

Recording Petroglyphs at the Little Black Mountain Site on the Arizona Strip

PART I

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INTRODUCTION

The purpose of this report is to share the manner in which we have recorded the petroglyphs at the Little Black Mountain Rock Art Site. Our goal was to record each glyph in an individual and orderly format. We began by unpacking the panel and then unpacking the components of each glyph. What we have done was done as volunteers and amateurs which leaves room for errors or insufficient background for judgments.

Our involvement with this project began in 1988 when we signed a volunteer agreement with the Bureau of Land Management under the direction of archaeologist Rick Malcomson. Rick served as our instructor for the Utah Archaeology Certification Course, advisor for our local chapter of the Utah Statewide Archaeology Society and our guide for this project.

NATURAL AND CULTURAL ENVIRONMENT OF THE AREA

The site is located approximately eight miles southeast of St. George, Utah, in what is called the "Arizona Strip". Little Black Mountain is a singular monolith rising approximately 550 feet above the desert floor. It is a sandstone mesa topped by a lava flow, sitting alone, surrounded by sand, rocks, and mesquite bushes and enclosed by various mountain and mesa groups: to the east the Hurricane Cliffs rise 5400 feet; to the south the land rises to Seegmiller Mountain at 6020 feet; to the west a range of steeps topped out by Mokaac Mountain; to the north are varying lower hills rising to Pine Mountain at 10,324 feet. The desert floor around Little Black Mountain is 2,870 feet. To design a glyph for this site, I would use a solidly pecked out circle to represent the site itself enclosed by a heavily outlined rim (the encircling hills and mountains). The worked area between the two would represent the desert valley floor. See map (figure 1).

The geography of the site may be a clue to its appeal to early man. Navajo Mountain in Utah, Shiprock in New Mexico, San Francisco Peaks in Arizona were, and are, especially significant sites to the Native Americans and these sites also have a highly visible, isolated monolithic formation. Since these factors are also evident at Little Black Mountain as well as the heavily patinated boulders scattered around the southerly and westerly base, they may have contributed to the appeal of the site for rock art recording by many cultures.

The only evidences of habitation are several small rock shelters. No sign of any agricultural activity has been found. The nearest probable water source may have been Ft. Pearce Wash which is approximately three miles northeast, and in current times it has some water flow on a sporadic basis.

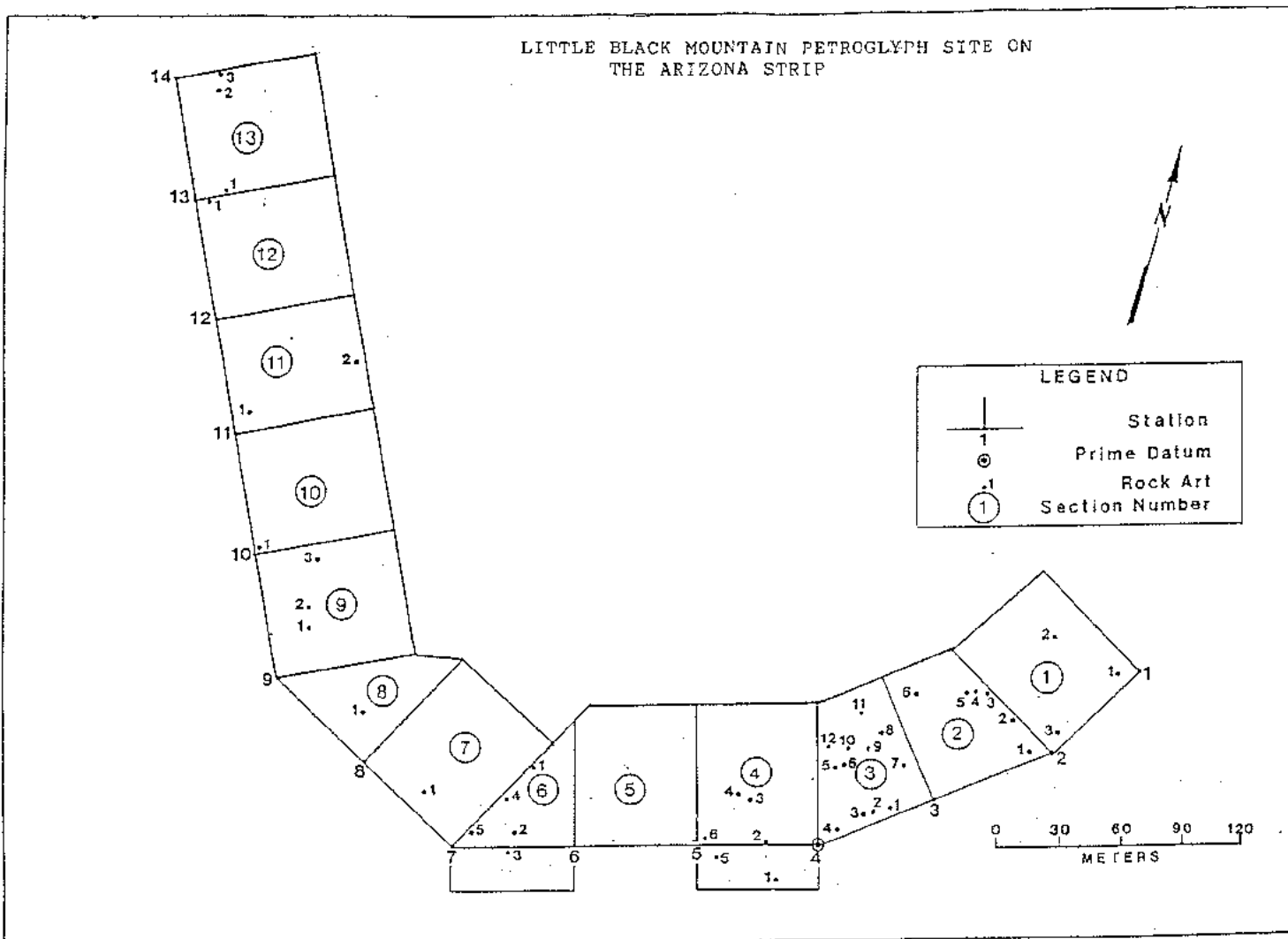
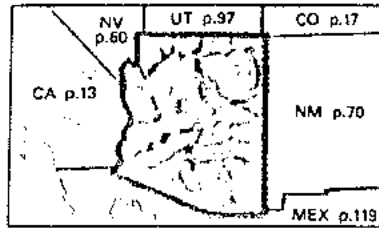


FIGURE 2

FIGURE 1

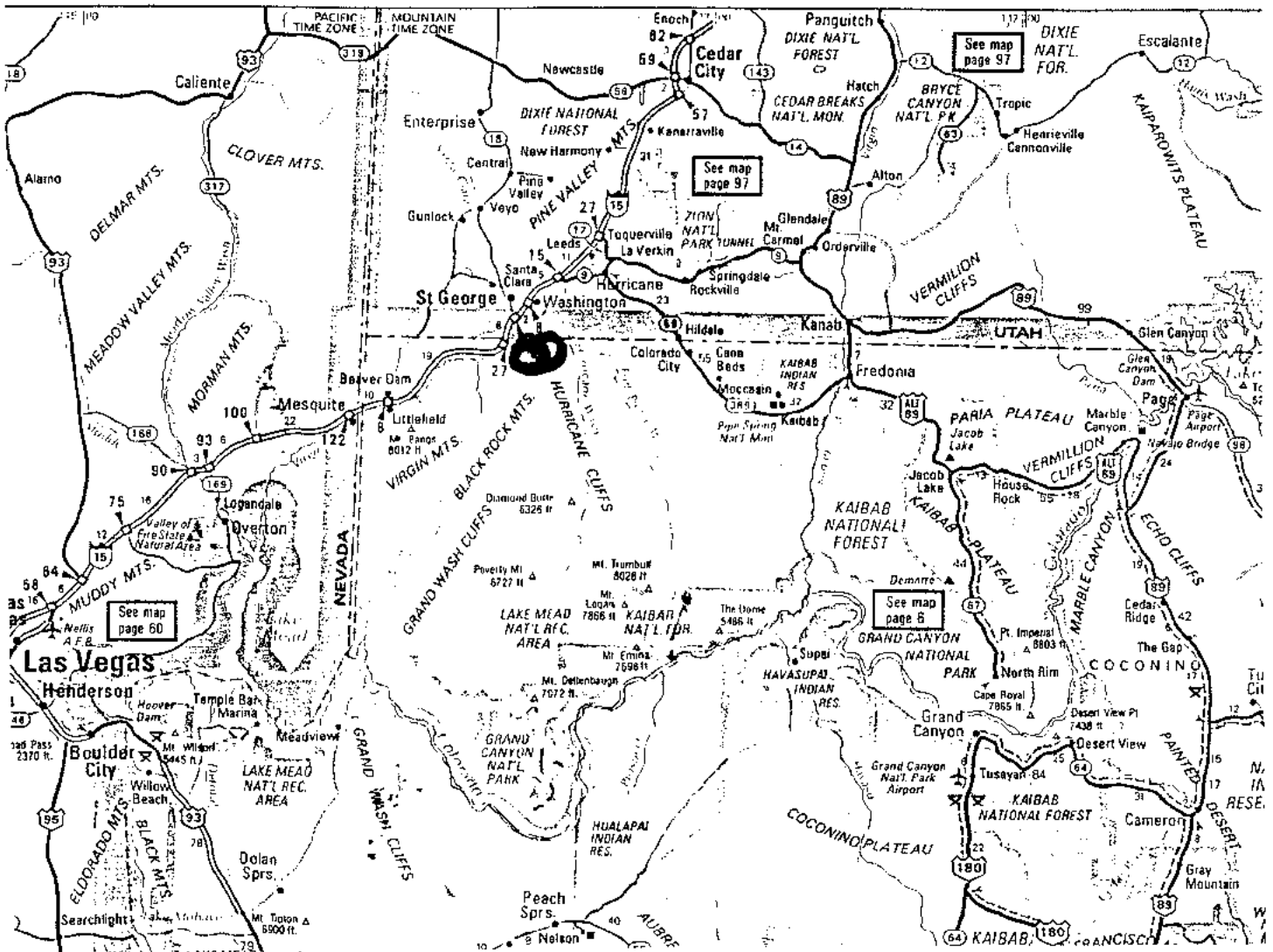
Arizona

Land Area: 113,510 sq. mi. (6)
 Population: 2,718,425 (29)
 Dimensions: N-S 390 miles, E-W 335 miles
 Highest Point: Humphreys Peak 12,633 ft., G-7
 Capital: Phoenix K-6 *
 Largest City: Phoenix, K-6
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Selected Recreational & Historical Sites

- Arizona-Sonora Desert Museum, N-8
- Canyon de Chelly National Monument, E-12
- Grand Canyon National Park, E-6
- Lake Powell (Glen Canyon Nat'l. Rec. Area), C-8
- London Bridge (Lake Havasu City), I-2
- Oak Creek Canyon, G-7
- Petrified Forest National Park, H-11
- Saguaro National Monument, N-9



The site itself is a wonder that it has been a multicultural one used by man for several thousand years. The variety of glyph styles indicates diversity of cultures and the various degrees of repatination of the glyphs indicates a long time period of usage. Patination or "Desert Varnish" is the dark coating appearing on rock surfaces in arid lands. Until recently, it was thought to be generated from an inorganic process, however current research has revealed that it is an organic process. The wind deposits clay dust and micro-organisms (bacteria) on the rocks. The bacteria then extract manganese (black) or iron (redish brown) oxides from the rock and clay to create a layer of rock varnish. Rock varnish forms very slowly, taking thousands of years to create the darkest coatings. Sophisticated and expensive laboratory techniques can determine the age of rock varnish. These techniques can also date the petroglyphs. Petroglyph dating is imprecise because there is a time-lag between the carving of a petroglyph and the formation of the rock varnish." (BLM Brochure 6/12/92). According to Christy Turner it takes 600 years for a good patch of lichen to develop; repatination takes 900 years to 1200 years to color to blue-black, purple-black takes even longer. Repatination then, is the process of grooves, lines, scratches etc. made by man gradually in the process of re-creation of the patination or desert varnish.

METHODOLOGY

The framework for this project has been current styles in literature and associated cultural affiliation. We approached the recording in line with what we had learned in our Utah Archaeological Certification Course in regard to stratigraphy and association; that is, the earliest glyphs would be superimposed by later ones, and the proximity of glyphs and natural features to each other.

The first step was a massive research program of reading everything we could find on rock art and its recordation along with attending symposiums on the subject. Next we decided what areas each of us would be responsible for: George would do the graphics i.e. photographing and sketching as well as devising a computer encoding and coding sheets. Shirley would do the research and write-up.

The project would consist of three phases: (1) Recordation; (2) Analyze the results; (3) Extrapolate our methods to other sites to see how well they might work.

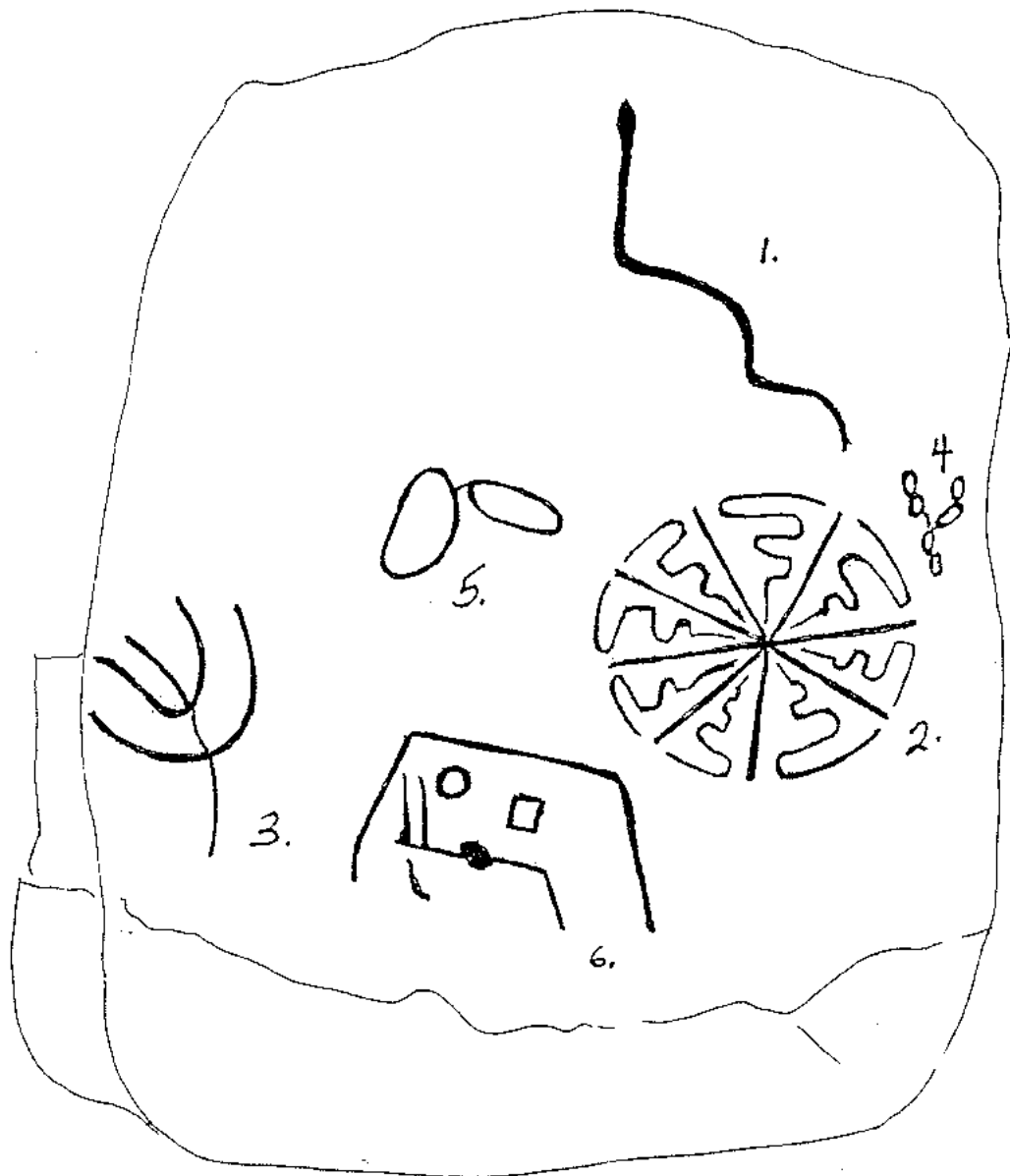
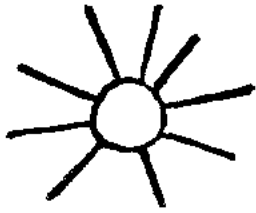
American Rock Art Research Association did a preliminary survey and limited recording in March 1986. We used the section grid they set up and also went by the numbers they assigned to the various boulders, but we numbered the glyphs differently to meet our needs for computer coding. We cross referenced all photographs to the numbers assigned them by ARARA. (See figure 2).

Usually both of us sketch a panel. Later we compare our sketches, compare with ARARA notes, our photos, ARARA photos and when all is in agreement, the final write-up and final sketch is made. Sometimes it is necessary to return to the site to resolve any differences. We have also discovered the importance of viewing a panel at different times of the day as light and shadow can enhance, obscure, or even reveal a glyph or parts of it. For examples of a panel sketch see figures 3 and 5. For examples of a panel write-up see figures 4 and 6.

Our goal was to record, as accurately as possible, the individual glyphs and panels to preserve a record of what is there. We did not engage in any interpretation of possible meanings. We leave that for another time.

Section 4 Rock 1 SW 240°

See photographs numbered 59

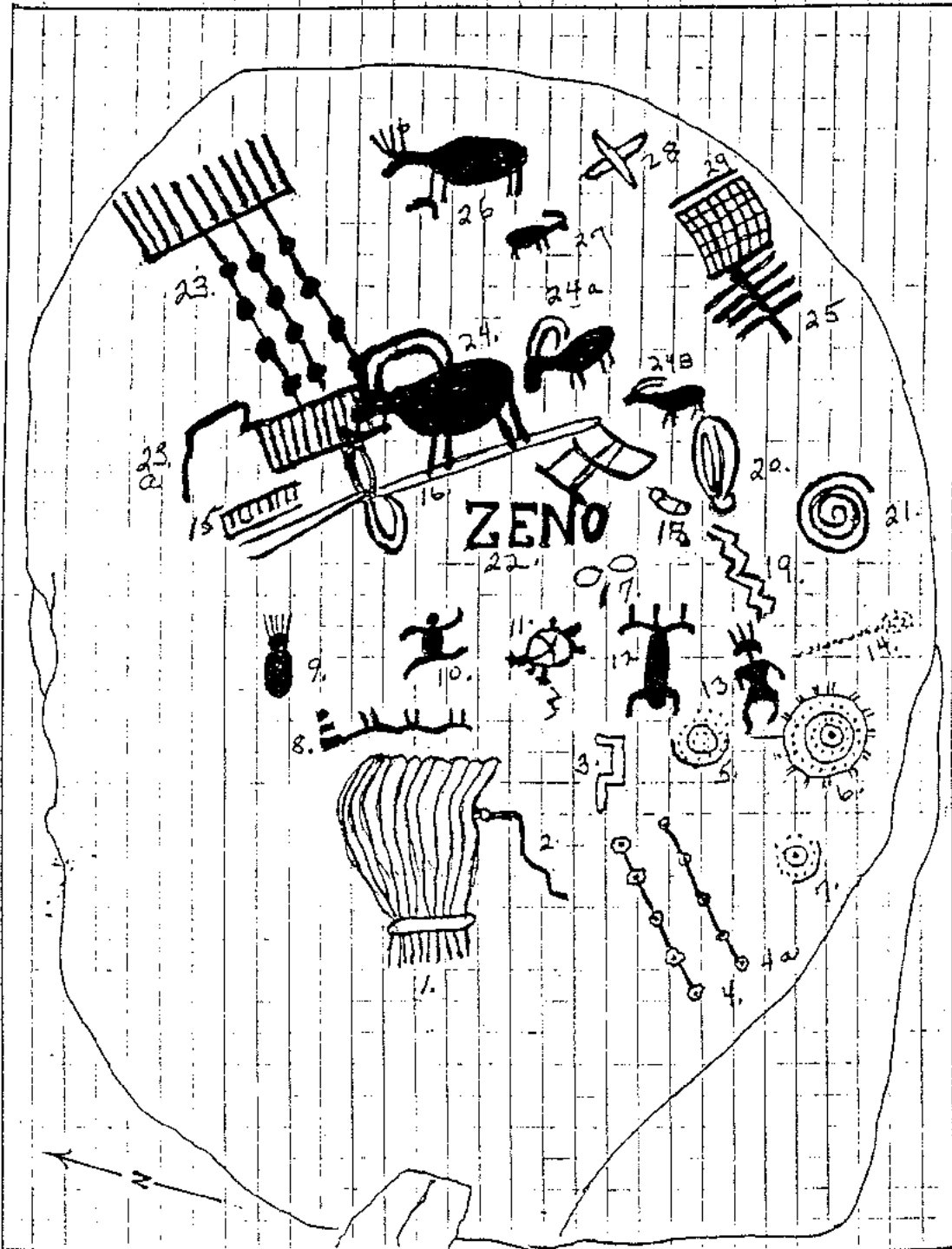


Section 4 Rock 2 Generally SW 215°
See photographs numbered 60

FIGURE 3

- 4-2
- Site No. A:2;51 SECTION NO. 4 ROCK NO. 1
- Virgin Anasazi Glyph No. 1 SW 240° Astronomical 5YR 7/3
 Sunburst. No superimposition or lichen; medium to light repatination. It is outline pecked with hammerstone and chisel. This glyph consists of an outline pecked circle with nine radiating lines from the circumference; 20 cm top to bottom. See photographs numbered 59.
- SECTION NO. 4 ROCK NO. 2
- Archaic Glyph No. 1 SW 215° Zoomorph 5YR 3/3
 Snake. No superimposition or lichen; dark repatination; made with hammerstone; placed at a diagonal slant and located above glyph no. 2. The head is just below the top rim of the rock, then a line comes straight down to a right angle curve to the right, then a left curve, another right. See photographs numbered 60.
- SECTION NO. 4 ROCK NO. 2
- Archaic Glyph No. 2 SW 215° Mirror Image 5YR 7/4
 Botanical?? No superimposition or lichen; repatination is light due to the position of the glyph on the rock in an inverted bowl-shaped area; located under glyph no. 1. The lines are nicely pecked out with hammerstone and burin. There are eight pie-shaped wedges with mirror images on each side of the bisecting lines. These images have three curving arms graduating from outer rim to smaller size at the hub. Put together, they look like a tree with the straight line from the hub representing the trunk--there would be four trees total. These are wedges meeting at a central hub without being connected around the rim. See photographs numbered 60.
- SECTION NO. 4 ROCK NO. 2
- Archaic Glyph No. 3 S 180° Geometric 5YR 3/1
 Menorah. No superimposition; some lichen; dark repatination; located to the left of glyph no. 2; made with a hammerstone to create deep wide lines. Two parallel half circles, open end up; main stem bisects both half circles and extends upward to top of half circles creating five "branches". See photographs numbered 60.
- SECTION NO. 4 ROCK NO. 2
- Archaic Glyph No. 4 SW 215° Representational 5YR 3/1
 Bolo. No superimposition or lichen; dark repatination; located to the left of glyph no. 2. Consists of six outline pecked circles, four up and two underneath connected by short lines; made with hammerstone and chisel. See photographs numbered 60.
- SECTION NO. 4 ROCK NO. 2
- Archaic* Glyph No. 5 S 180° Geometric 5YR 6/4
 Eyeglasses. No superimposition or lichen; medium repatination; located to the top left of glyph no. 2. Two ovals touching each other at the top (looks like eyeglasses). The left oval is vertical and the right one is diagonally placed; outline pecked with hammerstone. See photographs numbered 60. ARARA missed this one. Compare with Great Basin Curvilinear.
- SECTION NO. 4 ROCK NO. 2
- Archaic* Glyph No. 6 S 180° Representational 5YR 6/4
 Mask. No superimposition or lichen; light repatination but very old glyph; located below glyph no. 5. Wide lines made with hammerstone. Top and sides of head are a single line; top of head is flat and sides angle out in gentle diagonal. Left eye is round, right eye is square; mouth is a natural circular hole in the rock; two parallel vertical lines to left of left eye. A horizontal line begins on left side of head, bisects two parallel lines, passes under the "mouth" and continues past right eye before curving downward and running parallel to head line. See photographs numbered 60.

SECTION 3 ROCK 4
South West Panel SW 220^o



ALL OF THESE GLYPHS MAY BE FOUND ON PHOTOGRAPHS
NUMBERED 47

GWC
3/89

Figure 5

gwc/sc

Virgin Anasazi Glyph No. 5 SW 220^o Calendrical 5YR 5/4
 This is the first of three circles and dots which make up the set; located to the right of glyph no. 3 (U shape). No superimposition; no lichen, lightly repatinated. One complete circle in center outlined by pecking and enclosing eight dots. One-half outer circle at the bottom with twenty-one dots between it and surrounding the inner circle. There seems to be an alignment with the right top of the half-circle and an elongated line from its neighboring glyph No. 6 which seems to be pointing to glyph 5. Made with hammerstone and burin. See photographs numbered 47.

Virgin Anasazi Glyph No. 6 SW 220^o Calendrical 5YR 5/4
 This is the largest of the set of three glyphs (no. 5 and 7) and is located to the right of glyph 5. It is the most elaborate and situated higher than the other two. No superimposition or lichen; lightly repatinated. Three concentric circles, pecked outlines made with hammerstone and burin. Dots in the center circle number eleven which surround a somewhat larger center dot. The second circle has twenty-one dots; the outer circle has thirty-four dots. Around the outer rim are radiating dashes in groups of two. There are twelve pairs; on the left side is an additional longer dash which seems to align with the end of the half-circle in glyph no. 5. Refer to photographs numbered 47.

Virgin Anasazi Glyph No. 7 SW 220^o Calendrical 5YR 5/4
 This is the smallest of the set, placed lowest of the three (glyphs 5,6,7). It is located to the left of glyph 6, under and between glyphs 5 and 6. A circle encloses a center dot. Surrounding the circle are fourteen dots. On the right side is a quarter circle out side the dots; made with hammerstone and burin. See photographs numbered 47.

Archaic Glyph No. 8 SW 220^o Representational 5YR 2.5/1
 Cairn/Trailmarker made with pecked lines and solidly pecked squares; made with hammerstone. No superimposition or lichen; heavily repatinated. There is a solidly pecked out rectangle with two solidly pecked squares stacked above each other. Extending from bottom line of the rectangle is a wavy line to the right; there are three curves and from the top of each curve are two short radiating lines; located above glyph no.1. See photographs numbered 47

Archaic Glyph No. 9 SW 220^o Zoomorph 5YR 2/2
 An insect. No superimposition or lichen; heavily repatinated; located above glyph no. 8 (cairn). Solidly pecked oval body, round head; five incised feelers, rather long in proportion to the body; no legs. Nicely made with hammerstone and chisel. See photographs numbered 47.

Virgin Anasazi Glyph No. 10 SW 220^o Anthropomorph 5YR 4/3
 Beckoning Man. No superimposition or lichen but repatination is medium dark. Solidly pecked out figure with hammerstone and chisel. The left arm is raised and the right arm is curved downward; left leg is curved upward and right leg is curved downward. According to Martineau (1973: p.56) this symbol represents a figure beckoning with the upraised arm, meaning "come", and pointing to the ground with the other arm which means "here" or "come here". The head is round and the body is tubular. It is located to right of glyph 9 (insect) and above glyph 8 (cairn). The arm and leg lines are a "flowing" curve--no angles. See photographs 47.

Figure 6

An attempt to identify each glyph to a corresponding cultural style as defined by Schaafsma (1971, 1980); also by repatination of worked areas, per the Munsell color chart, were used as a means of sorting into categories. Sorting by style and patination may show the popularity of various subjects in the various cultural periods and when compared to each other it will be interesting to learn what predominates in these differing time periods.

If there is a preponderance of one subject in various styles and if this same subject also is predominant in the various frames of repatination, it may mean a commonality of appeal as a site to the various peoples using it and also give some indication as to the kind of site it was: record of myths or religious instruction, ceremonial, astronomical, historical record, creation and remembrance designs, guides to water, game, campsites or trails, mnemonic representations, clan symbol record, or a newsy bulletin board. This will be an inference at best but yet a start for others to challenge and to at least give serious study.

The styles of rock art evidenced at Little Black Mountain are Anasazi (both Cave Valley and Virgin), Fremont (Sevier A and Parowan), Great Basin Curvilinear and Great Basin Rectilinear, Western Archaic, possibly Paleo Indian, and historic.

Recording was done by "unpacking the panel and then unpacking the glyph and the components that comprise it. This included:

1. Photographing each panel and in many cases individual glyphs.
2. Sketching each glyph and each panel to show placement and association.
3. Written description of individual glyphs to include:
 - a. Compass orientation
 - b. Association (superimposition, reworked, attached, touching, use of natural rock features such as holes, cracks, edge, lightning strike.)
 - c. Subject
 - d. Style
 - e. Method of manufacture
 - f. Tool used to manufacture
 - g. Degree of repatination, using Munsell Color Chart
 - h. Cross reference to slides and photographs
4. Creating a computer code and also encoding sheet to show:
 - a. Internal consistency of styles
 - b. Distinguish evidence of stylistic change through time within styles. (Could this information be used to begin chronology?)
 - c. Relative chronology of styles as presented in literature and cultural affiliation--is this supported by the repatination and superimposition seriation?
 - d. What may be implied by stylistic variation?
 - e. Are there glyphs that cross stylistic lines? What do they transect?
 - f. Evidence of calendric or astronomical meaning. What are the implications?

CONCLUSIONS

The petroglyphs at the Little Black Mountain Site are deteriorating due to natural causes.

We hope that if the time comes when they are too faint to see, or gone due to rock spall, or other causes, that the recording we have done will serve as a record of what once was there.

The site is now fenced with nicely laid out paths and an informative display board. The guest log reflects people of many areas, both near and far, who are visiting and want to have the unique experience of seeing and walking amidst the various panels, to speculate about what is there and develop an awareness that other cultures were here and left their marks on stone for us to see.

The assignment for the first phase was to "record and not interpret". We have done so but have reserved our own possible interpretations and some degree of understanding for another time.

The second phase of our work with the petroglyphs at this incredible site will be to get all the information into a computer and then pull out various categories for an assortment of studies.

Our thanks to Nal Morris, with an assist from Ken Ogden, for his locating place of solstitial and equinoctial sunrises and sunsets. Nal also sent along computations for astronomical functions as well as his in depth "Solar Motion For Rock Art Research". We appreciated his interest and sharing of his expertise. This information will be used for future work.

Another big "thank you" to Rick Malcomson who guided us through all the process--his books, Munsell chart, comments, trips to the site, and energetic prod when we needed it. He is making a detailed research of the astronomical indications at the site and will report on his findings at a later time.

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