

# Nevada caves illuminate past climate

By Daniel Rothberg, Las Vegas Sun

On a trip to Great Basin National Park, UNLV geoscience Professor Matt Lachniet says that rainfall many millennia ago formed lakes in the desolate basins lining this strip of rural highway. Between the towns of Pioche and Panaca, we stop at Cathedral Gorge, where a multimillion-year dance of erosion and tectonics forged a slender canyon fringed with clay-colored spires.

Closer to Great Basin, Lachniet's grad student cuts left off an access road, down a 20-foot slope to an unspectacular oval-shaped depression in the land. This thirsty patch of earth was a lake 12,000 years ago, its ridges still marked by the force of ancient waves.

"This is like a van Gogh painting to me," Lachniet says.

Water's past forms the foundation of his research, including his climate studies inside Nevada caves. On a hot September day at his UNLV lab, he'd explained why, pointing to a table holding dozens of bisected stalagmites, the spikes that ascend against gravity from a cave's floor. The delicate lines in the stone resemble tree rings. Cut a stalagmite in half, Lachniet said, and you find layers dating thousands of years, the echo of minerals left behind by water.

**Read the whole story**