

Connecting the threads: From Altiplano to Airedale

3. The journey from Puno to Arequipa



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Most of us are familiar with the story of Britain's industrial revolution, memorably brought to life in Danny Boyle's opening ceremony for the 2012 London Olympics. It is an image of factories with tall chimneys belching smoke produced by coal powered steam engines. We can add to that the coming of steam powered locomotives and ships that cut both time and distances to supercharge the global trade that helped Britain become the workshop of the world. The pace of change stepped up a gear; summed up by the phrase from Marx exclaiming that 'everything that is solid melts into air.'

However, we sometimes overlook the place of continuity in history. Perhaps the most remarkable aspect of the trade in alpaca wool between the altiplano and Airedale was the journey down to the coast of Peru. The railway between the port of Mollendo and Arequipa did not open until January 1871. The railtrack up to Puno was not completed until 1873 and it was the mid-1870s before Puno was connected to other parts of the altiplano. Up until then, trade to and from the altiplano was conducted without carts or wagons. Such was the rugged nature of the terrain that the wheel was not a practical option. Huge packs of llamas and mules laden with goods climbed over narrow mountain passes, traversed precipitous gorges and, on the last leg, crossed the unforgiving desert between Arequipa and the coast. Then, the momentous ocean crossing was completed under the traditional power of sail. Although steam ships plied their trade along the South American coast sail remained the most cost efficient manner to carry cargo on long-haul journeys across oceans. This section will focus on the journey between the altiplano and Arequipa. The desert crossing and maritime stage of the journey will be dealt with more fully in later chapters.

As we have already seen, the nature of production of the alpaca fleeces in the 19th century was atomistic, with small producers scattered over the vast spaces of the altiplano. Jacobsen estimates that there were thousands of Indian peasants supplying more than half of all raw wools as late as the 1870s. (Jacobsen, 67). Hence the need for thousands of llamas and mules to carry the goods down to Arequipa and beyond to the coast. Yet even when the rail link was established large numbers of pack animals were still required to move the fleeces to the railheads.

Jacobsen, along with other historians, points to the long-term existence of what retrospectively has been called the "Andean Space" during the colonial period, before the likes of Peru and Bolivia became independent nations in the early 19th century. In the 16th century, Potosí became one of the biggest settlements in the world thanks to the boom generated by the vast quantities of silver that the mine produced. At its peak in the 17th century, Patrick Greenfield wrote in the Guardian, the population of Potosí was larger than London, Milan and Seville (<https://www.theguardian.com/cities/2016/mar/21/story-of-cities-6-potosi-bolivia-peru-inca-first-city-capitalism>). Potosí is an extraordinary story in its own right but to avoid getting diverted down that particular siding it is enough to note that this huge population needed to be fed, watered and supplied with other goods. Potosí is located in what is now Bolivia, close to the border with Peru, and formed part of the "Andean Space" we have just referred to. Many of the products either came from the altiplano or passed through the zone on route to Potosí on the backs of llamas and mules.



Image showing llamas carrying silver from Potosí

<https://www.niceartgallery.com/pic/646145f2/2126341.jpg>

In addition to this, there was the route down to the city of Arequipa in the west, which was also supplied by products from the altiplano. A further layer of movement was the exchange of produce among the indigenous communities between the various ecological zones that they occupied. Each zone, depending on altitude, soils and local climates, favoured particular crops or livestock that led to the interconnectedness of the region as the various communities exchanged products with each other. Consequently, by the time Titus Salt had perfected the art of spinning and weaving alpaca wool mechanically, the transport networks required to transport large quantities of alpaca fleeces, albeit basic, were already in place.

As Jacobsen informs the reader

"...this geo-economic centrality made it easier for quite a few Indian peasants from Azángaro, Lampa, Paucarcolla, and Chucuito provinces to enter the trade and transport business on a small scale. They could supplement their subsistence economy not just by selling their own livestock products and artisanal goods but also by hiring out their services as muleteers with their own llamas or mules or even by purchasing goods for later resale. This type of Indian trader was a frequent figure on the roads of the eighteenth-century altiplano" (Jacobsen 39).

However, it appears that this was not the whole picture in the next century following independence. Coercion, if Charles Ledger is to be believed, was never far away. Ledger, who we met in the previous chapter, had this to say:

"...the Ylacatas [indigenous chiefs] are ordered to supply, the requisite numbers of llamas for the carriage of wool to its destination. Any resistance on the part of the Indians to supply the wool and the llamas for its carriage is met by the gobernador [government official] by imposition of most harassing gratuitous service to the State, such as repair of roads, foot postmen, domestic servitude..."

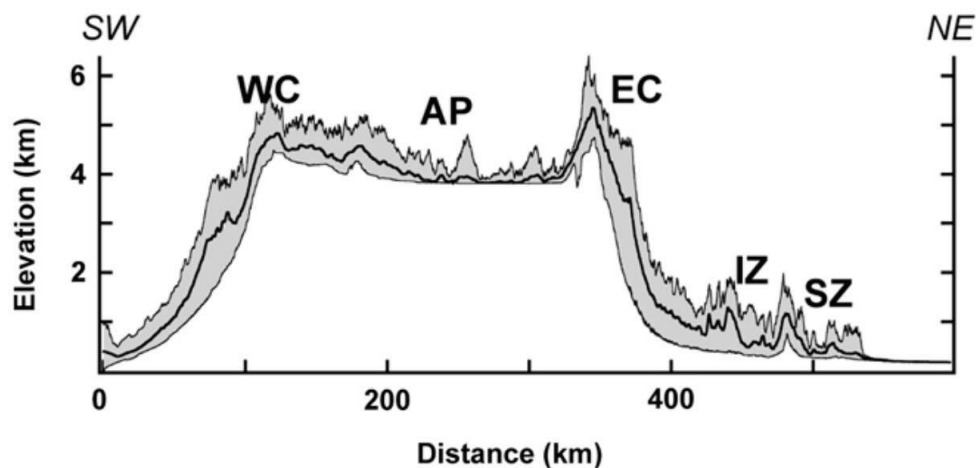
(Ledger, 214)

Whatever the details of the arrangements of the transport might have been, the nature of the journey presented the same challenge to the traveller. In broad terms, the 19th century traveller Clements Markham describes the region to be traversed thus:

But the southern part of the interior of Peru, and the northern portion of Bolivia, present a very different character. From the Vilcallota mountains the Andes separate into two distinct chains, namely, the cordillera or coast-range, and the Eastern Andes, which include the loftiest peaks in South America, ... The region between these two ranges contains the great lake of Titicaca, and consists of elevated plains intersected by rivers flowing into the lake, at a height never less than 12,000 feet above the sea.

(Markham, C. 88)

Below is a cross section of the altiplano (high plateau) that gives an idea of the terrain to be negotiated. The journey that we are interested in is across the altiplano from east to west, with a descent to Arequipa from the heights of the western cordillera.



Map and cross section showing regional topography of the central Andes, including the Western Cordillera (WC), Altiplano (AP), Eastern Cordillera (EC), Interandean Zone (IZ) and Subandean Zone (SZ). Topographic cross section was extracted from SRTM DEM (40 km wide swath). Modified from Isacks (1988), Masek et al. (1994) and McQuarrie et al. (2005).

https://www.researchgate.net/figure/Map-and-cross-section-showing-regional-topography-of-the-central-Andes-including-the_fig5_230483511

Zegarra, in his study of transport costs in Peru from 1820-1920, outlines the respective contrasts between the different terrains confronting the traveller. In the first instance, given the mountainous aspect of the region, there were no navigable rivers and thus none of the advantages that were enjoyed in Britain. He writes of long steep ascents, deep canyons, almost vertical hillsides and narrow roads. Such were the conditions that the use of the wheel was all but impossible, while in places the roads were so narrow two mules could not pass at the same time.



(istock photo)

Zegarra draws on a travelogue, originally published in 1851, written by Lady Emmeline Stuart-Wortley. In Chapter XII of the third volume of her account, she introduces her readers to the problems of Peru's internal communications.

Peru labours under very considerable disadvantages, with regard to inland communication. The elevated plateaux and table-lands, separated by deeply-embosomed valleys, and the gigantic mountains that intervene between the coast and the table-land, render travelling tedious and difficult. Roads and bridges, in many

parts, are entirely wanting; and in places where rude and scarcely-distinguishable paths are found, they lie along the perilous edges of overhanging and rugged precipices, perpendicularly steep; and these tracks, moreover, are almost always so dangerously narrow, that the sure-footed mule can alone tread them with any security.

(cited by Zegarra, L F, 366)

The vital importance of mules and llamas in the transportation of all types of goods and materials in the altiplano should not be underestimated. While Zegarra points us to Wortley for insights regarding the strengths of mules for negotiating difficult terrain, with regard to the qualities of the llama, he then draws the attention of the reader to the experiences of S S Hill who, in an account published in 1860, explains that

This useful animal will carry about one hundred and twenty-five pounds, but a hundred weight is generally considered a full load. He will rarely accomplish more than twelve or thirteen miles during the day; but...it must be remembered that this docile creature requires hardly any care. Moreover, he feeds upon almost every species of herbage found upon the sides of the mountains, and be driven in flocks or herds of several hundreds, which are all obedient to the voice of the driver. He has spongy hoofs and claws, which enable him to pass over beds of ice with ease, and is well protected from any cold to which he might be exposed.

Hill continues by noting that "*Their journeys are sometimes long on the higher lands but, they rarely descend to the lower where the heat is too great, and the atmosphere too dense, for their delicate constitutions.*"

(Hill, S S, 101-102)

While the llamas might have been slower than mules but they were cheaper to buy and maintain. An advantage was that llamas could eat on the go but would not feed at night. According to Tschudi, a Swiss traveller writing in the 1840s, the llamero [llama driver], had to pause during the day to allow the llamas to graze, thus reducing the speed and distance covered. (Tschudi 1847, 308).

Flora Tristan was visiting Arequipa in the autumn of 1833. Born in France to a French mother and Peruvian father she was in Arequipa to visit her deceased father's family. While in Arequipa she found time to comment on the role of the llama as follows:

As llamas offer the only means of communication with the Indians of the mountains they are very important for trade, but one is tempted to think that the almost superstitious reverence in which they are held is due to something more than a sense of their usefulness...Yet they are very strong, climb nimbly up the mountains, endure cold, snow and every kind of fatigue...No other man save the Indian of the Cordilleras would have enough patience or gentleness to make use of llamas.

(Tristan, F 130-32)

TRAVELS IN PERU,

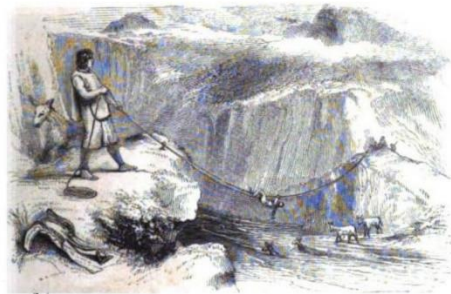
DURING THE YEARS 1838—1842,

ON THE COAST, IN THE SIERRA, ACROSS THE CORDILLERAS
AND THE ANDES, INTO THE PRIMEVAL FORESTS.

BY DR. J. J. VON TSCHUDI.

Translated from the German

BY THOMASINA ROSS.



LONDON:
DAVID BOGUE, 86, FLEET STREET.
MDCCCXLVII.

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<https://archive.org/details/travelsinperudu00tschgoog/page/n9/mode/1up>

Tschudi exclaimed that "a flock of laden llamas journeying over the tablelands is a beautiful sight." He went to remark:

They proceed at a slow and measured pace, gazing eagerly around on every side. When any strange object scares them, the flock separates, and disperses in various directions, and the arrieros have no little difficulty in reassembling them. The Indians are very fond of these animals. They adorn them by tying bows of ribbon to their ears, and hanging bells round their necks; and before loading, they always fondle and caress them affectionately. If, during a journey, one of the llamas is fatigued and lies down, the arriero kneels beside the animal, and addresses to it the most coaxing and endearing expressions. But notwithstanding all the care and attention bestowed on them, many llamas perish on every journey to the coast, as they are not able to bear the warm climate.

(Tschudi, von J J, 307-310)

George Squier, an archaeologist from the USA, does not inform us as to how the sight of more than a thousand llamas impacted on his senses, but he does provide us with an indication of the scale of the enterprise that we are investigating:

The merchants of Tacna have built here a rude enclosure for the droves of llamas that come from the interior with products for the coast, and here also is a little cluster of buildings for persons connected with the trade, homely and poor, but a welcome refuge for the tired traveller. As we rode up, a troop of more than, a thousand llamas, with proudly curved necks, erect heads, great, inquiring, timid eyes, and suspicious ears thrust forward as if to catch the faintest sound of danger, each with its hundred pounds of ore secured in sacks on its back, led, not driven, by quaintly costumed Indians, filed past us into the enclosure of the establishment.

(Squier, E G 245)

Llamas then, were better adapted to conditions in the highlands whereas mules coped better in the coastal desert environment. However, mules had the capacity to cover double the mileage of the llamas. This is an important factor when it came to the distances that had to be covered. The route from Cuzco to Arequipa, pre-railway, was around 415 miles and took 10 days. To reach Arequipa from Puno it took 6 days to cover 184 miles. Having considered the overall picture of the movement of goods in southern Peru we can now turn to the experience of undertaking the actual journey.

What follows is a description of the journey likely to have been followed by the alpaca wool from Puno to Arequipa. The wool that would eventually find its way to Saltaire. I have chosen this section from among other possible routes in order to make a later comparison following the arrival of the railway to Puno. It is based on the 6 day journey undertaken by S S Hill (17-26) in the autumn of what appears to be 1860. However, it will include contributions from other travel accounts such as those of Clements Markham and George Squier. Markham travelled the route in both directions but his most detailed account concerned the conditions he faced while travelling from Arequipa to Puno for the period from March to May. He seems to have taken 7 days, while he appears to have made the return trip in late May in 6 days for which he provided only the briefest outline.

As the reader will have realised by now, this recreation of the journey relies exclusively on the travelogues of foreign travellers rather than Peruvians familiar with the terrain. However, in the course of my investigations I have discovered several of these travelogues while reading the work of professional historians indicating that these are the only primary sources available to any would be researcher. Here is what Deustua, writing about routes connected to the silver trade further north, has to say on the matter:

Methodologically it would be preferable to use the accounts of arrieros or llameros to gain a precise picture of the road conditions and the routes of trade and transportation. Such testimonies, unfortunately, are scattered, and not descriptive at all. Travellers, by contrast, are very observant, and they portray in detail the roads and the incidents of their journeys. The obvious reason in this case is that the travellers were almost always foreigners, amazed by the discoveries they were making on these, their first trips to (for them) unknown regions of the Andes. The mestizo or Indian muleteers,

accustomed to their routine trips, knew perfectly the areas they were travelling and were not surprised by them. Furthermore, they did not write, while the foreign traveller had the aim of producing a literary or scientific testament to the trip. Thus, for the historian of today the surprised newcomer left vivid accounts and descriptions of the Andean roads, while the frequent traveler, the person who knew well the landscape and the locales, left only scattered records.

In his conclusion, Deustua makes this evaluation of the sources:

The accounts of travellers who followed the trade routes at different times fill out in rich detail the picture of the internal market organized by the silver trade. They describe all the localities they passed, the haciendas, estancias, towns, Indian villages, and peasant communities; the types of landscape and production found there; and the links established with these suppliers as well as “mineral towns,” suppliers of mining inputs, and peasant Indian communities, suppliers of livestock, pack animals, and other products. They also convey the state of those roads and the conditions of transportation in nineteenth-century Peru before the advent of the railroad.

(Deustua, J. There are no page numbers available)

While we should keep in mind the possible bias that foreign observers might be bringing to their accounts, professional historians have established that these are our major sources for an understanding of the travelling conditions on the altiplano during the period that we are focusing on.



Taken from Gootenberg, P. Between Silver and Guano (Accessed online)

That said, we need to remember that these travellers are part of small group expeditions travelling by mule. So far I have not encountered any first hand detailed accounts describing large mule-trains or packs of llamas carrying products to and fro; only brief encounters such as that of the one thousand llamas referred to above. The arrieros [muleteers] or llamereros [llama drivers] would have been well adapted to the terrain and prevailing weather conditions

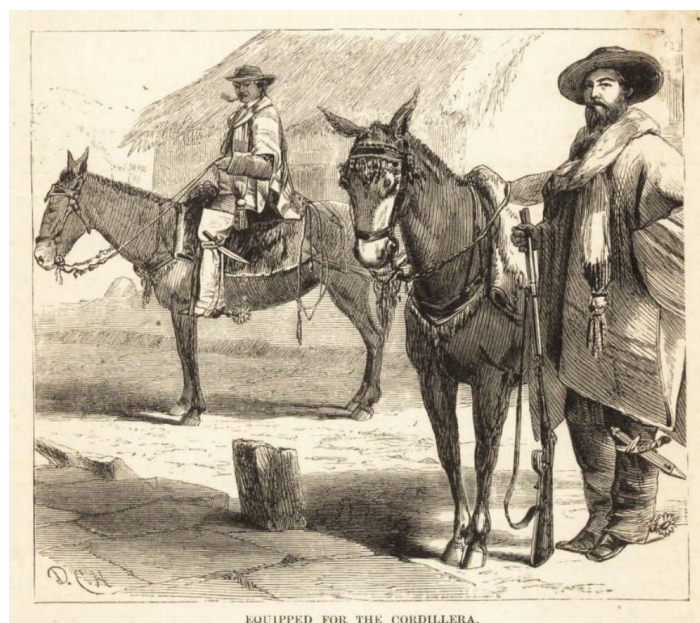
and perhaps more likely would have been given to more prosaic comments regarding their journeys. Nonetheless, these are the workers who would have been toiling in similar conditions experienced by these Victorian travellers. We should not forget either that these travellers had local guides with them. Personnel who are rarely mentioned in the travelogues never mind praised for their assistance. It is thanks to these intrepid travellers sharing their experiences for posterity that we are able to recreate this journey. However, it is the nameless arrieros and llameros of the altiplano that we should be keeping in mind. They might not have recorded their experiences to help us with our investigations, but without them, the alpaca wool would never have reached the less hostile environment of Saltaire. They are the first link in a global commodity chain that takes us from the altiplano to Airedale.

From Puno to Arequipa

At around 12,500 feet Puno rests on the shore of Lake Titicaca, the highest lake in the world. According to Markham it is "hemmed in by an amphitheatre of mountains" and owes its origins to the silver-ore to be found there. Beyond the lake on his descent into Puno he could see the snow capped mountain range. He considered the streets to be clean and well paved while on several corners there were drinking fountains. The water he declared to be excellent. (Markham, C 94-95)

Day 1

Upon leaving Puno, whether with mules or llamas, there was a steep zig-zag slope to be negotiated leaving the town and the lake behind. Having arrived in Puno from Cuzco, Hill considered the country during the earlier part of the journey, to be far more agreeable than any over which we had passed since leaving Cuzco; and in some parts he found it to be 'tolerably cultivated'. After a distance of six leagues from Puno (18 miles) he arrived at the small village of Vilque, where a fair is held annually. The same fair that we learned about in the previous chapter as described by Markham. According to Langer, the fair was also important for the sale of mules, many of which came all the way from central and northern Argentina. (Langer, 19)



Taken from: Squier, EG (239)

Day 2

After waiting overnight in Vilque the wool was ready to depart on the second day of the journey. It is a day of climbing and descending stony hills that Hill describes as tedious but not without dangers. However, the animals that were with them were well used to dealing with the perils of challenging terrain and undertook the difficulties with what he judged to be indifference. Nonetheless, upon arriving at the Tambo of Comhorta (possibly a different spelling of La Compuerta where Markham stopped over) after travelling ten leagues (30 miles) the mules were fatigued and in need of sustenance. Unfortunately, for his party, there was a lack of fodder available at the Tambo.

The tambo system was a legacy of the Incas. They were a kind of service station along the road system for travellers to stop over. Hill reports meeting up with a merchant and his wife who were from Arequipa with whom they shared the accommodation. Accounts from travellers tend to describe them in terms of their basic facilities although they might vary in size depending on the volume and frequency of traffic. Sometimes staff providing rudimentary services attended them or they might be unattended and thus more like a refuge to provide overnight shelter. Here is a description from Squier, writing in the 1860s, of his experience of a tambo:

Often these tambos are without keepers, occupants, or furniture of any kind ; but that of Tacora had a resident, who occupied the principal building, in which he had a scant store of wilted alfalfa, and a few articles of food, principally the flesh of the vicuna. Another building served as a kitchen ; a third for the storage of cargo and as a dormitory for the arrieros [muleteers]; while the fourth was reserved for travellers. It had no entrance or opening except the door-way, elevated two feet above the ground, and barely large enough to permit a full-grown person to squeeze through. This was closed with a flap of raw hide. The interior was dark and dirty beyond description. I doubt if it had been swept, or if any- attempt had been made to cleanse it, for many months. This den had no furniture whatever, only there was the usual mud-bank on every side, whereon the traveller might spread his bed.

(Squier, E G 252)

Day 3

We can be confident that the arrieros knew what to expect from the tambo and were well accustomed to such conditions. After getting their heads down for the night they were ready for departure the following morning. The route however, according to Hill, was extremely rough, ascending steep hills almost all day, with nothing but the perpetual variation of the scenery to offer distraction from the rigours of journey. In the afternoon one such distraction was the appearance of two lakes on either side of the road, although the continual ascending seemed to be taking its toll as Hill records that he was experiencing more than his usual difficulty in breathing. After an estimated stage of seven leagues (21 miles) the tambo of Apo must have been a welcome sight in order to recover from a difficult day.

Breathing problems did not only affect humans but the mules too. Although Squier was not describing the route we are following he had this to say regarding a particularly arduous ascent during his travels:

...we began to climb the steep mountain-side on our right, zigzagging towards the cumbre, or crest. Two hours were occupied in this slow and painful ascent, the mules suffering much, and frequently stopping to recover breath.

(Squier, E G 244)

The glare from snow in the sun was another challenge. While the locals were probably well adapted to the rarified atmosphere it seems that their eyes suffered from the reflection of the snow. According to Tschudi Europeans protected their eyes with green spectacles and veils (Tschudi, von J J, 298) whereas the locals apparently did not have such eye protection.

Day 4

During the first part of the following day's journey, the group were still ascending stony mountains, the sterility that reigned everywhere around being without the smallest relief, according to Hill. This description appears to be supported by the observations of Markham who bemoaned having to traverse the '*cheerless desolation of the plains*' (89). Whether the llameros or arrieros of the altiplano thought of them as 'sterile', 'cheerless' or desolate is an intriguing thought. This is their terrain in which they would have been very familiar and most probably felt at home. A landscape that probably had meaning for them but carried little for a European traveller.



Llama Train on the Andes.

https://www.lookandlearn.com/history-images/preview/M/M083/M083501_Llama-Train-on-the-Andes.jpg

Perhaps they would have been less enamoured of sandstorms, for when Hill's party reached the summit of this Cordillera, they came upon

an undulated pampa, where the cold was excessive, but there was neither damp nor snow. The ground was covered with loose sand, which as we proceeded became violently agitated by the wind, and drifted with great force, in circles similar to those caused by a whirlwind; so that we had some difficulty in keeping together, and without the use of our pocket compasses could not have found our way.

Having reached the summit the descent on the other side brought its rewards to the weather beaten traveller. The gusts of wind ceased, and the breeze died gradually away, until, Hill remarks, perfect stillness allowed a moment to contemplate the vast ranges of mountains capped with snow within view. Also in sight was Mount Misti, a powerful volcano that forms part of the skyline as seen from Arequipa, emitting its thin vapour that mingled with light clouds.

We should keep in mind that these travelogues were intended for a reading public which wanted to learn of spectacular landscapes and epic journeys. Like any book today that wants to sell copies, the trick is to help the reader connect to the travellers and wanting to turn the

page. According to Mary Louise Pratt, these travelogues had a large readership of armchair travellers in Europe. These are the experiences of travellers on an adventure writing for a European audience and not the perspective of the arrieros engaged in their more humdrum lives.

As the descent progressed it was important to reach the next tambo as soon as possible owing to the weak condition of several of the mules becoming increasingly apparent. At this stage Hill's group was still more than twenty leagues (??miles) from Arequipa, but finally arrived for that evening's stop at the tambo of Pati feeling satisfied, even though they have covered only seven leagues (?? miles) that day.

One of the hazards facing these travellers was encountering the very mule trains that we are interested in following. That is to say, meeting up with them on some of the narrow paths, on steep slopes with precipitous drops to the side. Although recounting his experiences on a different route Squiers explains the procedure for dealing with such encounters:

These atajos [mule trains] are always led by an educated horse, with a sonorous bell attached to his neck, to warn approaching travellers to stop at some spot where the road is wide enough to prevent their being run down outright, or toppled over the precipices, by the heavily laden train that plunges down behind the equine leader. The fear of being thus run down is what most disturbs the traveller in the Sierra, where there are many long and dangerous passes, with paths so narrow as not to admit of two animals passing each other. It is customary to shout or to blow a shrill blast on a pandean pipe, which every arriero carries for this purpose, before entering on these dangerous sections of road, which is responded to by whoever happens to be struggling along it. If not answered, the road is supposed to be clear. (Squiers, 242)

Tschudi, writing of his experiences earlier in the century, gives us an example of one of his encounters that also goes some way to explaining why these journeys were so slow, quite apart from the challenging ascents and descents over difficult terrain:

...long trains of mules are frequently met coming from the Sierra. The traveller, at their approach, seeks some little recess into which he may creep, and there stand closely jammed against the mountain until the train passes by. This is attended by great loss of time, owing to the slow and cautious pace at which the mules proceed. On such an encounter in a narrow moimtain path, I was once obliged to wait for several hours, whilst two hundred mules passed by; and at the spot where I and my horse stood, the laden animals had scarcely space sufficient to set down their feet at the very edge of the pathway. In some places it is perfectly impossible either to go on one side or to turn back ; and when horses or mules meet at these difficult points, one of the animals is obhged to plunge into the stream, before the other can have room to pass. The numerous curvatures, of the road, and the projecting masses of mountain, render it impossible to see advancing objects in sufficient time to avoid collision. (Tschudi 273-4)

While we might not have direct reports from the arrieros themselves as to their experience of managing 200 heavily laden mules in such circumstances, these travel diaries give us an insight into the scale of the operation and the day to day hazards faced by the workers. It would have have been interesting to be able to eavesdrop on the conversations among the

arrieros at one of the tambos at the day's end as they complained of the inconvenient hold-ups caused by the nuisance of foreign adventurers obstructing their way.

Day 5

The first part of the next day's journey was described in similar terms to that of the previous afternoon. The entry for this stage was brief but does record that they had covered fifteen leagues (52 miles) upon reaching the tambo of Cangallo. Although it was just five leagues from Arequipa, there was clearly not enough time to make it to the city so the party opted to rest overnight. (Hill, S S. 24). They did report that they had crossed several vales. Markham, whose account was for the journey towards Puno, wrote of having to ford the River Chile, which flows past Arequipa, more than a dozen times. (Markham, C. 89)

None of the accounts covering the route from Puno to Arequipa mention bridges but it is hard to imagine that there were none on the route. In other parts of Peru, travellers describe bridges of various types, some of which were not for the faint hearted. Traversing these structures also offers another explanation as to why these journeys sometimes proceeded so slowly. Tschudi describes one such structure was called a 'soga bridge' which were often crossed with the aid of a *puntero*. The Spanish for bridge is 'puente' so a *puntero* is a guide who helps travellers cross the bridge. Tschudi describes the '*puente de sogas*' as a large hanging bridge.

These bridges are composed of four ropes (sogas), made of twisted cow-hide, and about the thickness of a man's arm. The four ropes are connected together by thinner ones of the same material, fastened over them transversely. The whole is covered with branches, straw, and roots of the Agave tree. On either side, a rope rather more than two feet above the bridge serves as a balustrade. The sogas are fastened on each bank of the river by piles, or rivetted into the rock. During long continuous rains these bridges become loose and require to be tightened ; but they are always lower in the middle than at the ends, and when passengers are crossing them they swing like hammocks. It requires some practice, and a very steady head to go over the sogas bridges unaccompanied by a Puntero. However strongly made, they are not durable ; for the changeableness of the weather quickly rots the ropes, which are made of untanned leather. They frequently require repairing, and travellers have sometimes no alternative but to wait for several days until a bridge is passable, or to make a circuit of 20 or 30 leagues. The Puente de Soga of Oroya is fifty yards long, and one and a half broad. It is one of the largest in Peru ; but the bridge across the Apurimac, in the province of Ayacucho, is nearly twice as long, and it is carried over a much deeper gulph.

(Tschudi von J J p287-288)



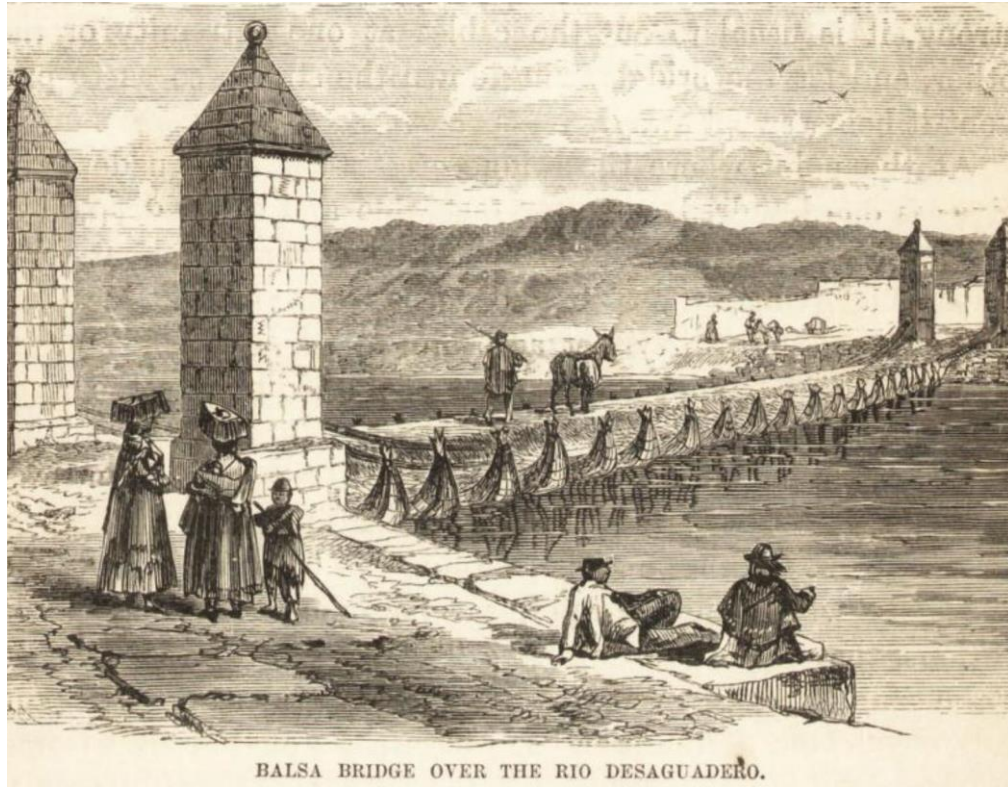
HANGING BRIDGE OVER THE RIO PAMPAS.

https://archive.org/details/gri_peruincident00squi/page/558/mode/2up

Taken from Squier E G (558)

A less terrifying experience would seem to be the balsa bridge encountered by Squier.

It is a floating bridge, not unlike that across the Rhine at Cologne, except that, owing to the entire absence of timber in the country, the floats are of dried reeds, bound together in huge bundles, pointed at the ends like canoes. These are fastened together side by side by thick cables of braided reeds, anchored to firm stone towers on both banks. The roadway is also of reeds resting on the floats, about four feet wide, and raised above the floats about the same height — a rather yielding and unsteady path, over which only one or two mules are allowed to pass at a time. The causeways leading to both extremities of the bridge are barred by gates at which a toll is collected. When the river is swollen and the current very strong, it is usual to cut the cables at one extremity or the other, and let the bridge swing down the stream so as to prevent it being swept away.



BALSA BRIDGE OVER THE RIO DESAGUADERO.

https://archive.org/details/gri_peruincident00squi/page/264/mode/2up

Taken from Squier, EG (265)

Our arrival in Arequipa with our cargo of alpaca wool is now not so far away. A night of rest with one final day of travel will see us arrive in the city where we will hopefully find some comfort after the hardships of trekking over the altiplano.

Day 6

Hill's party had a prompt departure and arrived at the ridge of Mount Misti at an early hour with the sun rising behind them as they looked west. The welcome sight of the destination perhaps distracted him from telling us any more about this ridge so we cannot be sure that it is the same one as described by Markham who, to be fair, was heading in the opposite direction having only recently departed from Arequipa. The ridge Markham tells us about was called, he informs us, the

'alto de los huesos' the southern spur of the volcano, so called from the bones [huesos] of thousands of mules which are met at every turn. (Markham ??)

Another matter of fact reminder of the suffering that these poor animals endured and without whom trading would have been even more limited. Life might have been hard for the arrieros but some of these animals were worked to death. At times they were also conscripts during the numerous conflicts that afflicted Peru following independence.

In a report made from the Port of Islay by Consul Wilthew for 1865 he remarks that "More wool would have been shipped had there been more beasts of burden to bring it down from the interior." The report continues:

On account of the revolution that broke out in the month of February in Arequipa, and lasted until November, when the revolutionary forces entered Lima, it is only astonishing that commerce should have progressed as it has done; for as everything in this country is transported on mules, and as so many of these animals were impressed for the transport of the army, all trade has languished, the carriers afraid to move from their homes until they were sure of not being molested; not wishing to expose themselves or their beasts to be in danger of being recruited for the service of either the revolutionary party or that of the government.

Wilthew had intelligence that 2,000 mules were taken from the department of Cuzco by revolutionary forces on march to Lima. Few of the creatures had found their way back to their owners and he claimed and that in a majority of cases they have not been, and probably never will be, paid for. (Report of Consul Wilthew 1865)



Such concerns regarding the ultimate fate of the mules were not front and centre on the mind of Hill and his party nor probably on the part of the arrieros either, other than, perhaps, the economic cost of a lost beast of burden. However, we now begin our final descent to reach the destination of Arequipa where the merchants will be anticipating the arrival of the cargo. Hill recounts gradually descending the mountains and

after passing through rude paths, where we rarely caught a glimpse of the country around, we arrived at a village a little more than a league from Arequipa, and here dismounted to refresh our jaded animals...After a short repose, we remounted, and soon entered the city of Arequipa from which I had now been absent about two months and a half, and I had once more the pleasure of meeting my excellent friend Mr, Jack, and the rest of my kind friends in the town.

Mr Jack was a British merchant from Scotland who ran the Arequipa Office of the House of Jack & C°. This house played a big part in our story and we shall learn more of him, and his family who also ran the business office in Liverpool. While the mules and the arrieros take a well earned rest, we are going to enter the world of Jack & C°, along with the other merchant houses in Arequipa, and the characters who facilitated the trade in wool between the altiplano and airedale. Following that, we will resume our journey by crossing the desert to the Pacific Coast from where the wool will be taken on the maritime leg of the journey across the ocean to Liverpool.

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