

Consecrated Environments

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How many of us have entered a site and experienced a sense of awe or wonder, or perhaps well-being? The name I have given such a place, for want of a better term, is a "consecrated site."

What is there about these sites that evokes or inspires this sense of awe? More importantly, what do these qualities tell us about the people who made them? Are we really recording all of the defining features of these sites?

Rock art sites exist throughout the world. To date, studies of them typically focus on recording and cataloging the symbols depicted, the medium used (pecking or painting), and the relationship of the subject matter to rituals and symbolism, which is often that of current indigenous populations. Until recently, many archeologists tended to ignore these sites, preferring to deal instead with the cultural debris left behind by previous civilizations, not too enlightening with respect to the mental capacities and concepts of the peoples who made them.

When Jesse Warner suggested I speak to you on our work of recording sites, I began to review our data. Though it is from many sites exhibiting a wide variety of techniques and symbols in their construction, there appear to be common underlying features that transcend cultural identifications assigned to them by researchers in the past. These features include such things as:

1. *Astronomy*— *alignments to various seasonal positions of the sun, moon, planets, and stars*

2. *Consecrated Environments*— *effects produced by the sites on those who visit them*

3. *Solar Interactions*— *use of light and*

shadow to enhance images, symbols or natural features

4. *Hidden Messages*— *features or effects that appear only at specific times of the year*

5. *Symbols and Iconography*— *use of a well-developed and commonly understood system of symbols to represent an already well-established mythology.*

Today well-meaning people still invade the remaining ancient sites with trowels and shovels in an attempt to discover their secrets, often destroying vital clues to their meaning and removing objects from the context in which they are found.

We are involved in recording these sites before they are destroyed, in the hope that the information they contain will one day lead to a better understanding of the concepts and practices of peoples in ancient times.

For more than 40 years, I have been studying all aspects of human behavior in connection with my occupation, while my avocation has been the study of ancient history. These two areas of study, human behavior and ancient history, led to a study of the sites and symbols left by prehistoric peoples in this country, and what they tell us about those who made them.

Among other things, these studies led to the conclusion that the world's ancient peoples were no less gifted or intelligent than we are, and perhaps possessed a greater "natural wisdom." As we do today, they applied their talents and abilities to solving problems they encountered in their daily lives, and to inventing whatever they needed to adapt to conditions of their day and age. Failure to understand this mistakenly led many scholars to consider them

primitive and unsophisticated.

The ancient people seem to have struggled with the same questions we struggle with today:

Where did we come from?

Where are we going?

And why are we here?

Responding to a need to affirm belief, they constructed shrines and holy places consecrated to the gods worshiped by their communities. These places seem to be chosen for creating a sense of awe or well-being in those who visited them. Sky-based religions, in particular, seem to have constructed sites which provided worshippers opportunities to monitor and personally interact with movements of the sun, moon, planets, and stars.

While a sense of awe or well-being cannot be measured on an empirical basis, I believe it is a factor to be considered in evaluating sites.

What triggers a sense of awe or reverence upon entering a great cathedral? It could be a reaction to the massive stone construction, or the beauty of the art, or the play of light and shadow.

We believe there are natural characteristics of the sites we will discuss that evoke similar feelings when we visit them. Among the physical possibilities for this sense of awe or consecrated environment we experience are:

1. *Magnetic fields or anomalies*
2. *Natural discharges of positively or negatively charged ions due to presence of large rocks, flow of groundwater, prevailing wind, etc*
3. *Natural beauty, colors, or vistas*
4. *Subliminal effects on vision, smell, hearing, or touch*
5. *Presence and unusual format of the rock art*
6. *Changing play of light and shadows on the surface of the rock and the rock art*

To illustrate some of these factors, eight sites that contain similar underlying features are described and discussed.

Jeffers

The Jeffers Petroglyph Site is in southwestern Minnesota at a high point on the red granite ridge that runs from east to west across the prairie in Minnesota and the Dakotas.

The rock outcrop slopes away to the south, providing an unobstructed view for miles in every direction. Sunrise beams fall on the glyphs making them appear to rise from the flat surface of the rock in relief. Different groups of glyphs are affected at the different sun positions on the eastern horizon throughout the year.

The alignments and grouping of the glyphs, and the fact that certain groups are highlighted at different times of the year, suggest the site was a sophisticated observatory, used by its makers to track movements of heavenly events and also to teach the sky-based mythology of their culture. A few of the more than 2000 glyphs appear relatively recent, while others look like they are very old and incorporate ancient symbols related to astronomy. It appears the site has been used by more than one cultural group throughout the centuries, each of which left their own particular symbols at the site.

Lujenida

The central feature of this site is a dolmen, a table rock perched on three smaller rocks, located on a basalt outcrop in a small river valley in the Boundary Waters Canoe Area in northern Minnesota. The only access to this site is up a river the shores of which contain huge white boulders placed at critical navigation points, probably to make travel at night possible in ancient times.

Most people visiting here report feeling a sense of well-being as they enter it. Besides the dolmen, which appears oriented to a summer solstice sunrise point on the

eastern horizon, the site contains a strong magnetic anomaly, other perched boulders and cairns around the perimeter, a cave with openings which emit light from the east, a stone phallus, and the first petroglyphs, so old they are completely repatinated, found in the Boundary Waters Canoe Area. Mapping and recording to incorporate new features that have recently come to light continues.

Peterborough

This site is located on a large stone outcrop in the Kawartha area of Canada, near an ancient water route from Hudson's Bay to the Great Lakes. I was fortunate enough to visit the site and photograph it before it was enclosed in a building, supposedly to protect it. While I have not been back since the building was erected, I am fairly certain the sense of well-being it once conveyed no longer exists.

The glyphs themselves are controversial. Some of the symbols appear to be related to the old Northern European symbolism and mythology.

Off in the area surrounding the site to the east are additional petroglyphs on boulders that appear to provide lines of sight to solar events. Installation of the roof over the main panel of the site has eliminated any possibility of evaluating these interactions.

Rochester Creek

Like many other sites in the Southwest, Rochester Creek makes use of its physical location and solar interactions to portray ancient mythology. It is located on a narrow butte formed by the confluence of two river canyons in central Utah. There is a strong sense of awe as you enter the site on a narrow path which winds along the canyon rim.

Jesse Warner, who introduced me to this place, has been recording the interac-



tions of light and shadow with the figures and symbols on the panels for several years. To illustrate how the site was used, we recently produced a video showing some of the more prominent interactions.

A "pregnant woman" shadow (above) appears at mid-morning and sweeps across the main panel, interacting with figures on the panel in various ways. Other figures on the panel appear to be conversing with each other, so to speak, as shafts of light proceed from their mouths, eyes, and other organs.

The mythological characters portrayed are situated at points where the light and shadows reach them within certain time intervals during the day and year. This timing may well have been accompanied by ceremonies related to the people's mythology. The outline shapes of the figures often are made to coincide exactly with the shadow shape at a given point, perhaps pinpointing the time a specific ritual was to be observed.

At some time after the panel was produced, additional details and figures were added. This may be an indication of changes in religious beliefs, or else the need to provide additional or more sophisticated information at that location. Perhaps the population who originated the site was replaced by one with slightly different beliefs who modified it to their own religious specifications. The enormity of the

work which went into the making of this site certainly contributes to the sense of awe which it inspires.



Waterfall Canyon

This site is located in a small canyon in the foothills west of Phoenix, Arizona. The trail leading to the waterfall has several unusual petroglyphs and large perched boulders that appear oriented to notches in the canyon rim.

Some glyphs seem to be arranged to catch the sun's rays as it rises or sets over the rim of the canyon at various seasons. At summer solstice a split boulder emits light through a crack, to highlight a glyph on the rock face behind the crack.

An amphitheater near the lower end of the trail features many boulders completely covered with glyphs in reoccurring patterns. These boulders face east, and provide some very interesting effects at sunrise throughout the year.

A large perched boulder with the shape of a sheep's face (above), covered with glyphs, lies facing a notch in the canyon rim to the southeast. It catches the first rays of the rising sun at equinox while the rest of the canyon remains in darkness.

Farther along the trail and above it, a boulder with a concave face that is also covered with glyphs appears to be located

to catch the first and last rays of the sun just above the canyon rim, near the time of winter solstice.

As one climbs higher into the canyon, the shadow of a man's face can be observed on the cliff above the trail. The rocks which create the shadow seem to have been altered to create this effect. A waterfall drops about 35 feet into a small pool on the canyon floor. This area also contains a number of glyphs.

The entire site contains boulder alignments to various sunrise positions throughout the year, confirming its use as an observatory in ancient times. The natural beauty of the canyon, and especially the area near the waterfall, confers a sense of well-being.

Shaw Butte

This site is located on a hill in a park just north of Phoenix. From the summit of the hill there is an uninterrupted view of the mountains to the east. On the top of the hill are the remains of stone walls, which probably supported some type of shelters in ancient times.

At the crest of the hill, there is placed a large boulder on which 13 circles were inscribed. One of these circles is lighted by the rays of the rising sun at the equinox; other circles are probably lit at different times of the year. Sighting along the squared-off side of this boulder provides a viewpoint of equinox sunrise on the ridge of the hill across the valley.

Beside this boulder is another "calendar stone" boulder with a complex grouping of circles inscribed on it. The south half of the largest set of circles is in shadow at sunrise on the equinoxes. The north half is in shadow at sunrise on the summer solstice. On the winter solstice a triangle of light penetrates to the center of the set of circles. Adjacent circles may be similarly affected at other times of the day and year.

The most interesting feature of the site,

however, is a rock cave that appears to be man-made, just below and to the east of the summit. It was constructed to let an observer monitor light and shadow "pictures" on the back wall of the cave, at various times of the day and seasons of the year. Light and shadow play is governed by sculpted rocks on both sides of the entrance. Windows overhead also permit an occupant of the cave night viewing of star groups from this observatory throughout the year.

There is certainly a feeling of well-being and detachment from the world below while sitting in this mountain-top observatory.

Moon Valley

This site in the northern area of Phoenix has been partially destroyed by encroaching housing projects, including houses above the site that obliterated a rock circle on the hill, and sent rocks rolling down into the site. The site was obviously an observatory which marked the seasonal positions of the sun and perhaps the moon and stars as well.

At the entrance to the site is a natural amphitheater of boulders on which several glyphs are inscribed. A large boulder has two rams with double sets of horns pecked on opposite sides of it, facing each other. Half of this boulder is always in shadow from equinox to equinox.

Near this equinox boulder, as the sun sets at the summer solstice, sunlight fills a carved basin in the rock below a lizard figure. Several other figures are also activated by the sun at various seasons of the year.

South of this area is a boulder with a bowl-shape carved in it that fills with sunlight as the sun rises at the winter solstice. A counter-clockwise spiral on the south face of this boulder is also in light only at the winter solstice. Near this rock is another on which a birthing scene is also

lighted at the winter solstice.

Even though partially destroyed, this observatory still retains a number of the features used by its ancient worshipers to mark important days in their seasonal mythology.



Sego Canyon

Spend some time in Sego Canyon (above) and you will experience many of the effects which led different peoples to use this place to worship and inscribe symbols related to their beliefs.

The canyon is a natural observatory. To the observer on its floor at night, there is a never-ending canopy of stars rising in progression around the rim. Fixed points and irregularities on the rim make it easy to identify prominent stars and constellations on their annual journey through the heavens. The rock walls magnify sounds in eerie ways.

At sunrise, as the sun finally penetrates the canyon and reaches each panel in turn, certain figures on the panels are framed by the rays of the rising sun -- telling the ancient legends appropriate to the seasons.

The sense of consecration fostered by the beauty of the canyon, the stream, the art work on the panels, and other factors, is certainly strong here. With so many figures and styles, that understanding will come only through years of recording light and shadow interactions throughout the year.

From the standpoint of human behavior and characteristics, these sites all appear to

reveal several things about the ancient people who made them.

1. They had a concise theology, probably based at least in part on astrology

2. They had a well-developed knowledge of astronomy

3. They had a well-developed method of communicating ideas and keeping records using symbols

4. They made sophisticated use of mathematics and geometry in laying out their sites

5. They possessed an artistic ability of a high order

6. Their sites were constructed with massive features that allowed them to make precise observations and measurements over long periods of time

7. They were sensitive to and used factors at the sites that evoked a sense of awe in those who visited them

As we learn more about voyages, trade, and migrations of people in ancient times, the meaning and symbolism embodied in these sites will undoubtedly become clearer, and we will have a much better appreciation of the abilities and creativity of the ancient people who made them. Truly, in understanding them, we will gain greater understanding of ourselves.