circum-Titicaca area, and on the other Wari in the central highlands of Peru (Cook 1983, 1994; Isbell 2008; Isbell & Knobloch 2006, 2009; Isbell 2013). In recent years, Isbell and Knobloch (Isbell 2008, 2013; Isbell & Knobloch 2006, 2009) proposed a vision of the Middle Horizon that further bridges the concept of horizon (Uhle 2003 [1903]; Kroeber 1944; Rowe 1962; Rice 1993) and that of an underlying corporate imagery that spread in the Andean high plateau during roughly *ca.* AD 600-1000 (Cook 1983, 1994; Isbell 1983). In their view, many cultures and local styles in the South Central Andes participated in, and contributed to, the development of a “transcultural” religious imagery called the Southern Andean Iconographic Series (SAIS). Their work has identified the main SAIS motifs—through studies in morphology, their spatial distribution and chronology, as well as correlations with known religious and political practices. In this interpretative model, Staff Gods were identified as the foremost icons of the SAIS religious pantheon and as a vehicle towards examining political fusion during the South Central Andes during pre-Inka times.

At Tiwanaku, Staff Gods were found almost exclusively on stone sculptures. They were often flanked by attendant personages who appeared in profile view; these are usually referred to as floating, kneeling, or running angels (Rowe 1971: 117; Menzel 1977: 33). The central figure of the Gateway is often cited as one of prime occurrences of the Staff God visual theme and the principal deity of Tiwanaku (Posnansky 1945; Chávez 2004: 73; Isbell 2008: 734; Isbell & Knobloch 2009). The Gateway is made out of a single block of grey Andesite, measuring approximately 4 x 3.8 m with a thickness of some 0.50 m. Little is known about the actual function of the monolith, though its location, as it now stands on the North-West corner of Kalasasaya, is probably not the original location of this sculpture.<sup>3</sup>

The Gateway Staff God is flanked by several anthropomorphs in profile view with complex head appendages and holding staff-like attributes.<sup>4</sup> Before discussing the specific details of the Gateway personages, it is useful to briefly review here the intellectual basis of the interpretation of Andean Staff Gods and the role of the Gateway in the understanding of the Andean staffed personages.

The basis of interpretation is mostly ethnohistorical. The expression “Staff God” was first proposed by Rowe (1967: 85) to describe the main figure of the Chavín Raimondi Stele. The same denominator was subsequently used to refer to other such anthropomorphs found throughout the Andes—presented as a frontally positioned human-like figure holding vertical attributes, one in each hand. The Gateway Staff God, in particular, has been cited as a representation of the god creator Viracocha. In his seminal paper on Inka religion, Rowe (1946) contended that the central figure of the Gateway of the Sun could be associated to the god of thunder, Tunupa. He cited, and translated, a passage from Bernabé Cobo’s *Historia del Nuevo Mundo* which stated that:

After the Sun, ranked Thunder, God of Weather, to whom prayers for rain were addressed. He was pictured as a man in the sky, and identified with a constellation. He held a war club in one hand and a sling in the other, and wore shining garments. The thunder was the crack of his sling, the lightning the flash of his garments as he turned, and the lightning bolt was his slingstone (Rowe 1946: 294-295).

Placed in a footnote, Rowe (1946: 245) suggested that, “although there is no reason to assume that the religion of the people of Tiahuanaco was the same as that of the Inca, If [sic] such an assumption is to be made, a very good case could be made out for identifying the central figure on the Monolithic Gateway (‘Portada del Sol’) at Tiahuanaco with ILYAP’A or his Aymara equivalent, THONAPA.” His hypothesis was accepted and applied by many scholars (e. g., Valcárcel 1959: 3; Bankes 1977: 144-146).

Demarest (1981) further developed Rowe’s original thesis. He argued that many of the Gateway personage’s attributes can be verified by further studying the texts written by Molina and Cobo, as well as parts of Sarmiento de Gamboa’s accounts. Demarest cited a passage from a Colonial text. It deals with a particular Inka narrative and it is at the heart of the modern “Staff God” interpretation. The passage narrates a particular moment in the life of the tenth Inka ruler Pachacuti Viracocha Ypanqui. On his way to see his father, *Viracocha Pachayachachic*, it is said that Pachacuti saw an apparition. The myth was first related by Molina, and his account was subsequently reproduced by Cobo. Molina (1916 [1575]: 17-18) wrote that:

Dizen que antes que fuse señor, yendo a uisitar a su padre Uiracocha ynca que estaua en Sacsahuana, cinco leguas de Cuzco, al tiempo que llego vna fuente llamada Susurpuquio vido caer vna tabla de cristal en la misma fuente, dentro de la qual vido vna figure de yndio en la forma siguiente: en la caueça de colodrillo della, a lo alto le salian tres rayos muy resplandecientes a manera de rayos del Sol los vnos y los otros: y en los enquentros de los braços vnas culebras enroscadas; en la caueça vn llanto como ynca y las orejas joradas y en ellas puestas vnas orejas como ynca; y los trajes y uestidos como ynca. Saliale la caueça de vn leon, por entre las piernas y en las espaldas otro leon, los braços del qual parecian abraçar el vn hombro y el otro y vna manera de culebra que le tomava de lo alto de las espaldas abajo. Y que así uisto el dicho bulto y figura hecho a huir ynca Yupanqui y el bulto de la estatua le llamo por su nombre de dentro de la fuente, diciendole “veni aca hijo, no tengais temor, que yo soy el Sol vuestro padre, y se que aueis de sujetar muchas naciones; tened muy gran cuenta conmigo de me reuerenciar y acordaros en vuestros sacrificios de mi” y así desaparecio el bulto y quedo el espejo de cristal en la fuente y el ynca le tomo y guardo; en el qual dicen después uia todas las cosas que quaría.

In turn Cobo (1990 [1653]: 133-134) wrote:

It is said of this Inca that before he became king, he went once to visit his father Viracocha, who was in Jaquijaguana, five leagues from Cuzco, and as he reached a spring called Susurpuquiu, he saw a crystal tablet fall into it; within this tablet there appeared to him the figure of an Indian dressed in this way: around his head he had a *llauto* like the headdress of the Incas; three brightly shining rays, like those of the sun, sprang from the top of his head; some snake were coiled around his arms at the shoulder joints; his ears were pierced and he wore large earplugs in them; his clothing was of the same design as that of the Incas; the head of a lion jutted out from between his legs and he had another lion on his back with its paws around his shoulders; and there was a kind of snake that stretched from the top to the bottom of this back. Upon seeing this image, Pachacuti became so terrified that he started to flee, but the image spoke to him from inside the spring, saying to him: “Come here, my child; have no fear, for I am your father the Sun; I know that you will subjugate many nations and take great care to honor me and remember me in your sacrifices”; and, having said these words, the vision disappeared, but the crystal tablet remained in the spring. The Inca took the tablet and kept it; it is said that after this it served him as a mirror in which he say anything he wanted, and in memory of this vision, when he was king, he had a statue made of the Sun, which was none other than the image he had seen in the crystal, and he built a temple of the Sun called Coricancha, with the magnificence and richness that it had at the time when the Spaniards, because before it was a small and humble structure.

Another passage from Cobo (1892 [1653]: 324, *emphasis added*) accentuates the human appearance of Viracocha:

El dios más respetado dellos, después del Viracocha, era el que más campea y se señala entre todas la criaturas corporales, que es el Sol; cuya veneración creció mucho por la diligencia de los Incas, que como se jactaban de hijos suyos, pusieron todo su conato en autorizarla y levantarla de pinto con más lucio culto, número de sacerdotes y frecuencia de ofrendas y sacrificios. [...] Tenían creído que el Pachayachachic había dado al Sol virtud para criar todas la comidas juntamente con la Tierra, de donde nació tenerlo por la mayor Guaca de todas

después del Viracocha; y así le llamaban Apu-Inti, que quiere decir “el Señor Sol”: *pintábanlo en su imaginación como si fuera hombre*, y consiguientemente decían que la Luna era su mujer y las estrellas hijas de entrambos.

Demarest (1981) also cited a passage from Sarmiento de Gamboa in which he provided additional details regarding the actions of Pachacuti:

[...] Pachacuti made two images of gold. He called one of them Viracocha Pachayachachi. It represented the creator, and was placed on the right of the image of the Sun. The other was called Chuquiylla, representing lightning, placed on the left of the Sun. This image was most highly venerated by all. Inca Yupanqui adopted this idol for is *guauqui* [*Huauqui*, brother], because he said that is had appeared and spoken in a desert place and had given him a serpent with two heads, to carry about with him always, saying that while he had it with him, nothing sinister could happen in his affairs (Sarmiento de Gamboa 1999 [1615]: 101).

If read together, the texts fit well with the Gateway Staff God as being the representation of Viracocha holding a spear-thrower, perhaps in the form of a double-headed serpent (Stone-Miller 2002: 133). There are limitations, however. There is nothing particularly specific to the Gateway image in the texts. There are evidently a number of compelling details that suggest that the central figure of the Gateway of the Sun may indeed be the representation of, or a reference to, an Andean divinity holding arrows and a spear-thrower. However, it could also be argued that representations of weaponry also point to individuals of a non-supernatural nature. Similar weaponry is also found on a set of Tiwanaku human-like personages painted on drinking vessels (*kero*) and referred to as warriors (Ponce-Sanginés 2003; see also Kolata 2004: 109). These personages hold what appear to be arrows and a type of weapon, possibly a spear-thrower (fig. 6).

Other Staff Gods at Tiwanaku also show similar attributes. For instance, comparisons can be made between some staff attributes and Peruvian throwing sticks published by Uhle in 1909 (fig. 7). The upper and lower hook-like objects on Uhle’s photographed throwing sticks bear a striking resemblance with the upper and lower motifs on the left staff of the Ponce Staff God (fig. 8). The pattern is also repeated on other Staff Gods such as one painted on a ceramic vessel at Conchopata (fig. 9). Also comparable to throwing sticks are the “staffs” of some Moche personages (fig. 10).

Still, the “staff” attribute as being weapon-like applies to a limited number of such personages. A survey of other Staff God personages found in other areas of the Andes shows how the staff attribute varies considerably from one personage to another. This partly explains the variability in the staff attribute being interpreted



Figure 6. Tiwanaku drinking vessel with warrior personage (Museo Regional Tiwanaku. Photo: M. Viau-Courville).

Figura 6. Vaso kero Tiwanaku con personaje guerrero (Museo Regional Tiwanaku. Foto: M. Viau-Courville).

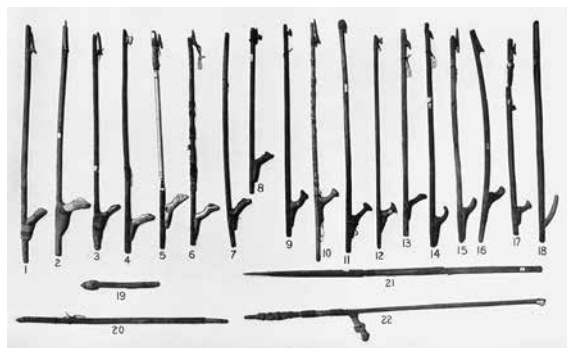


Figure 7. Peruvian throwing sticks published by Uhle (1909: 62).

Figura 7. Lanzas peruanas publicadas por Uhle (1909: 62).

throughout the literature as flutes (Iriarte 1998), snakes/serpents (Rivero & Tschudi 1851: 296; Squier 1877: 290; O’Connor-d’Arlach 1910: 719; Demarest 1981: 58), lightning (Mitre 1954: 77), or sceptres representing the “power in both hands” (Valcárcel 1959: 3).

Personages from the South coast of Peru hold attributes in the form of—single headed—serpents (fig. 11). Others carved on wooden trays from San Pedro de Atacama also show various sets of ‘staffs’ inconsistent



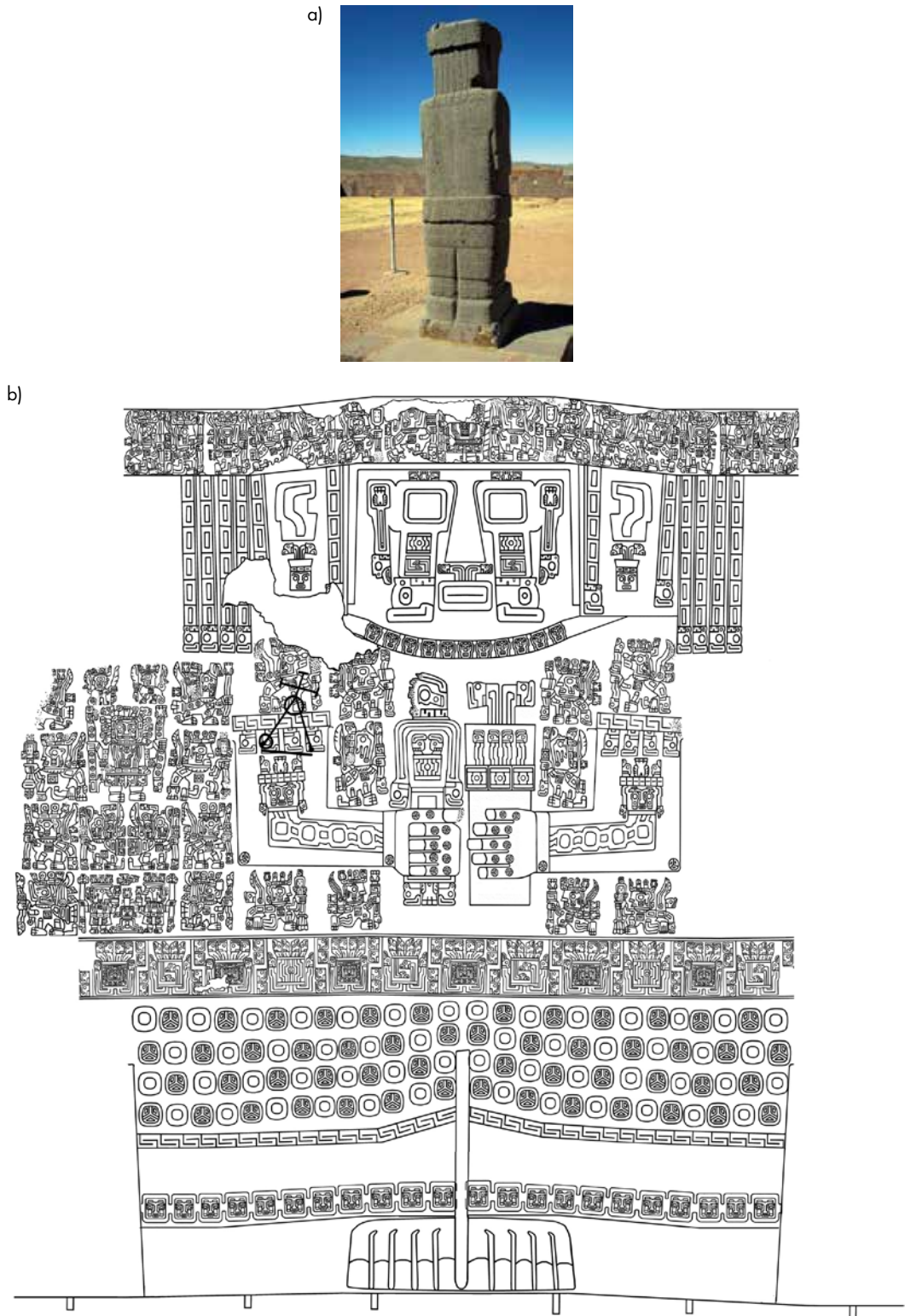


Figure 8.a) Back side of the Ponce Monolith (photo: María Ruiz-Castell); b) Fine-line drawing of the Ponce Monolith (courtesy of Constantino M. Torres & Donna Torres). The triangle-shaped engraving on the upper-left portion is the result of contemporary tampering of Tiwanaku stone sculptures.

Figura 8.a) Parte trasera del monolito Ponce (foto: María Ruiz-Castell); b) Dibujo del monolito Ponce (cortesía de Constantino M. Torres y Donna Torres). El motivo triangular grabado en el apartado izquierdo corresponde a manipulaciones recientes de las esculturas Tiwanaku.



Figure 9. Fragment from Conchopata with “Staff God” personage (Museo Histórico Regional Ayacucho, Peru. Photo and drawing: M. Viau-Courville).

Figura 9. Fragmento de Conchopata con el personaje “Dios de báculos” (Museo Histórico Regional Ayacucho, Perú. Foto y dibujo: M. Viau-Courville).



Figure 10. Moche personage (left) with bird motif on the lower register of its staff and a hook-like attribute on the upper portion (adapted from Donnan 1978: 17, fig. 25).

Figura 10. Personaje moche (izquierda) con motivo ornitomorfo en la parte inferior de su báculo y una especie de gancho en su porción superior (adaptado de Donnan 1978: 17, fig. 25).



Figure 11. Ceramic vessel with Pacheco-style “Staff God” personage (Museo Nacional de Arqueología, La Paz. Photo: M. Viau-Courville).

Figura 11. Vasija de cerámica con “dios de báculos”, estilo Pacheco (Museo Nacional de Arqueología, La Paz. Foto: M. Viau-Courville).

with spear-throwers. In fact, personages from both San Pedro de Atacama and Tiwanaku include attributes consistent with known practices associated with the use of hallucinogens (Torres 2004, 2008; Torres & Repke 2006; Torres & Torres 2014). At Tiwanaku, personages carved on a black basalt block exemplify the representation of such attributes, displaying what are most likely a *kero* drinking vessel on one hand, and a snuff tablet on the other (fig. 12; for a detailed study of this imagery see Berenguer 1998).

Thus Staff Gods do not all necessarily fit well with the underlying Viracocha, or “God” interpretation. In fact, it seems more appropriate to approach the personages in terms similar to those described by Steele and Allen (2004: 243), in that “It is possible that this standardized figure could have represented a variety of individual identities that depended upon the context in which they were created.” The personages, then, seem rather a type of front-faced personage represented holding different kinds of paraphernalia, not just spear-throwers, and most certainly not just “staves” (see also Quilter 2012). This suggests a *type* of individual—much like the Sacrificer observed in Middle Horizon art (Cook 1994)—instead of a specific supernatural entity. The latter, it would appear, suggests that Tiwanaku art would include cases of divine anthropomorphism—that is, a god represented in human-like form. This still remains a difficult hypothesis to maintain given the lack of written evidence from this period or area of the Andes.

## TIWANAKU SCENES



Figure 12. Basalt block (46.5 cm x 16.3 cm) excavated at the Semi-Subterranean Temple with “Staff God” personages (Museo Lítico de Tiwanaku. Photo: M. Viau-Courville).

Figura 12. Bloque de basalto (46,5 x 16,3 cm) excavado en el templo semisubterráneo, con “dioses de báculos” (Museo Lítico de Tiwanaku. Foto: M. Viau-Courville).

Using a rollout drawing of the Bennett Monolith (fig. 13), four rows can be identified when applying an equidistant grid. Three correspond to attendant personages and one to the meander. Each row appears roughly of the same height. Secondary elements also appear to correspond to half a row. The greater size of the central personage by comparison suggests its higher status (see also Cook 1994). Its authoritative role is also suggested by being positioned on top of a pedestal-like attribute. Proportionally, also, the significant size of the two isolated heads on pedestals—referred to elsewhere as Rayed-heads (Isbell & Knobloch 2006, 2009)—may also suggest that these played a central role in the imagery and its overall agency.

Figure 13 shows consistency with the equidistant grid of the Gateway of the Sun carvings. The Bennett imagery also follows the basic configuration of a central personage

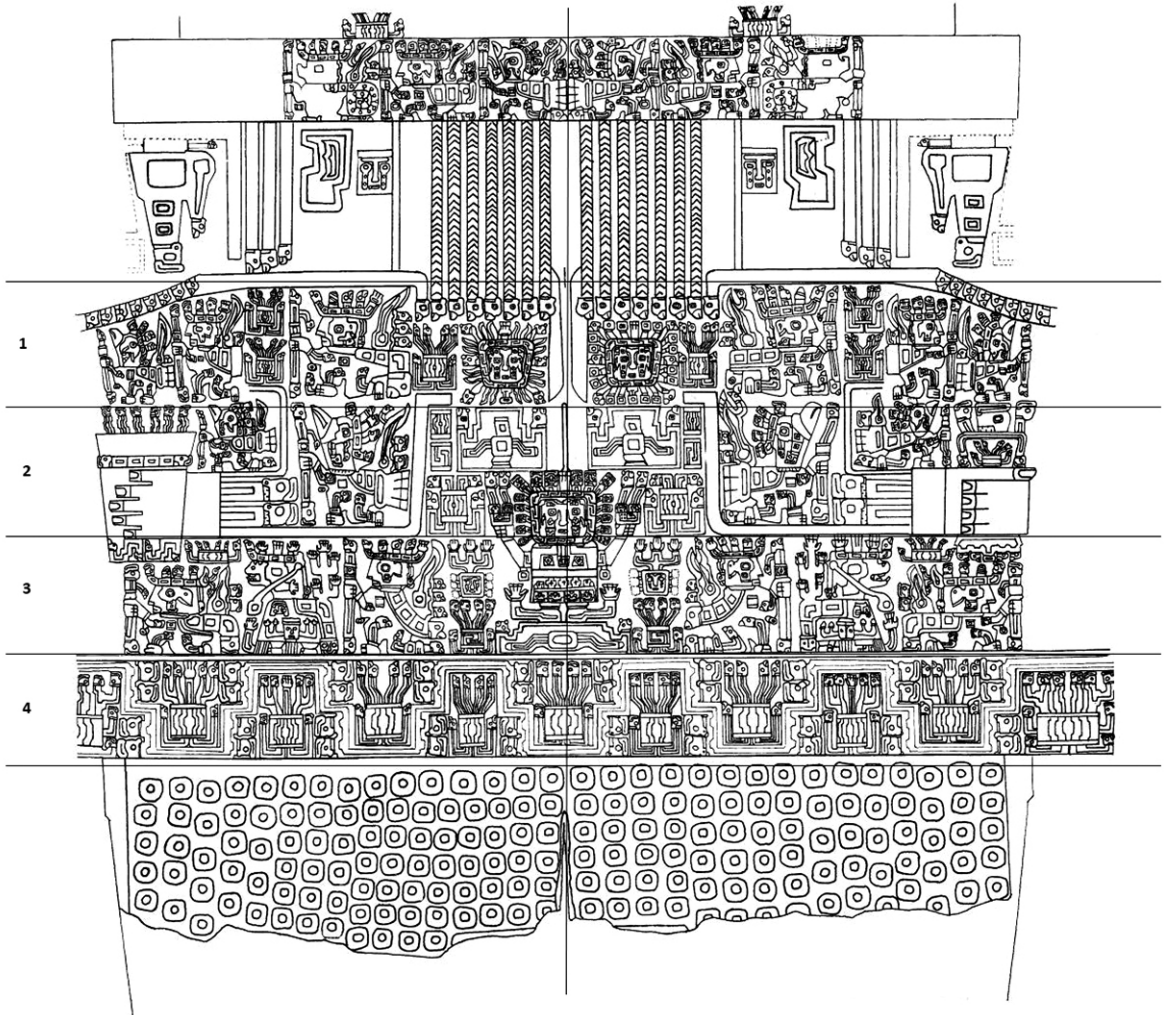


Figure 13. Rollout drawing of the Bennett Monolith (adapted from Posnansky 1945).

Figura 13. Dibujo del monolito Bennett desplegado (adaptado de Posnansky 1945).

flanked by a set of attendants. More importantly, the imagery appears as an organized pictorial environment following rules of proportional representation (Panofsky 1970). We can assume a conceptual relationship between the various represented anthropomorphic personages, i. e., between central personages and attendants where the constant greater size of the former emphasizes its high status. Such appearance of a visual convention in Tiwanaku art for representing size and status further highlights the necessity, and possibility, of rethinking these images in terms of coherent scenes.

This approach to the Bennett or Gateway imageries in terms of scenes or narratives remains controversial in current scholarship and a thorough consideration of its relevance to interpretation remains a central aim of this essay. Arguments supporting a scenic interpretation have been advanced in recent years. For instance, Berenguer (2000: 32-33) described the rapport between staffed personages and attendants as a type of shaman-devotee relationship. Such an interpretation goes a long way into understanding the imagery backed by a social and political framework. This interpretation also implied that the central “Staff God” personage was the representation of a real individual shown while performing a religious act and not a representation of a supernatural entity, i. e., not a case of divine anthropomorphism in Andean art. Clados (2009) recently considered the possible intention of Tiwanaku artists to reduce three-dimensional spaces into two-dimensional designs. Central to her argument were the curves of the meander of the Gateway of the Sun as not representing an up and down pattern, but one of back and front (Clados 2009: 104-107). She compared the meander with a painted serpent on a ceramic kept at the Museo Regional de Tiwanaku (fig. 14). In her view, “transferred to space with perspective, the Gateway of the Sun unfolds as [...] a bicephalous serpent moving in serpentine on the ground with twelve rayed faces to the right and left of the serpent’s body” (Clados 2009: 104). By applying what she referred to as “three-dimensional glasses,” she argued that Tiwanaku iconography offers surprising results of horizontal ground-based visual spaces—what she also referred to as “ground lines.”<sup>5</sup>

Such insights from Berenguer (2000) and Clados (2009), in addition to those previously suggested by Sawyer (1963) and Conklin (1986) among others support the hypothesis of a scenic approach to Tiwanaku art. Their observations also provide further context to similar observations made by earlier scholars of Tiwanaku art, who described a central personage who is being paid homage to (Grandidier 1861: 224; González de la Rosa 1909: 413-417; Gallo 1925: 95). Janusek (2006: 485) also recently highlighted the scenic organization of the imagery,



Figure 14. Ceramic with serpentine figure (Museo Regional Tiwanaku. Photo: M. Viau-Courville).

*Figura 14. Cerámica con figuras serpentina (Museo Regional Tiwanaku. Foto: M. Viau-Courville).*

emphasizing “a central deity (or deity impersonator) that faces the viewer, surrounded on either side by three rows of winged, genuflecting attendants rendered in profile, all above a serpentine band that weaves around eleven repeating faces of the central figure.” Torres and Torres (2014) also refer to these scenic organizations in terms of *procesiones* or processions.

Above we saw how Conklin (1986) argued that Tiwanaku woven images were designed in accordance to a logarithmic horizon line. Tiwanaku iconography on stone manifests rather following an equidistant horizontal configuration. Applying equidistant grids, in addition to

a front and back interpretation of proportional representation as Clados (2009) suggests, parts of Tiwanaku carvings indeed become compelling representations of real individuals—be they ritual specialists or deity impersonators—engaged in a specific, albeit static activity. This was evident in the imagery carved on the Pachacama Monolith<sup>6</sup> that included a central personage wearing what was possibly elite clothing, attended by others in profile view (fig. 15). The Cochamama Monolith, found south of the Akapana, may also represent such a scenic configuration, though in this case instead of being surrounded by other anthropomorphs, the central figure appears flanked by sets of unidentified elements (fig. 16).

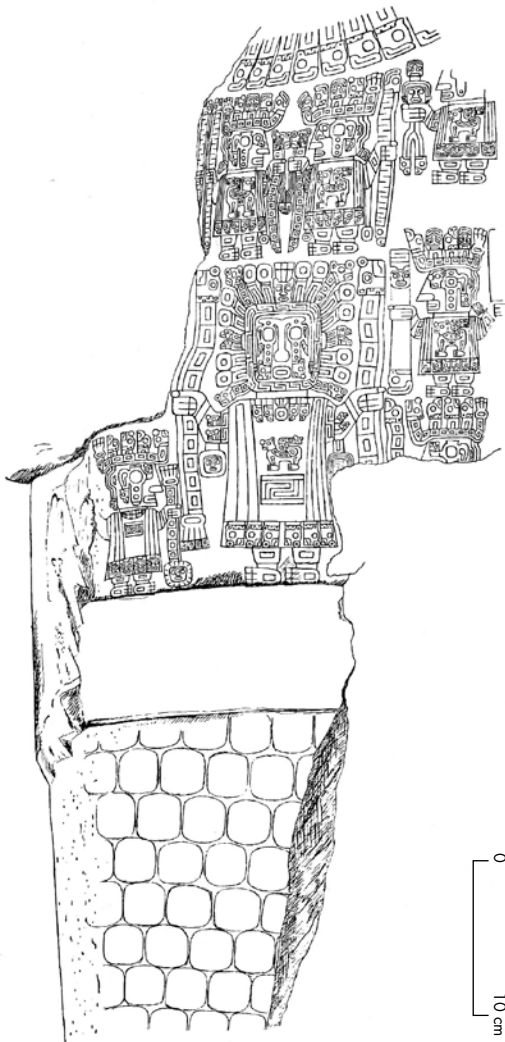


Figure 15. Drawing of a section of the Pachacama Monolith by Posnansky (Posnansky collection, Museo Nacional de Arqueología, La Paz).

*Figura 15. Dibujo de una sección del monolito Pachacama, realizado por Posnansky (colección Posnansky, Museo Nacional de Arqueología, La Paz).*

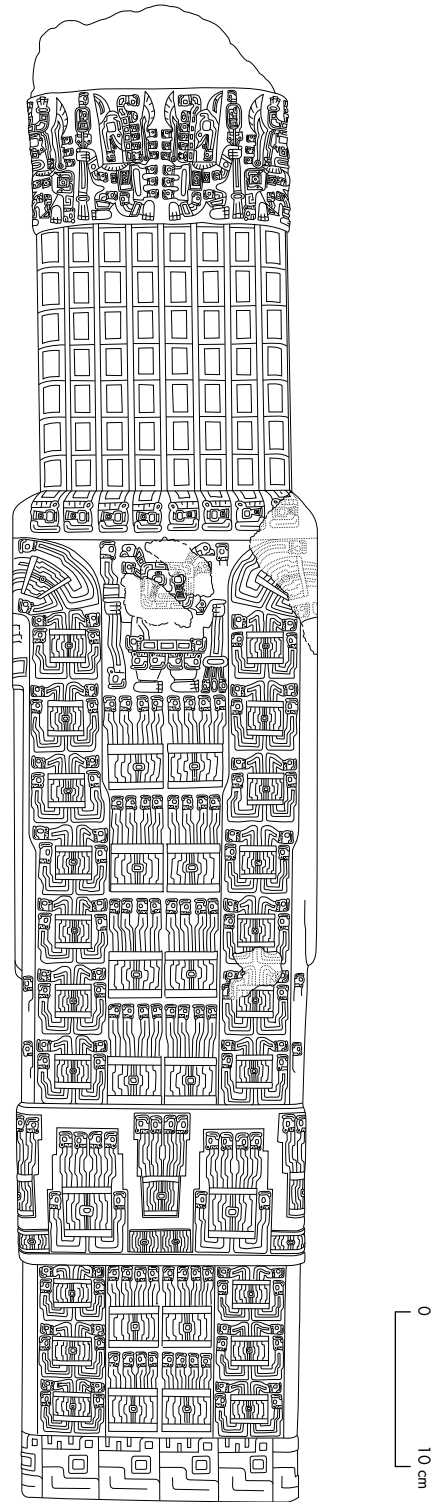


Figure 16. Drawing of the back side of Cochamama Monolith (Posnansky collection, Museo Nacional de Arqueología, La Paz).

*Figura 16. Dibujo de la parte trasera del monolito Cochamama (colección Posnansky, Museo Nacional de Arqueología, La Paz).*

Certain aspects of the Tiwanaku scenes require further explanation, however, such as the fact that personages sometimes do not appear to face the central personage—an oft cited characteristic of Tiwanaku art was its abstract and non-scenic character (e. g., Makowski 2001b). Both the Bennett and Ponce Monoliths include attendant personages facing away from the central personage. Of course, should central personages be, in fact, deities it would be highly unusual for the attendant figures to face away from them. The rationale would thus in part justify heraldry in the composition, a reasonable argument made elsewhere (see, e. g., Makowski 2001a: 346, 2001b: 78-79, 2009: 148-149). However, as previously discussed, there is little direct evidence to support the idea that the personages are gods. Their attributes and spatial organization rather points to their status as ritual practitioners, or at least divinity impersonators, following Janusek's (2006) suggestion. Because central personages are larger they represent the leading function in the context of the images. The pedestal attribute also legitimizes the power relation between central and attendant personages (Cook 1983: 179, 1994; Goldstein 1993: 24-25). In his study of embodied practices and social memory, Connerton (1989: 73) also maintained that "Power and rank are commonly expressed through certain postures relative to others; from the way in which people group themselves and from the disposition of their bodies relative to the bodies of others, we can deduce the degree of authority which each is thought to enjoy or to which they lay claim."

Instead of interpreting the unusual orientation of the personages as the result of visual heraldry, it is useful here to consider matters of directionality at Tiwanaku. Keeping the example of the Bennett imagery, its original orientation is unknown.<sup>7</sup> However, wherever the monolith might have originally been located and oriented, it was surely an element of veneration. It is reasonable to assume interplay between the monolith, its carved imagery and fundamental aspects at Tiwanaku in relation to space, specifically notions of spatial orientation of Tiwanaku architecture. For the directionality of the carved imagery might have been configured accordingly.

### Axiality in Tiwanaku architecture, urban planning, and stone carved imagery

Tiwanaku has been described as an architectural model of the natural world—perhaps modeled after the nearby Quimsachata mountain chain and its springs (Kolata 1993a). Further studies in Tiwanaku architecture by Janusek (2006: 486) showed "a significant shift in axiality from north-south-oriented structures that made reference to

local natural features, to east-west-oriented monumental complexes that made visual and metaphorical reference to more distant mountains and celestial cycles." Tiwanaku architecture is indeed oriented according to specific axes based on specific elements from the immediate environment—e. g., cardinal directions, celestial cycles, visual pathways, and so on (Janusek 2004a: 153). It is therefore not unreasonable that stone sculptures and their iconographies were aligned, and designed, in accordance to such elements and principles.

Around AD 700, Tiwanaku experienced significant changes in monumental architecture and usage of ceremonial spaces, a shift probably linked with the sudden growth of its population as well as the rise in power of its local elite (Ponce-Sanginés 1981; Couture 2002, 2004; Kolata 2003; Isbell & Vranich 2004: 172-175; Janusek 2004b: 203-226, 2006; see also Vranich 2009: 22-30). The Semi-Subterranean Temple and the Kalasasaya complex, both acquired new meaning during this period, their symbolic spaces gradually being used by elite lineages to legitimize their power (Kolata 2004: 130). The Semi-Subterranean Temple underwent significant renovations including a new floor and stone sculptures such as the Bennett Monolith and the Basalt Stone (Ponce-Sanginés 2001 [1963]). The Kalasasaya complex was also enlarged and embellished to outline its east-west axiality (Janusek 2006: 475-476).

A fundamental characteristic of Tiwanaku architecture during the later phases was described by Conklin (1991: 290) as "an obsession with the horizon and the horizontal;" furthermore Conklin suggested that the Tiwanaku complex was designed according to the actual level of the ground so as to "convey religious imagery and to impress." For Kolata (2004: 133), the installation of the Bennett and Ponce Monoliths inside the Semi-Subterranean Temple and Kalasasaya, respectively, was an indication of the sudden shift in importance of both architectural complexes: "the Bennett and Ponce stelae probably represent the founding figures of specific and increasingly powerful noble lineages, or dynasties, which had appropriated the site's oldest and most prestigious temples."

Axiality, space, and the partition of space, were central to Tiwanaku thinking and defined its agency-based architecture and urban planning. Sculpted images like the Bennett or Ponce Monoliths were positioned and oriented strategically inside the ceremonial cores. Directionality of the imagery carved on stone monoliths, especially stelae, may have likewise followed the course of external agents, not central personages. Recent arguments by Bandy's (2013) discuss the directional indicators of energy or "sami" in imagery of Tiwanaku

carved stones provides further evidence to suggest that directionality may have been a matter concerning an external agent and not focused on central personages. For Bandy (2013: 144-145), the various zoomorphic or geometrical motifs in Tiwanaku art, such as the “rays” surrounding the faces of various central personages, are “direction indicators” that “may perhaps be generally interpreted as representing dynamic flows of energy, something akin to the Quechua concept of *sami*.” Such flows and distribution of energy may be represented by the two heads “emanating” from the *kero* attribute held in the hands of most Tiwanaku stelae, such as the Ponce, representing bubbles and foam (Bandy 2013: 145). The fact that these heads face opposite to each other may be attributed to circulation (of energy).

The pedestal-like motif on which the central personage of the Gateway appears to stand is most often interpreted as a symbolic representation of a pyramid, probably the Akapana (Goldstein 1993: 24-25; Chávez 2004: 93; see also Torres 2004). If so, the motifs in the centre portion of the pyramid would also seem to follow the path of the staircase, perhaps emphasizing the importance of water and its circulation in Tiwanaku cosmology. What is significant is the possibility that the visual convention of representing models from the immediate environment—such as buildings that resemble the Akapana—with accompanying motifs that may emphasize directionality.

In this context, that the attendant figures are placed opposite to the central personage, in and of itself, is not indicative of these images as not being scenes. Instead, the change in their directionality—facing opposite to the central personage—appears to further support arguments such as those by Bandy that directionality governs the spatial organisation of the scenes; thus perhaps suggesting that the profile anthropomorphs, as ritual participants, were walking away from the central personage having received, and now disseminating messages following a ritual activity.

## CONTINUITY IN SPATIAL ORGANIZATION

Let us now re-examine the rollout drawing of the Bennett iconography and focus our attention and discussion on the main motifs adjacent to the central personage. This forms a scene that includes a central personage, attendants—facing the central personage or not—and two isolated motifs (the Rayed-heads on pedestals) placed in what would be the space “behind” the central personage. The scene is not exceptional.

In fact, the imagery appears to reproduce a pattern of scenic configuration that dates to earlier phases of Andean development. The scene carved on the Bennett Monolith displays a similar spatial configuration to one found on a Recuay vessel, representing a central personage, attendants, along with two additional elements that complete the scene (behind the central personage) (fig. 17a). Other Recuay vessels further emphasize central personages with attendants, seen for instance in various ceramics from the Berlin collections (see Eisleb 1987, color plate IV, N° 175) (fig. 17b). The Pañamarca scene painted on a Moche mural on the North coast of Peru, now destroyed, is another example of a similar scenic configuration to that from Tiwanaku in which an underlying high status central personage is flanked by subsidiary attendants (fig. 18).

A common characteristic in both Recuay and Moche examples is that neither of them represents cases of divine anthropomorphism. Recuay imagery rather displays chiefs and their social relations (Lau 2006, 2011, 2013), while the Moche portray ruling elites engaged in ritual action (Alva & Donnan 1993). Though more archeological evidence is assuredly needed to further support studies in Tiwanaku iconography, a scenic approach to the Tiwanaku pictorial environments allows shifting focus from divine anthropomorphism to ritual action—scenes of either actual ritual action or depictions of idealized behavior.

## CONCLUSION

The aim of this article was that of highlighting certain aspects of Tiwanaku stone carved iconography, especially its scenic potential. An examination of Staff God imagery reveals how some elements indicate that these personages may be human representations engaged in ritual action rather than divine figures. Comparisons with Moche and Recuay scenic configurations also give further meaning to such a hypothesis.

As suggested elsewhere, stone carved images may have been of a didactic nature likely portraying idealized models of human bodily being (Conklin 2004, 2009). Studies by Sawyer, Conklin and Clados provide details as to how Middle Horizon visual art may have differed significantly by comparison to imagery found in previous periods of Andean culture. However, the content that it may display on stone, may actually reiterate a known Andean pattern of representing important (human) individuals and their attendants, in this case ritual specialists attended by ritual participants. Instead of approaching the imagery in terms of iconographic heraldry and



Figure 17. a) Recuay scene with central personage and attendants (from Lau 2010: fig. 15c; Museo Nacional de Arqueología, Antropología e Historia del Perú, Lima); b) Recuay scene with central personage and attendants (from Eisleb 1987: color plate IV, N° 175).

*Figura 17. a) Escena Recuay con personaje central y asistentes (tomado de Lau 2010: fig. 15c; Museo Nacional de Arqueología, Antropología e Historia del Perú, Lima); b) Escena Recuay con personaje central y asistentes (tomado de Eisleb 1987: lámina en color IV, N° 175).*

testimonies of past calendar and cosmological ideals, this essay approached central personages—the “Staff Gods”—as parts of organized scenes where anthropomorphs relate to each other.

Isbell (2013: 167) recently pointed to the fact that many key aspects of the Andean past have been subject to “factoidal” interpretations. A term coined by Yoffee (2005: 7), factoidal interpretations, of factoids, are those unsubstantiated ideas that are repeated over a significant amount of time to the point where they become more convincing than the actual facts. Staff Gods, as argued here, are probably one of the most enduring factoids in Andean studies. The idea the figures may all be representations of gods or that the central personage of the Gateway of the Sun may be a high ruling god are both “factoids.” By reviewing the nature of the Staff God interpretation, the intention of this essay was not to prove—or disprove—“what” the personages are. In fact, such efforts of interpretation are rarely, if ever, conclusive in studying past societies devoid of the written word. Quite the contrary, the contention is that if the figures are indeed representations of “gods,” i. e., cases of Andean divine anthropomorphism, then a more compelling question arises at to how the classification further informs on past Andean society. Indeed, the “god”

interpretation in itself, as a category, means very little (Pyysiäinen & Ketola 1999; Pyysiäinen 2003).

Anthropomorphism, for the iconographer, is an interpretative tool. It can be useful in providing a first rationale for still unidentified complex anthropomorphs with counter-intuitive attributes. But such an assumption is speculative, as it is theoretical rather than verifiable, particularly in cases of pre-literate prehistoric societies.

While “what” the images may have represented remains an interesting and definitely essential question, how and why they were crafted and positioned the way they were have been, for the purposes of this article, issues of much greater importance. Accordingly, this essay joins recent discussions (e. g., Urton 2008: 227; Quilter 2012; also Conklin 2009) that question the overall use of the term “Staff God” as one that may in fact cloud important continuities and discontinuities in the Andean past.

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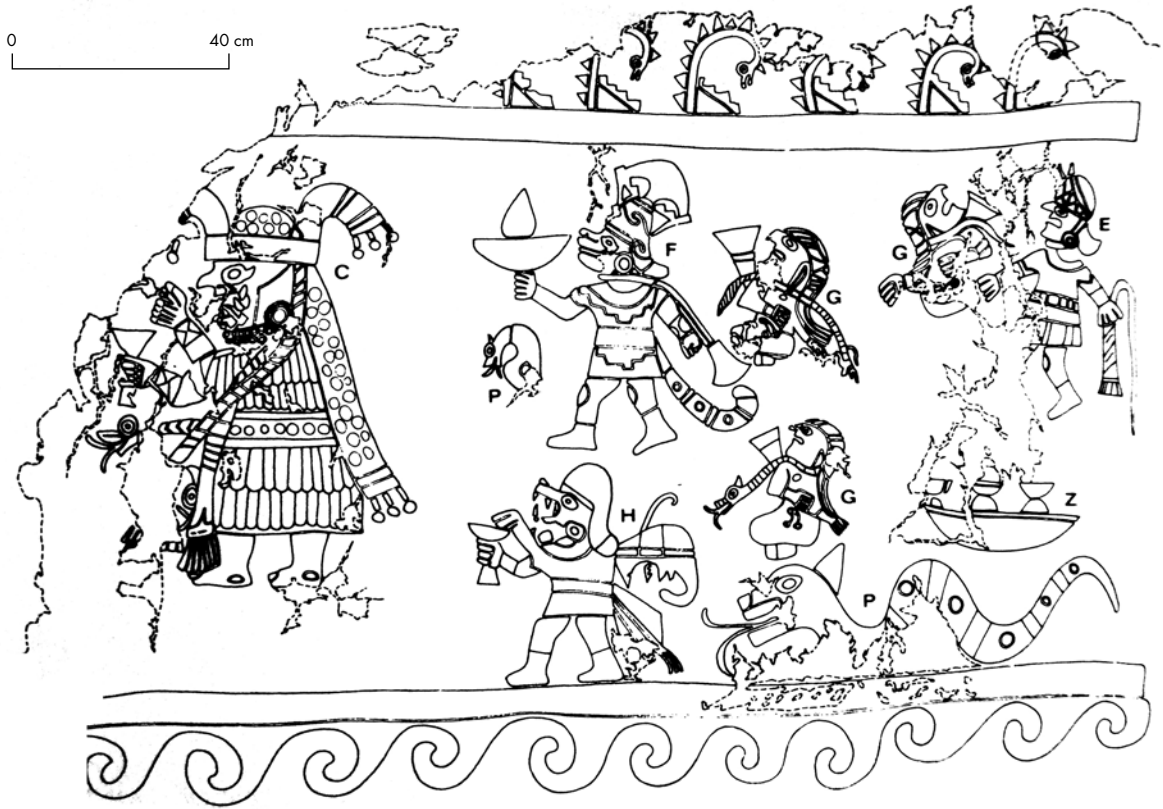


Figure 18. Drawing of a mural painting from Pañamarca (adapted from Donnan 1979: 415, fig. 6).  
 Figura 18. Dibujo de una pintura mural de Pañamarca (adaptado de Donnan 1979: 415, fig. 6).

Museum's collections. I would thank Pablo Rendón, George F. Lau, Kevin Lane, and the three anonymous referees for their valuable advice. Furthermore, I thank Constantino M. Torres and Donna Torres for my use of their drawings of Tiwanaku stone sculptures. Any errors remain my own.

## NOTES

<sup>1</sup> Various studies have contributed to the development of a narrative approach to Moche iconography. See, e. g., Castillo 1989; Golte 1994; Makowski 2002.

<sup>2</sup> We can expect however to find the occasional reduced motif to 'fit' a specific pictorial space.

<sup>3</sup> The monolith was probably moved from its original location, either the Akapana or Puma Punku (Ponce-Sanginés 1981; Conklin 1991: 285, 2009: 115; Protzen & Nair 2000, 2001, 2002, 2013; see also Bennett 1963: 112).

<sup>4</sup> Measurements for the Staff God (without the pedestal) are 0.62 x 0.55 m and for each attendant personage (an average of) 0.145 x 0.14 m (Schaedel 1952: 257-258, *Tiahuanaco R-5*).

<sup>5</sup> Panofsky (1970) observations of a similar logic of representation in Egyptian art further illustrate this principle: "For to determine the 'objective' proportions of a subject, i. e., to reduce its height, width and depth to measurable magnitudes, means nothing else but ascertaining its dimensions in frontal elevation, side elevation and ground plan. And since an Egyptian representation was limited to these three plans (except that the sculptor juxtaposed while the master of a two-dimensional art fused them), the 'technical'

proportions could not but be identical with the 'objective.' The relative dimensions of the natural object, as contained in the front elevation, the side elevation and the ground plan, could not but coincide with the relative dimensions of the artefact" (1970: 87).

<sup>6</sup> The monolith was dynamited a few years before the publication of Posnansky's 1945 volumes (see 1945, Vol. II: 166). There is little contextual information indicative of its original location apart from the fact that it was found at the Kalasasaya complex (Posnansky 1945: 216-219; see also Schaedel 1952: 253, 'Tiahuanaco 20'). The remaining pieces of the monolith are now kept at the Tiwanaku site museums.

<sup>7</sup> The monolith was found buried at the Semi-Subterranean Temple (Bennett 1956). Its original orientation within the temple remains unknown, however.

## REFERENCES

- ALVA, W. & C. B. DONNAN, 1993. *Royal Tombs of Sipán*. Los Angeles, CA: Fowler Museum of Culture History, UCLA.
- AGÜERO, C., 2007. Los textiles de Pulacayo y las relaciones entre Tiwanaku y San Pedro de Atacama. *Boletín del Museo Chileno de Arte Precolombino* 12 (1): 85-98.
- BANDY, M., 2013. Tiwanaku Origins and the Early Development: The Political and Moral Economy of a Hospitality State. In *Visions of Tiwanaku*, A. Vranich & C. Stanish, Eds., pp. 135-150. Los Angeles, CA: Cotsen Institute of Archaeology Press.
- BANKS, G., 1977. *Peru before Pizarro*. Oxford: Phaidon.
- BELLAMY, H. S. & P. ALLAN, 1959. *The Great Idol of Tiahuanaco*. London: Faber & Faber.

- BENITEZ, L., 2006. *The Temporal Framework for a Mythological Pantheon*. Paper presented at the Society for American Archaeology 71<sup>th</sup> annual meeting, San Juan.
- 2009. Descendants of the Sun: Calendars, Myth, and the Tiwanaku State. In *Tiwanaku: Papers from the 2005 Mayer Center Symposium at the Denver Art Museum*, M. Young-Sánchez, Ed., pp. 49-82. Denver, CO: Denver Art Museum.
- BENNETT, W., 1956. *Excavaciones en Tiabuanaco*. La Paz: Biblioteca Paceaña.
- 1963. The Archaeology of the Central Andes. In *Handbook of South-American Indians, 'The Andean Civilizations'*, J. H. Steward, Ed., pp. 61-147. New York: Cooper Square.
- BERENGUER, J., 1998. La iconografía del poder en Tiwanaku y su rol en la integración de zonas de frontera. *Boletín del Museo Chileno de Arte Precolombino* 7: 19-38.
- 2000. *Tiwanaku. Señores del Lago Sagrado*. Santiago: Banco de Santiago/Museo Chileno de Arte Precolombino.
- BOURGET, S., 2006. *Sex, Death and Sacrifice in Moche Religion and Visual Arts*. Austin, TX: University of Texas Press.
- BOURGET, S. & K. L. JONES (Eds.), 2008. *The Art and Archaeology of the Moche*. Austin, TX: University of Texas Press.
- CASTILLO, J. L., 1989. *Personajes míticos, escenas y narraciones en la iconografía Mochica*. Lima: Fondo Editorial PUCP.
- CHÁVEZ, S. J., 2004. The Yaya-Mama Religious Tradition as an Antecedent of Tiwanaku. In *Tiwanaku: Ancestors of the Incas*, M. Young-Sánchez, Ed., pp. 70-75, 81-85, 90-93. Denver, CO: Denver Art Museum.
- CLADOS, C., 2009. New Perspectives on Tiwanaku Iconography. In *Tiwanaku: Papers from the 2005 Mayer Center Symposium at the Denver Art Museum*, M. Young-Sánchez, Ed., pp. 101-114. Denver, CO: Denver Art Museum.
- COBO, B., 1892 [1653]. *Historia del Nuevo Mundo* (Tomo III). Sevilla: Imp. de E. Rasco.
- 1990 [1653]. *Inca Religion and Customs*. Austin, TX: University of Texas Press.
- CONNERTON, P., 1989. *How Societies Remember*. Cambridge, MA: Cambridge University Press.
- CONKLIN, W., 1970. Peruvian textile fragment from the Beginning of the Middle Horizon. *Textile Museum Journal* 3 (1): 15-24.
- 1986. The Mythic Geometry of the Ancient Southern Sierra. In *The Junius B. Bird Conference on Andean Textiles, April 7<sup>th</sup>-8<sup>th</sup>, 1984*, pp. 123-135. Washington, D. C.: Textile Museum.
- 1991. Tiahuanaco and Huari: Architectural Comparisons and Interpretations. In *Huari Administrative Structure, Prehistoric Monumental Architecture and State Government*, W. H. Isbell & G. F. McEwan, Eds., pp. 281-292. Washington, D. C.: Dumbarton Oaks Research Library.
- 1996. Structure as Meaning in Ancient Andean textiles. In *Andean Art at Dumbarton Oaks*, E. H. Boone, Ed., pp. 321-328. Washington, D. C.: Dumbarton Oaks Research Library.
- 2004. Las piedras textiles de Tiwanaku. In *Tiwanaku: Aproximaciones a sus contextos históricos y sociales*, M. Rivera & A. Kolata, Eds., pp. 235-264. Santiago: Universidad Bolivariana.
- 2009. The Iconic Dimension in Tiwanaku Art. In *Tiwanaku: Papers from the 2005 Mayer Center Symposium at the Denver Art Museum*, M. Young-Sánchez, Ed., pp. 115-132. Denver, CO: Denver Art Museum.
- COOK, A., 1983. Aspects of State Ideology in Wari and Tiwanaku Iconography: The Central Deity and Sacrificer. In *Investigations of the Andean Past: First Annual Northeast Conference on Andean Archaeology and Ethnohistory*, D. H. Sandweiss, Ed., pp. 161-183. Ithaca, NY: Latin American Studies Programme, Cornell University.
- 1994. *Wari y Tiwanaku: Entre el estilo y la imagen*. Lima: Fondo Editorial PUCP.
- COUTURE, N., 2002. The Construction of Power: Monumental Space and Elite Residence at Tiwanaku, Bolivia. Unpublished PhD thesis, University of Chicago.
- 2004. Monumental Space, Courtly Style, and Elite Life at Tiwanaku. In *Tiwanaku: Ancestors of the Inca*, M. Young-Sánchez, Ed., pp. 126-149. Denver, CO: Denver Art Museum/University of Nebraska Press.
- DEMAREST, A., 1981. *Viracocha, the Nature and Antiquity of the Andean High God*. Cambridge, MA: Harvard University Press.
- DONNAN, C., 1978. *Moche Art of Peru. Pre-Columbian Symbolic Communication*. Los Angeles, CA: Museum of Cultural History, University of California.
- 1979. The Thematic Approach to Moche Iconography. In *Pre-Columbian Art History: Selected readings*, A. Cordy-Collins & J. Stern, Eds., pp. 407-420. Palo Alto: Peek Publications.
- 2004. *Moche Portraits from Ancient Peru*. Austin, TX: University of Texas Press.
- DONNAN, C. & D. McCLELLAND, 1999. *Moche Feline Painting. Its Evolution and its Artists*. Los Angeles, CA: UCLA Fowler Museum of Cultural History.
- EISLEB, D., 1987. *Altperuanische Kulturen 4: Recuay*. Berlin: Staatliche Museen Preussischer Kulturbesitz.
- GALLO, A., 1925. Las ruinas de Tiahuanaco. Exposición y examen de las más importantes doctrinas arqueológicas. *Revista de la Universidad de Buenos Aires* 2 (1): 45-152.
- GOLDSTEIN, P., 1993. Tiwanaku Temples and State Expansion: A Tiwanaku sunken-temple in Moquegua, Peru. *Latin American Antiquity* 4 (1): 22-47.
- GOLTE, J., 1994. *Iconos y narraciones: La reconstrucción de una secuencia de imágenes Moche*. Lima: Instituto de Estudios Peruanos.
- GONZÁLEZ DE LA ROSA, M., 1909. Les deux Tiahuanaco. Leurs problèmes et leurs solutions. In *XVI Internationaler Amerikanisten-Kongreß*, pp. 405-428. Viena: Hartleben's Verlag.
- GRANDIDIER, E., 1861. *Voyage dans l'Amérique du Sud. Pérou et Bolivie*. Paris: Michel Lévy Frères.
- HOCQUENGHEM, A.-M., 1987. *Iconografía Mochica*. Lima: Fondo Editorial PUCP.
- IRIARTE, I., 1998. Fragmentos de una túnica Wari con representación de flautistas en el Museo Etnográfico de Buenos Aires. In *Actas de las IV Jornadas internacionales de lenguas y cultura amerindias, Valencia, 17-20 de noviembre de 1997*, D. Jorques Jiménez & J. Calvo Pérez, Eds., pp. 543-566. Valencia: Universitat de València.
- ISELL, H. W., 1983. Shared Ideology and Parallel Political Development: Huari and Tiwanaku. In *Investigations of the Andean Past: First Annual Northeast Conference on Andean Archaeology and Ethnohistory*, D. H. Sandweiss, Ed., pp. 186-208. Ithaca, NY: Latin American Studies Program, Cornell University.
- 2008. Wari and Tiwanaku: International Identities in the Central Andean Middle Horizon. In *Handbook of South American Archaeology*, H. Silverman & W. H. Isbell, Ed., pp. 731-759. New York: Springer.
- 2013. Nature of an Andean City: Tiwanaku and the Production of Spectacle. In *Visions of Tiwanaku*, A. Vranich & C. Stanish, Eds., pp. 167-196. Los Angeles, CA: Cotsen Institute of Archaeology Press.
- ISELL, H. W. & P. J. KNOBLOCH, 2006. Missing Links, Imaginary Links: Staff God Imagery in the South Andean Past. In *Andean Past III*, W. H. Isbell & H. Silverman, Eds., pp. 307-351. New York and London: Kluwer Academic and Plenum Press.
- 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*, M. Young-Sánchez, Ed., pp. 165-210. Denver, CO: Denver Art Museum.
- ISELL, H. W. & A. VRANICH, 2004. Experiencing the Cities of Wari and Tiwanaku. In *Andean Archaeology*, H. Silverman, Ed., pp. 167-182. London: Blackwell.
- JACKSON, M., 2009. *Moche Art and Visual Culture in Ancient Peru*. New Mexico: University of New Mexico Press.
- JANUSEK, J., 2004a. Tiwanaku and its precursors: Recent research and emerging perspectives. *Journal of Archaeological Research* 12: 121-83.
- 2004b. *Identity and Power in the Ancient Andes: Tiwanaku Cities through Time*. London: Routledge.

- 2006. The Changing 'Nature' of Tiwanaku Religion and the Rise of an Andean State. *World Archaeology* 38 (2): 469-492.
- 2008. *Ancient Tiwanaku*. Cambridge, MA: Cambridge University Press.
- KOLATA, A., 1993a. *The Tiwanaku: Portrait of an Andean Civilization*. London: Blackwell.
- 1993b. Understanding Tiwanaku. Conquest, Colonization, and Clientage in the South Central Andes. In *Latin American Horizons*, J. S. Rice, Ed., pp. 193-224. Washington D. C.: Dumbarton Oaks Pre-Columbian Symposia and Colloquia Series.
- 2003. Tiwanaku Ceremonial Architecture and Urban Organization. In *Tiwanaku and Its Hinterland, Archaeology and Paleoeology of an Andean Civilization*, Vol. 2, A. L. Kolata, Ed., pp. 175-201. Washington, D. C.: Smithsonian Institution.
- 2004. The Flow of Cosmic Power: Religion, Ritual, and the People of Tiwanaku. In *Tiwanaku: Ancestors of the Inca*, M. Young-Sánchez, Ed., pp. 96-125. Denver, CO: Denver Art Museum/ University of Nebraska Press.
- KROEBER, A., 1944. *Peruvian Archaeology in 1942*. New York: Viking Fund Publication in Anthropology, N° 4.
- 1949. Art. In *Handbook of South American Indians* (vol. 5), J. H. Steward, Ed., pp. 411-492. Washington, D. C.: Smithsonian Institution.
- KUBLER, G., 1967. *The Iconography of the Art of Teotihuacán*. Washington D.C.: Dumbarton Oaks.
- 1984. *The Art and Architecture of Ancient America. The Mexican Maya and the Andean Peoples*. New York: Penguin Books.
- LAU, G., 2006. Recuay Tradition Sculptures of Chinchawas, North Highlands of Ancash, Peru. *Zeitschrift für Archäologie Ausseuropäischer Kulturen* 1: 183-250.
- 2010. House forms and Recuay culture: Residential compounds at Yayno (Ancash, Peru), a fortified hilltop town, AD 400-800. *Journal of Anthropological Archaeology* 29 (3): 327-351.
- 2011. *Andean Expressions: Art and Archaeology of the Recuay Culture*. Iowa City: University of Iowa Press.
- 2013. *Ancient Alterity in the Andes: A Recognition of Others*. London: Routledge.
- LUMBRERAS, L. G., 1974. *The Peoples and Cultures of Ancient Peru*. Washington D. C.: Smithsonian Institution Press.
- MAKOWSKI, K., 2001a. Front Face Figures with Staffs in Tiahuanaco and Wari Iconography: Theme or Convention? *Boletín de Arqueología PUCP* 5: 337-374.
- 2001b. El panteón Tiahuanaco y las deidades con báculos. In *Los Dioses del Antiguo Peru* (T2), K. Makowski, Ed., pp. 67-107. Lima: Banco de Crédito.
- 2002. Ritual y narración en la iconografía Mochica. *Revista del Museo Nacional de Arqueología, Antropología e Historia del Perú* 25: 175-203.
- 2005. Hacia la reconstrucción del panteón Moche: Tipos, personalidades iconográficas, narraciones. In *El mundo sobrenatural Mochica. Imágenes escultóricas de las deidades antropomorfas en el Museo Arqueológico Rafael Larco Herrera*, M. Gierz, K. Makowski & P. Prządka, Eds., pp. 15-119. Lima: Fondo Editorial PUCP/University of Varsovia.
- 2009. Royal Statues, Staff Gods, and the Religious Ideology of the Prehistoric State of Tiwanaku. In *Tiwanaku: Papers from the 2005 Mayer Center Symposium at the Denver Art Museum*, M. Young-Sánchez, Ed., pp. 133-164. Denver, CO: Denver Art Museum.
- MEDDENS, F.; K. WILLIS, C. McEWAN & N. BRANCH, 2014. *Inca Sacred Space: Landscape, Site and Symbol in the Andes*. London: Archetype.
- MENZEL, D., 1964. Style and Time in the Middle Horizon. *Ñaupá Pachá* 2: 1-10.
- 1977. *The Archaeology of Ancient Peru and the Work of Max Uhle*. Berkeley: R. H. Lowie Museum of Anthropology/ University of California.
- MITRE, B., 1954. *Las Ruinas de Tiabuanaco*. Buenos Aires: Hachette.
- MOLINA, DE C., 1916. *Fábulas y Ritos de los Incas*. Lima: Sanmarti y Cia.
- MOSELEY, M., 1992. *The Incas and their Ancestors*. London: Thames & Hudson.
- MURRA, J., 2004. *El mundo andino: población, medio ambiente y economía*. Lima: IEP/Fondo Editorial PUCP.
- OAKLAND, A., 1986. Tiahuanaco Tapestry Tunics and Mantles from San Pedro de Atacama, Chile. In *The J. B. Bird Conference on Andean textiles, April 7<sup>b</sup>-8<sup>th</sup>, 1984*, pp. 101-121. Washington D. C.: The Textile Museum.
- 1994. Tradición e innovación en la Prehistoria andina de San Pedro de Atacama. *Estudios atacameños* 11: 109-120.
- OAKLAND, A. & V. CASSMAN. 1995. Andean Tapestry: Structure Informs the Surface. *Art Journal* 54 (2): 33-39.
- O'CONNOR-D'ARLACH, T., 1910. *Tiabuanaco*. La Paz.
- PANOFSKY, E., 1970. *Meaning in the Visual Arts*. Harmondsworth: Penguin.
- POSNANSKY, A., 1945. *Tiabuanaco, the Cradle of the American Man* (Vol. I-II). New York: J. J. Augustin.
- PONCE-SAGINÉS, C., 1981 [1972]. *Tiwanaku: Espacio, tiempo y cultura*. La Paz: Amigos del Libro.
- 2001 [1963]. *Descripción sumaria del templete semisubterráneo de Tiwanaku*. La Paz: Juventud.
- 2003. *El sistema sociocultural en Tiwanaku*. La Paz: CIMA.
- PROTZEN, J.-P. & S. NAIR, 2000. On reconstructing Tiwanaku architecture. *The Journal of the Society of Architectural Historians* 59 (3): 358-371.
- 2001. Pumapunku: Platforms and Portals. *Boletín de Arqueología PUCP* 5: 309-336.
- 2002. The Gateways of Tiwanaku: Symbols or Passages? In *Andean Archaeology II*, H. Silverman & W. H. Isbell, Eds., pp. 189-224. New York, Boston, Dordrecht, London, Moscow: Kluwer Academic and Plenum Press.
- 2013. *The Stones of Tiabuanaco: A Study of Architecture and Construction*. Los Angeles, CA: Cotsen Institute of Archaeology Press.
- PYYSIÄINEN, I., 2003. Buddhism, Religion, and the Concept of 'God.' *Numen* 50 (2): 147-171.
- PYYSIÄINEN, I. & K. KETOLA, 1999. Rethinking 'God': The Concept of 'God' as a category in Comparative Religion. In *Approaching Religion*, T. Ahlback, Ed., pp. 207-214. Vaasa: Åbo Akademi University, The Donner Institute.
- QUILTER, J., 1990. The Moche Revolt of the Objects. *Latin American Antiquity* 1 (1): 42-65.
- 1997. The narrative approach to Moche iconography. *Latin American Antiquity* 8 (2): 113-134.
- 2002. Moche Politics, Religion, and Warfare. *Journal of World Prehistory* 16 (2): 145-195.
- 2008. Art and Moche Martial Arts. In *The Art and Archaeology of the Moche*, S. Bourget & K. Jones, Eds., pp. 195-214. Austin, TX: University of Texas Press.
- 2010. *The Moche of Ancient Peru: Media and Messages*. Cambridge, MA: Peabody Museum Press, Harvard University.
- 2012. The Staff God: Icon and Image in Andean Art. In *Enduring Motives: the Archaeology of Tradition and Religion in Native America*, L. Sundstrom & W. DeBoer, Eds., pp. 131-141. Tuscaloosa, AL: The University of Alabama Press.
- RICE, D. S. (Ed.), 1993. *Latin American Horizons*. Washington D. C.: Dumbarton Oaks Pre-Columbian Symposia and Colloquia Series.
- RIVERO, M. E. & J. D. TSCHUDI, 1851. *Antigüedades Peruanas*. Viena: Imprenta Imperial de la Corte.
- ROWE, J., 1946. Inca culture at the time of the Spanish Conquest. In *Handbook of South American Indians* 2, *The Andean Civilizations*, J. Steward, Ed., pp. 183-330. Washington, D. C.: Smithsonian Institution.
- 1962. Stages and Periods in Archaeological Interpretation. *Southwestern Journal of Anthropology* 18 (1): 40-54.
- 1967. Form and meaning in Chavin art. In *Peruvian Archaeology. Selected readings*, J. H. Rowe & D. Menzel, Eds., pp. 72-103. Palo Alto: Peek Publications.

- 1971. The Influence of Chavín Art on Later Styles. In *Dumbarton Oaks Conference on Chavín*, pp. 101-124. Washington, D. C.: Dumbarton Oaks Research Library.
- SARMIENTO DE GAMBOA, P., 1999 [1548]. *History of the Incas*. New York: Dover.
- SAWYER, A., 1963. Tiahuanaco Tapestry Design. *Textile Museum Journal* 1 (2): 27-38.
- SCHAEDEL, R., 1952. An Analysis of Central Andean Stone Sculpture. Unpublished PhD Thesis, Yale University.
- SPIELVOGEL, R. B., 1950. Wari. A Study in Tiahuanaco Style. Unpublished PhD Thesis. Yale University.
- SQUIER, G. E., 1877. *Peru. Incidents of Travel and Exploration in the Land of the Incas*. New York: Harper.
- STEELE, P. R. & C. J. ALLEN, 2004. *Handbook of Inca Mythology*. Santa Barbara/Denver/Oxford: ABC Clío.
- STONE-MILLER, R., 2002. *Art of the Andes*. London: Thames and Hudson.
- STÜBEL, A. & M. UHLE, 1892. *Die Ruinenstaette von Tiabuanaco im Hochlande des Alten Peru. Eine Kulturgeschichtliche Studie Aufgrund Selbständiger Aufnahmen*. Leipzig: Karl W. Hiesermann.
- TORRES, C. M., 2004. Imágenes legibles: La iconografía Tiwanaku como significante. *Boletín del Museo Chileno de Arte Precolombino* 9: 55-73.
- 2008. Chavín's Psychoactive Pharmacopoeia: the Iconographic Evidence. In *Chavín. Art, Architecture, and Culture*, W. J. Conklin & J. Quilter, Eds., pp. 239-260. Los Angeles, CA: Cotsen Institute of Archaeology.
- TORRES, C. M. & D. REPKE, 2006. *Anadenanthera: Visionary Plant of Ancient South-America*. New York, London, Oxford: Haworth Herbal Press.
- TORRES, C. M. & D. TORRES, 2014. Un análisis iconográfico de la estela Ponce, Tiwanaku, Bolivia. *Arte & Sensorium* 1 (1): 49-73.
- UHLE, M., 1909. Peruvian Throwing-Sticks. *American Anthropologist* 11 (4): 624-662.
- 2003 [1903]. *Pachacamac: Informe de la expedición peruana William Pepper de 1896*. Lima: CODIFE / USMSM.
- URIBE, M. & C. AGÜERO, 2001. Alfarería, textiles y la integración del norte grande de Chile a Tiwanaku. *Boletín de Arqueología PUCP* 5: 397-426.
- 2004. Iconografía, alfarería y textilera Tiwanaku: Elementos para una revisión del Período Medio en el Norte Grande de Chile. *Chungara* (Vol. Especial): 1055-1068.
- URTON, G., 1988. *At the Crossroads of Earth and Sky: An Andean Cosmology*. Austin, TX: University of Texas Press.
- 2008. The Body of Meaning in Chavín Art. In *Chavín. Art, Architecture and Culture*, W. J. Conklin & J. Quilter, Eds., pp. 217-236. Los Angeles, CA: Cotsen Institute of Archaeology.
- VALCÁRCEL, L., 1959. Símbolos mágico-religiosos en la cultura andina. *Revista del Museo Nacional* 28: 3-18.
- VRANICH, A., 2001. The Akapana Pyramid: Reconsidering Tiwanaku's monumental centre. *Boletín de Arqueología PUCP* 5: 295-308.
- 2006. The Construction and Reconstruction of Ritual Space at Tiwanaku, Bolivia (AD 500-1000). *Journal of Field Archaeology* 31 (2): 121-136.
- 2009. The Development of the Ritual Core of Tiwanaku. In *Tiwanaku: Papers from the 2005 Mayer Center Symposium at the Denver Art Museum*, M. Young-Sánchez, Ed., pp. 11-34. Denver, CO: Denver Art Museum.
- YOFFEE, N., 2005. *Myths of the Archaic State: Evolution of the Earliest Cities, States, and Civilizations*. Cambridge, MA: Cambridge University Press.
- VRANISH, A. & C. STANISH (Eds.), 2013. *Visions of Tiwanaku*. Los Angeles, CA: Cotsen Institute of Archaeology Press.
- ZUIDEMA, T., 2009. Tiwanaku Iconography and the Calendar. In *Tiwanaku: Papers from the 2005 Mayer Center Symposium at the Denver Art Museum*, M. Young-Sánchez, Ed., pp. 83-100. Denver, CO: Denver Art Museum.