



de nuestra geografía

Discovering the mysteries of our geography

Three hundred million years ago, the continents were joined together in a great landmass known as Pangea. Millions of years later, this supercontinent began to divide in two, becoming Laurasia in the north and Gondwana in the south. When Gondwana broke apart, it gave rise to a number of continents, including Africa, Australia, Antarctica, and South America.

The formation of the continents has intrigued geologists for decades. Chile, thanks to its unique geography, has become a spectacular natural laboratory for geological studies. One of these studies is led by Dr. Francisco Hervé, researcher for the Geology Program, Faculty of Engineering at Universidad Andrés Bello. Together with a team of students and national and international geologists, Dr. Hervé is studying the geological evolution of the Pacific border of Gondwana in the southern regions of Chile and on the Antarctic Peninsula.

“The objective of our work is to identify principal geological processes, such as magnetism, rock deformations, and the translocation of large bodies of rock, among others, with special emphasis on rocks from the Paleozoic Era: the era during which Pangea was formed,” states Dr. Hervé.

Moreover, Dr. Hervé adds that this research not only contributes towards understanding the geological formation of Gondwana, but that it also “shines light on certain current geological phenomena, considering that Chile is a country with some of the highest seismic and volcanic activities in the world.”

The initial conclusions determined by Dr. Francisco Hervé’s team include the identification of an accretionary prism, or an accumulation of sediments, formed by the subduction of tectonic plates on the border of Gondwana. This prism would have formed during the late Paleozoic Era.

Finally, Dr. Hervé highlights that while his research will provide relevant knowledge regarding the formation of continents and the characteristics of Chile’s own geography, it is also important to mention the value that these types of studies have in student’s formation. “The students are given the chance to form collaboration networks both in Chile and overseas, networks that drive research and result in relevant multidisciplinary advances. [Providing these opportunities for collaboration] complements our work as teachers and mentors.”