Negotiating Livelihoods

Women, Mining and Water Resources in Peru

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Dans la région de Cajamarca dans le nord du Pérou, la mine d'or de Yanacocha a radicalement transformé le paysage et le style de vie des communautés environnantes. Cet article examine les effets de l'activité minière sur les rapports entre les couples et la vie des campesinas (les paysannes) qui jouent un rôle crucial dans la production agricole, l'industrie laitière et dans leur famille. Tout en reconnaissant que la femme joue un rôle important en défendant leurs ressources et leur style de vie, l'auteure démontre que leur réaction face à l'activité minière est souvent marquée d'ambivalence et de contradiction. Alors qu'elles luttent pour négocier leurs moyens de survie, les populations et les compagnies minières oscillent entre l'antagonisme et la coopération.

En Perú, en el departamento de Cajamarca, la mina de oro Yanacocha ha transformado radicalmente el paisaje y la forma de vida de las comunidades aledañas. Este artículo analiza los efectos de la actividad minera en las relaciones de género y la vida de las campesinas, quienes cumplen un papel central en la producción agrícola, lechera, y el mantenimiento de las familias. Reconociendo que las mujeres tienen una función importante en defender sus recursos y sus formas de vida, sin embargo la autora ha comprobado que sus respuestas a la actividad minera son ambivalentes y contradictorias. En su esfuerzo por negociar sus sobrevivencias, sus relaciones con la compañía minera oscilan entre antagonismo y cooperación.

In Tual, a *comunidad campesina* (peasant community) neighboring Peru's largest gold mine, Yanacocha, the women I spoke with told me that their irrigation canal did not carry as much water as it once did, and that the water had changed——they could no longer drink it, and they worried that it was harming their pastures and livestock. Dairy farming, sheep herding, and small-scale agriculture are the main economic activities for the majority of *campesino* families living in this area. All these activities depend on water, and many people blame the Yanacocha mining company for affecting the quantity and quality of water in a region where water scarcity has always posed a constant challenge.

The Yanacocha mining company is a joint-venture between the Denver-based Newmont Corporation, the Peruvian company Buenaventura, and the World Bank's International Finance Corporation. Since the company's arrival in 1993, Yanacocha's open-pit mining operations have radically transformed the landscape and ways of life in nearby communities. More specifically, mining activity has had particular impacts on gender relations and women's lives, since *campesinas* (peasant women) play a key role in agricultural production, dairy farming, and the maintenance of the household. In Andean cosmology as well as in contemporary discussions around women and the environment, water is sometimes associated with "feminine" principles. From this perspective, water is a source of life; it is linked to reproduction; and it is intimately related to domestic activities considered to be the domain of women. These symbolic and material connections could be used to argue (as Shiva and Mies; Merchant; Warren; and others have done) that women's particular ways of relating to elements of Nature contribute to their marginalization and motivate them to act in its defense.

In this article, I want to critically examine the relationship between mining, water use, and women's roles. However, instead of starting from the assumption that women have a more direct affinity with Nature[1] and a privileged role in the protection of water resources, I want to provide a nuanced account of women's experiences with mining and the ways in which they are affected by and respond to mining activity. While recognizing that women play an important role in defending their resources and ways

Image 1: Open-pit mining at Yanacocha, Latin America's largest gold mine.

of life, I want to show that their response to mining activity is sometimes marked by ambivalence and contradiction. As they struggle to negotiate their means of livelihood, people's relationships with the mining company oscillate between antagonism *and* cooperation.

Water, Irrigation Canals, and Mining Activity

Over the past two decades, a number of conflicts over mining activity have erupted throughout Peru. The proliferation of conflicts corresponds to a period of neo-liberal economic restructuring in the 1990s aimed at attracting foreign investment and intensifying resource extraction. Alongside a favourable climate for investment that led to the privatization of state-owned enterprises and the development of large-scale mining projects, new technologies made it possible to mine deposits that had not previously been considered technically exploitable or commercially viable. In the gold industry, open-pit mining and cyanide leaching technologies made it profitable to extract low-grade ore containing microscopic traces of gold (sometimes called "invisible gold") in each ton of ore. At the Yanacocha mine, located in the Northern department of Cajamarca, 500,000 tons of ore are processed each day (see Image 1). The gold-containing ore is piled onto leach pads that measure 30 stories in height, which are watered with a cyanide solution that separates the gold.

Economic reforms and new technologies pushed extractive activity into areas formerly used for agriculture and farming, often encroaching on *campesino* communities. The Yanacocha gold mine, for example, is located at the headwaters of the watershed (*cabecera de cuenca*) and is surrounded by *campesino* communities that depend on natural water sources and irrigation canals for their livelihoods. Recent conflicts over mining activity have revolved around the mine's effects on the quality and quantity of water available for *campesino* communities and the nearby city of Cajamarca. Particularly troubling for Yanacocha's critics have been the mine's impacts on irrigation canals within Yanacocha's area of operations (see for example, Arana). I focus here on the case of the Tupac Amaru canal, one of six

irrigation canals whose users have received compensation for damages caused by the mine's operations.

The Tupac Amaru canal runs almost 40 km in length, and the water spring that is its source of origin is now located within the property of Yanacocha. In 2002, as the mine expanded its operations, runoff from the mine's waste rock deposit contaminated one of the streams that feeds the canal, making it unsafe for human use. The company diverted the stream, reducing the amount of water available for irrigation. To make up for reduced flows, the company promised to pump chemically treated water from its water treatment plant into the canal (Yanacocha 2004). During my fieldwork, Tual residents informed me that the company awarded more than 200 canal users US$4,000 each and the equivalent of US$6,000 per user in the form of community development projects. While company representatives thought that this agreement would settle the disputes with affected communities, a closer look at the canal and the complex relationships built around it might shed some light into why this has not been the case.

In Tual, one of four communities that use the water from the Tupac Amaru canal (see Image 2), most families rely on dairy farming——a task for which women are primarily responsible—as their main source of income. When the canal was constructed in the early 1980s by a group of *campesinos,* most people turned their agricultural fields into pasture for grazing dairy cows. For some families, the sale of milk to a transnational company that collects milk from local farmers became a more profitable activity than agriculture. The mine's construction of a highway connecting Tual to the city of Cajamarca made it possible for the dairy company's milk trucks to purchase small quantities of milk directly from individual farmers.

Today, the sale of milk provides families in Tual with a small but steady income. One woman I interviewed noted that while wage labour and mine-related employment are usually temporary and unstable, meaning that some men work only two or three months in the year, her paycheck from the sale of milk arrives punctually every two weeks. Families that no longer grow crops for their own consumption use the money earned from dairy farming to buy food in the city. Given that employment at the mine is limited and unreliable, women's contribution to the household economy through dairy farming is of vital importance, and their ability to provide for their families depends on the availability of clean water from the canals.

People used to drink from the canal when they took the animals out to pasture, but they had to stop. The water didn't taste good anymore, and when they irrigated the fields, the water left yellowish specks on the grass.

In areas surrounding the Yanacocha mine, a growing population, soil erosion, low crop yields, and small landholdings have made it increasingly difficult for people to make a living from agriculture and farming. The arrival of the mine created additional challenges and intensified the competition for resources. Producing enough pasture to feed the cows is a constant struggle, particularly during the dry season. In some cases, people's small plots of land do not provide enough pasture for their animals, particularly in communities that do not have access to irrigation water. The shortage of grass can be so severe that women must "rent out" pasturelands from other families. But for someone like Maria, an elderly woman whose sole cow provides a mere four liters of milk a day (after nursing its calf), paying to graze her animals means that the small amount of money that she makes selling milk is spent renting out pastureland. The availability of pasture limits the number of animals that a family can keep, since not having enough grass can mean having to sell an animal. Given people's dependence on dairy farming, it is not surprising that few topics are as recurrent in people's conversations as the availability of pasture, the coming of the rain, and the amount of water in the canals.

Milking the cows one morning, Bremilda, a woman in her late 20s, told me about the changes that led people in Tual to begin noticing the problems with the Tupac Amaru canal. She said people used to drink from the canal when they took the animals out to pasture and were far from other sources of water, but they had to stop doing so. The water didn't taste good anymore, and when they irrigated the fields, the water left some yellowish specks on the grass. When people began to notice these changes in the quality and quantity of their irrigation water, canal users were quick to take action. At times, this meant soliciting the support of local NGOs to make their claims heard; at others, canal users resorted to more direct forms of protest to pressure the company to listen to their demands.

While women have had a visible presence in many of the protests organized against Yanacocha, they do not hold positions of authority in the community or in the administration of the canal. As in other Andean communities (see Gelles; Lynch), women in Tual can be registered as canal users, but they do not usually hold positions of authority in community assemblies or in water users' associations (*juntas de usuarios).* As a result, though women

Image 2: View of Tual, a comunidad campesina (peasant community) near the mine.

often feel the impacts on irrigation water most acutely, they do not fully participate in meetings and negotiation tables (*mesas de negociación*) related to mine's impacts on the canal. For example, in 2006, when 50 delegates were appointed by canal users to represent them in the latest round of negotiations with the company, only one of the delegates was a woman.

Between Conflict and Negotiation

Faced with the problem of contamination and reduced water flows in the canals, representatives of the Yanacocha mining company agreed to pump water from the mine's treatment plant into the canals. Following the 2004 agreement, however, canal users felt that the water being "returned" to them by the mining company did not adequately compensate for the water they had lost—neither in quality nor quantity. The water they receive from the mine is treated to meet legal quality standards, but canal users complained that this water is different from the water they used to have—it had a different taste and coloration, and they could no longer drink it.

In response, Yanacocha's engineers argued that canal water is not *legally* required to be apt for drinking, since according to Peru's General Water Law, the water quality standards for irrigation water (Class III) are different than those for potable water (Class I).[2] What this argument did not consider, however, was that before the mine's arrival, the canal was used not only for irrigation, but also for cooking, washing clothes, and other household activities. In an area where water has always been scarce, it was common for people to drink from the canals when they were away from home or far from natural water springs. Regardless of its legal classification, *campesinos* had other uses for the canal and different criteria for determining if water was apt for human consumption: its taste, its source, and its effects on animals and pasture.

The case of the Tupac Amaru canal illustrates why water has become the center of controversies over mining activity. While the Yanacocha mining company and government officials insist that mining can coexist with agriculture and farming, and that the mine's environmental management plans guarantee water quality and quantity (Yanacocha 2007), the experiences of *campesinos* in Tual point to the some of the reasons why the conflicts between communities and the mining company are so difficult to resolve. First, women's ability to contribute to the household economy through dairy

farming depends on the availability of pastures, making irrigation water a necessary resource. Second, for *campesinos,* the chemically treated water being returned to the canals *is not the same water* that they once had, even if it meets the legal quality standards for irrigation water. Finally, water cannot be seen simply as a resource that can be replaced with compensation money and development projects. Water is part of a complex set of relationships between people and the landscape—relationships made through affective connections, people's investment in the construction and daily maintenance of the canal, and the social and political ties that the canal enables.

These complex ties contribute to an ongoing cycle of protest and cooperation, as people must denounce what they see as the mine's deleterious effects on their irrigation water while knowing that their futures depend on their ability to pressure the company to provide them with other means of subsistence. Sometimes, this means collaborating with the company that has compromised their most important resource.

Since the mining company's arrival, the canal has become a means to negotiate new forms of livelihood: compensation packages, employment at the mine, charitable donations, and contracts for community-run businesses (*micro-empresas*) that provide services for the mine. For example, Bremilda's husband, Victor, purchased a van with two associates, and Yanacocha contracted them to transport workers from Cajamarca to the mine site. In addition, Bremilda was hired by her father's *micro-empresa* to provide packed lunches for a group of *campesinos* doing repair work on one of the canals in a nearby community (this, too, was a project paid for by the mining company). A sister-in-law, niece, and neighbour were recruited to help with the cooking. Though the job was short-lived, this opportunity was particularly welcome, since the mining company and service subcontractors mostly employ men for work that usually involves hard manual labour. Some women are hired as haul-truck drivers at the mine or for service-related positions, but the kind of short-term work in construction and canal maintenance that is mostly available to *campesinos* involves men almost exclusively.

In communities surrounding the mine, people's relationship with the mining company are not marked by firm opposition to mining activity, but by the constant and difficult negotiation of costs and benefits on which their livelihoods now depend. It is a relationship marked by contradictions, ambiguity and ambivalence, as *campesinos* must resort to a variety of strategies to deal with the effects of mining activity, including negotiating for jobs, employment, and development projects. At the same time, as mining activity continues to expand, it irrevocably transforms the landscape and ways of life. The result is an ongoing cycle of protest actions and acquiescence that has come to characterize corporate-community relations in mining regions.

Conclusion

The case of the Tupac Amaru canal and the experiences of people living near the Yanacocha gold mine suggest that processes related to resource extraction have a significant effect on gender relations and women's lives. This is particularly evident given women's involvement in dairy farming and their dependence on water resources. In this article, I have focused on the particularities of women's experiences to show how the canal made the mine's impacts visible and motivated people to make claims against the mining company. At the same time, however, the canal enabled more ambiguous relationships with Yanacocha, providing a means to negotiate for employment, monetary compensation, and other benefits.

In protests against mining activity in Cajamarca, the recognition that "Water is Life" has helped mobilize people in unprecedented ways, for water helped bring together a wide range of actors with diverse (and sometimes contradictory) interests (on social movements in response to mining in Peru see Bebbington 2007a, 2007b). Water has clearly been a powerful force for political activism; however, what drove people to defend their water resources was not necessarily an "environmentalist" ethic. When I spoke with canal users who had been part of the canal's construction and were now involved in its defense, what they emphasized was not a desire to recover a more "pristine" environment, but rather, their role in the *making* of this socio-natural landscape. *Campesinos* who participated in the construction of the canal felt a sense of pride and accomplishment for having used their own labour, knowledge of the landscape, and limited economic resources to channel water from a distant source. In *campesino* communities such as Tual, water is not simply an element of "Nature": it is embedded in a complex web of social, technological, political and economic relationships that shape people's engagement with extractive industries.

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[1]While this argument was originally put forth by Sherry Ortner, it has taken different forms and continues to influence academic *and* public discussions around women and the environment.

[2]*Ley General de Aguas* (General Water Law), D. L. 17752 (1969).

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Remembered

The other day on the bus
I saw you, at an angle,
you were staring out the window
your bony fingers rolling a cigarette
blue eyes unwavering like blue heat
under a slow crackling wildfire
as we passed a dead raccoon
stretched by the side of the road.
I saw you
and for a moment I forgot my name
and what year it was and fell in love
with everyone on the bus,
the boys with hoodies
making noises at the back,
the elderly woman fumbling and dropping
her bags, even the bus driver with smoker's cough
spitting something undefined
out the window.
I wanted to grab your hands
and tell you I still loved the rain
and found reasons to run barefoot
in puddles on the road.
That I missed our long winded philosophizing
in the park over the works of Jung and Rilke
called or uncalled God is here
you'd quote Jung's words to me
making me laugh
at the atheist you claimed to be.

Funny, the things we remember:
a perpetual wisp of hair in the eyes,
eating in slow motion,
a winter rose.
Some things still haven't found
a way into words.
When our eyes met from across the bus
I knew it wasn't you
but who you might have been
had you lived another ten years.
But by then the bus was a temple
the dead raccoon a poem
on how love stretches us
into positions we never
quite get out of,
and called or uncalled,
you are always here.

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