## Travertine Inca Bridge, Argentina

Despite local legend, it was not made by the Incas, though they may well have used it as a convenient river crossing if and when their empire extended this far south. The natural bridge stands beside a key highway and a defunct railway within the main transport corridor across the Andes linking Chile and Argentina, and spans the Las Cuevas River, which drains the Argentinian side towards Mendoza. Large amounts of travertine have been deposited by water emerging from a cluster of thermal springs. A sheet of carbonate about ten metres thick extended down and across the valley floor on top of unconsolidated clastic sediments consisting of alluvium and the distal remains of debris flows derived from the slopes of Aconcagua. This travertine obstructed the flow of the river to the extent that leakage through the underlying clastic sediments of the right bank became the optimum flow-path. Along this, piping failure progressively opened the channel now spanned by the travertine bridge. Some 28 metres wide and 8 metres high, the river flows through for a distance of nearly 50 metres. Subsequent deposition by deflected spring-water has created the fans and ramps that now define the abutment of the bridge on its side nearer to the still-active springs. In 1925 a spa hotel was built just above the thermal springs, and was operated until it was destroyed by a snow avalanche in 1965. Its bath-houses beside the bridge survived and have since been designated as a historical site with restricted access. The bridge continues to evolve with additional deposition around and beneath, and also by small failures of unsupported roof material. A comprehensive programme of monitoring and geophysical assessment has determined that the bridge is currently stable, and plans to modify the spa-water flow-paths, in order to strengthen the bridge by promoting new deposition at key sites, have been put on hold. So the Inca Bridge lives on as a memorable sight for trans-Andean travellers. 