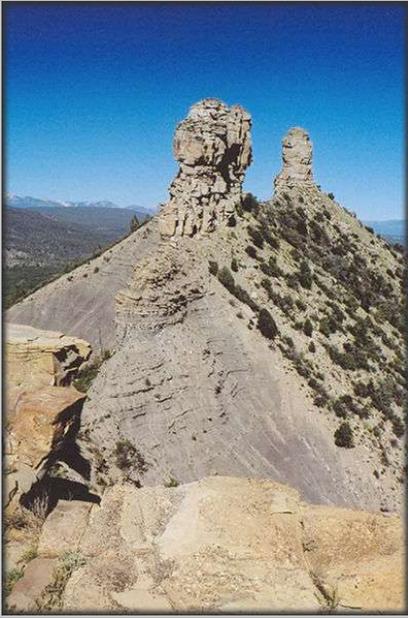


# “Star Chart”



Chimney Rocks in Colorado.

Rocks are my passion. Anyone who looks at my website will realize that. But they will also see that my world of rocks spans everything from little ones, like gemstones, to really big ones, like the moon and planets in the sky above. Rock types that cover that whole spectrum are right up my alley.

And the aspects of rocks that intrigue me the most are not their chemical characteristics, or their economic values, but their relationships with us. It is the “bridge”, so to speak, between rocks and other forms of life, that continuously presents new terrain to explore, and new material for thought. This may sound a little strange at first, but when you start to realize how much of your everyday life somehow involves rocks, those seemingly inanimate, cold, hard substances that form our world become a lot more meaningful.

I was driving south through the Four Corners area a month or so ago, in that part of Colorado where the high peaks of the Rockies just start to open up down into and out onto the Colorado Plateau.

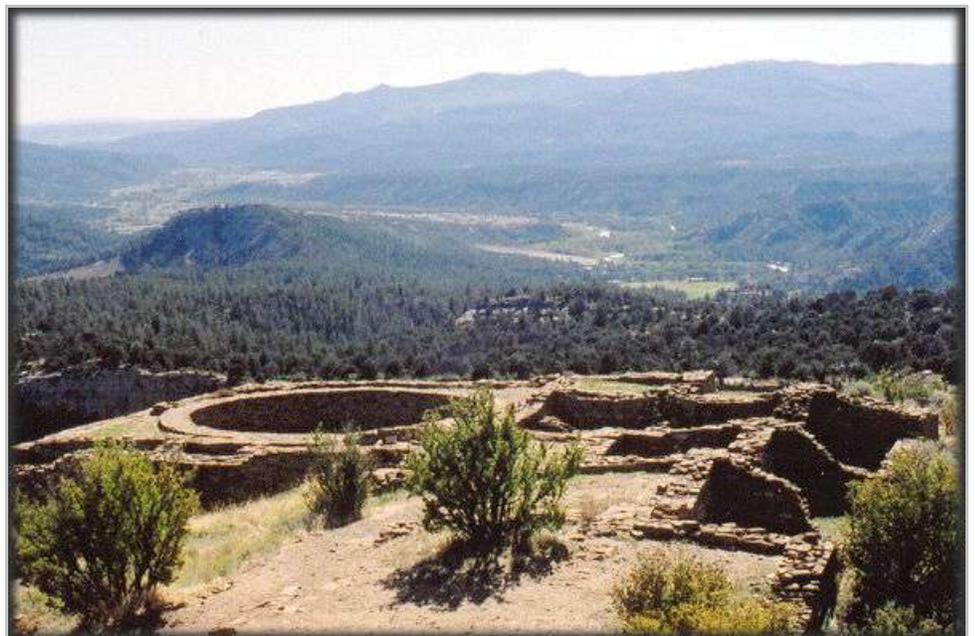
Golden aspens and land that is more vertical than horizontal gives way there to red rocks and wide open spaces, punctuated by spires and pinnacles of stone, each one with an individual personality. It is where the rivers cease their tumbling and roaring, where they begin to broaden and slow, and where cattle now come to their banks for liquid refreshment. Even the smell in the air changes from cold, mountain, and evergreen, to warm, organic, grasses and desert.

It is also where you become aware that these are more habitable lands. And they have been that way for quite some time. When you start looking around, you realize, too, that there are ruins everywhere – ancient ruins of homes and structures and temples that mystify us, for you have entered a part of the world where very little is known about the former occupants and why they came and went.

One such set of ruins towered above me along that road: *Chimney Rock*. I had read about it and studied what is known about it before I had started out on that venture, of course. But, as I’ve found is usual with such locales, its countenance and its setting was again more striking than I had expected. And here, too, not only were the ruins of the prehistoric village amazing, their placement was really *integral* with the rocks. They were put here *because of* the rocks, and not just the scenic view of them, either.

Native Americans considered the land inseparable from culture. Temples and sacred spots were not sited in places of convenience, but in places with spiritual connection to the Earth. It’s as if such places “grew out of the Earth”.

Chimney Rock Pueblo is one such site if I ever saw one. Alongside the rushing Rio Piedra (“stone river”), it sits along a high, steep, constricted ridge of gray and tan Cretaceous-age sandstone, and there is not much room for anything else. To its east are two great pinnacles of rock, looking like two big smokestacks might have looked jutting up from one of those old, long, Titanic-era steamships, when viewed from the side. No smoke emanating, here, however. And when seen from the distance below, the village is unnoticeable. It’s only when you get up to it, and walk among its crumbling stone walls and kivas, does the perspective shift. The two towers then look nearly side-by-side, and because there is a gap in the ridge between them and the pueblo, they seem to “float” above the ruins.

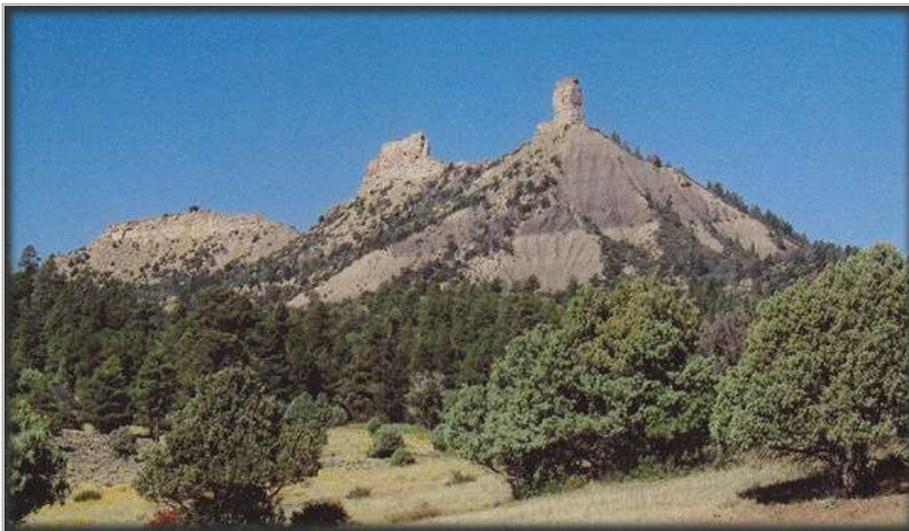


Chimney Rock Pueblo – kivas and ruins.

“Why here?” you might ask yourself. “Why, when all the water is a thousand feet below, would they choose to live here?” Many people and scholars have asked that very same question. There are countless archaeological remains all over the Southwest that puzzle academicians equally. Some such locations appear to be defensive. Some appear to be sited where they were for communications purposes. Some were maybe even situated for upland farming.

But here, the latest thinking is that besides possibly having elements of the above-mentioned reasons, Chimney Rock Pueblo (or whatever they called it) was, and still is, for that matter, a monumental celestial observatory. It was a means to chart movements of heavenly bodies within the sky, and hence determine the pulse of the seasons.

Given that, its rulers and inhabitants would have had some pretty valuable information, indeed. With apparently no paper at the time with which to do some figuring, and no time-keeping machines, they nevertheless had developed a system by which they could predict cycles of time – a chart within and of the rocks, so to speak, and their understanding of the skies was far ahead of what most people on the street today could tell you.



Chimney Rocks from the valley. You would never know a village was up there.

As I write this, we are approaching the Winter Solstice. We also have a Summer Solstice every year, and it usually makes the news or weather report, too. Astronomical terms such as solstice, equinox, and standstill get thrown around a lot. But how many of you actually know what they mean?

We have so little exposure to the cycles of nature in today's world that people have lost an appreciation of what is in the sky above. Most of us live in large cities now, and those that even bother to look up at night usually see only a few stars. I get the feeling that many think of them as little lights on a domed ceiling high above – like the sparkles overhead in some kind of giant, worldly discotheque.

While he was attending one of my stargazing sessions one time, I actually had a surgeon (after I had made a comment about where some star was in the sky at that moment, as if we could see it below the horizon) ask me, in all seriousness, “You mean that the stars go all the way around the world?” After all of the science, chemistry, and physics classes, and rigors of medical school that he must have gone through, he had apparently not grasped *until that moment*, that Earth is indeed *a planet in space*, and the *stars lie in every direction*. Only the blue haze of the daytime sky prevents us from seeing them all of the time.

The ancient peoples of the world, especially their priests and shamans, knew all about the placement of the stars. They lived their lives with a constant knowledge of the heavens, and the solstices, equinoxes, and standstills ruled their calendars.

Chimney Rock Pueblo is a place (and there are probably many in the Southwest) that was almost certainly sited because of astronomical events. The twin rock pinnacles form an ideal, gigantic “notch”, through which at various times, the risings of the sun and the moon could be observed from the pueblo.

Like at its man-made, older counterpart, *Stonehenge* (in England), only on certain days of the year would such events happen. By careful observation over many years, the Pueblos noted that such risings could be used to predict when the seasons would change, when to plant crops, and when to start getting ready for winter.

As for the terms I mentioned above, following are some brief explanations (and my discussion here pertains only to the Northern Hemisphere). First of all, the beginning of Winter has nothing to do with the fact that it starts to get cold out, *per se*.

Because the Earth is tilted on its axis of rotation, relative to its plane of orbit around the Sun, it sometimes is fully tilted away from the Sun, and sometimes fully tilted towards it. When it is tilted fully away, the Sun appears as far south as it can in the sky, and this occurs actually at a precise moment, time-wise.

Then Earth starts to rock back the other way. That furthest south position can most easily be noted by observing where the Sun rises on the horizon from day to day. If you watched every morning, you would see that on one particular day of the year, it would stop rising farther south than on the previous day, and that on the day following that, it would start rising to the north again.

That position, and its corresponding time, would be called a standstill, as the Sun's march would appear to "stand still" for a day, on the horizon, before reversing its direction. In Latin, "solstice" means "stand still". "Winter" is the name we give to the one-fourth of the year following that astronomical moment. The beginning of "Summer" has a similar, but reversed instant, when the Sun is farthest north.

The equinoxes are the positions exactly in between the solstice positions (as there are only two solstice positions during the year, there are also only two equinox positions). They have the names Vernal and Autumnal, and mark the beginnings of Spring and Fall, respectively. On those days, the Sun rises directly in the East, and sets directly in the West, and day and night are of equal length (hence "equinox"). The points where the Sun rises and sets on those days are also points on the horizon, likewise marked and noted by megaliths and rocks of the ancients.

The term "standstill", when used as such, apart from my explanations here, usually applies to the movements (risings and settings) of the Moon, which goes through similar rhythms.

Observing celestial events from day to day, and night to night, makes the heavens come alive. For everything is moving, and some of the patterns repeat – predictably so. Watch, and you can see it too. Appreciating the sky will make you appreciate the Earth and the rocks beneath your feet. It's almost as if the path of the stars ultimately leads one home.

*The Winter Solstice, or December Solstice (to be fair and PC to those in the Southern Hemisphere), occurs on or about December 21, every year. From that moment on, Summer is on its way.*

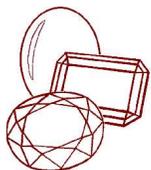
*To learn more about the Southwest's engaging rock formations and prehistory, visit [www.gemland.com](http://www.gemland.com), and explore it! While devoted mostly to the Phoenix area, there is plenty of other information there for you as well.*

----- *Richard Allen*

January 2006

Text and images ©Richard Allen 2006.

*This article may be reprinted for NON-COMMERCIAL use only.*



**gemland**

PRECIOUS GEMSTONES • CUSTOM JEWELRY

*At right: natural Arizona Peridot and 22K Gold  
gent's ring by GemLand © 2004*



*by Richard Allen*

The geology section of our website and these articles are financed in part by our gemstone and jewelry sales. So please don't forget, we offer only the finest in custom-made jewelry. No pretentiousness. No hype. No inflated prices. Now in our 20<sup>th</sup> year, we work in gold or platinum, and can set our stones, or yours.

[info@gemland.com](mailto:info@gemland.com)

• **Phone/FAX 602-294-6775** •

[www.gemland.com](http://www.gemland.com)