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Big Horn Medicine Wheel: Ghost Town and Natural Machine of the Gods

Don Stier

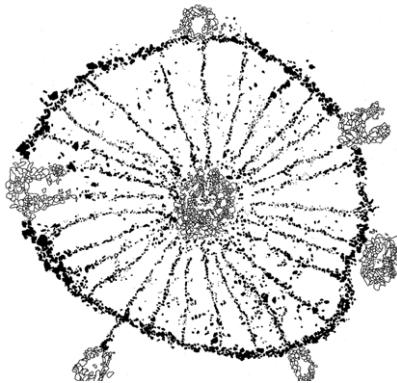


Figure 1: Plan drawing of the BHMW. North is to the top of the page.

The Big Horn Medicine Wheel (BHMW) is a living ghost town. It is also a natural machine used to commune with the spiritual world. It has been serving in such capacity for hundreds, maybe thousands, of years. In prehistoric times, the BHMW functioned as a city-structure because it was a built environment that served as a point of congregation, a place of concentrated activity. As an ancient assembly site for indigenous peoples, the wheel differentiates itself because, unlike many other gathering places such as water sources or hunting grounds, it is a built object. As a construction capable of gathering people, it demonstrates the power of architecture or, in this case, landscape architecture.

The BHMW is a ghost town. The typical western use of the term “ghost town” is one of abandoned buildings and forgotten, Old West villages. The BHMW is different. By describing it

as a “ghost town” I do not imply the usual association of Old West images, rather, I propose that the BHMW functions as a town (or city) by hosting many people and giving them a place to congregate. The association with ghosts is appropriate because mortals cannot occupy the site year round and Native American religious practitioners have spoken of the spirits that dwell about the wheel.

Although the wheel is a ghost town it is not dead. Indeed it is living, and it has been functioning for a very long time. While the exact date of construction and the builders are unknown, it is agreed that the BHMW was constructed by many people over many years. We can imagine that the first individual made an offering of a projectile point and marked that place with a cairn. Later, as tribes continued to visit the site and recognize the cairn as a marker of the sacred, they began to add their own ornamentation to the cairn, eventually constructing a wheel. The organic evolution continued as the BHMW served as a destination and a temple for ancient peoples (and still serves in this capacity today). The result of this ongoing design and construction is a natural machine that gathers the celestial and terrestrial planes, thus delineating the BHMW as a world “center.”

The Structure

In 1954, the archaeologist Thomas Kehoe defined medicine wheels as, “a

cairn or circle of stone (occasionally concentric circles) from the center of which radiate a series of rows of other stones.”¹ The BHMW certainly satisfies this definition. It is generally regarded as the archetype medicine wheel because of its complexity, preservation, and renown relative to other medicine wheels.

The BHMW rests on a shoulder of Medicine Mountain at an elevation of 9,642 feet above sea level. The wheel is a circular structure made of various sized, locally gathered limestone rocks loosely stacked as cairns or placed

end-to-end as spokes. [Fig. 1] The circle is approximately 80 feet in diameter with a circumference of 245 feet. Six distinctive piles of rock, called cairns, are located at assorted points around the circle’s perimeter and differ in orientation, size, and shape. The cairns are variously shaped as circles, ovals, and horseshoes. Generally, the cairns are two feet tall with central openings large enough for a person to sit or lie down. Those cairns that do have an open side face in various directions. The irregular spacing and differing orientations of the cairns allow many interpretations of the structure based

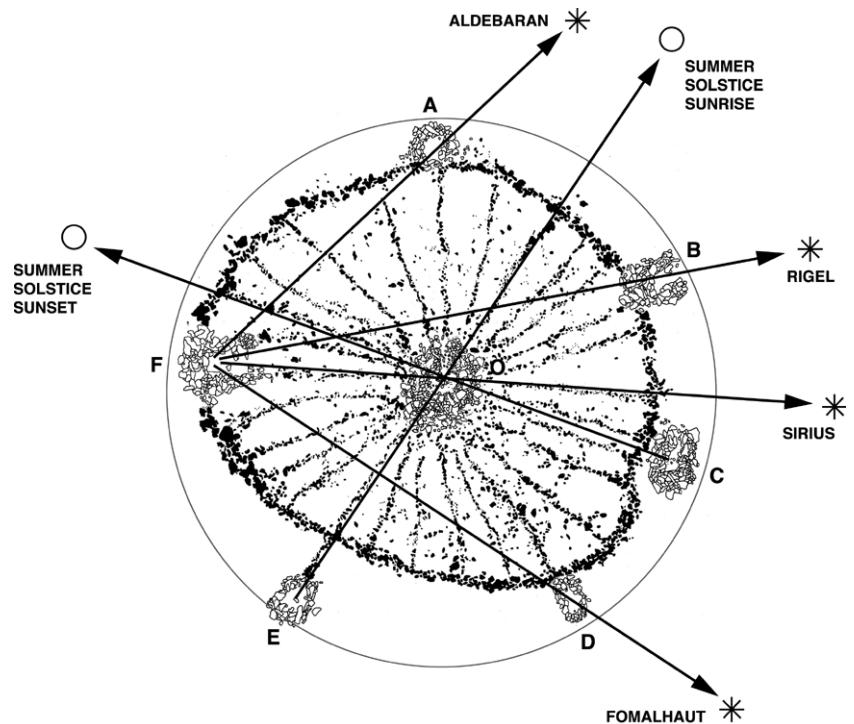


Figure 2: Sketch from Dr. Eddy's illustrated theory of the celestial alignments of the BHMW.

upon possible cairn uses and symbolic associations within Native American religious practices.

The most notable cairn is positioned farthest west. It is remarkable because it lies ten feet outside of the circle. However, it is at this point that the circle noticeably flattens. If the circle were formed with a consistent radius, this outlying cairn would also be positioned along the circle's perimeter. This cairn is connected to the center of the circle by a row of stones. These linear stone patterns are commonly referred to as "spokes," thus likening the structure to that of a wagon wheel. At the center of the wheel lies the largest of the cairns (approximately twelve feet in diameter). From this central cairn twenty-eight spokes radiate outward to the encompassing circle of stones. Some people associate the twenty-eight, variedly-spaced spokes with the twenty-eight ribs of the bison or the twenty-eight days that the moon is visible in a lunar month.

We know that the BHMW was constructed over a long period of time and by multiple builders. A 4,400-year-old projectile point was found beneath the central cairn of the BHMW.² It is agreed that the central cairn is the oldest portion of the structure. The outer ring and spokes, however, are generally considered to have been built between 1600 and 1800 A.D. We can imagine that the first individual made an offering of a projectile point and

marked that place with a cairn. Later, as tribes continued to visit the site and recognize the cairn as a marker of the sacred, they began to add their own ornamentation to the cairn, eventually constructing a wheel. The organic evolution continued as the BHMW served as a destination and a temple for ancient peoples and continues to serve in this capacity today.

The connection to the ancients is preserved in many ways, mostly by the forbidding nature of the region. This is demonstrated best by the climate and the transportation pattern.

The climate of the Bighorn Mountains determines much of the human activity throughout the year. This is true today as it has been for thousands of years. The climate preserves the Bighorn Mountains scenic integrity by protecting them from year round human saturation. The pleasant summer temperatures call to humans and animals alike to share in the Bighorn's oasis-like atmosphere that differs markedly from the hot, dry, neighboring basins. The forbidding winter weather, however, provides a period of relief from the stresses of human habitation and recreation.

In addition to the climate, the topography limits the development of circulation routes, thus preserving in some ways the paths of the ancients. While the actual physical traces of their trails are not always discernable, today's

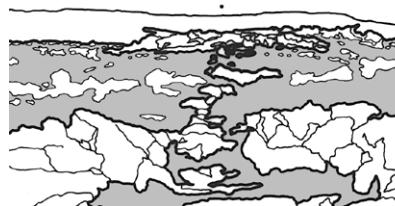


Figure 3: Sketch of the summer solstice alignment from the position of Cairn E looking over and beyond Cairn O.

roads and trails are often the same routes taken by the ancient inhabitants.³ The visible traces and recreated paths reinforce the timeless quality of the BHMW and connect modern visitors to the ancients that visited the site long ago.

For hundreds of years people have altered the BHMW to fit their useful and aesthetic needs. Its organic development attests to its drawing power throughout the ages and its characterization as a living thing. The changes have been slow and deliberate. Fortunately, the severe nature of the region protects the BHMW from excessive alterations and preserves the connection to past generations of visitors. In addition to the ancients, the BHMW provides a connection to the landscape and the cosmos.

The Machine

The Medicine Wheel, like the stone circles of Europe, is generally understood as an empirically derived stone calculator of the sky representing a natural worldview. Archaeoastronomer Dr. John A. Eddy is credited with arousing



Figure 4: Looking due north across the BHMW, we are aligned with Cairn D (foreground) sighting over the central cairn. Cairn A is just to the right of the fence post. An example of terrestrial alignment is the notch created by the near (the end of Medicine Mountain's shoulder) and the far horizons. This picture shows the contemporary condition of the BHMW: it is enclosed by fence with ceremonial prayer offerings attached.

much of the modern day discussion surrounding the BHMW when he called it the "American Stonehenge."⁴ His theory began with a suspicion that the cairns about the wheel could be used to sight distinct solar events. [Fig. 2] Most notable to many cultures throughout history is the moment of the summer solstice. Eddy's theory for the use of the BHMW as a celestial and solar observatory is as follows: the helical rising of Aldebaran would initially mark the summer solstice. The summer solstice would be confirmed by the sun rising in alignment with

cairns “O” and “E.” [Fig. 3] A second check would be possible by viewing the setting sun in alignment with cairns “O” and “C.” By marking the first appearance of Aldebaran and the northernmost rising and setting of the sun, the BHMW serves as a calendrical datum. If the BHMW has a connection to the Sun Dance ritual, as some suspect, verifying the summer solstice could have been of great concern to ancient worshippers. The wheel continues to serve throughout the summer with the helical rising of Rigel marking the passing of twenty-eight days, and the helical rising of Sirius marking the passing of another twenty-eight days. The fifty-sixth day after the summer solstice is August sixteenth. Eddy suspects that the appearance of Sirius could have signaled the end of suitable weather for residing on the mountain.

Eddy theorizes how observers can be positioned in the cairns to align themselves with solar and celestial events. It seems reasonable that if the BHMW were intended to gather the sun and stars it should also gather the landscape. The significance of bringing the heavens to a central point is magnified when the landscape is collected to the same spot. By unifying the heavens and the earth, the BHMW can be seen as an earth navel or place of origin for the universe. While Eddy’s alignment theory involves some complicated positioning in order to achieve alignment with the heavens, extending the spokes into the landscape is relatively simple. However, due to possible events of soil creep, vandalism by artifact hunters, adjustment for ceremonies, and “because it has been disturbed by visitors and walked over and disarranged by wandering cattle”⁵ it is difficult to make this statement assertively.

BHMW spokes point to landscape features on the horizon, with some of the spoke/landscape relationships being more convincing than others.

In fact, many of the spokes radiating to the south and the west point to the sky (due to the wheel’s position on the shoulder’s slope) or to the distant peaks of the Absaroka Mountains. While these spokes may point to prominent distant peaks, it is difficult to determine this conclusively without positioning oneself within the central cairn.

The horizon relationships of the spokes radiating to the north and the east are more definitive. Due to the shorter distance to the horizon they are more easily extended to the peaks of Sheep, Duncum, and Bald Mountains. Additionally, spokes point to smaller features in the landscape such as vertical rock features called hoodoos or notches and gaps in the surrounding mountain profiles. [Fig. 4] Unique landscape features are worthy of identification and orientation. They are characters in the landscape.

Not only can the spokes be shown to point to landscape features on the horizon, but the position of the BHMW on the shoulder illustrates four primary and different spatial relationships. [Fig. 5] The peak of Medicine Mountain frames the south horizon of the BHMW and positions the wheel as being “below.” Devil Canyon is to the north and puts the wheel in a relative position of “above.” Likewise, the east horizon is composed of neighboring Bighorn Mountains—Sheep, Cone, and Duncum. They are decidedly “near.” Conversely, the western horizon is quite “far” as it showcases the Absaroka Mountains approximately one hundred miles away. The position of the wheel effectively gathers the cosmos by combining above, below, near, and far to resolutely establish the BHMW as the “center.”

Using the “machine” metaphor to discuss the BHMW is useful. When used in the fashion illustrated by Eddy, the BHMW is a tool for watching the heavens. Additionally, the spokes of the wheel gather the landscape. There

is agreement that the BHMW was constructed over a long period of time, probably over the course of centuries. One can imagine the painstaking process of determining alignments and articulating the relationship between the sky and the land. The result is the cairns and spokes working together as a natural machine to delineate the special relationship between the landscape, the heavens, and their connection at the horizon. The effect is a demarcation of a world “center” in the Bighorn Mountains.

The Ghost Town

It is easy to see how a structure of such delicate construction, antiquity, and precision would be attractive to many people—natives and non-natives, alike. Many indigenous people believe that the BHMW remains a pleasant place for the spirits of their ancestors. The sacred nature of the wheel that allows it to serve as a temple to communicate with gods also makes it a home for spirits.

Today’s visitors coming for religious observations include native peoples as well as New Age religious practitioners. Native Americans are concerned about the New Agers, because their practices often involve prayers or rituals that are an affront to indigenous peoples.

Many of these prayers and rituals are in fact bastardizations of actual Native American practices. Native Americans are distressed that these unauthorized and offensive practices are unsettling to the spirits that occupy the land. The gently sloping meadow to the north of the BHMW served as a campground for hundreds, maybe thousands, of years. [Fig. 6] Evidence of previous inhabitants can be seen in the form of tipi circles scattered about the mountainside. Tipi circles are symmetrically scattered boulders that, formerly used to anchor shelters, indicate where structures once stood. Medicine Mountain likely served as an annual summer location for hunters and gatherers enjoying the bounty of the Bighorns. Native Americans contend that the spirits of these inhabitants remain today. In one incident the Crow Chief, Red Plume, told his people before he died that his spirit would dwell at the BHMW. For many, the spirits are an integral part of the site. Protecting and preserving their occupation is critical.

A timber-harvesting sale was proposed for the area north and east of the wheel. While generally not considered part of the BHMW site, this area is adjacent to the site and certainly within its viewshed. Northern Cheyenne elder

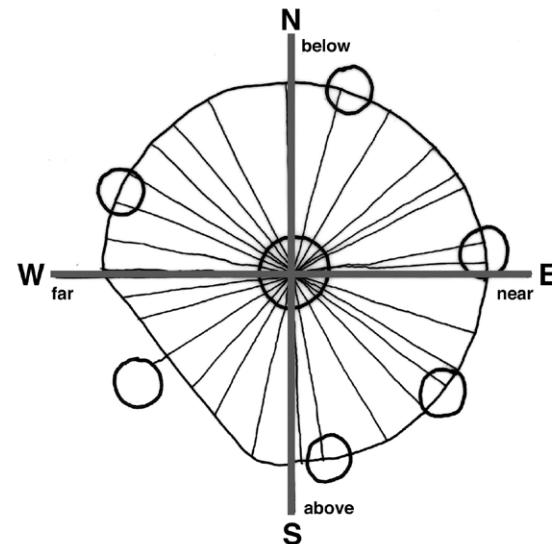


Figure 5: Plan diagram of the spatial regions of the BHMW.

Bill Tallbull vehemently opposed this proposal. It was his contention that the BHMW's benevolent spirits inhabit the forested areas around the BHMW. Should these stands of trees fall, the spirits would be threatened. The probability of their exodus was of great concern to Mr. Tallbull and other practitioners of traditional Native religions.

The Medicine Wheel Alliance (an association of Native American tribes) was successful in demonstrating to the National Forest Service that the BHMW serves the Native population as a temple and that a contemplative atmosphere is vital for the wheel to fulfill this function. The Alliance demonstrated that the wheel was not a "relic" as it was stated on the sign along highway 14A, rather the BHMW had been serving continuously as a part of Native American religious life. However, it was only since the passage of the American Indian Religious Freedom Act in 1978 that Native Americans were allowed to openly use the wheel to facilitate religious ceremonies. The Alliance convinced the NFS that the surrounding trees serve as a valuable visual resource contributing to the quality of the BHMW experience, that tourist traffic was damaging the area immediately surrounding the

wheel, and that logging truck activity denigrates the sacred qualities of the BHMW.

As a ghost town, the BHMW is a spiritual community. While the wheel is a structure that has "developed" over many years, it is important that it not be completely transformed. Modern, Western practices threaten excessive activity, noise, and alteration of the scenic/natural resources, thus reducing the BHMW's ability to function as a "ghost town." Maintaining the "ghostliness" of the ghost town is critical to pleasing the spirit residents so that today, as it has for many centuries, the BHMW can serve a higher purpose.

Conclusion

The BHMW is a ghost town and a natural machine of the gods. Its construction has been an undertaking by many people through the ages. As people have visited the site, they have adjusted the wheel to meet their needs. The length of this process affirms the ability of the wheel to gather people. Native Americans tell us that some of these people remain, as their spirits inhabit the site. Projecting the spokes of the wheel across the terrestrial plane demonstrates the gathering of the landscape. Eddy has shown how the cairns can be used as a tool

to harness the sun and stars. The alignments with landscape features and celestial events demonstrate the wheel's ability to gather land and sky. The BHMW joins mortals and spirits, heaven and earth. The result is the delineation of a world "center" in the Bighorn Mountains.

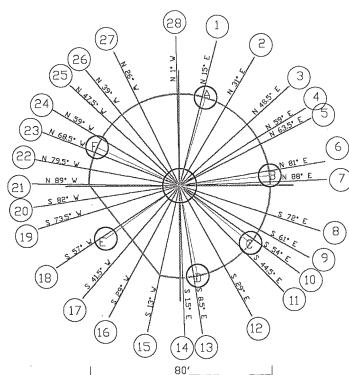
The spirits inhabiting the BHMW tell us that this is a ghost town, yet it is a living place. Despite changing over time, it appears to have retained much of its original character. It will continue to change. Artifacts have been taken from the site and offerings have been left. Stones have been adjusted to facilitate ceremonies. Fences have been erected to protect the structure, and now they are coming down as the public demonstrates a greater understanding and appreciation for the BHMW. The ongoing adjustments, modifications, and uses of the BHMW should not be upsetting to landscape architects accustomed to working with processes.

Evolution should be an anticipated and encouraged phenomenon. Without evolution there is only entropy and a relaxation to conformity. This is essentially the same reason that native peoples are allowed to access the BHMW and non-natives are not.

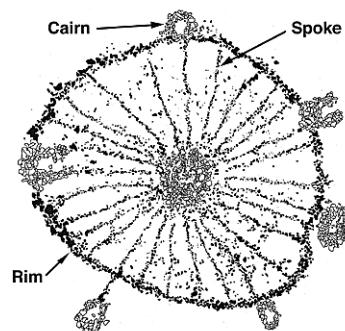
Adjustments and modifications made with reverence for the place are in keeping with the original creative act. Artifact hunters, vandals, and those that are not sympathetic to the Place and the spiritual aspect of the temple are entropic threats. The BHMW continues to need protection so as to maintain something of the original builders' design intent, but it also needs to be accessed and used. To deny the Big Horn Medicine Wheel to serve its purpose as a temple is the death of its meaning and its relegation to the status of relic.

Notes

1. Kehoe, Thomas F. "Stone 'Medicine Wheels' in southern Alberta and the adjacent portion of Montana: were they designed as grave markers?" *Journal of the Washington Academy of Sciences*, 5 (1954, May): 133–137.
2. (Gray, 1962 as cited in Boggs, 1999) Boggs, James P., Chapman, Fred, & York, Robert G. National Register of Historic Places Registration Form OMB No. 1024-0018 (1999).
3. Platt, Steve. *Trails and Aboriginal Land Use in the Northern Bighorn Mountains*, Wyoming. Unpublished masters thesis, University of Montana, Missoula. (1992).
4. Eddy, John A. "Probing the Mystery of the Medicine Wheels," *National Geographic Magazine*, 151 (1977, January): 140–146. Also, "Astronomical Alignment of the Big Horn Medicine Wheel," *Science*, 184 (1974, June 7): 1035–1043.
5. Grinnell, George Bird. "The Medicine Wheel," *American Anthropologist* 24 (1922): 299–310.



Alignments and Bearings.



Components of the BHMW.

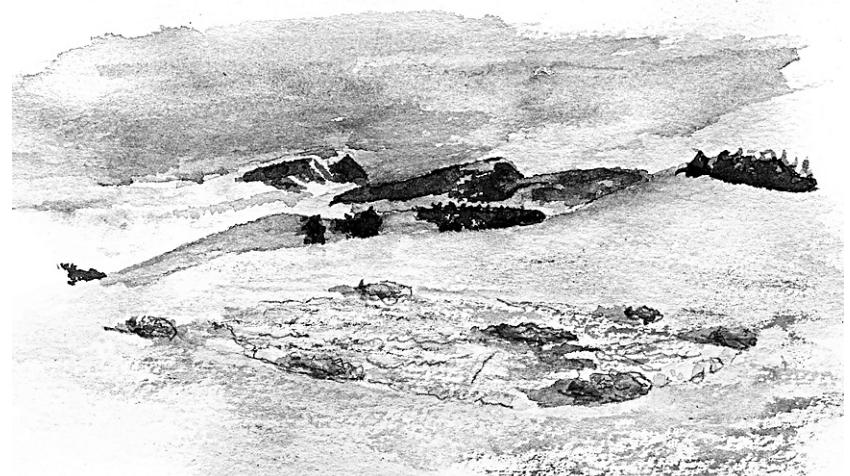


Figure 6: Watercolor looking north (toward the Pryor Mountains in the background) from the south side of the wheel. The meadow beyond the wheel reveals evidence of previous occupants in the form of tipi circles.