

**Alberto Corsín Jiménez***Landscaping history:  
Nitrate mining in the Atacama Desert  
in the twentieth century*

This chapter presents an anthropological reading of the history of nitrate mining in the Atacama Desert, from the late nineteenth century to the present. This account is based on historical, archival and ethnographic sources, deriving from a two-year period of fieldwork in the towns of Antofagasta and Maria Elena. The chapter explores some of the ideas and images that permeated the life of the desert mining communities throughout that time. In particular, I focus on people's relationship with the desert, and on how this relationship impinged on and gradually transformed the *salitre* (nitrate) miners' self-perceptions and identity.

My reason for focusing on people's relationship with the desert is simple: this is what people single out today as the key marker of their identity. They call themselves 'Pampinos', or people of the *pampa*. (*Pampa* is the name given in Chile to the nitrate desert. However, unlike the desert, the *pampa* is a human, historicised environment.) These people also think of themselves as historical actors, for the *pampa* occupies a unique and prominent place in the imaginary of twentieth-century Chilean history. This chapter is therefore about the history of a word — *pampa* — and about the constellation of meanings that it has conjured up in a century of Chilean historical consciousness. The history of nitrate mining may be read as the history of a relationship of 'translucence' between people and the desert. 'Translucence' marks and captures the Pampinos struggle at making their historical enterprise in the desert visible, an endeavour not always successful.

## Gigantism and translucence

*Salitre* mining in the Atacama Desert goes back a long time. The Inkas and Atacameños used nitrate sparingly as a fertiliser for centuries before it became an object of desire for industrial treasure hunters (Bermúdez Miral 1963, 1979). However, indigenous usage was minimal and it was not until 1809 that a breakthrough in the refining of sodium nitrate scaled up the operations and the market. This first technological thrust, known as the Paradas system, pioneered the basic principles of refining nitrate, which have not changed to the present day. A second moment of expansion came in 1853, when Pedro Gamboni introduced the use of steam in the extraction process. By 1878 the desert was already populated by 94 Parada refineries and 71 Gamboni refineries, also known as *oficinas a máquina* or machine refineries (Durruty 1993:30).

Around the 1880s, on arriving in the nitrate fields of the northern Chilean desert, the miners-to-be encountered a desolate landscape of industry that was often described as overpowering and alienating. Most labourers came from the country's southern agricultural valleys and an industrial landscape was foreign to a good number of them. Writing in 1895, in a story that reports the experience of a southern labourer in the nitrate north, Mariano Martinez describes the protagonist's reaction on setting foot in a nitrate refinery for the first time:

He had heard talk about [the *pampa*] often, but never imagined it like this, so sad and barren ... The machines' snorts and the crushers' infernal noises scared him slightly. He felt as if in a foreign country ... Martinez 1895:2

The character in Martinez's novella is quick to find his way around, and we soon learn that despite the refinery's fierce soundscape, the turn-of-the-century nitrate industry was in fact characterised by technological backwardness: men, not machines, were the industry's prime source of energy and momentum (Fig. 24.1).

The fact is that up until the late 1920s nitrate mining remained a labour-intensive trade and workers had few chances of measuring up to the world of industrial machinery. Manpower, not machine power, became the yardstick of productivity and efficiency, and the bodies of men were correspondingly made



Figure 24.1  
 Salitre mining about 1900 at Punta  
 Pichalo, Pisagua, Atacama Desert  
 image courtesy the Daniel Buck collection

to stand as symbols of the industry's wider progress and development. The physical strength and stoutness of nitrate miners became a much-contested issue, and discussions on the ups-and-downs of industry often included comments on the quality and breed of workers. For instance, in 1921, during a senatorial discussion on the maximum weight of saltpetre bags (down from 92 kilograms to 80 kilograms), the journal of the scientific association of nitrate producers published a piece on the physical deterioration of 'the race'. The article argued:

that the decadence of the manual worker has been going on for at least thirty years now. We, the true people of industry, who have had to deal with such men on a regular basis, are witnesses to the decadence, the unequivocal causes of which are drinking and venereal diseases. Parodi 1921:161

The effects of drinking on the bodies of workers, and by extension on the operations of industry, proved a particularly profitable subject of discussion for moralists. To the educated and civilised eyes of urbanites, miners were regarded as dirty and unhygienic, as well as all too fond of drinking, gambling and whoring. People had a rather low opinion of them, as indicated by the name for which they were known: *rotos pampinos*, or 'the thugs from the *pampa*'. Moreover, there was a widespread belief that the *pampa* had a peculiar influence on people's upbringing and 'mentality'. This is how a newspaper put it in 1921:

in the hinterland [*pampa*], workers are exposed to special climatic conditions. The air, the sun, the *pampa*, the mirages, the electric potential of the atmosphere, the skies and the horizons, everything there, in sum, has the strange virtue of making people easily suggestible.

'Las clases trabajadoras', *El Abc*, 1921

The body of the miner became the subject of competing discourses about the wellbeing of the race, on the one hand, and the welfare of the industry, on the other. The figure of the miner became a conflation of moral and economic values. This was grounded in the *pampa*'s landscape of wealth and was articulated in terms of depletion: whilst the land was depleted of its mineral riches, the community of Pampinos had to combat the extraction of their life force as a historical group. A sense of gigantism, of being larger-than-life, pervaded both. Let me explain.

The concern with the body and power of the miner was noted in the abundance of terms that Pampinos used to characterise the size and strength of fellow workers. Writing in 1936 and looking back to the turn-of-the-century mining days, Augusto Rojas Nuñez, a former Pampino, talks for instance of the variety of *hombres-toro* (bull-men), *fortachos* (strong men), *mulas* (mules) and ‘Hercules’ that populated the *pampa* (Rojas Nuñez 1936:7–14). The names of the tools that workers used were heavily sexualised and gendered. For example, the giant hammers employed to crush the outer layers of mineral were known as *machos* or ‘males’ (Gonzalez Miranda 2002:415).

Rojas Nuñez’s prose is weighted with admiration toward such strong men and we find similar approving remarks about those workers whose fist fighting or boxing skills were known across the region. The popularity of fighting was such that in the nitrate refineries of La Noria and Cocina, for instance, people had the custom of getting together for communal fights on Sundays (Rojas Nuñez 1936:56). Each refinery had its reputed fighter, and these would look out for one another, travelling the distance between *oficinas* to measure up their forces (Rojas Nuñez 1936:38–39). Social relationships became organised around men’s self-assertiveness and independence.

Rojas Nuñez’s comments echo the popular view that admired and praised men’s capacity to express and assert their autonomy and haughtiness, even when such abilities were dangerous to others. He recalls for instance the story of El Arañita y Panchito Herrera, two men famous in the *pampa* for their skill at fighting with knives. Men with such abilities received the name of *guapos a cuchillo*, or ‘beautiful knife-fighters’ (Rojas Nuñez 1936:17–19). Equating beauty and, more generally, morality and affection, with danger and evil was in fact a widespread cultural practice in the *pampa*. People who distinguished themselves for their smart appearance and dress were known as *futres*, a term also used to refer to the devil (Gonzalez Miranda 2002:402). The word *niño* (boy) was used amicably to refer to fellow workers, but when applied to supervisors the term stood for ‘thief’, and in the compound form *niño diablo* (devil boy), the term was used to talk of workers whom one could not trust (Gonzalez Miranda 2002: 419). In a similar vein, the word *anima* refers to wandering souls, who ramble around the *pampa* terrorising people. Yet a diminutive of *anima*, *animita*, is used to refer to good-willed souls, who will

often concede *favores* (favours) to the people who preserve their memory. This is generally done in the form of small, makeshift shrines, which are erected at the person's death place.

During the early years of the twentieth century, discourses on nitrate mining evoked a particular land–person relationship that centred on images of labour-power and strength, on the one hand, and on an unstable and fearful landscape of wealth (populated by devils and *animas*), on the other. People confronted the gigantic (the fearful and unknown desert) by making themselves gigantic (self-assertive and independent). This is best expressed in the local legend about Tolololampa, a 'giant' — his footprints were 45 centimetres long and his footsteps 180 centimetres apart — whose trail people kept coming across in the *pampa* but whom no-one had ever encountered (Rojas Nuñez 1936:68–69). The giant stood against the extractive and depletive economy of mining as an elevated figure of power and self-containment. Tolololampa is an exemplary archetype of manpower, capturing the miners' struggle to mark their presence in the desert in the early 1900s. In this sense, the giant Tolololampa represents that which was gigantic about human life in the *pampa*: the human effort at making history and at resisting the depletive and erosive forces of capitalism and the desert.

The legend of Tolololampa, like the images of the handsome *futre*, or of the uncontrollable and wandering *animas*, speaks also about the extent to which the *pampa* was regarded as a fearful territory. The desert was too vast a territory to be known; too many life forces unfolded in its interior. Such lack of purchase or control over the environment of the *pampa* is further signalled by the element of translucence that runs through most of these stories. What is common to the devil, the wandering souls and the invisible giant is their transparency to light: they are known to exist but resist apprehension; they can be visualised but are not visible. The paradigmatic case of translucence is La Huasicima, a legendary magic mine, incidentally encountered by different people on different occasions, but never found when returning to properly exploit it (Rojas Nuñez 1936:77–80). La Huasicima became visible only to those who were lost in the desert (Rojas Nuñez 1936:78), underscoring the purposelessness of all historical enterprises in the *pampa*.

## Hollowed-out history

Much has of course changed in the *pampa* from the early days of the twentieth century. For one, the *salitre* industry no longer occupies the place of prominence it once held in the Chilean economy. The development of synthetic nitrates by Germany in the 1920s brought the Chilean monopoly to an end and with it, the gradual decline of the industry. Today, there is only one nitrate refinery and company town in business, Maria Elena, and it too is destined for closure in the near future. Yet the overpowering presence of the *pampa* still looms large over the lives of workers and their sense of history.

Around 1921, some years before the manufacturing of synthetic nitrates delivered its near-terminal blow to the industry, the Chilean government and the national Association of Nitrate Producers (ANP) decided to join forces and collaborate in the development of a new industrial process that would once and for all lift the industry from its technological backwardness. Up until the 1920s, work in the *pampa* had been conducted by quarrymen (*particulares*, literally ‘particulars’) and bar men (*barreteros*), who were contracted on a piece-rate basis and were therefore effectively self-employed. This meant that the organisation of production mirrored the autonomy and independence of labourers described above.

The Guggenheim Brothers, who already ran copper operations in Chile, sponsored the joint ANP–government project. In 1926, Maria Elena, the first of two nitrate refineries based on the new technology, was built; Pedro de Valdivia, the second, opened in 1931. Within the space of five years, a new mode of livelihood was born in the desert. The residential and leisure quarters that were built to accommodate the workers of the new refineries were of a kind not seen before. Unlike previous company towns, Maria Elena and Pedro de Valdivia were ‘scientifically’ designed and planned, following utopian ideas about the ‘ideal’ city (Garces Feliu 1999). The layout for the towns included space for a church, a social club, sportsgrounds (including a swimming pool and a golf course), a theatre, school, library and a hospital.

The new Guggenheim-sponsored refineries helped transform the industry at another level too. The scale of operations of the new plants was up to four

times that of the old refineries, the increased complexity of operations thus bringing about important changes in the organisational structures of the refineries and company towns. Workers became accountable to fellow team members, to foremen, supervisors, mid-level managers, *pampa* chiefs, and administrators. Arthur Stickell, a labour historian, has noted how between '1921 and 1929 the ratio of administrative to production personnel in the nitrate industry rose from 3.4 per 100 to 11 per 100' (Stickell 1979:246).

The passing in 1924 of the first Chilean labour code further compounded the effects of the reorganisation of production. Under the new code, workers were only to work 8 hours a day, 48 hours per week, thus forcing administrators to monitor hourly rates of productivity in relation to production schedules. The question of productivity was also at the heart of another issue that burdened the industry around this time: industrial safety. Before 1916, employers were not liable for accidents in the workplace. This changed in 1917, when the first law giving rights to indemnification for work-related accidents was passed. Companies thus hurried to set up safety programs, and the ANP sponsored an annual safety contest between *oficinas*, which was later to be emulated by individual companies.

The changes of the 1920s thus brought a new face to the industry and its environment. The *pampa* acquired a new profile, and the images of work and masculinity that had once risen against its depletive landscape were soon to give way to a wider sense of community and 'moral industry'. Concern with safety, for instance, brought about a concern with the education of the workforce, and with the larger role that the workforce played in the construction of the nation-state and national 'family'. The publicity for the 1937 annual safety program of Oficina Chacabuco said it thus:

It is a moral obligation of every member of society to be good with his fellowmen, out of which is born the necessity for mutual cooperation in defence of the collectivity ... The fight against work accidents has a humanitarian, social and national end. A disabled person is a human disgrace, a social burden, and a son with whom the fatherland cannot count. A fatal accident amounts, often, to a broken household, a family left to their own fortune, and a group of orphans who at a tender age are left in need of the help and advice of their fathers.

Departamento de Bienestar Social Oficina Chacabuco 1937

The ‘nitrate family’ thus stood as a symbolic expression of the national family, and in the nitrate desert the mining companies played a fundamental role in the way that ‘family’ relationships were shaped and played out. Corporate welfare policies became widespread, regulating the life of workers on almost every front (cf. Klubock 1998). Reproduction was monitored and controlled by way of family benefits; discourses on domesticity and femininity helped define gender relations, and workers were ‘industrialised’ to the point where they almost became the property of industry. My informants in the field, all former workers at Maria Elena or Pedro de Valdivia, spoke for instance of their lifetime in the nitrate refineries, in terms that echoed a walk or progression through industry. The imagery and vocabulary of industry — machines, tools, skills — ran through their autobiographies, and permeated the way they spoke about establishing relationships with others. Luis Torres, for example, arrived in Pedro de Valdivia in 1938 at the age of five from the neighbouring refinery of Santa Luisa. On our first encounter, he summed up his (and in general, one’s) upbringing in the *pampa* in the following way:

one belonged to the firm; you were the company’s property until the age of 18. You could not seek employment before that age, unless of course you left the town. You had to attend school and follow the path that the company had planned for you: from primary education to a technical school, or to the industrial lyceum in Antofagasta or Taltal. Myself, I went to Illapel to study. I spent three years there, studying mechanics. They taught me how to file, cut, drill; they taught me technical drawing. Back in Pedro, on my first day at work, I was sent to the furnace section. I stayed three months there. Then I went to the lathe section, and I worked there until 1994, when I fell sick. I worked for over forty years in lathing.

Luis’s comments rehearse another point common to the experience of nitrate workers during this time: bad health and sickness. The fearfulness of the *pampa* of old still pervades the way people imagine the desert. Like then, the *pampa* is today thought of as a depletive environment, sucking away people’s life forces as they labour to mine its riches. This is how people report the condition of silicosis-suffering workers, whose lungs are said to turn into mud when they leave the *pampa*, from the dust they have breathed in their labouring lives (cf. Finn 1998:177–200). The idiom of depletion or exhaustion (sickness, draining, emptying of vitality and human powers) is in fact stretched



**Figure 24.2**  
*Oficina Humberstone, one of many  
abandoned salitre towns on the nitrate  
pampa, Atacama Desert*  
*photograph by Jaime Plaza van Roon*

to encompass the very passing of history, which today is rendered by many as a process of ‘hollowing out’ the past. The mines closed, the workers left and the landscape was left moribund, empty of life (Fig 24.2). The phrase *dejan el hoyo y se van* (they leave, leaving nothing but the pits behind) is often heard in condemnation of the foreign-owned mining corporations, who took away the mineral and its history, when they closed the mines. Echoes of this concern are found again in the way people speak about the cemeteries of abandoned nitrate refineries, which are often found in a state of neglect, damaged by the erosive forces of the desert, many even despoiled by tomb raiders. The *pampa*, people complain, fades away, leaving a spectral past behind. Today, then, like a hundred years ago, the language of the desert brings us back, full circle, to the imagery of translucence and disappearance that haunted the turn-of-the-century mining giants.

People are fighting back, though. In struggling to prevent the human, historicised environment of the *pampa* from returning to nothing (cf. Read 1996) — to dust and desert — the Pampinos are involved in the project of materialising their history. They have established ritual annual visits to abandoned refineries; set up personal or community museums; obtained government funds for recording their music; published magazines and designed internet websites. They celebrate various annual ‘nitrate festivals’ and have constituted themselves into numerous associations. They are, in sum, attempting to revisualise that which would otherwise become invisible.

## Conclusion

From the late nineteenth century to our time, the landscape of the *pampa* underwent a number of transformations. These changes revolved around a particular relationship between people and the environment, as expressed in the idiom of ‘translucence’. Around the turn of the century, workers resisted the depletive industrial economy of the *pampa* by self-consciously elevating human powers and underscoring the autonomy and assertiveness of the miners. Later, industrialisation created a corporate identity, a sense of community that conflated the landscape of the *pampa* with a landscape of industry, and in the process told a story about how the Chilean national family was

formed. Throughout, the desert landscape magnified the Pampinos' historical enterprise and brought a distinctive imprint to their industrial achievements. During this time, the history of the *pampa* was read as the history of the country's industrialisation, and the workers' sacrifice as a historical feat to be proud of and to be remembered. Few people remember, though. Today, the nitrate industry is facing its final closure, and with it the staging of the *pampa*'s final act. The Pampinos are struggling to make this act last, to avoid returning to nothing. They are struggling to 'hold' their history, resisting the evaporation of identity that seems to accompany ephemeral mining enterprises. They are investing their efforts in recording and celebrating the history of the relationship that ties them to the Atacama Desert. For they know only too well that people tend to forget that forgetfulness is an act of history.

### **Acknowledgements**

This chapter was written during the tenure of a British Academy Postdoctoral Research Fellowship held at St Hugh's College, University of Oxford. I thank Mette Berg for her helpful comments.