Developing geosciences near the high mountain range next to Santiago, Chile: From Giant Volcanoes to Giant Ore Deposits

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We present high mountain activities involving geosciences research, in close proximity to Santiago, Chile, including: (1) our field experience on high altitude volcanoes (gas and water sampling) and oriented sampling (drill) during rock climbing in cliffs in Cajón del Maipo; (2) our geoturistic guide of Cajón del Maipo and (3) educational videos.

Santiago is the capital and the most densely populated city of Chile, with over 6 million people. It sits in a basin beside the Cajón del Maipo (valley of the Maipo river) and Mapocho Valley, in the Cordillera de los Andes. The Andes range next to Santiago is a natural laboratory for geosciences, characterized by a fluvial and glacial geomorphology, active fault systems, landslides, glaciers, giant ore deposits and active volcanoes that elevates over 6 km above the sea level, feeding hydrothermal systems, including crater lakes and hot springs.

More than 2.5 million tourists visit Chile every year, positioning it as the fourth most visited country in Latin America. Chile has been considered a privileged tourist destination because of the spectacular Andean nature and the security and stability of the country. Even though visitors usually stay a few days in Santiago, they generally go on to San Pedro de Atacama, Torres del Paine, or Easter Island, but rarely to the Cajón del Maipo. We identify an opportunity to educate people and increase the touristic activity in the city by the development of geological activities and information about geotouristic material. Our presentations make use of videos, maps and educational talks in local schools. Our goal is to educate the Chilean population, as well as visitors that stay for a few days in Santiago, using our research material by including science projects close to Santiago. Our goal is to use our research material to raise awareness of the geological richness of the area, both for local school children and visitors to Santiago.

This work has been supported by the Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT) Project #1180577 granted by Comisión Nacional de Investigación Científica y Tecnológica (CONICYT).