

# The Vista Sun Wheel

By James L. Bleess

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In the early 1960's Titan II nuclear missile sites ringed Tucson in the Arizona flat desert as protection against the Soviet threat. Hardened silos and command bunkers were built underground.

But during the Regan Administration the SALT II treaty was negotiated, and the Titan II sites were deactivated, with the last decommissioned in 1984.

In 1994 Vista de la Montana United Methodist Church (UMC) purchase the 10-acre site from the Federal Government. Although the silos and bunkers were filled, the concrete pad covering the silo can still be found west of the church's parking lot.



The parcel of land purchased by Vista UMC is shaped like the state of Utah – 8 acres for the main parcel and one acre juts out like a tab. Here on that one-acre tab is the Sun Wheel, reflecting the true meaning of changing swords to plowshares.

James Bleess said, “I entertained the idea of building a solstice – equinox sun tracking device for several years.... Look at Stonehenge or Avebury for instance – remarkable achievements. Later, I discovered native North American sun wheels, every bit as effective and in most instances easier to build.... Centuries ago, these were scattered over western United States and southwest Canada. Most have been lost to progress in the form of the plow, road grader or bulldozer.”

The Vista Sun Wheel began by clearing the one acre using a front loader to removed gravel piles, brush and trash. “I watched as the front loader, run by the owner who was an expert operator, drove round and round dragging the bottom curve of the bucket over the surface, pushing it down by a hundred pounds of downward pressure. He stopped, looked at me and said, ‘well, how pretty do you want it?’ Frankly, it looked like pebble beach in gravel.”

The circular nature of the Vista site was now evident and the construction of the Sun Wheel began. The main features would be a stone ring circumference, radiating spokes for the solstices and equinox, and a central cairn.

From the chosen center, Jim used direct observation to find the horizon positions of the sunrise and sunset points at Summer and Winter Solstice and the Equinox. “Patience is required! I set out white painted soccer ball size stones at each position. Next, I allowed for another annual cycle of the sun to verify the accuracy. These stones were set outbound of the eventual ring.”

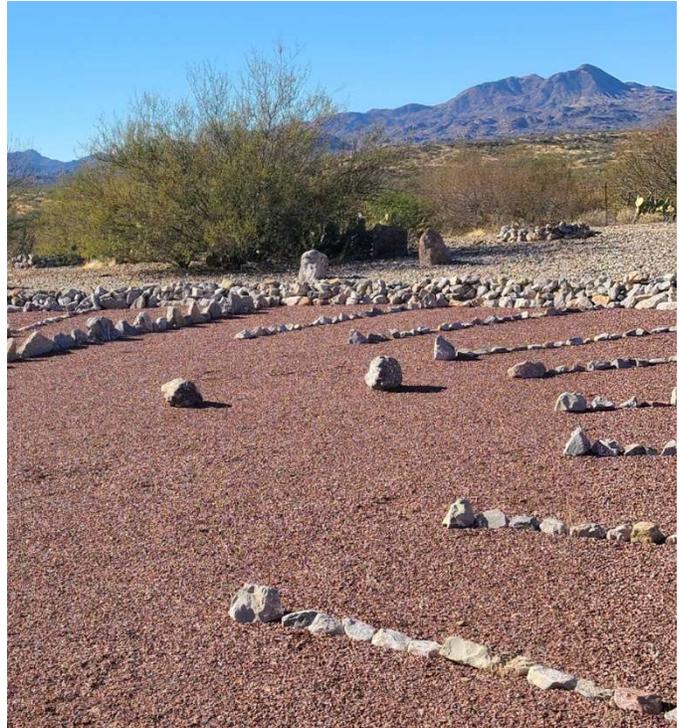


Jim used a 30.5 foot [9.1 m] length of non-stretch wire to scribe a circle around the center. “I used 28 ton of broken limestone, 4 – 12 inches [10 – 30 cm], mixed. 12-inch broken costs more than 4 inch broken, go figure. The limestone was deposited in three piles to make moving around the circumference of the ring easier. (There is no easy way to hand carry 28 ton of broken limestone). Four of us did this in about 4 hours with the help of a skid steer and another good operator.” The circular ring now has an inside diameter of 61 feet [18.6 m] with an extending base 30 inches [76 cm] thick and sitting on average 18 inches [46 cm] high. Quite an impressive Wheel.

In the middle Jim constructed a cairn of stone 11 feet [3.4 m] in diameter and 3 feet [1 m] high. The cairn like the Wheel’s edge, are made of broken limestone, 4 to 12 inch random pieces. In the center is a post marked by a sandstone block about 30 inches [75 cm] tall. The post is now nearly buried due to recent additions of stone to the cairn. “Mostly tinkering here and there, no rush.”



Next came the Sun Wheel's floor, "This step called for 28 ton of crushed decomposed granite <math><1/2</math> inch (1.25 cm) with fines (dust and dirt). Standard landscape material for southern Arizona. This was delivered and dumped inside the ring in 2 piles. The skid steer operator, in less than an hour had the granite looking like burgundy pile carpet, beautifully level and consistent."



Finally came the spokes for the Sun Wheel, "7 spokes contribute to the alignments. Besides the Solstice and Equinox alignment, I included a sunset only Groundhog Day feature.

On Groundhog Day (the only indicated cross quarter day) the setting sun appears to "rest" upon an aligned 7 foot [2.1 m] post. This is a popular feature of the Vista Sun Wheel."

But the Sun Wheel is far from finished, "20 stones about 30 to 40 inches [75 to 100 cm] were set to various alignments outside the ring. Buying the quarried stone was not expensive, but transportation was pricey. These were set by another operator, this time with a backhoe, also with amazing ability. He took a keen interest in the project and in the middle of his work he stopped, looked at me and said, that stone doesn't go there. He was correct!"

"The Wheel functions very well. I visit it often. Here is the place to meditate on light, shadow, time, our place in the world, tomorrow and those who were here long ago. It is also exciting to see the sun marking time in the same manner as ages ago. Eventually I intend to layout the Pleiades rising. It is simply too spectacular to leave out."



“To any person contemplating such a project I say, get started. The Vista Sun Wheel is 63 feet outside diameter and 197 feet circumference. Frankly 51 feet in diameter [ $\sim 15$  m] would work well and be just as spectacular. 28 ton of crushed granite just barely covered the inner ring surface about  $\frac{3}{4}$  inch thick. Broken limestone worked well to stack the ring and cairn. If you can hire an astronomer or surveyor, you will have more detailed observations and do your layout in one day instead of two years.”

“Construction began in 2015 and the Sun Wheel opened in 2017. All are welcome. The irregular horizon of mountains causes most sunrises to be “late” and most sunsets to be early. However, Winter Solstice sunset is nearly at the correct time with a level horizon. The same with Ground Hog Day.

“Church policy does not allow for overnight camping, tenting, or RV parking. Check in at the office as a courtesy. Wear sturdy shoes and a hat. Please stay on the graveled paths. The Sun Wheel and a fine Chartres Labyrinth are at the south end of the parking lot.”

All are welcome.