MOUNTAIN PASTORALISM IN THE ANDES DURING COLONIAL TIMES

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Abstract

This article summarizes part of the history of the Andean herders during the colonial period. After the conquest, the Spaniards reorganized the American world in order to satisfy their primary needs: food, labor and transportation. During the silver boom of the late sixteenth and early seventeenth centuries, Potosí, the most important mining city in the Andes, surpassed 130,000 inhabitants, and there were many other settlements around smaller mining centres. All these urban inhabitants needed to be fed, and because of the location of these cities, food was often brought from distant places. This article shows how the pastoral peoples of the Andes managed to participate in, and adapt to, the colonial economy while at the same time retaining their pastoral way of life.
Keywords: Pastoralism, mining, indigenous, Southern Andes, colonial period

Introduction

In this article I propose to reconstruct part of the life of Andean pastoral peoples under colonial rule. Although there is an abundant literature on these peoples, we know relatively little about their history.[1] Their existence as tribute payers and their active participation in the colonial economy have been part of the reason why there are so many historical sources that take account of their past. When the Spanish arrived in the Andes at the beginning of the 1530s, they had to conquer the enormous Inca Empire that covered a territory of 4,000 square kilometres, known as the *Tawantinsuyu*. Once the main centres of power had been dominated, the conquest of the rest of the imperial territory was facilitated by information provided by the Incas themselves. As a result, many of the Spanish sources we consult in order to reconstruct what took place during this period reflect the Incas' view of the native populations that lived under their rule; it is difficult to avoid the fact that our analysis will reflect their worldview. Although the interpretation of these sources can – for all these reasons – be a complex matter, the sheer number of documents, in combination with the archeological evidence available, has allowed us to make headway in understanding the history of pastoral peoples.

In this work I focus on two case studies that are especially interesting, because they represent two different and contrasting forms of social organization among pastoral peoples. One of the groups lives in the north *altiplano*, near Titicaca (Chucuito), and the other group is in the south, in Lípez. The pastoral peoples in

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Chucuito combined herding with high altitude agriculture, artisan production, hunting and fishing. This region stands out because of its large population and – most importantly for historians – because it was the object of an inspection by the Spanish in 1567 that examined the social and economic life of the population and their relationship with the Spanish during the first thirty years of the conquest. Lípez, on the other hand, was (and remains) a very arid region where agriculture is possible only where there are small oases. In this region, especially in the south near the present-day border of Bolivia and Argentina, the majority of the population are specialized pastoralists.

Before entering into an analysis of the two case studies, I provide a brief description of the areas under study and a summary of what took place during the first years of the Spanish conquest. In the final section I will examine the characteristics of each case and then integrate this information into an overall analysis that will show how pastoral peoples related to Spanish colonial society.

The *Altiplano* and Pastoral Peoples

The tropical Andes in South America are characterized by their altitude and their massive relief. It is not possible to cross the mountains any lower than 4,000 m and the highest summits can reach higher than 6,000 m. In what is modern-day Bolivia, the Andes reach their maximum east-west extension between 500 and 600 km. Our study focuses on this high landscape, which is known as the *altiplano* or *puna* (high Andean plateau).

Throughout the *altiplano* there are marked differences in precipitation between the more humid north and the more arid south. It is important to emphasize that the precipitation in the northern regions not only permits greater density of both human and animal populations (frequently in villages), but also provides the basis for important high altitude agricultural production of crops such as potatoes and quinoa. In contrast, in the south, village settlements are non-existent and the population is more dispersed and mobile.

Moreover, there is a marked east-west difference. Towards the east and northeast, a mountain range separates the *puna* from what is called the 'Eastern Valleys', which is a lower humid region where agriculture predominates, especially the production of corn and coca. In contrast, on the Pacific coast to the west, there is an extensive desert which has some important oases where people cultivate plants suited to the warm climate, such as corn and chili, and where they have access to sea products.

The *altiplano* has an abundant population and its main source of wealth derives from herds of llamas, large deposits of salt, minerals and textiles. Within this geographical region, there was a wide range of ethnic and linguistic diversity. Egalitarian peoples, without permanent political hierarchies, lived alongside more complex societies that the colonial chroniclers typically referred to as 'kingdoms',

'*cacicazgos*' or '*señorios*'. This population had been conquered by the Incas probably only a few decades before the arrival of the Spanish.[2] The peoples of the *altiplano* had chosen to resist the Inca invaders and this resistance continued during the invasion of the Europeans (Platt et al. 2006). As a consequence of this history, the inhabitants of the region were dramatically affected by numerous wars (both conquest and civil wars). Later, they were subject to forced labour service in mines and agricultural estates, which, in conjunction with the deaths, injuries and damage from wars, resulted in considerable population dislocation and redistribution. This territory was also the site where the main mining centres in the Andes were established, some of them as high as 4,000 m above sea level. At the same time, the region witnessed the founding of major cities and towns.

The Conquest

The Spaniards arrived in America with their micro-organisms, plants and domesticated animals. Among the animals introduced were sheep, cattle, donkeys and horses. Some of these formed part of the habitual Spanish diet, and the horse was associated with Spanish notions of social status. It was only shortly after the first disembarkations that the new animals, together with the plants and seeds, began to reproduce and propagate independently. The new herds arrived in a continent where very few cultures used domesticated animals. As a consequence, the indigenous peoples had to adapt rapidly to both the presence and the use of Eurasian animals. Initially, there were so few new animals that people had to dedicate most of their energy to the care and reproduction of these animals within their immediate territory; as we will see, this situation would change over time.

Within all of the Americas, the only territory that had possessed domesticated herd animals was the Andes. These domesticated animals were llamas and alpacas. Many of the early Spanish chroniclers described them as the 'sheep of this land' and they typically compared them to those animals familiar to Europeans. The Spanish rapidly appreciated that the llamas offered them three advantages with one animal: they provided wool, food and a means of transportation. Llamas, however, could carry significantly less than mules and, according to the chroniclers, once they got annoyed, there was no way to make them walk.[3] The alpacas were called '*pacos*' by the Spanish and were described as small and hairy: they quickly became an important source of fiber for the production of textiles. Alpacas require large amounts of water and are therefore more numerous in the north, gradually diminishing in numbers as we move south until they disappear.

The early Spanish chroniclers described the *altiplano* as a very cold, dry and infertile place where it was possible to cultivate only those few vegetables that could grow in such a climate. However, they also quickly appreciated that the land was very rich in minerals, people and animals. Some of the pastoral peoples who lived near Lake Titicaca were notable for their wealth and, as one author described

them, for 'their large markets and trading activity. They are very much like Jews, both in trading and way of speaking' (Matienzo 1967 [1567]: 274–75).

The early Spanish chroniclers also spoke about the varied uses of herd animals in the Andes. They noted that there were 'community herds', which were used in times of scarcity and were made available to the poorest members of the community and for the general needs of the population as a whole. There were also herds designated for the Inca and the Sun, as well as for special lineages and individuals. Llamas were also used during the Incan time for military purposes or to transport food and supplies for their armies.[4] The Spanish made the same demands of the pastoral peoples.

It was within the context of conquest and war, the highly regionalized characteristics of pre-Hispanic society and the traditional use of herds of llamas and alpacas that pastoral peoples were allowed to participate in the colonial economy. Under Spanish colonial rule, therefore, pastoral activity increasingly became associated with colonial trade and commerce. At the same time, the indigenous people were not the only ones to use llamas, and by the end of the seventeenth century, some Spaniards owned llamas for their own purposes, rented herds from indigenous groups or had these groups tend to their own herds.[5]

Throughout the early colonial period, it was the mining economy that fueled the population growth of territories the Spanish regarded as infertile and dry. This growth was made possible because of the large-scale mobility of labour from all corners of the Viceroyalty to the mining centres. This laboring population needed to be fed and supplied, and people who brought these provisions – often from very distant places – also added to the population.

As noted above, the first three decades after the initial conquest were tumultuous times that witnessed war and the extreme exploitation of the Indian population by the *conquistadores*. This exploitation reached the point where the Spanish Crown became concerned about the fate of the indigenous people. This concern was motivated by a combination of religious anxiety about the morality of such ill-treatment as well as the more practical concern about the decline of the labour force in the colonies. This early colonial period was characterized by the conquest of new territories, internal conflicts among the Spaniards themselves, and the increase in mortality due to the introduction of new diseases and the hunger and dislocation associated with war and conquest.[6] Added to these factors was the fact that in the ebb and flow of war, repression and reprisals, Spaniards frequently stole the herds of the indigenous population, which only added to their hunger and hardships.[7] The Crown reacted to this chaotic situation by placing limits on the amount of tribute obligations exacted from the indigenous population.

While all this was taking place, the Spanish attempted to exploit the old Inca gold and silver mining centres in places such as Chuquiabo, Carabaya and Porco. Later they did the same in Potosí, which the Spanish discovered in 1545. This early mining activity was characterized by the use of 'encomienda labour' (an assignment of Indians who were to serve the Spanish grantee – the *encomendero*

– with tribute in the form of labour, goods or services). Many of these labourers were accompanied to the mines by their families.

The supply and provisioning of the colonial mining and political centres was done in the main by the pastoralist Indians who owned the llama herds and who had used old Inca trading routes that had once been highly developed. Of course, some trading networks were new, especially those that connected the main Spanish cities and *haciendas*; however, others were reconstructed, based on the ancient ties between the highlands and the eastern valleys where, among other products, people produced corn, chili and coca. Inter-regional trade was also fueled by the growing demand for customary Spanish products, such as wine, olives, olive oil, liquor and cotton. These items were produced in the coastal regions and were transported using animals to the highland centres. The incorporation of ports such as Arica on the Pacific coast – an important point of entry for mercury, which was necessary in silver mining after 1570 – reinforced the trading connections between the highlands and the coast.

The bibliography on indigenous trading activity stresses the independent participation of the Indian population in the trading of goods, land and labour during the entire colonial period, though of course within the context of colonial coercion (Stern 1987). Once again, this trade took place over long distances, on both old and new paths, and it was primarily based on Indian resources, over and above their labour and llamas (Glave 1989). The pre-Hispanic paths, which were not like the roads constructed on the plains (*llanos*), used a system of '*tambos*' – or places of refuge – where travellers could obtain food, shelter and rest for themselves and their animals. These *tambos* were essential for trade and commerce and they needed to be maintained at all times. By the end of the seventeenth century, llamas were being increasingly replaced by mule trains. This change in pack animals resulted in a significant change in how trade was organized and who participated in it. In particular, *mestizos* (people of mixed Indian and Spanish background) and Spaniards became the owners of the mules and an increasing portion of the transactions took place among individuals, without the mediation of Indian authorities.[8]

It is important to note that the main characteristic of the conquest was the central role played by the establishment of urban spaces as the organizational foundation of the Viceroyal system. These cities and towns were initially very small places with a slight European majority, surrounded by vast territories populated by Indians. One line of cities connected Potosí (at 4,000 m above sea level), the main mining centre in South America, with administrative centres and ports such as Lima, Buenos Aires, Asunción and Santiago de Chile.[9] This network also included urban centres located on the *altiplano*, such as Oruro (at 3,740 m above sea level), a mining centre near Potosí that had a population of 20,000 at the beginning of the seventeenth century. Then there was Cuzco (at 3,350 m above sea level), which was the old Inca capital and had a population of 40,000. The city of La Plata (at 2,790 m above sea level), also near Potosí and located in a valley with a more agreeable climate, was the preferred place of residence for many miners and for the ecclesiastical and political elite: in 1630 it was estimated that La Plata had

approximately 14,000 inhabitants. Finally, there was the city of La Paz, founded near Lake Titicaca, a region that has variable altitudes between 3,200 and 4,000 m above sea level. La Paz is strategically located between Potosí and Cuzco. All of these urban centres – many of which were mining centres as well – provided a great demand for food and supplies.

The indigenous pastoral peoples of the Andes played a vital role in all the occupations, mining, transport and war that took place during this period. The *altiplano* was, above all, an indigenous space in which pre-Hispanic trade patterns became incorporated into the Spanish world. The available documentation is not always explicit or clear about the role of the pastoral peoples in trade and commerce, but the following two sections of this article will provide some specific examples that will help us analyse their participation in the colonial economy.

The Example of Chucuito

The territory south of what was the centre of the Inca Empire, known as *Collasuyo*, is characterized by its highlands, cold and dry climate, and a large population. A few years after the conquest, the Spanish Crown organized a *Visita* – a royal inspection – to the region of Chucuito, near Lake Titicaca, where the *Lupaqa* people, who had been conquered by the Incas, lived (Murra 1964; Assadourian 1987, Van Buren 1996). The main purpose of the royal inspection was for the Crown to gather documentation about the population and economic activities of the region. The document that resulted from the inspection was called 'An Inspection of the Province of Chucuito' (Díez de San Miguel 1964 [1567]). It was compiled at the end of the turbulent period right after the initial conquest, when Peruvian Viceroyal authority was still not firmly established (Murra 2002). This document provides us with some indication about how the pastoral peoples of this region lived both before Spanish rule and after the conquest. The *Lupaqa* people were in a very unique position within the Peruvian context because they were one of the few groups who managed to escape the *encomienda* system: as a result, they paid tribute directly to the Crown and not to individual *encomenderos*. Nonetheless, during the early period of war and dislocation, the population fell from 20,000 domestic units to approximately 15,000. There was also a notable decline in the size of their herds.

The witnesses interviewed in the royal inspection affirmed that under the Inca, the *Lupaqa* had to provide tribute in the form of men for military service, as *mitimaes* (loyal colonists who helped maintain Inca control over recently conquered areas), concubines and mistresses, boys and girls for sacrifice, artisans to work in Cuzco, labour to work in the gold and silver mines, tribute in the form of cloth and food (such as dry potato, quinoa, feathers, fish and llamas) and the maintenance of the local *tambo* so that passers-by were attended to.[10] However, the tribute demands under the Spanish rule took the form of an annual payment of 18,000 pesos and 1,000 items of clothing. The *Lupaqa* had to provide various kinds

of labour service, including an allotment of mine workers for the mines at Potosí. For example, they had to send 500 workers to the mine in 1567 and 2,000 in 1578. Workers were paid for this labour in silver, with which they could pay all, or almost all, of the tribute they owed the Spanish. But they also had to bring labour service to Spanish officials, such as the *corregidores* (local governors), church officials and other local and regional elites. Labour was required to build and maintain churches, provide the money and goods for religious festivals and holidays, provide domestic work in the homes and tend to the animals of the Spanish elite.

The royal inspection also sheds some light on the subsistence economy of the indigenous peoples. Although the *Lupaqa* practised some agriculture, the frequent frosts made annual harvests unpredictable, so whatever could be grown was supplemented by hunting, fishing and gathering. Some *caciques* and prominent individuals had access to lands in other ecological areas, where they could cultivate corn and perhaps some coca. There were also skilled artisans who worked with gold and silver or in construction. But it was the caring for animals and the production of animal-based products that comprised the main economic activity of the *Lupaqa*. Almost everyone had herd animals and although the quantity of animals each person had could vary, herding and possession of animals was basic to *Lupaqa* economic activity and survival. The production of animal products – mainly meat and wool – played a vital role in *Lupaqa* society: these highland products were exchanged for certain indispensable lowland products such as corn, chili, cotton and coca. Alpaca wool was especially important as means of paying tribute. Llamas were not only the main means of transport of goods throughout the region, but they could also be rented out to others. Llamas, in other words, were necessary for the local and regional transport among the urban and mining centres (especially Potosí and Cuzco) and between the main *tambos* along the trade routes.

The number of animals a person had could make an enormous difference to people's lives, and perhaps even more so in the early years of Spanish colonization. Firstly, those who were obliged to provide personal service or tribute in the form of animal products were dependent on both the animals and their owners to get them to their places of work or to provide the goods they needed to pay tribute. Secondly, in the mining centres themselves, animal owners could use them to carry minerals, coal, wood and other supplies to and from the mines. Finally, in times of hardship, people could slaughter the animals for food. In other words, those who owned many animals were considered prosperous or rich, while those who had too few or no animals were poorer and more dependent. The royal inspection took note of this division by mentioning a group of people the authors referred to as 'rich Indians': these were people who had more than 50 animals.[11] These 'rich Indians' could not only make money by using their animals to transport goods and minerals to and from the mines and urban centres, but they earned enough money to cover the costs of their tribute payments as well. Such wealth gave this group the option of remaining in Chucuito to attend to their herds, or living in Potosí and other mining centres and making money there. The fact that the royal inspection made mention of the division

between 'rich' and 'poor' Indians brings to light another important feature of Indian society on the *altiplano* during the early colonial period: the transformation of stratified societies to another kind of society with relatively little social and economic differentiation (Julien et al. 1993: XXI).[12] While in general *Lupaqa* mobility and economy was conditioned and constrained by the tribute demands of the colonial state, some *Lupaqa* could take advantage of their ownership and control over herd animals to maintain wealth and increase the options available to them.

The Example of Lípez

In the southwestern regions of modern-day Bolivia, the territory around Lípez is characterized by extreme dryness and enormous salt deposits. At the end of the 1570s, the Spanish colonial state was imposing the *mita* labour system – a state-coordinated system of draft labour – of mine labour on most of the areas throughout the colony.[13] The people in Lípez, however, managed to avoid *mita* labour because the Spanish considered them too poor and they lived too near unconquered peoples to be regarded as reliable workers. Until the end of the sixteenth century, the pastoralists around Lípez survived primarily through herding animals, hunting and gathering, some long-distance trade and small-scale mining. Their constant mobility allowed them greater freedom from Spanish influence. It was not until the beginning of the seventeenth century that the Spanish attempted to exert more control over the population. This situation coincided with the greater development of mining throughout the region as a whole. For example, in the second half of the seventeenth century, the rich mine of San Antonio de Nuevo Mundo was established in the Lípez region. According to the Spanish chroniclers, there were approximately 4,000 people living in the whole region at the time of conquest; by 1683, however, there were some 3,000 people working in this mine alone.[14]

The location of the mining centres permitted the Indian population greater access to the money they needed to pay tribute and to cover the costs of other colonial obligations. As indicated above, an important part of Indian labour – both forced and free – was in the mining sector, either in the actual extraction of the minerals themselves or in the supply and transport of goods and services to the mining centres. Many of these migrant workers were accompanied by family members, if not the entire family. These family members also played an important part in obtaining the money necessary to cover tribute obligations. The llamas, and of course their owners, were a necessary part of the mining economy, especially for the transportation of the minerals from the mine shafts to the processing mills, as well as taking the minerals to the cities. Llama trains also brought the salt, wood and coal that were necessary for the refining process. In the Lípez region in particular, where the land was even more inadequate for European animals, llamas were essentially the most important means of transportation until recently. The llamas also brought food for the Indians who worked in the mines. All of this activity was carried out by indigenous herders.[15]

According to information in the royal inspection, the great majority of the mine workers who came from the *altiplano* stated that they had come to San Antonio voluntarily. Such statements, of course, should be interpreted with care: while it was true that physical force was rarely used to compel Indians to go to the mines, the only way most people could obtain the silver required to pay tribute was to become mine workers or to provide supplies. The vast majority of these workers were migrants from or near the *altiplano*, generally between Lake Titicaca and the Lípez region, although some came from even further away, such as from around Cuzco. It is notable that the migrants who arrived in the mining areas from the Pacific coast appear to have done so as mule drivers and they remained at the mines to work all through the year.

Almost all the people who worked at the mine were in the town of San Antonio itself and they depended on food and supplies brought from afar. Although there were some Spaniards and *mestizos* who participated in supplying the city, the vast majority were Indians who had their own animals. It is also worth noting that the outsiders (*forasteros*) who came to the communities brought their llamas with them to San Antonio and they were kept near the mines for ready use. Although the royal inspection provides no information about people's occupation before they arrived at the mines, the fact that they possessed llamas, as well as their places of origin, indicates that they were probably herders. It also explains why they proved so adept at providing the transportation and supplies required for the mining economy.

Herders and the Colonial World

Clearly, then, it is the importance of pastoral activity on the *altiplano* that allows us to focus our analysis on this territory. According to the Spanish chroniclers, it was in this region where the greatest numbers of pack animals were concentrated and where there were significant population centres, especially in the northern *altiplano*. While the social and political organization of these pastoral groups could vary, they all shared a common dependence on herd animals and, to varying degrees, they all organized their economic activity around the seasonal nature of herding.[16]

In the northern *altiplano*, as we have seen, the *Lupaqa* were a highly stratified society based on the differential access to herd animals. According to the testimonies collected in the royal inspection of 1567, there were specialized groups of people within *Lupaqa* society, such as goldsmiths, silversmiths and fishermen. Some people combined pastoral activity with highland agriculture, such as growing potatoes, quinoa and a few other crops, all of which had fluctuating yields because of the climate. Almost everyone in *Lupaqa* society had herd animals and the difference between rich and poor was defined by the number of animals a person owned. On the one hand, the more animals a person possessed, the more he could increase his earnings by using or selling those animals; as such, tribute payments were easier to meet. People could also have access to partners in other ecological

zones, thereby trading products that were otherwise hard to come by. On the other hand, those who had few or no animals at all were compelled to 'rent themselves' (in the words of the royal inspection) in order to survive. Animals were the main source of wealth, whether in an individual or collective sense. If there was a drought, a severe frost or if a harvest failed, the poorest members of the community at least had access to community animals to help them survive. Without animals, the *tambos* could not be maintained or provisioned and people could not meet their tribute obligations, especially when wool was needed for clothes, food was needed for passers-by or certain products were required for religious festivities.

In contrast to the *Lupaqa* in the north, the peoples who lived in the Lípez area further south had a more egalitarian social structure. The environment here made agriculture almost impossible, except in some small-scale production at an oasis. After the arrival of the Spanish, the people did incorporate sheep into their herding activities.[17]

The difference between these two kinds of pastoral activities had important implications in terms of how each group was to relate to the Spanish. From the earliest colonial period, the Spanish tried to reorganize the indigenous population into villages. The purpose was to maintain tighter control over the population, both for the purposes of accessing their labour and in order to Christianize them. Some Indian groups came under the control of *encomiendas* and as a consequence villages formed within their jurisdiction. According to the royal inspection, promoting agricultural activity was an important part of the colonizing process, which meant that it was somewhat easier to incorporate those pastoralists who already carried out some agriculture, as opposed to those who were almost exclusively pastoralists, such as those around Lípez. The latter also proved more troublesome to control because they were more mobile, thus making it easier for them to evade Spanish domination or the appropriation of their herds. Pastoral activity implies constant mobility between *puestos* (camps that enabled people to access new pastures and water) and other places to access the products they could not produce. The *puestos* were semi-permanent and comprised a couple of families. In regions where there was more agriculture, people combined the use of pastoral *puestos* with some permanent villages, both large and small.[18]

It was in these lands, which the Spanish considered so infertile and inhospitable, that the main economic activity of the *conquistadores* – mining – was carried out. In other words, the very centre of imperial economic and political activity was located in regions where pastoralists lived. The history of Potosí is particularly striking because throughout the entire colonial period, the mining industry depended upon indigenous peoples, many of them pastoralists. Though conquered, with their populations disrupted and reorganized to serve the needs of mining, and with their lands occupied, these pastoralists were therefore indispensable to the colonial economy in the Andes. Following the establishment of the mines on the *altiplano* came the founding of the cities and towns where the colonial authorities resided. These towns and cities also depended on pastoralists for much of their food and supplies. Most of these mining centres were founded in places where the indigenous

population had some prior knowledge of mining techniques, and the early Spanish miners depended on this knowledge for the exploitation of the early veins.

At this point, the problem became how to supply these early mining centres. I have already mentioned the important role of the pastoral peoples in the transportation of supplies over long distances, their work in the mine shafts, and the transport of the minerals and other articles to the mining areas. But there were other important economic activities carried out by the pastoral peoples (as well as by other indigenous peoples) that played a vital role in the colonial economy. The provision of tribute to the Crown, personal labour service, the exchange (forced or free) of merchandise and the forced sale of goods on credit were but some of the means devised by the Spanish to cover the costs demanded by the conquest. At first there was the obligation to pay tribute to individual *encomenderos*; later, it was paid to the Crown (the degree and amount of which varied over time and involved the supply of silver, personal service and clothes). In both cases, the indigenous population of the *altiplano* was obliged to work in the mines or in the mining centres, where there was a high demand for labour. In addition, the Indian population had to economically maintain the Catholic Church in the form of labour for the construction of costly churches and buildings, financing the liturgy and maintaining the numerous priests who were posted throughout the region, whose principal job was to Christianize the population and extricate the 'idolatry' from the Indians.

The fate of the different mining centres varied. While the large mining cities, such as Potosí and Oruro, located on the northern *altiplano* continued to exist after the decline of their mineral production, the city of San Antonio de Nuevo Mundo (near Lípez) was completely abandoned in the early eighteenth century after the minerals were gone. A large number of the people who migrated to or lived near these mining centres returned to their places of origin, where their populations re-established themselves in much the same ways as they had before the mining economy took off. Lípez continued to be a region without cities until the twentieth century. However, the urban centres in the region continued to be dependent on indigenous producers, a dependence that only increased after the wars for independence (1809–25). The mule trains and llama caravans continued to be the principal means of transportation until the twentieth century.

In this article I have stressed the relationship between pastoralism and mining, two 'worlds' that to date have been mostly separated in the literature. The Spanish, some of them who were pastoralists as well, had introduced new animals that became part of the 'natural environment'. The majority of the studies on Andean pastoralists have concentrated on those that used native animals, yet Andean pastoralists rapidly incorporated European animals – and especially sheep – into their activities from the earliest years of colonization. Sheep had the disadvantage of being more labour-intensive than llamas, but they had the advantage of being cheap and able to reproduce quickly and easily. Mules, and later donkeys, also played a role in the animal caravans that carried goods and people throughout the region. This article aims to highlight the fact that there is much we have ignored

to date about the role and history of pastoralists in the Andes, and that more research is needed on this subject as well as on the impact of European animals on the social and economic organization of Andean pastoral societies.

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Notes

1. The references have been reduced to a minimum in the interest of space. Most of the studies on this topic are by anthropologists or archeologists, There are also three important bibliographic studies: Sendón 2008; Medinaceli 2005; Flores Ochoa 1983. In this article I use the term 'herders' synonymously with 'pastoralists'.
2. According to Pärssinen (2003), the conquest of *Collasuyu*, which includes the territories in the southern part of the Inca Empire, took place under the rule of Topa Inca (1471–93).
3. According to Cieza de León, the llamas of that time carried up to two arrobas (approximately 24 kg), while mules could carry four to five times as much (Cieza 1941: 314).
4. Murra (1989) considered that the division between 'the use of state-owned herds for use in war' and those 'of the Sun used for religious practices' might have been the interpretation of the chroniclers and may not correspond to how the Inca actually viewed things. There is also evidence that suggests that war for the Incas was not simply a political act but was also of cosmological and religious significance.
5. The renting of llamas was mentioned explicitly in the royal inspection (*La Visita*) of Chucuito of 1567. There were herds owned by Spaniards that were cared for by Indians in Lípez, Archivo y Biblioteca Nacionales de Bolivia, hereafter cited as ABNB, Minas 57, 394.
6. The Spanish disembarked on the coast of South America in 1532.
7. The descriptions of certain episodes of the conquest that were made by Spanish soldiers themselves or by those that witnessed them testify to the horror of the conquest period for the indigenous population: the slaughter of children, the mutilation of men and women, the burning of entire villages, the destruction of crops, the stealing of livestock and famine. See also Assadourian (1994: 19–62) and Espinoza Soriano (2003).
8. Indians also participated in the work of the mule trains, if for no other reason that they were often forced to purchase mules. A notable example of where this took place was in the arid Atacama desert in what is today northern Chile (Sanhueza 1992).
9. Potosí reached the point of taking account for some 90% of the production in Perú and became the main urban centre in the colony with more than 130,000 inhabitants at the end of the sixteenth century. The city was located at 4,000 m above sea level and it was possible for people to obtain almost any European product they might desire.
10. Assadourian (1987) distinguishes between the exaction of tribute by the Incas and the way tribute was expropriated by the Spanish. Under the Inca, tribute was realized through

exacting the energy (the time and labour of people) and not through the expropriation of goods themselves. The only material goods that were part of tribute were wild products that were gathered for that purpose. In the royal inspection of Chucuito, however, there is reference made to tribute in the form of goods, but no details are provided.

11. Padrón de los Mil Indios Ricos de la Provincia de Chucuito (Diez de San Miguel 1964: 303–63). See also Julien et al. (1993). The citation is on page XXIX and there is some detailed information about who the rich Indians were.
12. Another indication of the existence of stratified groups within the *Lupaqa* was the use of the term *uros*, which referred to 'poor Indians and fishermen'.
13. The *mita* system was originally devised by the Inca but the Spanish, particularly under Viceroy Francisco de Toledo in the 1570s, adapted and expanded it to serve the needs of the mining economy.
14. Archivo General de la Nación (Argentina), hereafter cited as AGN, Sala 13-18-6-5, Padrones de Potosí 1602–83. Documentation about mining activity also notes the migration of Spaniards (men and women) and *mestizo*; there is also evidence of the introduction of African slaves. See also ABNB, Minas 56 y Escrituras Públicas, Tomo 137.
15. For examples, see ABNB, Minas, 61, No. 429, San Antonio del Nuevo Mundo, 1714/1715.
16. See Assadourian, 'the animals, more than the land itself, are the real "productive capital" and they were always distributed unequally among the population' (Assadourian 1987: 75).
17. AGN 13-23-10-2. Padrones Potosí 1611–90.
18. In his classic study on the Incas, John Murra (1989) minimized the role of traders in the Andes and instead emphasized the ability of the population to live within and manage various 'vertical and ecological zones'. In contrast, the studies of the southern *altiplano* highlight the importance of animal caravans that provide the connections between different societies. In this region, Nuñez and Dilehay (1995) noted the lack of hierarchical divisions of labour and power that was found in the areas more directly controlled by the Incas and where there was a greater presence of towns and political centralization. According to this scheme, it was not so much that the stable and permanent settlements were in themselves more stable and important but, on the contrary, the sedentary population centres were in fact maintained and controlled by the non-sedentary populations around them. This model, analysed by various scholars for different historical periods, helps explain why there was a lack of centralized state control in these regions while at the same time the small and dispersed settlements were still integrated.

References

Assadourian, C.S. 1987. 'Intercambio en los territorios étnicos entre 1530 y 1567 según las visitas de Huánuco y Chucuito', [in Spanish, Ethnic Territories' Interchange between 1530 and 1567. The Huanuco and Chucuito Royal Inspections] In *La participación andina en los Mercados Surandinos. Estrategias y reproducción social. Siglos XVI al*

XX, [Ethnicity, Markets, and Migration in the Andes: At the Crossroads of History and Anthropology], eds. O. Harris, B. Larson, and E. Tandeter. CERES, La Paz, pp. 65–110.

——— 1994. *Transiciones hacia el sistema colonial andino*, [in Spanish, Transitions to an Andean Colonial System] Colegio de México, Mexico.

Cieza de León, P. 1941 [1550–53]. *La Crónica del Perú*, [in Spanish, Peruvian Chronicle] Espasa Calpe, Madrid.

Diez de San Miguel, G. 1964. *Visita hecha a la provincia de Chucuito por Garci Diez de San Miguel en el año 1567*, [in Spanish, Royal Inspection in Chucuito by Garci Diez de San Miguel in 1567] Versión paleográfica de Waldemar Espinoza Soriano. Lima, Casa de la Cultura de Perú.

Espinoza Soriano, W. 2003. 'Trabajadores forzados en el Cuzco y la Paz. Potosí en 1550. Una información inédita de Juan Polo de Ondegardo. El primer desborde poblacional', [in Spanish, Forced labourers in Cuzco and La Paz. Potosí in 1550. An Unpublished Information by Juan Polo de Ondegardo] In *Temas de Etnohistoria Boliviana*, [Themes of Bolivian Ethnohistory] Producciones Cima, La Paz, pp. 333–404.

Flores Ochoa, J.A. 1983. 'Pastoreo de llamas y alpacas en los Andes – balance bibliográfico', [in Spanish, Llama and Alpaca Herders – Bibliographical Essay] *Revista Andina* 1(1): 175–218.

Glave, L.M. 1989. *Trajinantes. Caminos indígenas en la sociedad colonial. Siglos XVI y XVII,* [in Spanish, Carriers. Indigenous Roads in Colonial Society. 16th and 17th Centuries] Instituto de Apoyo Agrario, Lima.

Julien, C., K. Angelis, A. Voss and A. Hauschild. eds. 1993. *Toledo y los Lupacas: las tasas de 1574 y 1579*. [in Spanish, Toledo and the Lupaqas: The 1574 and 1579 Royal Inspections] Bonner Amerikanistische Studien, Bonn.

Matienzo J. 1967. *Gobierno del Perú (1567)*, [in Spanish, Peruvian Government (1567)] Edition et Etude préliminaire par Guillermo Lohmann Villena. Instituto Francés de Estudios Andinos, Paris-Lima.

Medinaceli, X. 2005. 'Los pastores andinos: una propuesta de lectura de su historia', [in Spanish, Andean Shepherds. A Reading of their History: Bibliographical Essay on Ethnography and History], *Bulletin de l'Institut Français d'Études Andines* 34(3): 463–74.

Murra, J.V. 1964 . 'Una apreciación etnológica de la Visita', [in Spanish, An Ethnological View of the Royal Inspection] In *Visita hecha a la provincia de Chucuito por Garci Diez de San Miguel en el año 1567,* [Royal Inspection in Chucuito by Garci Diez de San Miguel in 1567] ed. G. Diez de San Miguel. Ediciones de la Casa de la Cultura del Perú, Lima, pp. 419–44.

——— 1989 [1978]. *La organización económica del Estado Inca,* [in Spanish, The Economic Organization of the Inca State] Siglo XXI, IEP, Mexico.

——— 2002 [1968]. 'Un reino aymara en 1567', [in Spanish, An Aymara Kindom in 1567] In Murra, J. *El mundo andino. Población, medio ambiente y economía*, [The Andean World. Population, Environment and Economy] IEP, Pontificia Universidad Católica del Perú, Lima, pp. 183–207.

Nuñez, L. and T. Dilehay. 1995 [1978]. *Movilidad giratoria, armonía social y desarrollo en los Andes meridionales: patrones de tráfico e interacción económica*, [in Spanish, Gyrating Mobility, Social Harmony and Development in the Southern Andes: Traffic Patterns and Economic Interaction] Universidad del Norte, Antofagasta.

Pärssinen, M. 2003. *Tawantinsuyu. El Estado Inca y su organización política,* [in Spanish, Tawantinsuyu. The Inca State and its Political Organization] Pontificia Universidad Católica del Perú, IFEA, Lima.

Platt, T., T. Bouysse-Cassagne and O. Harris. 2006. *Qaraqara-Charka. Mallku, Inca y Rey en la provincia de Charcas (siglos XV-XVII). Historia antropológica de una confederación aymara,* [in Aymara and Spanish: Qaraqara-Charka. Mallku, Inca and the King in the Charcas Province (15th to 17th Centuries). Anthropological History of an Aymara Confederation] IFEA, Plural Editores, University of St. Andrews, University of London, Inter-American Foundation, Fundación Cultural del Banco Central de Bolivia.

Sanhueza, C. 1992. 'Estrategias readaptativas en Atacama: la arriería mulera colonial', [in Spanish, Adaptive Strategies in Atacama: Colonial Muleteers]. In *Etnicidad, economía y simbolismo en los Andes. II Congreso Internacional de Etnohistoria. Coroico,* eds. S. Arze et al. HISBOL, IFEA, SBH, ASUR, La Paz, pp. 363–85.

Sendón, P.F. 2008. 'Organización social de las poblaciones pastoriles de los Andes del sur peruano: hacia un balance comparativo de un aspecto omitido', [in Spanish, Social Organization of the Shepherd Populations from South Peruvian Andes: Towards a Comparative Balance of an Overlooked Aspect. In *Perú: el problema agrario en debate* [Peru: Agrarian Problem Under Debate], eds. G. Damonte, B. Fulcrand and R. Gómez. SEPIA XII. Lima, Seminario Permanente de Investigación Agraria, pp. 327–74.

Stern, S. J. ed. 1987. *Resistence, Rebellion, and Consciousness in the Andean Peasant World, 18th to 20th Centuries*. Madison, University of Wisconsin Press.

Van Buren, M. 1996. 'Rethinking the Vertical Archipielago. Ethnicity, Exchange and History in the South Central Andes', *American Anthropologist* 98(2): 338–51.

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