Anaconda's Pipelines: Water Supply Problems of a Desert Region

Anita Carrasco

Summary

This essay examines the effects of copper mining on the environment and indigenous peoples of the Atacama Desert, Northern Chile. During the twentieth century, the American owned Anaconda Company increasingly captured water for copper production in Chuquicamata mine. The environmental impacts of water extraction had disastrous consequences on Atacameño people's economy, which was based on animal herding and small-scale agriculture. Ironically, the history of mining development also reveals that Anaconda gave jobs to the natives to build and maintain the pipelines that took away their water. Today, Anaconda is remembered more for the jobs it gave than for the water it took.

This story takes place in the Atacama Desert of northern Chile, the driest desert in the world, the largest in South America. There, the American transnational mining company "Anaconda" was the owner of five important pipelines that extracted water for the Chuquicamata mine (Marcosson 1957). In an unpublished report written for Anaconda, one of the company's chief engineers, William Rudolph, described the pipelines, the water source, the length and diameter of each, and the quantity of water carried: a pipeline at Inacaliri River; a pipeline at Toconce carrying potable water from the Linzor spring; two pipelines at the San Pedro River carrying water from the San Pedro River; a pipeline at the Salado spring put into use in 1952 (Rudolph 1956).

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Atacama Desert; the driest in the world, the largest in South America.

Photograph by Anita Carrasco, 2008

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Doing fieldwork for my research on the impacts of copper mining on indigenous peoples (Carrasco 2011, 2014), I had many conversations with elder villagers from Toconce, Turi, Cupo, and Estación San Pedro about the above-mentioned pipelines, including how their own grandparents observed that after each pipeline was installed the flows of rivers and springs would decrease. Villagers knew exactly where and when each pipeline had been built because it was the natives from these places, especially Toconce, who were hired by the company to install the pipelines. This is an important paradox because employment opportunities provided by the old mine were what shaped positive memories recollected about the times of the gringos. Yet, these are the same pipelines that destroyed the livelihoods and environment of native Atacameño indigenous peoples today. The impacts of these pipelines are still felt in the present as they continue to jeopardize the feasibility of activities like agriculture and herding. Mining companies unrelentingly continue to hoard the water resources of this desert region.

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Estación San Pedro.

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Atacameña pasturing sheep near Turi.

Photograph by Anita Carrasco, 2007

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Rudolph wrote an earlier paper, published by the American Society of Civil Engineers, titled "Water Supply Problems of a Desert Region." There, he delved into the details behind the hydraulic engineering challenges faced in finding and maintaining water supply for the Chuquicamata mine. He explained that the flows and usability of waters of the region suffered from three main problems that led to water loss that the company could not allow: losses from evaporation, losses from seepage, and finally through the absorption of salts. The company needed to constantly monitor the flows of streams, the recording of which, in the Atacama Desert, was extremely difficult. Observation stations were out of necessity located in isolated regions, a day's mule-back journey apart in many cases. Food and shelter were poor and the only inhabitants lived in a few indigenous villages. As far as I

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know, Rudolph described these inhabitants in a way nobody else did at the time: "These Indians were always friendly although the diversion of water would have been disastrous to them" (Rudolph 1928: 603). Here, Rudolph explicitly recognized that the diversion of additional water via new pipelines would be tragic for indigenous peoples' livelihoods, and tragic it was. It was unanimous among interviewees that after the 1952 pipeline was built, in addition to the pipeline built by the Water Sanitary Company, Essan in 1967, agriculture and herding suffered deep changes and were no longer sustainable at the levels they had been during the first half of the twentieth century (Carrasco 2016). Elder villagers were grateful, though, for the employment opportunities these same pipelines provided for them. The construction of the pipelines lasted two years, but what gave Atacameños further employment was the needed maintenance work. Rudolph was impressed by the tenacity of these men who could work on a broken pipe for 48 hours without sleep (Rudolph 1955: 15).



Chuquicamata pipeline crossing Turi's pasturing meadow.

Photograph by Anita Carrasco, 2007

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The story here presented raises an important question: why did the natives work on hydrological projects that had disastrous consequences for their villages? Eugenia, born in 1927, remembered that

> Life was hard back in the days of Anaconda. We desperately needed jobs. In those years the mountains were owned by the state. In my village, Anaconda came and took water and did not tell anyone, nor asked for permission. However, they gave jobs to the people from the village in the construction work required to build the pipelines. Only those who had their identification papers up to date got the jobs. The rest didn't (Interview 2008).

When I asked Eugenia about her vision of the benefits and costs of mining companies on indigenous communities, she expressed adamantly that mining companies had caused more harm than good, especially pertaining to water problems: "Proof of it is that today all the interior villages are practically abandoned because of lack of water for agriculture," she lamented. In a nostalgic tone commonly expressed by other villagers like her, she concluded our conversation saying: "When the gringos were working to extract water at Inacaliri, at least they gave jobs to the natives" (Interview 2008).



Chuquicamata pipeline at Ojos de San Pedro, Atacama Desert.

Photograph by Anita Carrasco, 2008

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These benefits were short-lived. I left the field frustrated, unable to understand the nostalgia felt for the gringos. This nostalgia was displacing the visibility of the long-term environmental impacts of mining, I thought.

Further readings:

- Carrasco, Anita. "A Biography of Water in Atacama, Chile: Two Indigenous Communities' Responses to the Extractive Encroachments of Mining." *Journal of Latin American and Caribbean Anthropology* 21, no. 1 (2016): 130–50.
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- Carrasco, Anita. *One World, Many Ethics: The Politics of Mining and Indigenous Peoples in Atacama*. PhD Diss., University of Arizona, 2011.

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- Marcosson, Isaac F. *Anaconda*. New York: Dodd, Mead & Company, 1957.

Related links:

- "Chemical Rubble: Historicizing Toxic Waste in a Former Mining Town in Northern Chile." *Arcadia*, 2016. https://doi.org/10.5282/rcc/7704
- "Water Flows and Topographic Networks of Power: Social Struggles for Water in the Copiapó Valley ..." *Arcadia*, 2020. http://www.environmentandsociety.org/node/8981

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Anita Carrasco is an environmental anthropologist and associate professor at Luther College, USA. She received her PhD from the University of Arizona in 2011. Her research interests include extractive industries, corporate social responsibility, environmental impacts, mining-community relations, and political ecology. Her research has focused on community relations with the mining industry and the significance of indigenous and industrial water rights in this relationship. More recently she is exploring Atacameño indigenous peoples' ideas about misfortune, their recognition of nature's influence on human wellbeing, and the role of culture in the balance of nature and social relations that transcend artificial human-nature divides.