

Voyages of Discovery – from Darwin to the Moon and beyond

Geological exploration in the rainforests of eastern Bolivia (The Lost World) 1976 - 1986

In 1974 the British Geological Survey was asked by the Bolivian government to undertake a major regional survey of the geology and mineral potential of eastern Bolivia up to the border with Brazil, an area roughly the size of Great Britain (hatched area, right). The terrain varied from remote and almost inaccessible jungle and swamp to mixed grassland, scrubland and deciduous forest. The project was the largest and most ambitious undertaken by the BGS up to that time. Funding was provided by the UK Overseas Development Administration (now DFID) and the Bolivian government at a cost of about £2.7 million. When the project got underway in 1976 this region had neither been mapped geologically nor surveyed systematically for mineral deposits, and for the northern area there were not even topographic maps — it was truly *terra incognita*.



Much of eastern Bolivia is underlain by rocks of Precambrian age, more than 500 million years old, for which reason the project was named 'Proyecto Precámbrico'. The BGS team of up to eleven geologists, together with counterparts from the Bolivian Geological Survey, was based at Santa Cruz de la Sierra, the jungle city of the Bolivian lowlands on the southern edge of the project area. Before beginning the mission the British team had to learn Spanish, since little or no English was spoken by their Bolivian counterparts. The first three years were spent in the south of the area where trails permitted the use of four-wheel drive vehicles. The final years were spent in the north where rivers took the place of trails and the field brigades and aluminium canoes had to be flown in by a DC3 cargo aircraft. In this remote region the geologists had first to make their own topographic maps, which included naming features such as rivers, ridges and waterfalls for the first time.



The main problem for the geologists, as one member of the team put it, was '*God's little creatures and their daily persecution routine — the mosquitoes, gnats, ticks and little ticks (garapatillas); the hornets and local sweat bees that covered exposed flesh and entered the ears; and, above all, the African, or 'killer' bees that kept one dancing from dawn to dusk*'.

There were also encounters with anacondas, pirañas, sting rays, alligators (cayman) and other larger beasts of the forest. One member of the team recalls having fallen some way behind his companions along a winding forest trackway when he came upon the fresh paw-prints of a

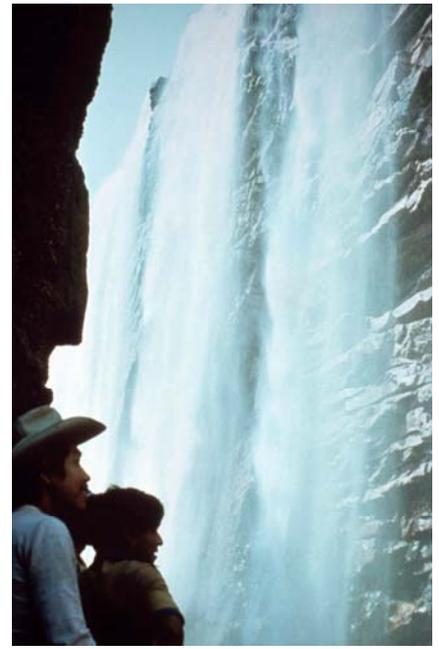
jaguar stalking the group ahead of him!

The Serranía Huanchaca tableland, which occupies the north-east border with Brazil, was perhaps the most fascinating and challenging part of the project area to survey. Rising from lowland jungle and surrounded by precipitous cliffs, it was the inspiration for Arthur Conan Doyle's novel *The Lost World*. The region was first described by the English explorer Col. Percy H. Fawcett, who traversed the border area on behalf of the Bolivian government in 1908. On his brief return to England in 1910 he read a paper to the Royal Geographical Society which inspired Conan Doyle to write his now famous novel populated by dinosaurs and pterodactyls, and subsequently the inspiration for such films as *King Kong*, *The Lost World* and *Jurassic Park*.



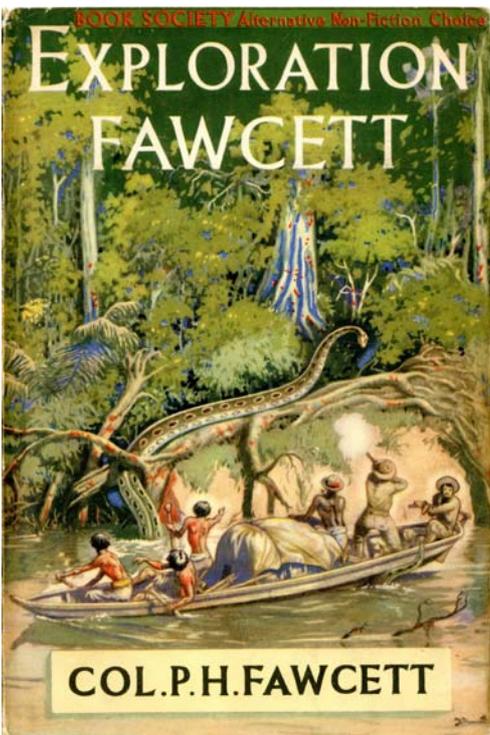
In 1980, when Proyecto Precámbrico embarked upon a survey of the Huanchaca tableland, the region was uninhabited and largely unexplored, although some ancient stone axes shown to one of the team leaders indicates that the area had been populated in former times. Because the Huanchaca escarpment rises up to 600 metres above the surrounding forest, access was possible only by helicopter.

Photos: Piraña (above), together with spider monkey, was commonly served up by the Bolivian camp cooks! A forest scene (right) in the south of the region, which shows cacti growing in dry conditions on rock pavement.



Some spectacular waterfalls were discovered by the Project, notably Arco Iris falls (named by the team, with the meaning 'rainbow'), which marks the exit of the Rio Paucerna from the tableland of Serranía Huanchaca.

By the end of the project a number of interesting mineral discoveries had been made, including gold, tin, nickel, and rare earth elements. On the other hand, Conan Doyle's account of living dinosaurs and precious diamonds protected by swooping pterodactyls proved to be mere myth! Fortunately the fabled Lost World itself is unlikely ever to be exploited for minerals, having been declared a World Heritage Site in 2001; it now forms part of the Noel Kempff Mercado National Park.



Above: the BGS residential team in early 1977, fluent in Spanish and ready to go!

Left: following his exploration of eastern Bolivia, Fawcett next turned his attention to the Amazonian rainforests of Brazil, and was never seen again! His account of his South American wanderings was not published until 1953 as *Exploration Fawcett*, edited by his son, Brian Fawcett.



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