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# **Opportunity & participation for women mine workers in the Bolivian *Altiplano***

A thesis presented in partial fulfilment of the requirements for  
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## Abstract

Despite the range of research into mines and mining communities in the Bolivian *Altiplano* over the last 40 years, little attention has been paid to the role of women, despite their significant involvement in the sector for 500 years. Researchers have also tended to focus upon large, State mining operations, although in the last decade there has been growing interest in artisanal mine worker co-operatives, typically in the Department of Potosi.

Bolivia's 1952 socialist revolution significantly improved State sector opportunities for women in the mining sector, but many were made redundant following the 1985 Tin Crisis. Displaced workers subsequently joined artisanal mine worker co-operatives, where most earned a subsistence living by recovering mineral residues from waste rock, tailings piles and alluvial deposits, while few worked in underground roles.

This research aimed to characterise the current participation of women workers in the *Altiplano* mining sector, focusing upon artisanal tin mining activities in the Department of Oruro. The research methodology involved a combination of literature review and in-country data collection, with visits to 19 mine sites and interviews with 27 stakeholders representing a diverse range of sector interests.

Women mine workers in Bolivia are widely referred to using the collective term *Palliris*, although women involved in mining and reprocessing work perform at least 10 distinct occupational roles, each with its own title. Their participation in the mining sector has declined dramatically in the last decade, despite unprecedented access to employment opportunities and record tin prices. Indeed, women workers have all but disappeared from many *Altiplano* mine sites. These conclusions challenge recent research and official statistics, both of which indicate a sustained increase in female participation in artisanal mining.

The principal reasons for declining female participation are considered to be: declining mineral content of waste rock and tailings piles; more attractive employment opportunities outside the sector; and an overall decline in mining sector employment. It was also noted that female participation is likely to continue declining, as mining sector production is rapidly becoming dominated by large scale, mechanised operations, that have no need for labourers with artisanal mining skills.

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## **Key Words**

Bolivia, Oruro, mining, artisanal mining, small-scale mining, women, indigenous, development, sustainable, co-operative, tin, *Palliri*, *Venerista*, *Relavera*, *Lamera*, *Barranquillera*, *Altiplano*.

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## Glossary

Spanish language terms are presented in *italics* throughout this thesis, and the following provides an image and summary description for Bolivian mining sector terms which are widely used.

	<p><b><i>Barranquillera</i></b></p> <p>Person who pans alluvial deposits in rivers to recover gold residues.</p> <p>Source:</p>
	<p><b><i>Buddle</i></b></p> <p>Shallow hole used to concentrate cassiterite from tailings waste using a batch sedimentary process.</p> <p>Source: Author</p>
	<p><b><i>Cola</i></b></p> <p>Waste rock pile (coarse waste material from extraction activity), typically found below the mine opening.</p> <p>Source: Author</p>
	<p><b><i>Commercializadora</i></b></p> <p>Person who acts as an intermediary between the mine and the smelter/exporter, exchanging mineral for money.</p> <p>Source: Author</p>



***Desmonte***

Tailings waste pile (fine grained waste material from mineral processing activity), typically found below the *ingenio*.

Source: Author



***Ingenio***

Processing facility using physico-chemical processes to remove mineral from run of mine.

Source: Author



***Lamero/a***

Man/woman who pans river sediment and *ingenio* waste to recover tin residues, typically working in rivers, drains and channels around mine processing areas.

Source: CEPROMIN 2009



***Lavadora***

Woman who washes clothes for mine workers.

Source: Author



***Locatorio/a or Minero/a***

Underground mine worker (general labour) using manual apparatus.

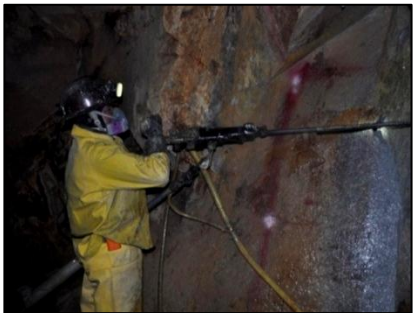
Source: La Patria 2010b



***Palliri***

Man/woman who selects and concentrates mineral by hand, using a lump hammer.

Source: Author



***Perforista***

Underground mine worker (driller) who uses a hydraulic or pneumatic drill to remove ore.





Source: MiningTechnology.com 2011



***Recolectera***

Person who carries tools and supplies for miners.

Source: Unknown Author 2008

	<p><b>Relavera</b></p> <p>Person who concentrates mineral by batch sedimentation process, typically in a buddle.</p> <p>Source: Author</p>
<p>No image available (illegal activity)</p>	<p><b>Rescatiri</b></p> <p>Person who is an unregistered (illegal) ore trader, buying mineral from individual miners and co-operatives.</p>
	<p><b>Sirena</b></p> <p>Man/woman who monitors the mine opening or the status of important plant such as compressors, pumps and shaking tables.</p> <p>Source: Author</p>
	<p><b>Transportadora</b></p> <p>Person who carries run of mine from the work face to the surface (in an ore car).</p> <p>Source: Author</p>
	<p><b>Vendedora</b></p> <p>Woman who sells food and mine supplies (e.g. dynamite, detonators, coca leaf, alcohol or food) near the mine opening.</p> <p>Source: Author</p>



***Venerista***

Man/woman who recovers mineral by excavating alluvial deposits along river banks.

Source: Courtesy of URS Corporation