

“ She of the Jade Skirt ”

(“Turquoise in the New World”)

The drive through New Mexico had been long and tedious, and though I was tired, I was also excited to reach my goal. Just a few more miles, I thought to myself, and I'll be there. This was to be the first of several places I had wanted to visit that are now known to be intimately tied to the history of turquoise in the New World.

I was expecting the place I had been seeking to just jump out at me. But no, it turned out that it wasn't that noticeable. Had I not been looking for it, I would have just driven on by, just like the thousands of cars and trucks a day that zoom north and south between Albuquerque and Santa Fe, oblivious to the little group of small hills just east of the Interstate—another of those redundantly named places in the Southwest—the Cerrillos Hills. (*Cerrillos* means “little hills”, in Spanish.)

Probably not one person in a thousand moving along that asphalt ribbon could have told you that in those barren looking hills is the oldest continuously mined site in North America. Like so many other places in our modern world where remnants of past greatness lie within reach of our everyday lives and yet go easily unnoticed and unconsidered, the Cerrillos Hills and their rich mines once shaped empires. The Indians of the Southwest, the *Aztecs*, and later the Spaniards, would all come to know of this place and the treasure it once offered – the mineral we call turquoise.

The world of gemstones is not just science. It also incorporates economics, psychology, art, and history. *Especially* history, since without *tradition*, there would be no real value to what otherwise would



Mt. Chalchihuitl, in northern New Mexico.

be just pretty little rocks. They'd be pretty, sure. But to have value, you have to have *agreed upon* tradition.

Sometimes, as with diamonds, that tradition has simply been manufactured. Through intense advertising, for example, *De Beers* has created a tradition associating engagement, marriage, love, and eternity with diamonds. That very profitable tradition didn't really exist before the twentieth century.

I was searching for something much older, something not created by a marketing department somewhere. Turquoise is probably the oldest gemstone known. Its use in ornamentation goes back at least 7000 years. In the Americas, its place in history is vague, but, oh so intriguing. For with the continued evolution of our understanding of the extraordinary civilizations of North America, the history of turquoise is integral.

That these hills are so unobtrusive serves as a kind of metaphor for the history of turquoise itself in the New World. When people in the Southwest think of turquoise jewelry, what undoubtedly comes to mind are large, clunky, elaborate pieces in which a multitude of blue stones are set into hand-worked silver necklaces, belts, and bracelets. The tourist shops and galleries of Scottsdale, Santa Fe, and Taos are loaded with them—some nice; lots of them junk. Most don't realize that this style of turquoise jewelry is really a creation of the last one hundred and fifty years or so. Capitalizing on metal working skills learned from Spanish and Mexican artisans, Navajo, Zuni, and Hopi craftsmen started incorporating turquoise (from all over the Southwest, and now even Asia and labs in France where it is man-made) into silver jewelry. Railroads opened up the West in the late 1800's, and the silversmiths' creations found a ready market in the blossoming tourism business.

Turquoise has one of those complicated chemical formulas that I was glad I didn't have to memorize in college—a lengthy notation for hydrated, copper aluminum phosphate. We think of it as a blue stone, but green turquoise does occur also. Its composition is not nearly as interesting as its history, though, which goes way back beyond that of the 19th century Indians. Way, way back.

By the way, our name for this gem, turquoise, is derived from a French phrase meaning “Turkish stone”—probably a reference to the fact that it was first imported into Europe by way of Turkey—its source in that case being mines in Persia, now Iran.

Ancient Native Americans had their own name for certain highly sought-after green and bluish-green stones, turquoise among them. It is thought that also included with these gems were those we now call jade, and even poor-quality emerald (remember, no one knew the difference between some mineral species until science understood that they were different and had developed ways to tell them apart).

For the most part, the earliest Americans apparently did not distinguish between blue and green. Both colors signified the same things: coolness, water, fertility.

Within the Aztec pantheon of gods and goddesses, which of course evolved out of more ancient Indian beliefs, *Chalchiuhtlicue* was the deity of rivers and lakes, springs, and the sea. Her name translates as “She of the Jade Skirt”.

The blue-green stones became known as *Chalchihuitl*, and from the association with water and life, they became symbolic, valuable, and objects of power within the shaman’s realm.

Sources of the cyan colored gems were varied, but through time one source became preeminent over all. We know it now as Mt. Chalchihuitl, somewhat centrally located in the Cerrillos Hills, and it is there that extensive prehistoric workings are found. For over a thousand years, turquoise mined there was carried vast distances by traders ranging over what became the Aztec empire and the outlying homelands of the *Anasazi* and the *Hohokam*. It became a basis for trade throughout the evolving cultures of the New World.

Before the Spanish conquest, trade in Chalchihuitl would unite those native cultures in ways we are only beginning to understand. The Spaniards later laughed at the Indians’ love of the stone, for they were after what they considered to be treasures of much greater value: gold and silver. For those metals, the sacred mountain was a disappointment.

As you approach the canyon, its presence is not apparent. The view is one of flat table lands—a desert of brush and scrub where struggling cattle simply maintain life from one day to the next. Only in the last few moments do you drop down and arrive among towering sandstone cliffs, and only in those last minutes does the *feeling* of the place supersede what the map portrays in such a dry manner. As I drew near the day’s objective, it took me by surprise, and it was another of those moments in life when I “got it”.

This place is known now as Chaco Canyon. I literally couldn’t believe my eyes. I had seen pictures of it before, but they obviously didn’t do it justice (just like my photo accompanying this article will not). I had read of its amazing ruins, and the dominance of its role in the Anasazi world of the time. And I couldn’t believe that I had waited so many years to come see it.

It had just rained. A late afternoon thunderstorm had rolled through—thunder, lightning, and all—dropping the temperature by at least twenty degrees, and the desert smelled lush, lush. That only added sensuality to the scene, and



Ruins at Chaco Canyon, New Mexico.

Not more than several days walk from New Mexico’s Mt. Chalchihuitl lies an obscure canyon carved into brown, marine sands from the Cretaceous period. Wandering through the warm, tropical woods of those ancient times would have been the most famous of “terrible lizards”. *Tyrannosaurus Rex* and *Triceratops* fought bloody battles to the death there, while above nearby beaches soared evil-looking, winged reptiles—their narrow eyes fixated on the surf below, lest some tasty morsel go unnoticed. None of those creatures would recognize the area now.

as the sun came out, and as the temperature rose again, I stood in awe of the setting spread out in front of me.

What had possessed the old occupants of the enormous, walled, stone structures now lying there in ruin to build on that spot we will never know for sure. But it is one of those places where I am convinced that the power of *the setting itself* played a key role. We will also never understand what the residents of those massive buildings *intended* by living there, or what *they called the place*. But one thing we do know now is that the people of Chaco Canyon dominated the turquoise trade of their time. In fact, they may have been instrumental in developing it, and we also know now that the extent of their turquoise trade reached far into Aztec Mexico, and even to the heartland of the Hohokam civilization in what is now south-central Arizona.

Present-day research shows us that the *Chacoan Anasazi* exploited the turquoise deposits at Mt. Chalchihuitl to a very great degree, and by way of a process called neutron-activation analysis, we know that the sky-blue and cool-green gemstones from the Cerrillos Hills made their way all over the American Southwest. Evidence uncovered during excavations at Chaco reveals that turquoise was likely traded for exotic birds from Central America, copper bells, and other treasures. Beginning at around 900 CE (Current Era), turquoise usage among the cultures of the region mushroomed, and this corresponds nicely with the rise and dominance of Chacoan culture. A vast system of engineered roadways radiates outward from Chaco Canyon, and it appears that it became the hub of a wide-spread turquoise-trading network—its political influence even possibly based on the precious mineral. In diggings so far, over 200,000 pieces of turquoise have been recovered from the ruins of the “Great Houses” of Chaco Canyon! The Chacoans’ monopoly was not to last forever, though, and by 1300 CE turquoise had become common throughout the Indian communities of the Southwest.

With the demise of the Chacoan Anasazi seems to have come a general unraveling of cultures all over the northern highlands of the Southwest. Those traders of old had lost their political and social control of the region, as well as domination of the turquoise trade. The mines at Mt. Chalchihuitl would never again flood *Mesoamerica* with the blue-green gem of life. The high plateaus and mountains of New Mexico are not the end of the story, though, and I made my way towards home.

In the 14th century, in the sprawling desert valleys of what is now south-central Arizona another civilization was just coming into its own. We now call these ancient people the Hohokam, which is a modern day *Piman* (Akimel O’odham) word meaning something like “those who have gone” or “all used up”. (Everyone who lives in the

Phoenix area should at least be marginally familiar with their legacy. The city’s name owes its existence to early American settlers who realized the extent of the vanished society, and chose to rebuild on its ruins. Like the mythical *Phoenix* bird did after death, civilization there resurrected itself.)

There is a lot that remains unknown about the Hohokam. However, many archaeologists do agree that they had more in common with the advanced civilizations of central Mexico (*Toltec* and *Aztec*) than any other Indian culture located in the geographic confines of what is the present-day United States. And the Valley of the Sun had likewise been home to one of the greatest centers of prehistoric civilization in North America, in terms of population.

Was it just that major sources other than Mt. Chalchihuitl had been discovered? Had the Chacoans lost their edge in the trade? Maybe their power in the region had “gone to their heads”, and they had become self-centered and aggressive.

Whatever the case, something sinister had started to happen. All you have to do is look around the region, even around the *Valley of the Sun* in south-central Arizona, and take note of where ancient settlements were being constructed—on steep, stark hilltops, on boulder-strewn and cacti-covered ridges, in places where no one in their right mind would build for the view alone. If you ever visit such now-crumbling ruins, one descriptive word will instantly pop into your mind: *defensive*. Were ripples of disintegration throughout Chaco culture being felt far and wide?

Around 1300 CE the Great Houses of Chaco Canyon were abandoned. The turquoise mines of the Cerrillos Hills were quiet. And the deities of the blue gems of Mt. Chalchihuitl would have to wait for other servants.

By some estimates there were fifty or sixty thousand people living in the area where Phoenix, Tempe, and Chandler now sit. They had devised and built a canal system which utilized around one thousand miles of canals to irrigate a body of land encompassing approximately a hundred thousand acres. That is about forty percent of what Arizona’s modern day Salt River Project now irrigates!

From around 1300 CE, until their collapse at around 1450 CE, there is no question that the Hohokam dominated the Southwest—in cultural influence, food production, and trade. By some accounts, Hohokam-based trade may have ranged as far as Illinois, the California coast, the Yucatan Peninsula, and the Aztec capital of *Tenochtitlan*, now Mexico City. Agricultural goods, textiles,

sea-shell jewelry, and turquoise would have been among their wares.

Turquoise jewelry and carvings, once under the control of the Chacoans, had by this time become widespread throughout the Southwest. New mineral deposits of the gemstone had been found, too. Evidence now shows that turquoise was also imported into the Hohokam heartland from the *Chalchihuites* area, in Zacatecas State, Mexico (not to be confused with Mt. Chalchihuitl, in New Mexico). Other Hohokam turquoise artifacts have been determined to have originated from mines in what is now southern California, not far from Barstow.

For decades, archaeologists have pondered the relative lack of turquoise objects among Hohokam ruins, and wondered why no evidence has been found of turquoise production facilities, or mining activity. Given the ancients' propensity for trading, the sky-colored gem should be more ubiquitous in archaeological collections. What was lacking was the so-called "smoking gun" of Hohokam turquoise trade.

Within the last decade, a site has been found in southern Arizona that just might be that "smoking gun". On a remote hilltop, near modern-day Tucson, sits the ruins of a place known in present-day Indian language as *Na'Naksha'l-Kihhim* – the "Village of the Scorpions". Here are ruins of above-ground houses, a plaza, and a platform-type mound. Here, too, has been found evidence of turquoise processing and finishing, and now-spent mines.

Although this particular site seems to have been abandoned while Chaco Canyon still dominated the turquoise trade to the northeast, it shows a clear connection to lands further south and is proof of the Hohokam presence in the turquoise trade. If all is as it appears here, the fusion of the civilizations of central Mexico with the Hohokam comes alive through turquoise.

It was near sunset, and I stood there next to my idling car in the flat wastes, momentarily stopped on the shoulder of yet another roaring modern-day artery of trade. Wheeled vehicles whizzed straight from one horizon to the other. With every one that passed, a blast and thud of wind shook me and pushed me off towards the chaparral. Diesel fumes and automotive exhaust overpowered the nearby sweet smell of warm *creosote*—fading, then returning after each pulse of traffic. I could see purplish ridges and volcanic rock spires in the distance to the west, the landscape of the Village of the Scorpions, and momentarily, I day-dreamed about life in the way-station on a trade route now vanished.

I've noted above that what most people think of, when turquoise jewelry is mentioned, are the big, somewhat geometrical, multi-stoned silver ornamentations of the Navajos and Zunis, and that this style is only a recent invention.

The real styles of the native, older occupants of the Southwest include beads, pendants, carved animal and



Turquoise tesserae-style jewelry.

bird motifs, and pieces composed of turquoise and shell *tesserae*.

Tesserae are like little tiles, and were glued with pine resin to shells or wood pieces. This mosaic type is present in Aztec art as well.

Pictured here is an ancient piece of turquoise jewelry, in the tesserae style. This piece is a pendant with a small, reddish, center tile of shell, and measures about 9 centimeters (about 3.5 inches) across. While the pictured pendant is not Hohokam in origin (it is from the White River area in eastern Arizona), it is the closest thing I could find to photograph to show the style. It does date from approximately 1200 to 1400 CE.

Trade routes shift, civilizations come and go, the world becomes ever more complicated and fast. But concepts of life, fertility, and coolness (especially in Arizona) linger—they remain, as does the stone that has come to symbolize them.

True tradition never dies. It just changes hands, that's all.

Arizona is America's leading gem producing state. For more about turquoise and Arizona's gemstones, visit www.gemland.com. Go to the "Gemology" section, and click on "Arizona" to begin a series of web pages.

--- Richard Allen

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