SOUTH AMERICAN CAMELIDS IN CENTRAL ANDEAN RELIGIOUS PRACTICES

By

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Abstract

This paper focuses on using ethno-historic and ethnographic sources in order to determine if these works are able to assist with interpreting what is found archaeologically. It looks at the uses of South American camelids in ritual contexts by examining ethno-historic documents from the sixteenth century as well as more recent ethnographic works and comparing them to what has been found archaeologically. Through this we will hopefully be able to gain a better understanding of whether these data can be used to interpret archaeological finds or if too much has changed in the region since Spanish colonization as a result of the introduction of Christianity, European influences, and globalization.
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INTRODUCTION

All over the world the domestication of plants and animals has played a crucial role in the development and advancement of human culture. One crucial aspect of culture is that of religion and the ritualistic practices that take place. In many parts of the world domesticated plants and animals have been utilized as objects of worship as well as objects to be used in ritual sacrifice. Spanning from prehistoric times up through current times, cultural groups have been using domesticated animals in rituals practices. In the New World, more specifically in the Central Andean region of South America, two of the most important domesticated animals used in ritual practices (prehistorically through the present), as well as in everyday use are two forms of camelids, the llama and alpaca.

There are four varieties of camelids native to the Andean mountain range, including: two wild species, the guanaco (*Lama glama guanicoe*), and the slightly smaller vicuña (*Lama virugna* or *Vicugna vicugna*), and two domesticated species, the llama (*Lama glama glama*), and the alpaca (*Lama pacos*). One or more of the four camelid varieties, wild and/or domestic can be found living throughout sections of the three main regions of the Andes Mountains. The three regions include the Northern Andes, Central Andes, and Southern Andes. The main focus of this paper will be on the Central Andean countries which include the southern portion of Ecuador, Peru, parts of Bolivia, northern Argentina, and northern Chile. Within these countries the focus will be further narrowed down to the puna and altiplano of Peru and Bolivia, (high-altitude grasslands) located between 3,900 and 4,600 meters above sea level (Bonavia 2008).
Camelids have always played a large role in the lives of the Andean peoples even more so once llamas and alpacas were domesticated in the Central Peruvian Highlands between 4,000 and 3,500 B.C (Silverman 2004:26). Beginning with the hunters and gathers that thrived on hunting the wild vicuña and guanaco, to the eventual domestication of the llama and alpaca, South American camelids both wild and domestic have held large roles in shaping the cultures of the Central Andes. This can be shown through archaeological, ethno-historic and ethnographic works. Since domestication, llamas and alpacas have been a resource used for more than just meat and wool, they became a way of life. They were and in some areas still are utilized as a vital means of transportation and also held/hold important roles in religious rituals.

Using ethnographic (the study of human societies and cultures), ethno-historic (studying human cultures and society through historic and ethnographic works), and archaeological (study of past societies and cultures through material remains) evidence, I will be focusing on the religious ceremonies involving camelids from pre-historic times and the present. I will attempt to show how camelid use in religion has changed from pre-historic times to the present, but also how through the use of ethnographic and ethno-historic works we can better understand findings relating to archaeological sites.
BACKGROUND

The Central Andes

The Andes Mountains are a sharp and craggy mountain range that spans the entire western coast of South America, from Venezuela to the bottom of Chile. The mountain range can be divided into three main regions; northern, central and southern. The Central Andean Region, (this paper’s area of focus), includes the southern portion of Ecuador the country of Peru, parts of Bolivia, and the northern regions of Chile and Argentina as can be seen in Figure 1. The two countries located in the Central Andes that will make up the areas of focus will be narrowed down to include Peru and Bolivia.

South American Camelids

There are four camelids native to the Andean Mountain range the guanaco (*Lama glama guanicoe*), vicuña (*Lama virugna* or *Vicugna vicugna*), llama (*Lama glama glama*), and alpaca (*Lama pacos*). All four belong to the same order (Artiodactyl), suborder (Ylopoda), Family (Camelidae), Subfamily (Camelinea), and tribe (Lamini). Camelids are classified as ungulates or animals that have hooves or feet that are similar to hooves in shape or function (Bonavia 2008). Camelids have always played a large role in Andean society since humans arrived in South
Figure 1. Map of South America and the Central Andes. Source: Adapted from http://www.reisenett.no/map_collection/americas/SouthAmerica_ref802636_1999.jpg
America around 10,000 years ago (Bonavia 2008). The first hunter and gatherer peoples to arrive hunted the wild camelids as a food source and for their fleece. The domestication process took place during the pre-ceramic period (CA.? through 1800/1500 BC) between 4,000 and 3,500 B.C. (Silverman 2004:26). Attempts at domestication more than likely took place in the highlands of Peru prior to this time; however, it became more universal and widespread, as shown in the archaeological record, after 4,000 BC (Bonavia 2008).

**Guanaco**

The Guanaco (Figure 2) has the most extensive natural habitat of the four native camelids. It can be found throughout the puna of Peru and the altiplano of Bolivia, all the way down through Chile to Patagonia located in the Tierra del Fuego region of Argentina (Bonavia 2008). Historically speaking the Guanaco has been classified as the largest of the South American camelids. Their size, in comparison to that of the llama was mentioned in the writings of multiple Spanish chroniclers from the early days of colonialism in the Andes. The chronicler and historian Cieza de Leon mentions, in his writings about Peru, that the size of the guanaco was larger than that of the llama. He wrote this during his travels throughout Peru that took place during the mid to late 1500s (Bonavia 2008; Leon 1962). This information may lead people today to think that the guanacos of the past might have been larger than they are presently. Currently there is a debate on whether or not guanacos or llamas are the largest of the South American Camelids.

There is not much evidence from the ethno-historic or ethnographic records to suggest that the guanaco was ever used by Andean cultures in religious ceremonies. Guanaco remains do show up in the archaeological record; however this is generally at sites that predate llama
domestication and evidence points to it having been used mostly for its meat and wool (Bonavia 2008).

![Guanaco](image)

**Figure 2. Guanaco**

**Vicuña**

The vicuña (Figure 3), notably the smallest of the South American camelids has a much smaller habitat range than the guanaco. The vicuña is native to the highlands of Peru and parts of Bolivia and thrives between 4,000 and 4,200 meters above sea level (Bonavia 2008; Romero 1929). They have a very fine fleece that during Incan times was used only by the Inca King or his nobles for special clothing (Bonavia 2008; Ochoa et al. 1994). It was against Inca law to hunt the vicuña but historic accounts report that every few years there would be a mass round up of
the wild vicuña to be shorn for their wool and then released (Bonavia 2008). Native herding communities of today also believe that it is taboo to hunt the wild vicuña (Ochoa et al. 1994).

The vicuña like the guanaco was not used directly in religious ceremonies. Its wool would occasionally be used by the Inca as an offering, and the animal itself was held sacred and thus generally not hunted (Bonavia 2008; Ochoa et al.1994). The European colonizers did not see any importance in the vicuña upon their arrival, and began killing them for their fleece almost to the point of extinction. It has only been relatively recently that large efforts have been made in order to protect the remaining vicuña herds and help the population to re-grow. Currently it is illegal to kill vicuña in Peru even though poachers continue to do so (Bonavia 2008; Ochoa 2000).

Figure 4. Vicuña. Source: http://jujuyenlinea.com/engine/0/46///false/es/
The llama (Figure 4) is the second (or first depending upon opinion) largest camelid in South America. It was the first South American camelid to be domesticated and is thought to have been derived from the guanaco. Domestication of the llama is believed to have taken place in the Central Peruvian Highlands between 4,000 and 3,500 B.C. (Silverman 2004:26). The llama was domesticated partially for its wool but more so as a means of transportation. Before the introduction of horses by the Spanish, the largest beast of burden in South America was the llama. Llamas have the ability to carry between 70 and 125 pounds upon their backs for long periods of time. They can go days without water and as they were bred to thrive off of the low quality brush and fodder available in the highlands of the Andes they do not require the same amount of agricultural assistance as do European domesticates (Bonavia 2008; Flannery 1989). The llama is able to go four or five days without eating if food is unavailable (Ochoa 1979). Llamas supply a stable source of meat to the people of the Andes and their wool has been used, pre-historically up through present times to make rope, rough clothing, and sleeping mats along with various other items.

Llamas have also played a major role, since their domestication, in ritual ceremonies and also as objects of honor. They are believed to have originated from the same lakes and waterways as humans and thus are revered as more than just an animal (Bonavia 2008; MacCormack 1991; Ochoa 2000). Llamas show up in the archaeological record as being used for sacrificial objects. They are also depicted in ceramics, in textiles, in carvings and also in myths.

Since colonial times and the introduction of European livestock, such as sheep, cows and horses, dependence upon llamas has dwindled and was almost lost completely. Even though the European animals had a harder time adapting to the high altitudes in the Andes there was not
much of a market for llamas. Throughout the past few decades the importance placed upon llama herding in the Andean Highlands has increased along with their population (Bonavia 2008).

![Llamas](http://upload.wikimedia.org/wikipedia/commons/6/64/Llama.JPG)

**Figure 4.** Llamas. *Source:* http://upload.wikimedia.org/wikipedia/commons/6/64/Llama.JPG

Alpaca

The alpaca (Figure 5) is the third largest of the South American camelids. It was domesticated after the llama and is bred for its fine wool. There is still doubt from which wild camelid the alpaca was originally domesticated. Some claim that it was domesticated from the guanaco because of its size; others claim that it was domesticated from the vicuña as they share similarities in dentition. There are still others who will argue that the alpaca was the result of the mixture of the two or possibly even the mixture of the llama with the vicuña (Bonavia 2008; Ochoa et al.1994).
The alpaca was not bred to be a beast of burden as was the llama and was/is rarely used as such if ever. It was instead raised for its wool that was and still is used to weave clothing, blankets, tapestries and more. The alpaca is not as hardy as the llama and has a greater dependence on water as well as requires a higher quality food source, as it prefers not to eat the lesser fodder that is enjoyed by llamas. They thrive in the higher altitudes of the Andes between 4,000 and 5,200 meters above sea level. While the alpaca can live in lower elevations it does not do well below 1,000 meters above sea level as in the lower altitudes they are more likely to suffer severe health conditions; (Bonavia 2008; Ochoa et al.1994).

Figure 5. Alpaca Source: http://thoughtdistillery.com/gallery/d/639-3/alpaca.jpg
In indigenous beliefs the color white is seen to symbolize purity and has a strong ritual significance. In pre-Columbian times according to the ethno-historic accounts the white coloring that is prized currently, was preferred and bred for. The white color not only was ritually significant but it was also easier to die. The ethno-historic accounts do not discuss the use of alpacas in religious ceremonies as much as they do the llama. Historically speaking while the alpaca is not as commonly used for ritual sacrifice in comparison to the llama, it is utilized by some herding communities for ritualistic purposes as well as sacrifices (Bonavia 2008; Ochoa 1979).

**Ethno-History**

Ethno-history is the study of ethnic and cultural groups through the combination of historical and anthropological outlooks. The ethno-historic data for this thesis was gathered through the works of four different chroniclers who wrote about the Inca shortly after colonization in the sixteenth century. The first of these chroniclers was Father Beranbe Cobo who was a Catholic priest that traveled throughout Peru during his lifetime taking accounts of the Inca people. He also based some of his writings off of manuscripts written by Juan Polo de Ondegardo, and another priest, Cristóbel de Molina (Cobo 1990). (Manuscripts for these two chroniclers were not able to be located). The second chronicler Juan Betanzos had an Incan wife and he based the majority of his writings on her experiences and memories. The third chronicler was Pedro de Cieza de Leon who was a conquistador that kept accounts of his travels throughout Peru. The fourth chronicler that was used is Felipe Guaman Poma. Guaman was an indigenous Peruvian who spoke multiple native dialects as well as Spanish and would at times act as a translator between other indigenous groups and the Spanish.
Ethno-historical accounts can be a great source of information if read with a critical eye. The four chroniclers above were all from different backgrounds and wrote from different perspectives. The problem with ethno-historic accounts is that a good portion of what is written is done so with cultural bias and ethnocentric outlooks. The data, while informational and helpful cannot always be trusted one hundred percent to be accurate.

Overview of Andean Rituals and Religion

The Central Andes are rich in indigenous cultures that still hold onto beliefs and rituals from pre-Hispanic times, even though the majority of these beliefs have been modified and/or changed under the hundreds of years of European control and since then. Prior to colonization by the Spanish indigenous populations living in the region observed many religious and ritualistic practices that involved one of their many gods or was to appease the spirits that lived in everything. Animals played a very important role in most of these practices. All of the fauna found in the highlands of the Andes were honored in some way. Some animals held greater importance in ritual activities or were depicted in artwork, such as the condor and the puma. The indigenous populations rarely sacrificed non-domestic animals in their ritual practices. They believed that in order to appease the gods and spirits the sacrificial animal had to have been raised by human hands (Bonavia 2008; Cobo 1990). Thus the main animals that were greatly honored and also held a great role in many religious ceremonies were the domesticated llamas. The llama was used as for sacrificial offerings in many ceremonies as offerings to the deities. In many of the Andean cultures the llama was believed to have originated from the same rivers and bodies of water as humans had (Bonavia 2008; Cobo 1990).
Pre-Hispanic

The majority of the information we have about the lifestyles of the Inca during pre-Hispanic times comes from the Spanish chroniclers. The Inca had no formal written language so there are no written accounts of Incan life prior to Spanish colonization. Even though at the time the chronicler were writing, the Inca were already feeling the influences of the Europeans and their ways of life had already begun to change, the ethno-historic writings can be used to paint a picture of life during Inca rule.

The chronicler wrote about how the Inca lived but also give a relatively good account of the Incan religious practices. As mentioned above it is critical to remember that while reading ethno-historic accounts a person must read with a critical eye and cannot believe all that he or she reads to be one hundred percent accurate. Many of the chronicler wrote about their own interpretations of what was going on and also with an ethnocentric outlook at times.

According to the writings of the majority of chronicler from this time period the Inca had many religious rites and ceremonies that they practiced throughout the year. During each month of the year a different ceremony would be performed to honor specific deities and spirits. Fr. Bernabe Cobo wrote about how llamas were the most common animal to be sacrificed. The Inca had special rules that no wild beasts were to be used as sacrifices, as only animals that had been raised by their hands were acceptable (Cobo 1997). There were flocks of llamas that were raised solely for use in religious ceremonies and each god required a certain number and a specific color to be sacrificed to them. White llamas symbolized purity and were sacrificed to the Sun. Fr. Cobo claims that in Cuzco a white llama was sacrificed to the Sun daily (1997:113). Brown llamas were selected for the god Viracocha who was the creator of the Incas, the multi-colored llamas were sacrificed to the thunder and all black llamas were sacrificed upon special
occasions. Even after death an Inca King might continue to own a llama herd in order to help pay for the upkeep of his tomb (Flannery 1989).

One way that archaeologists and researchers can gain a better understanding of how life was for Andean cultures during pre-Hispanic times is through examining archaeological remains. The Incas along with other Andean cultures depicted camelids and their uses in many different ways. One of these ways was through depictions of llama in ceramics and on ceremonial vessels. One such vessel is the *kero* as shown in Figure 6.

![Incan kero depicting a ceremonial scene with a llama shown in the middle. Source: Ochoa, MacQuarrie, Port 1994: 199](image-url)
The *kero* is a ceremonial cup that was pre historically used by the Inca during ritual ceremonies to hold *chicha*, which is a beer made out of corn (Bonavia 2008). The *kero* was traditionally made out of wood, stone, or clay and many times would be colorful like the one below with scenes depicting religious ceremonies, battle, sacrifices or just a colorful design. The *kero* below is a depiction of an Incan lord or priest at a religious ceremony. He is holding a *kero* in his left hand and the depiction of the white camelid before him could be interpreted as being part of the ceremony or as a potential sacrifice (Ochoa, MacQuarrie, Port 1994). *Keros* can still be found in the present and are utilized by are still utilized by many Andean groups during their religious rituals.

**Post-Hispanic**

With the Spanish colonizers also came the idea of Christianity along with European domesticates such as sheep and horses. Upon the arrival of the Spanish the Inca were forced to give up their ancestral beliefs and convert to Christianity. The llama and alpaca herds began to dwindle and European domestic animals became more popular even though they were not as well suited to living at high altitudes. The indigenous beliefs began to change and while many groups did not fully give up their native ideologies, they began to mix them with Christian beliefs. Llamas were and still are used in many religious ceremonies; however the number of sacrifices has decreased significantly. The Catholic Church frowned upon such paganistic practices (as it still does) and thus put a ban on the sacrificing of animals (Bonavia 2008). Regardless there are still many communities today that will upon occasion sacrifice a llama or alpaca or use the fetus of a llama for religious purposes as will be discussed later.

Though native Andean beliefs have been affected by European influence there are still llama and alpaca herding communities currently that still incorporate sacrifices and indigenous
beliefs into their daily lives. One such way that indigenous beliefs are incorporated are through the continued use of llama motifs such as small figurines carved out of stone, wood or metal in the shape of the camelids known as an *illa* or *conopa* (Figure 7).

![Figure 7. Incan *illa* dating between AD 1,200 and AD 1,500. Source http://www.barakatgallery.com](image)

The *illa* is a small motif of a llama or alpaca that has been found archaeologically in context with religious temples, burials or as offerings. The figurines traditionally were carved out of stone or precious metals, however in modern times they can be made out of anything from stone to plastic (Bonavia 2008; Ochoa et al 1994). The *illa* is used to symbolize fertility of the livestock. It is believed to hold the spirit of animals and it has the ability to communicate with the deities. The figure cannot be traded or sold and is very rarely seen by anyone outside of the family (Bolin 2006). One notable change in the use of the *illa* is that their use has been broadened in some communities to include European livestock as well.

There has also been a continuation in creating ritualistic pottery and ceramic vessels that depict llamas similar to that of pre-colonial times even though techniques have evolved and changed over time (Figure 8).
Figure 8. Late sixteenth century, Colonial ceramic vessel in shape of llama

**Ethnography**

Ethnography is a part of anthropology that focuses on study and description of different ethnic groups. Three different Quechua speaking (Quechua is one of the indigenous languages spoken in the region) llama or alpaca herding communities located in Peru and Bolivia were chosen for the ethnographic analysis for this thesis. The communities were chosen for their location in the Andean highlands as well as for their dependence on herding of llamas or alpacas. Two of these communities were studied in the 1960s and 1970s however I feel their information to still be useful. They give detailed accounts of life in the herding communities and how camelids were used in ritual practices. They may be older but they still give valued information of how herding communities were living in the near past and can also offer insight to the archeological record which is the main goal of this paper. On the other hand when compared to more recent
ethnographic accounts it is obvious that even in the past forty years a lot has changed in the region concerning indigenous religious ideals and practices. This could be looked at as a bad thing, as if so much has changed in only forty years is it even possible to use the information to interpret what was going on hundreds of years ago. This is an issue that will be discussed later in the paper.

El Paratía

El Paratía is a Quechua speaking alpaca herding community located in the Province of Lampa in the department of Puno in Peru (Figure 9). The ethnographic field work was conducted by Jorge A. Flores-Ochoa, between July and August of 1964 with a follow up trip in October of the same year. The site is located around 4,300 meters above sea level with some peaks reaching around 5,243 meters above sea level (Ochoa 1979). The population of the community is around 1,664 people with nearly 1,477 living in rural areas (Ochoa 1979). The herding families will usually maintain several homes. One located in the actual town of Paratía and others seasonal huts in the herding areas.

The herders of Paratía still maintain many of the religious beliefs held by their ancestors even though the majority of the people call themselves Catholic. It is apparent that they have been influenced greatly by the Catholic Church but their form of Catholicism is in reality a mixture of both catholic beliefs and many of the ancient native beliefs. According to Ochoa (1979), the native population places more importance on the Catholic saints then on the Christian God. There are two festivals throughout the year that honor the saints along with the mother Mary and the child Jesus. The rest of the festivals are reserved for the ancient spirits and deities. When a person is in need or a family member is sick they will pray to both the Christian saints along with giving offerings to the native gods for assistance.
There are many native traditions that the herders of Paratía have in common with how the chroniclers portrayed their Incan ancestors. For one, like their Inca ancestors they do not believe in the hunting or killing of wild animals. They instead follow the tradition mentioned earlier that only creatures raised by human hands can be sacrificed, killed, and eaten. Exceptions to this rule include fish caught mostly by children and the younger generation (Ochoa 1979). The mestizo and other non-native populations in the area do engage in hunting activities and have killed off entire herds of vicuña, which to the natives is considered very bad luck. Other similarities
include: the sacrifice of an alpaca at the death of a family member, and during other religious ceremonies; the continued use of the kero to hold the ceremonial chicha during fertility rites as well as other ritual activities; and the use of the illa in ceremonial rituals as a symbol of fertility of the alpaca herds (Ochoa 1979).

A big celebration carried out by the herders of El Paratía is when the llamas are marked with bits of yarn. This is a ritual believed to date to before European contact. It is a time of the year when the entire herding community comes together in order sew brightly colored bits of yarn into the ears of their llamas while giving offerings to the gods and spirits. More about this ritual will be discussed with the next two herding communities.

Ayacucho Basin herders

Between 1969 and 1972 a study was carried out in the Ayacucho Basin of Peru looking at four different Quechua speaking herding communities located in the area. The study included the estancias (Spanish for small ranches), of Hatun Rumi, Paltamachay, Toqtoqasa, and Pallqa (Figure 10). The ethnographic study of the Ayacucho basin was conducted by archaeologists Richard S. MacNeish, and Kent Flannery along with zoologist Elizabeth S. Wing (Flannery 1989). All four herding communities reside in the sallqa zone. Sallqa is the term used by the native Andeans to refer to the puna zone located around 4,000 meters above sea level. The lower elevations where towns and agricultural fields are located is known as the kichwa zone and the zone above the puna is called the urqu zone (zone of the white capped mountains). The mountains are believed to be the homes of the wamanis, the indigenous mountain spirits (Flannery 1989). The wamanis are believed to be the true owners of all things, wild and domestic and thus play an important role in many native practices. In most native Andean communities the mountains are believed to be where powerful spirits reside. These spirits are the
true owners of the land along with everything in it. This even includes the people themselves along with the domesticated animals (Bonavia 2008; Reycraft 2005).


Similar to the herding community of Paratía the Ayacucho Basin herders have also felt the effects of Christianity yet still continue to practice native religious practices. One such practice is a ceremonial festival similar to that practiced at El Paratía that takes place during the month of August. August is seen as a dangerous time of year when the *wamanis* leave the mountains, their places of residence and walk the earth. The herding communities perform a
waytakuy, a celebration in which the llamas have their ears adorned with ribbon and the tips of their tails cut. This festival is held to show the wamani that the herds have been taken care of and to insure that the herds will continue to thrive in the coming year. The bits of tail and ear that are cut from the llamas are given to the wamanis as an offering to continue the herds’ fertility. One of the major aspects of this celebration that has changed since pre-historic times is the incorporation of old world domesticates. Often cattle, sheep and horses will be included in the celebration but kept separate from the llamas.

Ventilla

Ventilla (Figure 12) is a Quechua speaking llama-herding community located south east of the department of Potosí between 4,000 and 4500 meters above sea level. The community is made up of nearly 30 families subsist mainly off of the herding of llamas and a few sheep and small scale farming.

![Map of Bolivia showing location of Ventilla community.](http://www.umsl.edu/services/govdocs/wofact 2002/maps/bl- map.gif)

The community in Ventilla is quite similar to the other two herding communities mentioned above. Even though they reside in a different country and portion of the Andes they
still incorporate many of the same religious practices. Like the first two communities the herders of Ventilla also have a celebration and ceremony to mark the llamas. Here it is referred to as *señalakul* the time when the ancient spirits are honored and the llamas are marked with different colored yarn through their ears. In Ventilla they also incorporate the use of *illas* however here it is referred to as the *enqa*. During this celebration the community will construct a statue of a llama made of corn flour mixed with quinoa and the grease of a llama, which is placed in the center of the corral. The statue is decorated with different colors and is used to symbolize the unity of the herd (Ochoa 2000). Then a young llama is selected and sacrificed of which a part is offered to the deities and spirits and another part is consumed in the head household. Like in the Ayacucho Basin herding communities the people of Ventilla also offer pieces of the llamas cut from their tails and ears to the Gods as well.

Also like the other herding communities Ventilla has also been affected by Christianity. Along with their offerings to the indigenous spirits and to the Pachamama they also give offerings to the Virgin Mary and Catholic saints.

**Archaeology**

**Tiwanaku**

The Tiwanaku Valley is situated in the northern zone of the Bolivian Altiplano near lake Titicaca (Figure 13). Tiwanaku sits at an altitude of 3,812 meters above sea level and is spread over an area of 560 kilometers squared (Albarracin-Jordan 1999). Due to its proximity to lake Titicaca the Tiwanaku valley is subject to higher temperatures and humidity in comparison to other areas of the altiplano. There are two main seasons; the dry season from May to October and the wet season from November to April. During the dry seasons temperatures can fluctuate between -14
and 22 degrees Celsius while temperatures during the rainy season fall between -5 and 23 degrees Celsius (Albarracin-Jordan 1999).

Figure 13. Map of Bolivia and location of site of Tiwanaku. Source: Adapted from http://www.umsl.edu/services/govdocs/wofact2002/maps/bl-map.gif

The first written accounts of the ceremonial center of Tiwanaku were made by the Spanish chroniclers during the sixteenth century. The first of the chroniclers to visit the site of Tiwanaku and make observations was Pedro de Cieza de León. He explored the ruins as well as learned from the natives that it had been around since before the Inca. He also made reference to it as Titivitraqocha or the creator of the world (Albarracin-Jordan 1999). After this there were
various other explorers and chroniclers who either visited the site or mentioned it in their writings. The first true archaeological excavations were conducted in 1877 by Ephraim Squire. He concluded that it was a center for pilgrimages and that it was not an urban center (Albarracin-Jordan 1999). The first systematic excavations took place under the direction of Wendell Bennett in 1932 (Albarracin-Jordan 1999). Since this time, with a short lull between the nineteen seventies and nineteen eighties, excavations have been continuing at the site funded by the Bolivian government as funds allow.

El Yaral

El Yarel is an archaeological site that dates from A.D. 950 to around A.D. 1350 and is located in the district of Moquegua in Peru (Figure 14). It sits at an elevation of around 1,000 meters above sea level in one of the driest deserts in the world. It is situated nearly 31 miles from the Pacific Ocean and is bordered by the Osmore River.

The site was first occupied around A.D. 950 by the Chiribaya culture that is believed to have obtained their original stock of llamas and alpacas from Tiwanaku. This is believed as there is no evidence for contact between the early Chiribaya and any other contemporary groups from the highlands of what is now Peru and Bolivia (Bonavia 2008).

El Yarel is a unique site that offers a different outlook on camelid research from the archaeological record. The remains of multiple llamas and alpacas associated with ritual contexts were found that had been naturally desiccated. Excavations at this site were conducted in two of the largest structures and uncovered multiple llama and alpaca burials suggesting ritual sacrifice (Bonavia 2008).
Moche Culture

The Moche culture was a dominating presence on the coast of Peru from the Early Intermediate period, 200 B.C. through A.D. 500 all the way through the Middle Horizon, A.D. 500 through A.D. 900 (Bonavia 2008). Figure 15 shows the expanse of coastal territory that the Moche ruled.

The Moche Culture is well known for its intricate and detailed ceramic work. There is a much-misconceived idea that llamas are unable to live on the coast due to the low elevations however this is not the case. The archaeological record has shown quite a bit of evidence to suggest that many coastal cultures raised and bred llamas. The Moche are believed to have originally obtained their llama stock through trade with the highland cultures (Bonavia 2008).
The Moche used llamas for food as well in ritual contexts. Archaeologists have recovered llamas that were obviously sacrificed in relation to multiple Moche burials for both children as well as adults. The llamas were kept mainly for use as a source of protein as well as for pack animals however archaeologists have uncovered camelid remains as ritual remains at the Moche sites of Huaca de la Luna and Huaca del Sol (Bonavia 2008).
METHODOLOGY

The goal of this paper is to look at the roles South American camelids hold in the ritual practices of Andean cultures prehistorically as well as historically. I am utilizing both ethno-historic and ethnographic works to determine if the rituals utilizing camelids today as well as throughout history can help to give insight into archaeological findings. This paper will be addressing;

1. What rituals involving camelids are being practiced by herding communities in the Andes currently.
2. What rituals involving camelids were recorded historically through ethno-historic accounts.
3. How this information can help archeologists to better understand the importance of camelids in regards to the ritual practices of prehistoric Andean cultures. Also the information will hopefully provide a better insight into the function of artifacts and objects discovered relating to ritual camelid use.

When speaking of ritual practices I took into consideration three different aspects of how llamas and alpacas are used or depicted in pre historic, historic and current times.

1. Through whole or partial sacrifice offerring of the animal. Whole sacrifice includes the sacrifice of an entire animal such as what Fr. Cobo describes in his accounts of an entire llama being burned for the Sun (Cobo 1990). Concerning partial sacrifice I included when any part of the animal was used or offered for religious purposes. For example many herding communities will sacrifice an animal but only offer part of the meat to the
deities or will use the grease from the animal as use in medicines and offerings (Ochoa 1979).

2. The second category that I considered was ceramics. I looked at how camelids were depicted on pottery and also ceramic vessels that were in the shape of llamas or alpacas.

3. The third category that I considered was ceremonial vessels and objects. Under ceremonial vessels I included keros, and Illas and other such objects not made out of clay.

Ethnographic

The ethnographic data has been collected from multiple ethnographies that I found to contain detailed information concerning ritual practices involving camelids. The oldest of these ethnographies was conducted between 1969 and 1972 by Kent Flannery in the punas of Ayacucho Peru (Flannery et al. 1989), shown in Figure 6. Even though this study is currently nearly 40 years old I have found the information to be similar to what I have found in more recent ethnographies and thus decided to include its use in my study. I took the data surrounding religious ritual practices of Andean cultures that incorporate the use of camelids. I focused on the monthly and seasonal rituals that occur throughout the year that incorporate camelids. I also looked at the rituals that might incorporate the sacrifice of an animal, sacrifice of part of an animal (fat, portion of meat, bones etc.), rituals in honor of the camelids, or any ritual that might incorporate camelids symbolically (through use of figurines or depictions of the camelids). I expected to find that there have been a few changes through time in regards to the ritual practices as the Spanish colonizers worked hard to convert the indigenous peoples to Christianity as well.
to put a stop to many of their religious ideals. I wanted to see if despite all of this, if there are still remnants of pre-Hispanic rituals.

**Ethno-historic**

The ethno-historic portion of my data was collected from the accounts of early conquistadors, priests, and Europeans that documented the life styles of the Inca. All of the ethno-historic data is about the Incas at the time of European colonization in the Andean region. Many of the ethno-histories were written with a biased ethnocentric approach but I believe that they still have a lot of information to offer. Not all of what is said can be taken as fact but they do help to give a better understanding of the Incan culture relatively soon after European contact. Also since the accounts were written by people of different backgrounds I am able to gain an understanding of different outlooks upon the religious practices of the Inca.

I took this data and looked for the same practices that I did with the ethnographies. I wanted to see if there were any similarities between the religious practices incorporating camelids form pre-history and what can be found today and within the past 40 years. I also looked to see my findings could give any insight into what is found through archaeological excavations.

**Archaeological**

The archaeological sites and archaeological information that have been incorporated into this paper were gathered through the selection of various sites that had ritual camelid remains (sacrificed llama, depictions in ritual ceramic vessels, camelid figurines etc). I narrowed my focus to looking at two archaeological sites: the ceremonial center at Tiwanaku and El Yarel, as
well as the Moche culture. I used examples from other sites for supplemental evidence of how
ritual use of the South American camelid has shown up in the Archaeological record. I chose the
three main sites as they all belong to different Andean cultures and yet share certain similarities.
I have used the data and evidence I gathered in order to compare what has been found
archaeologically, to what was discussed in the ethno-historic records to see how accurate they
were as well as if current rituals can be compared to those of the Incas and other past cultures.

I decided that even though all of the ethno-historic records focus on the Incas that it was
not necessary to choose only archaeological sites relating to the Incas. There is enough inter-
relatedness between many of the Andean cultures that even though they may not have been
exactly the same, they did have a few similar ritualistic practices.

RESULTS/DISCUSSION

Through the analysis of the ethno-historic accounts, ethnographic accounts and archaeological
findings I was expecting to confirm my hypothesis that the use of historic and more recent
documents can assist in understanding what is found in the archaeological record.

The Spanish arrived in the Central Andes in the early sixteen hundreds. Since the day
they arrived the indigenous culture living in the Andean Mountains were affected and began to
change. The Europeans forced the natives to abandon their ancestral beliefs and convert to
Catholicism. Even at the time the Spanish chroniclers were writing the ethno-histories utilized in
this paper, the Inca had already begun to change under European influences.
In the world as a whole it is easy to see that change is constant and can occur rapidly. People and cultures are thus forced to adapt or be left behind. The native Andean populations were no different. They probably did not want to give up their ancestral practices but had no choice once they came under European control. Even though the Spanish colonizers tried to eradicate all indigenous beliefs and practices through the introduction of Christianity, the indigenous populations refused to give up their own beliefs. They instead made a sort of compromise that mixed their ancestral beliefs with those of the church, which can be seen in the cultures of today.

One could argue that with how much the religious and ritual practices of the indigenous cultures living in the Central Andean Region have changed, that it is useless to use ethnographic research in order to interpret the pre-Hispanic past. I disagree, even though there has been a lot of change I believe that if looked at critically with the influence of the Spanish taken into consideration that historic documents as well as more recent studies can actually shed some light onto what is found archaeologically.

**Ethno-historic**

The sixteenth century chroniclers write of how the Inca were living in the sixteenth century shortly after being conquered by the Spanish. In his accounts Fr. Bernabe Cobo writes in great detail about the religious ceremonies practiced by the Inca. He discusses the monthly celebrations as well as daily rituals that were practiced. Guaman Poma also gives detailed accounts of the Incan religious practices. The ethno-historic accounts as a whole give detailed and valuable information of how the Inca utilized camelids (generally referring to the domesticated forms) in their religious and ritual practices.
According to the chroniclers the Inca showed great reverence to their ancestral gods. Daily rituals would be carried out in order to insure the happiness of the gods and their continued goodwill toward the people. The chroniclers go into detail on the use of the llama and occasionally the alpaca as offerings and sacrifices to the Gods. Flocks of llamas were recorded as being kept in the name of the sun and were used solely for sacrificial purposes. Partial sacrifices were also carried out in the recorded use of llama fat and blood being collected and used as further offerings or for use in medicines or magical practices as they were believed to hold great powers (Cobo 1990, Ochoa 1979). Llamas were also recorded as being used to predict the future. Upon death the llama might have been cut open for its heart and other organs to be analyzed to predict the health of the Inca king, if the year would be prosperous or not, if the Gods would continue to act favorably and so on. An example of this as recorded by Fr. Cobo took place during the Incan festival, Coya Raymi, which took place during the tenth month of the year (corresponding with our November). Quite a bit went on during this festival of which I am not going to discuss (if more detail is needed refer to Cobo 1990: 145). The part that pertains to what has been discussed occurs at the end of the ceremony. Four llamas were sacrificed and their lungs were taken by the Incan priests and then inflated. After inflation the lungs were studied and interpreted to see if the coming year was going to be prosperous or not (Cobo 1990: 146).

The chroniclers do touch on the use of ceremonial vessels such as the kero as well as llama motifs; however they do not go into much detail in the depictions of llamas on pottery or in ceramics as a whole. There were multiple accounts of how during certain ceremonies statues of llamas made of gold and silver were made as offerings to the gods. During the celebration of Inti Raymi, the festival of the Sun held during the month of June, two llamas made of gold and silver
would be sent to be buried in sacred hills to insure the goodwill of the Sun. The accounts all include reference to the use of the kero in all ceremonies to hold the ceremonial chicha.

**Ethno-graphic**

All three of the ethnographic accounts go into great detail on how camelids are utilized in the recent record. Despite the multiple attempts made by the Spanish to change indigenous beliefs and their overall lifestyles, the Andean communities were able to hold onto parts of their cultural beliefs. When the Spanish arrived in the sixteenth century they did not see the importance of the new world domesticates the llama and alpaca. They did not take into consideration the cultural significance that camelids held in the lives of the indigenous groups. They instead nearly hunted the vicuña and guanaco to extinction. Also with the introduction of sheep, as well as other European livestock shifted the importance from camelid herding to that of European animals. They also influenced the religious practices of the indigenous populations with the introduction of Catholicism.

Most Andean communities of today will consider themselves to be Catholics. While in some ways they are it is a very different sort of Catholicism then what is found in the United States. As mentioned earlier the Catholicism practiced by the majority of the Native Andean populations is a mixture of pre-Hispanic beliefs and Catholic beliefs. The Catholic saints play a large role in the religious ideals of the people but so do the indigenous spirits and gods that reside in the Mountains. More or less the only parts of the Catholicism that are practiced are the bits that meshed well with the ancestral beliefs of the native populations.

Although, Catholicism has played a large role in changing the ritual practices of the indigenous Andean groups there is still a lot of evidence that proves pre-Hispanic beliefs still
remain. The ritual of sewing yarn into the ears of the llamas as discussed earlier is only one example of how pre-historic practices have stood the test of time.

Archaeological

Evidence of camelids shows up regularly in the archaeological record from sites located in the Central Andes. Pre-domestication camelids appear in the archaeological record as a common source of meat. As time progresses and the domestication process begins to occur archaeologists can begin to see a change in the importance of the South American camelid. Llama and alpaca remains begin to appear in more contexts then just as a source of meat. At post domestication sites archaeologists being to find the remains of entire llamas that were not killed for subsistence. The remains are instead found in religious and ritual settings such as in or near a temple, incorporated into burials and other such contexts. All three of the archaeological sites researched for this thesis showed evidence of whole sacrifices, and two showed evidence of partial sacrifice along with depictions of camelids in ceramics and ceremonial vessels.

At the site of El Yaral llamas and alpacas were found in an almost perfectly preserved state, found buried below the floors of the two main structures at the site. The sacrifices were found along with other offerings including: beads, shells, coca leaves, etc. (Bonavia 2008). The interesting thing about this site is that I never came across any information concerning ceramics found at the site. I had been thinking that since the site was more than likely influenced by the Tiwanaku that there might have been a similarity in pottery and ceramics. However, none of what I read on the site even mentioned pottery. Through researching the Chiribaya culture a bit more I realized that they are known for their textiles as well as pottery with geometric shapes (Figure 16). In the end El Yaral only gave evidence for the use of camelids in whole sacrifices.
The site of Tiwanaku is rich in camelid remains and depictions. There is evidence in surrounding areas that camelids were utilized as a source of food but remains also show up as sacrifices. In Akapana East dating to Tiwanaku IV (A.D. 500 – A.D. 800), there is quite a bit of evidence for llama sacrifice. In this section of Tiwanaku llamas and or llama fetuses were found buried under the floors and walls of housing structures (Silverman 2004). These practices can still be witnessed in many current herding communities in the Andes as well. The burial of the llama fetus is an offering given during the construction of a house as a sort of blessing. The site of Tiwanaku is also rich in not only camelid sacrifices but also in camelid shaped ceramics. *Keros* as well as camelid shaped ceramics have been recovered from the site of Tiwanaku.

The Moche culture as a whole was a culture that is rich in artifacts depicting camelids and how they were used. Llamas have been recovered from multiple Moche burials for men women as well as children. They are also richly depicted in Moche ceramics and artwork.
Beyond actually finding the remains of a llama or alpaca in a ritual context we as archaeologists can infer what religious practices concerning camels were taking place through depictions seen in pottery. The pottery found at all of the archaeological sites lend a great deal of information pertaining to how llamas were traditionally used. The Moche ceramics as well as that from the Inca and the Tiwanaku cultures depict the camels in many ways and how the camels were being used. There are ceramic vessels that depict llamas loaded down with cargo or even people even though it is widely believed that llamas were not used to transport people (Figures 17 and 18).

Figure 17. Ceramic llama carrying wood from Moche Culture (AD 100-800)  
Source: Ochoa, et al. 1994: 161
Ceramics can also help to tie what is being found archeologically to what is being practiced by the current herding communities. The ceremony of sewing yarn into the ears of llamas has been found in the archaeological record through its depiction on ceramics. Ceramics have been found from the Moche culture as well as from Tiwanaku that depict llamas with the yarn in their ears or collars around their necks. Figure 19 is of a Tiwanaku ceramic llama that depicts a llama with an elaborate collar. The collar was recorded by the chroniclers as well as by ethnographers as being used to decorate the llamas during special ceremonies. The fact that it also is depicted in the archaeological record can lead to the belief that said ceremonies were also being practiced before the arrival of the Spanish.
Even though none of the mentioned past cultures had any form of written language they were able to tell about their everyday lives, beliefs and ceremonial rituals through the depictions on their ceramics and other ceremonial vessels such as the kero (Figure 20). The Inca incorporated llamas into a great deal of their artwork as well as decorations on pottery (Figure 21). In short there is a great deal of information that can be gained through looking at how llamas show up in the archaeological record as well as how they were depicted through pottery, ceramics and as decoration.
Figure 20. Inca Kero with a white llama design. 

CONCLUSION

Camelids have always played a large role in the lives of Andean cultures since the very first people arrived to the area. They began as a source of food and clothing and eventually evolved into much more than that. With the domestication of the llama and alpaca nearly 5,500 years ago, camelids begin appearing in the archeological record as being more than just a source of food. They became an honored creature used in ritual practices and portrayed as an object of importance.

With the Spanish conquest of the Inca, indigenous beliefs and practices were changed drastically. The Spanish forced their own religion and religious ideas upon the natives, which caused much of the ancient beliefs and practices to change. However, in spite of the changes I believe it can be argued that historic along with current ethnographic documents are able to assist in the interpretation of the archaeological record. There are quite a few similarities between current ritual practices and those found in the archaeological record. For example the burial of llama fetuses during the construction of a house or at a field to insure a good harvest. Both of these practices are seen through the excavations of sites and by comparing this with what is practiced today, archaeologists might gain a better understanding of the significance behind the practice. Another example of continued ritual overlap can be seen through the use of ceremonial objects. Keros are still widely used during indigenous rituals to hold chicha. Such vessels have been used since pre-Inca times and their use has continued through the ages. Without looking at how the kero has been used historically it may have been difficult to figure out that it is only
used as a ceremonial vessel. There is the possibility that it could have been mistaken for a normal drinking vessel. *Illas* are another item that are still used. Archaeologically the *illas* are typically found in relations to a temple or some sacred area. However, if not found it a religious context it would be easy to mistake the small figurines as a possible toy for children or a mere motif without any significant ritual importance. That we can still see it being used in contemporary cultures as a sacred object we can infer that is how it was used pre-historically as well.

It is true that not everything practiced currently in Andean cultures can be compared to what was being practiced in the region during the pre-Columbian era and, the influences by the Spanish always need to be taken into consideration. Nevertheless it is quite clear that certain aspects of religious activities in the Andes involving camelids can still be in some way or another related to what is found archaeologically and can help to paint a picture of past Andean cultures.

This thesis only scratches the surface of a very deep hole that will require further research. In the future I would like to take a deeper look at more Andean llama or alpaca herding communities to compare what I have already found. I would also like to look at more archaeological sites located in the Central Andes to see if the remains of domesticated llamas and/or alpacas are present. If remains are present then I would like to see if the domesticated camelids were being used for religious purposes or only as a source of food. In my research I came across some sites that appeared to have had domesticated llamas without any evidence for their use religiously or in any sort of ritual practices. I would also like to broaden my parameters to also include textiles and how weaving patterns have changed. Lastly I would like to look further at rituals practiced today that might not readily show up in the archaeological record such as the practice of families giving their children llamas or alpacas at certain turning points in their lives (entrance into adult hood, marriage, etc.).
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