

The story I wish to share with you tonight is one about a man named Albert Owen. Not a great deal is known about Albert other than he was born in Pennsylvania; became a civil engineer; was a supporter of the utopian socialist ideology; migrated with some of the most influential scientists and thinkers of his era to New Harmony, Indiana with Robert Owen (no relation); and, after the collapse of that utopian community, moved on west. During his years in the West, he travelled the Pacific Coast in California and Mexico, working for a time as a surveyor for the Laredo–Mexico City Railroad.

It was here that Albert conceived the idea that another railroad could be built from east to west through the seemingly impenetrable Sierra Madre Range. This would link the U.S. Midwest to the Pacific Coast, saving hundreds of miles of travel. His experience of building in the Sierras coupled with his engineering training convinced him that this was a sound idea and would advance economic development for both the United States and Mexico in trade with the Asian markets. Albert's vision became a dream that refused to die.

He saw the advantage of forming a Mexican-American company to accomplish his goal and build the Mexican section of the line from the Texas border to a terminus in a wonderful natural harbor of Topolobampo Bay on Mexico's west coast. Owen approached the Mexican Government to obtain a concession to build the line and also proposed a number of social service projects to the Government. One such project was the

establishment of a utopian community at Topolobampo Bay to grow sugar and operate the port. The Government did not exactly jump at the chance, but didn't reject it, either.

In 1861, Owen started to promote his vision in the U.S. and in 1863, he tried to get backing from governors and members of Congress to support his dream. He failed. In spite of a raging Civil War, men of greater means were lobbying vigorously to build railroads across the continent that didn't involve Mexico.

Albert persisted. His tenacity fired the imagination of a young entrepreneur named Arthur Stilwell who had an interest in building a railroad from Kansas City to the Pacific. Owen then went to the Southern Governors Conference in 1873 and secured their concession and approval to build a railroad from Norfolk, Virginia to Topolobampo Bay. With this, Owen and Stilwell assembled an investment group to carry on the plan. They believed that since the French had failed in an attempt to build a waterway across Panama, a rail line made more sense. Additionally, the route from Kansas City through Mexico was several hundred miles shorter than the proposed Union Pacific route from Kansas City to San Francisco.

In the period between 1875 and 1879, Owen dedicated himself to the establishment of the utopian colony and securing a concession from the Mexican Government to build the line through Mexico. He was finally successful on both counts receiving a concession to build the line from Topolobampo Bay to Ojuaga on the northern border across from Presidio, Texas.

Albert, not waiting for the rail links to be built to the coast, established the utopian community at Topolobampo Bay in 1886. The community began with 150 Californians and quickly grew to a colony of 1500 before failing five years later in 1891.

Meanwhile, Stilwell was building from Kansas City to Prsidio and was the youngest man to own a railroad in the United States. He reached the Mexican border and the first rail was laid in Mexico for a link from Ojinaga to Chihuahua in 1902. Construction proceeded and Stilwell even employed Pancho Villa as one of the contractors. During the Mexican Revolution, Villa was miffed by not being invited to a celebration for the opening of a segment of the line. One of the investors rightly concluded that Villa was rustling his cattle and refused to invite him. Villa, in turn, started attacking the trains.

The Revolution stopped the project for 10 years. The Mexican Government could not meet its financial commitments for funding. The Owen Stilwell group was forced into receivership and the portion of the line from the border to Chihuahua was sold to the Santa Fe System and resold in 1928 to an investor, Benjamin Johnston. By 1930, additional sections had been built reaching Creel near the eastern end of the Copper Canyon.

What was it with this project that created great enthusiasm and energy on the part of dreamers and investors alike—a project that saw bursts of construction between long periods of dormancy until another dreamer came along to fan the embers and start the fire again? Well, in 1940 it was the Mexican Government that stepped up to the task of re-kindling the fire for the project. The government nationalized the nations railroads and

purchased the Kansas City, Mexico, and Orient Railroad from the Johnston family. Rehabilitation of the existing segments of the line commenced and a commitment was made to complete the final 161 miles of track through the Copper Canyon.

Now the real work began. The Canyon is longer, deeper, and wider than our own Grand Canyon. It is actually one of several interlocking canyons created by six rivers draining the Sierra Madre Range. Unlike the Grand Canyon, the Copper Canyon is thickly wooded in most places and beautifully green in the rainy season from June to October. Building here presented staggering engineering challenges that were considered “impossible” in the early part of the century. The line had to climb over 8,000 feet without exceeding a 2.5% grade. A tunnel was bored at El Descanso exceeding 6,000 feet in length. A bridge was required at Chinipas that was built 355 feet above the Canyon floor. Another bridge measuring, 1,600 feet in length, was built over Rio Fuerte.

At El Lazo, the track had to make a complete 360-degree loop, climbing back over itself in order to achieve the required elevation in tight spaces. Near Temoris, the route made a 180-degree turn inside a tunnel. In all, the section between Chihuahua and Los Mochis required 37 bridges and 86 tunnels; it crosses the Continental Divide three times. This was a colossal project, far beyond the capacities of most developing nations. However, Mexico did it at a cost of over a billion pesos without foreign aid.

The work in the Mountain Division started in 1953 and peaked in 1958. The first train from Chihuahua arrived in Los Mochis on the Pacific side in November of 1961. In the eight years it took to construct the line through

the canyon, the average daily progress was .05 miles, or 20 miles per year. After 100 years, Albert Owen's dream that would not die became a spectacular reality—a superlative achievement.

I have taken the trip from Creel to El Fuerte and back through the Canyon and words cannot adequately convey the natural beauty and thrills this Copper Canyon journey provides. The Sierra Mountains provide the background for the splendor of the Canyon, while the Tarahumara Indians, who are descended from the Aztecs and inhabit much of this remote area, provide a glimpse into a more primitive culture. The railroad is their lifeline.

The railroad today is both a freight line and a passenger line primarily for tourists. The train I rode was diesel powered, with comfortable air-conditioned coaches. Food service was available, and there was some effort at the time to make the tourist train into a Mexican version of the Orient Express. By contrast, locals primarily rode on the freight trains in numbers and positions that threatened life and limb.

As we entered the Canyon from the East from the station at Creel, the line traversed Apache pine forests and into the more rugged terrain of the canyon itself. At one point along the journey we were high on a canyon top and I looked hundreds of feet down and saw a bridge over the river at the bottom carrying the railroad. The train traversed this part of the canyon through tunnels and narrow roadbeds where we could see the occasional freight car or two that had derailed and fallen over the side. That gives one pause. We reached the bottom of the canyon and crossed the river on that very bridge I saw from above.

Further along we stopped at the Divisidero—the place where two rivers come together on the Continental Divide, creating spectacular views. We had opportunity for a photo shoot and a chance to see and purchase crafts from the Tarahumara Indians. The women and girls were the sales people. Adorned in colorful clothing, they were very visible and outgoing. By contrast, the men were barely visible. Dressed in white pants and loose shirts, the men rarely interacted with tourists. While perhaps not seen, the men are well known as world-class runners. They maneuver through the steep mountains with agility and speed, preferring to wear cut-up tire treads tied on their feet with thongs as opposed to shoes. (Take that Nike).

Moving on westward we dropped in elevation, traversing tunnels and tight spaces until we crossed the 1,600 foot long bridge over the Rio Fuerte into the old colonial town of El Fuerte where our west bound trip ended. It was an incredible journey, indeed, and one that has stayed with me for many years.

So, why would I want bring this to you tonight as we talk about superlatives? The dream of Albert Owen is simply one that would not die. It was a result of his vision and tenacity, and from that, a spark of inspiration for others to carry on this work for 100 years. From the investors and politicians who saw the economic development potential in making the dream a reality. To the engineers and construction workers who took up the challenge to build the railroad across the bulk of the Western Sierras. All of these desires combined to create this remarkable achievement. And while the tourist potential was not recognized in Albert's day, thousands of people from all over the world use his railroad each year, to enjoy in

comfort and wonder the amazing and mesmerizing trip through the Copper Canyon.

Submitted with the Budget to the Literary Club, September 24,2018

William W. Killen