



Image courtesy of Mike Harter.

The Llano Estacado and Water

Mike Harter

Mike Harter grew up in Lubbock and gained a Master's degree in history from West Texas State in 1975. He taught for forty-seven years, mostly in Amarillo. He was also an avid student of history and geography of the Llano Estacado and the Southern Great Plains.

The Texan-Santa Fe Expedition began in 1841, led by men who expected to take control of New Mexico on behalf of the Republic of Texas and President Mirabeau B. Lamar. Its leaders apparently had no idea what they were about to get themselves into. The capital of New Mexico was no more than 400 miles away; the expedition left Austin with high hopes heading up to Waco villages and then veering northwestward.

Once the force got beyond the Cross Timbers, it was in *Terra Incognita*, and the men were reduced to guessing about the correct way. They did not seem to know that the Llano Estacado even existed. Indeed, when they arrived at the Caprock Escarpment, one of their guides happily proclaimed they were close to Santa Fe.

As events transpired, crossing the Llano Estacado broke the expedition and nearly destroyed it. The Texan-Santa Fe Expedition split up into two groups attempting to get beyond the Caprock, across the flatlands to find rescue

somewhere farther west. New Mexican troops easily rounded up the famished Texans and force-marched the survivors in chains southward to prison in Mexico.

Strange as it seems to us today that our Texas forebearers had such little knowledge of the lands to the west they intended to traverse. Exactly three centuries before, in 1541, the Spanish under Coronado had successfully crossed the Llano Estacado. This was what the Spaniards came to call the *despoblado*, but they had crossed it numerous times during the three centuries while they gave so many landmarks Spanish names.

However, the Anglo-American Texans knew very little about the land they had laid claim to. After the expedition crashed, the Llano Estacado was simply known as a dangerous place that should be avoided by white men. When the US cavalry entered the Caprock canyons to defeat the Comanches in the 1870s, Anglo-Americans finally began to get some idea of what was in the High Plains of West Texas and Eastern New Mexico. This part of the world had already been known to New Mexicans for years.

Any traveler driving across the flat country from Midland to Lubbock to Amarillo would have a hard time imagining this landscape as a highland, but, in fact, that is exactly what it is. In elevation, the Llano Estacado roughly approximates that of West Virginia (what John Denver called "mountain momma"). The Llano Estacado is a vast mesa perhaps 300 miles long and up to 150 miles wide.

This formation is mile high at its northwestern corner, Luciano Mesa, visible from I-40 near Montoya, New Mexico. The flatland gently leans southeastward, descending to its lowest elevation a little more than 2,000 feet just north of Big Spring. The Llano is bordered on the north by the bluff of the Canadian River Valley and on the west, by the valley of the Pecos River with its Mescalero Ridge frowning at Roswell. It morphs into the Edwards Plateau to the south. The Caprock Escarpment with its colorful canyons defines the eastern edge of the Llano Estacado.

Like the rest of the Great Plains, the Llano Estacado was formed by silts that flowed eastward from the Rocky Mountains. Over millions of years, the Rockies rose and fell and rose again. Our Southern Plains at one time may have looked like the Amazon Basin does today with a fairly level landscape washed by runoff that came from the great mountains to the west. The water-soaked sands settled in to form the Ogallala Aquifer. Today the Ogallala extends up to South Dakota; the Llano Estacado is its southern end.

This is one of the most curiously watered places in the world. Simply put, the large flat expanse does not drain very well. Today's air passenger can look down to observe the round silver discs of little playa lakes, that is if West Texas and Eastern New Mexico have enjoyed some rare rainfall, but in other times, the land is freckled with dry basins. What drainage there is comes in the form of draws, some of which start in New Mexico.

The Llano Estacado is the motherland of three great Texas rivers: the Red, the Brazos, and the Colorado. These are formed by the confluence of the various draws which begin to cut deeper, sharp-edged canyons, such as Palo Duro Canyon from which the Red River flows. Lubbock grew up where Yellow House Draw and Blackwater Draw ran together, and its water ultimately becomes the Brazos River.

The railroad builders made a notable discovery when they were building trestles across the draws. Bedrock was much farther down than they anticipated, thus leading to the conclusion that, once upon a time, these draws were much deeper, and their streams came directly from the Rockies. In geologic time, the Pecos River eroded its way northward and stole the streams coming out of the mountains, thus leaving the vast mesa with its Ogallala waters isolated.

On the Llano Estacado, one sees no landmarks or promontories sticking up on the horizon to guide the traveler. Once Native Americans learned to look for depressions

in the landscape, they could then cross the featureless plain by following the draws. Down in the draws they could find some timber and especially the Ogallala water bubbling out of springs, even in the years when the creeks dried up. Anglo-Americans had to learn this the hard way, and those who did not were in peril.

After the US Cavalry drove the Comanches and other plains tribes out of the canyons and off in exile to Oklahoma, ranchers like Charles Goodnight came looking for new grazing territory. Pioneers from the cattle counties west of Ft. Worth soon discovered that the area along the Caprock had fresh water, unlike the stretches of Gypsum Plains that lay in between.

Small outfits practiced open-range ranching, driving their cattle up to the ocean of grass atop the Llano when there was water in the playas. Eventually, the big ranches with their deeds and barbed wire and windmills took over large portions of the territory along the Caprock. The smaller outfits followed the draws into the Llano Estacado. In 1879, intrepid Quakers built Estacado, the first town atop the Llano, intending to farm the land. Soon the railroads came, creating more towns and bringing the blessings of civilization.

The Llano Estacado has come from a no-man's-land to the home of a million people, who today enjoy a level of wealth that would have been science fiction to their ancestors. The present inhabitants do not have to go into a draw to find a spring of fresh water. Now, thanks to our ingenuity, we have a spring in every house, and the high plains flush toilets have become the headwaters of the major Texas rivers. We have been the beneficiaries of amazing progress.

However, nature's bill for our civilization atop the flat country is coming due...