ROCK ART IN ARIZONA

A Component of the Arizona Historic Preservation Plan

prepared for:
Arizona State Historic Preservation Office
Arizona State Parks Board
1300 W. Washington
Phoenix, AZ 85007

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Arizona State Parks

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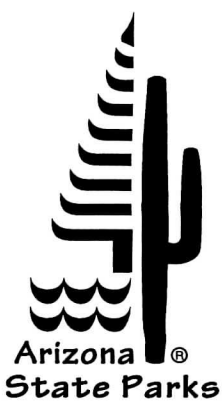

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ABSTRACT

In 1993, the Arizona State Historic Preservation Office, Arizona State Parks, funded a historic context statement and overview of the state's rock art sites. Desert Archaeology personnel searched through archives for site records, visited libraries to uncover rock art reports, and identified current research topics pertaining to the state's sites. This volume presents the findings of that study. More than 2,300 rock art sites were identified; however, site records were found to vary in quality, with recent records containing more complete data. The need for standardized site forms and rock art recording forms, as well as the need to establish a central repository for this data, became apparent. This volume also attempts to identify all rock art styles found in the state. One problem that future researchers will need to address is the proliferation of style names. Measures to protect rock art sites from vandalism and looting are addressed. Public education, coupled with legislation at the state and federal levels, are two strategies to save rock art for future residents. National Register of Historic Places eligibility issues are discussed in detail. Listing on the National Register is one method for providing protection to rock art sites. Significant progress has been made in the field of rock art research in Arizona during the last 20 years, a trend that will continue in the future.

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ACKNOWLEDGMENTS

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Many individuals at Desert Archaeology helped put this volume together. Roberta Serface collected site data from various institutions in the state. Donna Breckenridge, Kara Myrick, Elizabeth Black, Jerry Fallenberg, Michael Wiley, and Catherine Gilman formed the production team that created the report. Photographs were supplied by Patty Whitley, Roberta Serface, Henry Wallace, Jim Holmlund, and Betsy Marshall. Henry Wallace's rock art knowledge solved more than a few dilemmas. James Holmlund of Geo-Map, Inc., produced the computer-generated maps. Patricia Castalia and Jean Kramer watched over the financial matters involved in the report preparation. Special thanks also go to Lisa Eppley, Patty Whitley, and Liz Clark for providing helpful advice and support.

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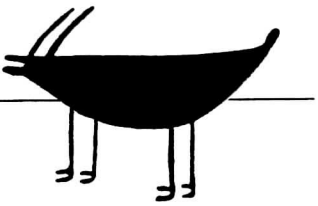
CHAPTER 1

INTRODUCTION TO ROCK ART



Rock art images excite and thrill residents of Arizona as well as visitors. These ancient images remind us that long before the first Spanish explorers and priests trekked across Arizona, Native Americans were living here. There are literally thousands of these sites scattered across the state, but our current knowledge and understanding of them is limited. Some very basic questions, such as how many rock art sites there are or how old some of the art is, remain unanswered. As the state's population grows, many rock art sites are being destroyed either accidentally or purposely. At the same time, the study of rock art is providing new clues about how prehistoric residents of Arizona lived. Also, researchers have come to understand that rock art usually isn't art; instead, it is a record of the religious experiences, historical events, attitudes, and lifeways of these people.

The State Historic Preservation Office, Arizona State Parks, funded this historic context study of rock art sites in Arizona. It has two purposes. One is to serve as a tool for managing the historic and prehistoric rock art resources found in the State of Arizona. The other goal is to synthesize rock art data found in site records and published reports. The study presents the first published overview of Arizona's diverse rock art resources.

This report is divided into six chapters. This first chapter provides definitions for the three kinds of rock art found in Arizona. A short section also covers the history of rock art research within the state. It is followed by a discussion of how the public perceives rock art, including Native American views on the topic.

The second chapter examines rock art studies in detail. Several topics are addressed, including how rock art sites are recorded; what dating methods have been developed; methods used to preserve, conserve, and restore rock art; and an evaluation of where future research needs to take place. Chapter 3 presents an illustrated guide to rock art styles found within the state. Chapter 4 presents a summary of the rock art data collected from archives and publications, as well as discussing preservation concerns and the attitudes of Modern Native Americans toward rock art. Chapter 5 details the guidelines used by the National Register of Historic Places and provides a summary of how rock art sites are evaluated for listing on the Register. Chapter 6 serves as a brief summary of the volume.

The report concludes with a bibliography of published reports that discuss Arizona rock art and a list of rock art sites that have been identified in the state.

METHODOLOGY

Compiling a study of Arizona rock art is a daunting task, given the size of the state, the number of sites, their varying states of documentation, and the overall complexity of the task. The information contained in this report was pulled from published sources, from discussions with individuals knowledgeable on the subject, and from the site data files of over a dozen public institutions.

Published reports discussing Arizona rock art are surprisingly rare, considering the number of rock art sites in the state. Currently, only a dozen or so reports discuss rock art sites in detail, providing inventories on the kinds of figures present and discussing the age and stylistic affiliations of the art. These major sources are listed in Table 1.1.

Table 1.1. Major published sources on Arizona rock art.

Source	Subject
Altschul et al. 1993	Garden Canyon sites
Bostwick 1989	Greenway Road and 17th Avenue site
Bruder 1983	Hedgpeth Hills
Burton 1988a	Coronado National Forest sites
Burton 1993	Painted Desert and Petrified Forest
Cole 1992	Homol'ovi
Ferg 1979	Tumacoc Hill
Grant 1978	Canyon de Chelly
Johnson 1986	Geoglyphs
Pilles 1975	Little Colorado sites
Schaafsma 1980	Various sites
Turner 1963	Glen Canyon
Wallace 1983	Rillito Peak
Wallace and Holmlund 1986	Picacho Mountains
Wallace 1989	Painted Rock
White 1965	Saguaro National Monument

It rapidly became apparent that some areas of the state have been well-studied and others have not. Most studies have been completed as a result of cultural resource overviews of city, state, and federal lands. About 85 percent of Arizona is owned by the government, and efforts to document rock art sites vary from agency to agency. Currently, the National Park Service is aggressively inventorying its rock art resources. On the other hand, some jurisdictions have little comprehension as to the extent of rock art and other archaeological sites present on their lands.

This issue became clear when a survey of site records held in public institutions in Arizona was completed. Twelve institutions were visited, and site data were obtained from another six (see Table 1.2). It quickly became clear that a major problem in the state is the number of institutions assigning site numbers. Currently, the Arizona State Museum, Arizona State University, the Forest Service, and Grand Canyon National Park, among others, give numbers to sites. Therefore, the same site will often have two, three, or even more numbers.

The American Rock Art Research Association (ARARA) has extensive rock art site information, but it was not possible to visit their archives in California. However, it is probable that most of their site records duplicate those found at other Arizona archives.

Site records were often incomplete, lacking important data such as UTM coordinates, which are useful for determining a site's location. On the other hand, more recent records are usually complete. The data from site cards held by various institutions and agencies were coded for entry into a computer database. A total of 27 variables could be coded for each site (Table 1.3). These data have been used to create the maps in this volume. Appendix B presents a summary of rock art site data. In the appendix, information on each site's location has been left intentionally vague because the problems of vandalism and looting prevent publication of this data. Complete information will be available to professional researchers through the State Historic Preservation Office.

This volume has been written for both professional researchers and members of the general public. Members of the public are urged to report, record, and preserve rock art sites for the benefit of future generations.

ROCK ART TERMINOLOGY

Because rock art terminology can be confusing, short definitions are provided here.

Abstract element: an element that is not recognizable as a picture of something, although someone viewing the element may understand that it represents something else.

Anthropomorph element: a human figure.

Archaeoastronomy: the study of how people have recorded their astronomical observations in rock art.

Bedrock mortars: larger circular depressions worn onto flat rock surfaces, used to grind seeds and other items.

Cupules: small circular depressions worn into rock surfaces. Used for grinding, preparing ground stone tools, and, in some cases, during religious activities.

Desert pavement: gravel- and rock-covered areas that develop in desert regions. The gravels may be covered with rock varnish so that removal of stones exposes lighter soils or gravels.

Element: a single design or image created by pecking, painting, moving gravel, etc.

Geoglyph: an image produced by scraping, tamping, or clearing areas of desert pavement or by piling gravel or rocks into piles or alignments (sometimes called intaglios).

Geometric element: an element with geometric shapes such as circles, squares, or rectangles.

Panels: discrete sets of elements on a rock or rock face.

Petroglyph: an image that has been pecked, scraped, and ground onto rock surfaces.

Pictograph: an image painted or drawn onto rock surfaces.

Representational element: an element that represents humans, animals, objects, plants, or geographical features.

Rock varnish: an accretion of manganese, clays, and other minerals that forms on rocks.

Scene: *several elements* that are related to each other, such as a depiction of a hunting event or a religious ceremony.

Style: a set of images that are unified by common techniques, by the time period during which they were made, by the presence or absence of certain elements, and by shared artistic methods.

Zoomorph element: an animal figure.

Table 1.2. Institutions holding major rock art site files in Arizona.

Institution	Location
Arizona State Museum	Tucson
Western Archaeological and Conservation Center	Tucson
Arizona State University	Tempe
Pueblo Grande Museum	Phoenix
Northern Arizona University	Flagstaff
Museum of Northern Arizona	Flagstaff
Wupatki National Monument	Flagstaff
Grand Canyon National Park	Grand Canyon
Coconino National Forest	Flagstaff
Tonto National Forest	Phoenix
SHPO	Phoenix

KINDS OF ROCK ART

There are three kinds of rock art in Arizona: petroglyphs, pictographs, and geoglyphs (Figure 1.1). The first two forms are present throughout much of the state. Geoglyphs are concentrated in the southwest corner and are quite rare in comparison to the other two. Each is discussed separately below.

Petroglyphs

The most common form of rock art is petroglyphs, which are images that have been pecked, scraped, and ground onto rock surfaces. Usually, the dark layer that covers rock, called varnish or patina, is broken away to allow the lighter, unweathered rock to show (Figure 1.2). The result is a lighter element clearly visible against a darker background. Many individuals call the substance that coats rocks desert varnish, but the varnish has been found to form on rocks in wet areas also. Rock varnish is the term used for this report.

Rock varnish accumulates on the surface of rocks throughout the world. Studies have shown that the layer is an accretion of manganese and iron oxides, clay, and lesser amounts of trace and mineral elements. It was once thought to develop as a result of rock weathering, with the breakdown of the rock contributing minerals to help form the varnish (Elvidge and Moore 1979). However, recent studies have shown that bacteria help create the varnish (Dorn 1991). The bacteria manufacture chemicals that bond minerals and organic matter together on the rock surface, starting out as small patches that eventually merge. The bacteria use airborne clays as they oxidize manganese and iron. As a result, about 70 percent of rock varnish is derived from clays (Dorn and Oberlander 1981; Alexander 1977:372). The color of the resulting rock varnishes varies from place to place, depending on the chemical composition of the minerals being deposited and the age of the varnished area. Removal of a section of varnish exposes the lighter substrate rock. The process of revarnishing soon begins again. Eventually, the newly exposed area is completely covered with varnish, although this may take thousands of years.

Table 1.3. Variables coded for each site record (see Appendix B for coding form).

Variable Number	Description
1	ASM site number
2	Other site numbers (note assigner)
3	Site name
4	7.5′ topographic map name
5	UTM zone
6	Easting
7	Northing
8	County
9	Cultural Affiliation 1
10	Cultural Affiliation 2
11	Cultural Affiliation 3
12	Cultural Affiliation 4
13	Style 1
14	Style 2
15	Style 3
16	Style 4
17	Site type 1
18	Site type 2
19	Site type 3
20	Site type 4
21	Rock art type 1
22	Rock art type 2
23	Number of panels
24	Number of elements
25	Source of information
26	Is property listed on National Register?
27	Notes and comments

Rocks of differing chemical composition accumulate varnish at different rates. Those that are high in iron appear to develop varnish faster than those with a low iron content. As a result, areas with high-iron rocks may have more petroglyphs, either because the prehistoric artisans selected varnished rocks, or because the elements placed upon these rocks did not erode away as the rock surface exfoliated, which might happen with certain kinds of rocks such as those high in quartz.

Not all petroglyphs are created by knocking away rock varnish. In certain instances, artists used non-varnished rock, which can be found in places that are not exposed to the weather. In these cases, soft sedimentary rocks were chosen and elements cut or incised. The reasons for selecting unvarnished rocks are unknown, but it is possible that the rock was easier to work or that it had some other special purpose.

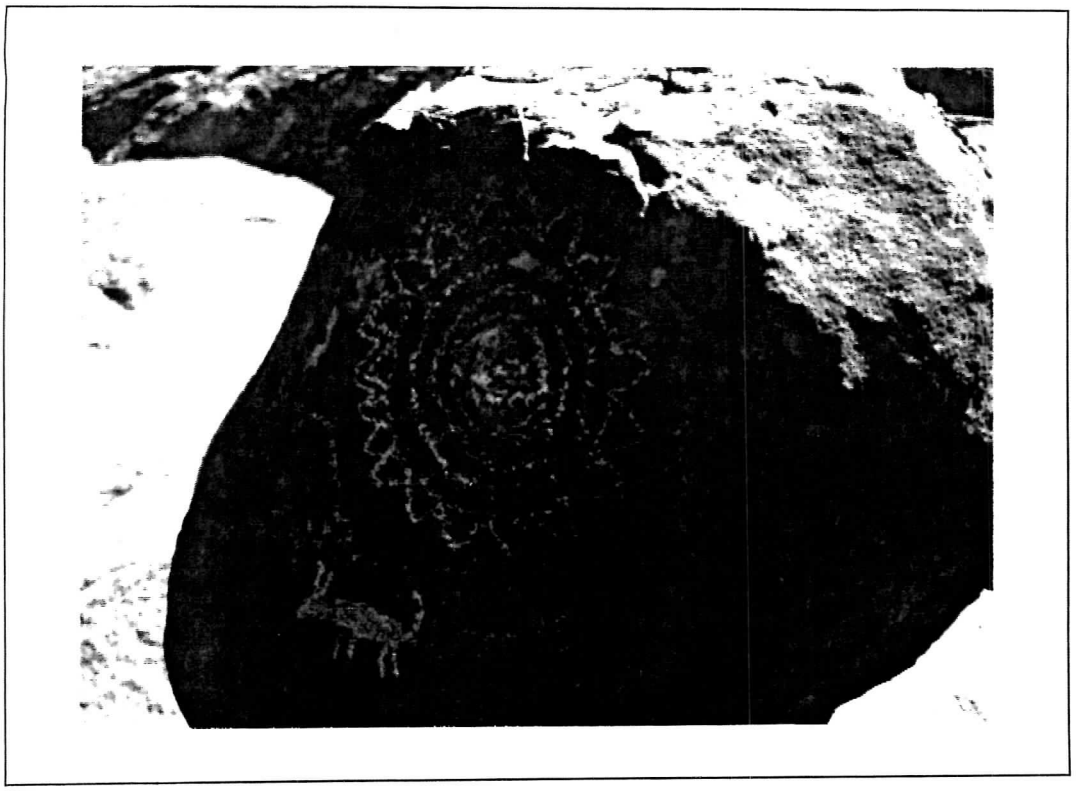


Figure 1.1a. A petroglyph from Sutherland Wash in Arizona (photo by P. Whitley, 1990).

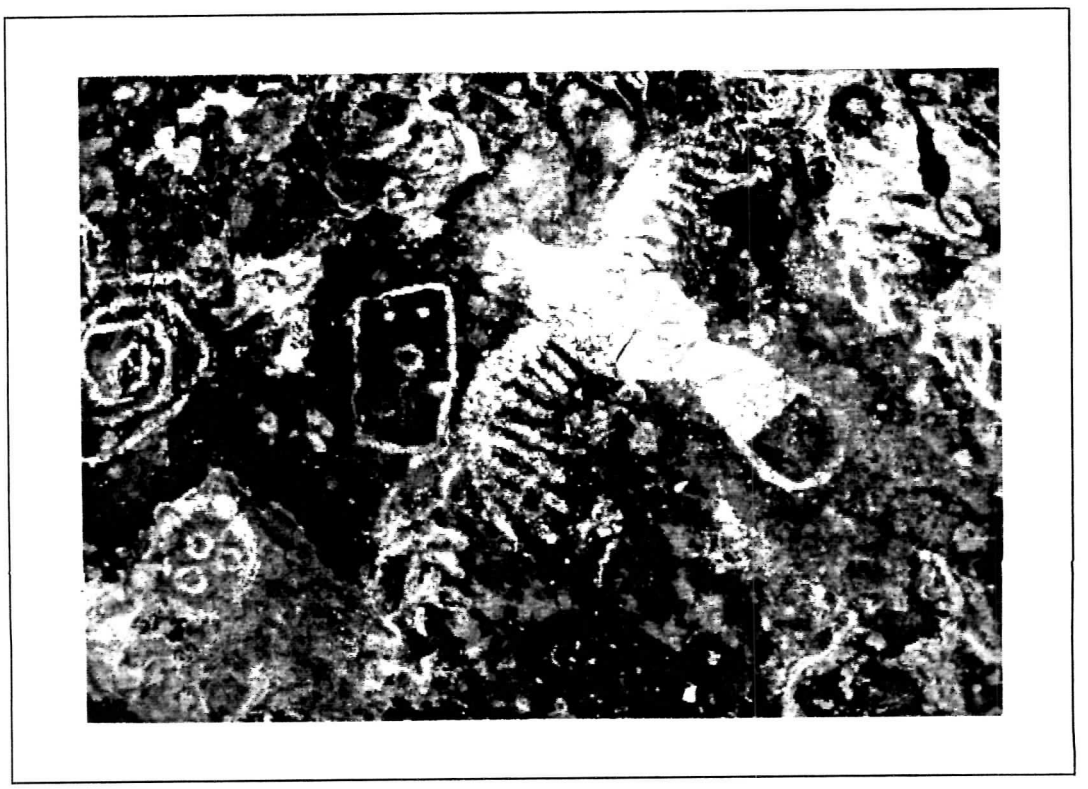


Figure 1.1b. A pictograph from Garden Canyon in Arizona (photo by R. Serface, 1991).

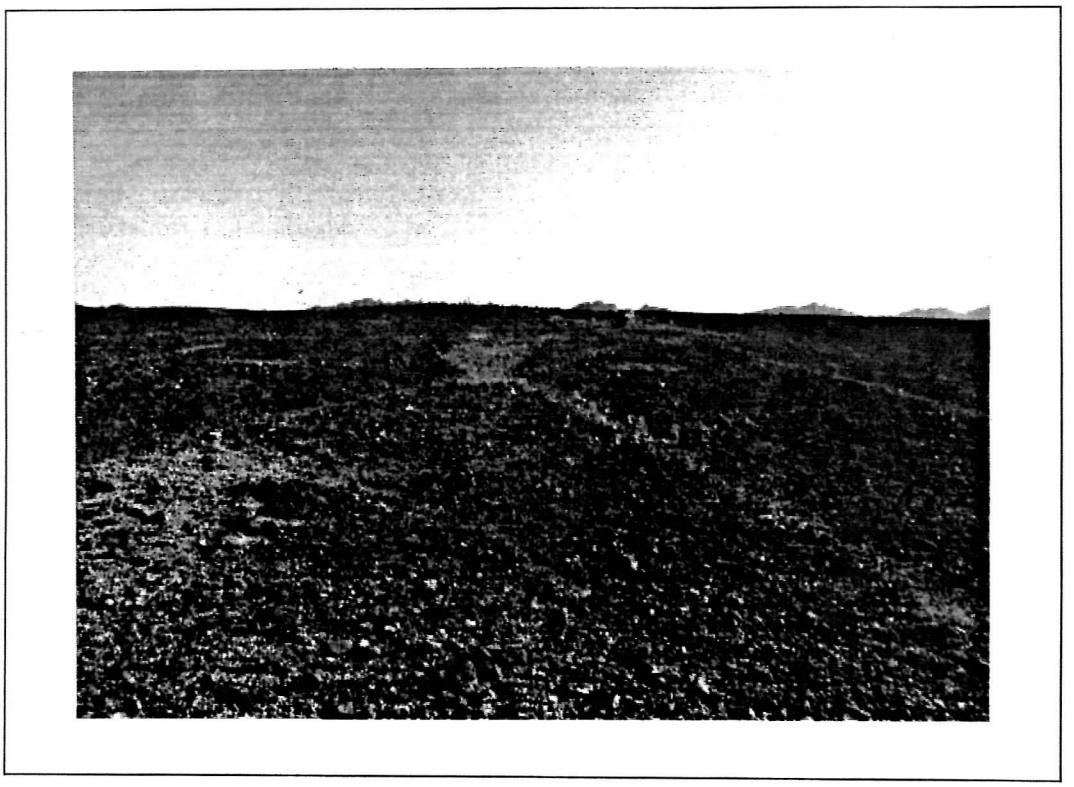


Figure 1.1c. A geoglyph near Yuma, Arizona (photo by J. Holmlund, 1992).

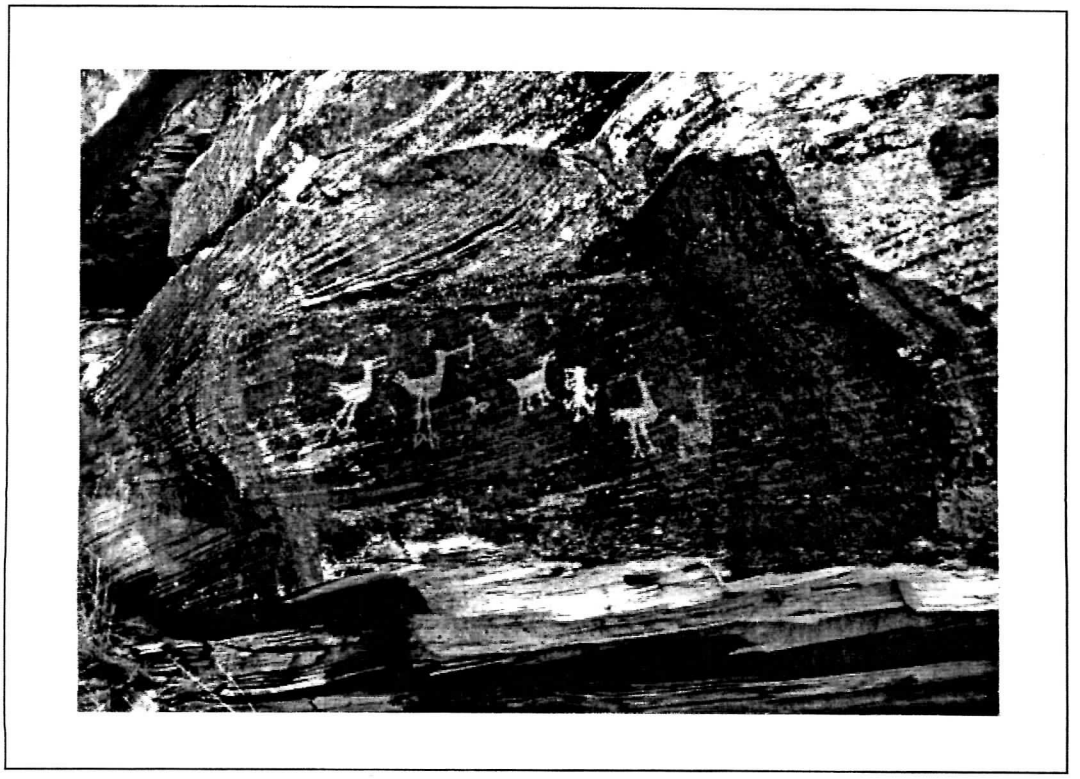


Figure 1.2. Rock varnish discolors the surface of rocks. Prehistoric artists chipped away the varnish to make images (photo by R. Serface, 1991).

Also, there are places such as rock shelters where no varnished rock is present. In any case, people seeking out rock art should examine all rock surfaces, not just those with varnish.

A number of different methods were used to create petroglyphs (Figure 1.3). One common method was to hit the rock surface with another rock, knocking away small pieces of varnish. This technique, called direct percussion, often leaves characteristic dimples in the element. Images produced this way are not very detailed because the hammerstone was difficult to control, and it was not possible to make finely detailed images.

The use of an intermediate tool, such as a chisel or a flake, allowed for finer control. This method is called indirect percussion. The intermediate tool was placed against the rock surface and tapped with a hammerstone. Small areas of rock varnish could be removed with this technique, resulting in more detailed carvings. Techniques varied across Arizona. Most petroglyphs found in the southern part of the state appear to have been created using direct percussion. Indirect percussion is more frequent in the northern portion of the state.

Another method used to create petroglyphs was to scratch them onto rock surfaces. Originally, it was thought that all scratched elements were quite recent because they were uncommon and were confused with historic Native American elements and cases of recent vandalism. Ferg (1979) discovered that some scratched images actually lay below pecked images, and thus these examples were earlier. Several other similar cases have since been recorded. In other related cases, petroglyph artisans scratched guidelines onto rock surfaces prior to pecking. Turner (1963) found several petroglyphs where guidelines were still visible, either because a particular glyph was not finished or because the artist changed his or her mind while fashioning the image. One other method was to grind images into the surface of the rock using hand-held stones.

In some cases, petroglyph artisans incorporated details of the rock surface into the design of their images (see Figure 1.2). At the Hedgpeth Hills and the Greenway Road and 17th Avenue sites near Phoenix, naturally occurring depressions were used as human figure heads (Bostwick 1989:6).

Other rocks exhibit ground or pecked areas. The presence of small circular pecked or ground areas, called cupules, and long linear areas creates a problem for rock art enthusiasts. Are these really examples of rock art, or do they represent some other use of rock? Larger and deeper holes worn into boulders are presumed to have been used as mortars, where seeds and other plant materials were ground up by smashing them with a pestle. Large rubbed areas are called bedrock or boulder metates or slicks and are also suspected of being produced during plant-grinding episodes. Pestles are frequently found in the vicinity of mortars (Wallace 1983). Because some of the basin-shaped or flat slicks are very common near rock art sites, it is believed that they may be associated with the rock art in some way.

Some theorize that cupules were created as art or are associated with rock art production, perhaps resulting from the grinding of pigment for pictographs (Schaafsma 1980). Wallace (1983) does not agree with this view. His analysis of cupules found at the Los Morteros site found examples that ranged from .5 to 2 cm (⅕ to ⅘ inches) in depth and 1 to 7 cm (⅖ to 2⅘ inches) in diameter. They were produced by pecking with a pointed tool and were found on relatively flat to almost vertical surfaces. Wallace suggests that cupules could have been used for grinding small seeds or, more likely, that they were created during the manufacture of pestles (1983:176-182). Alternatively, Nissen and Ritter (1986) suggest that cupules and grooves can be interpreted as symbolic gateways into the otherworld.

Linear ground areas might represent a spot where wood was smoothed or ground stone tools crafted. Few of these linear ground areas are present in Arizona; they are much more frequent in California. In any case, rock art recorders typically collect data on these features because they are frequently found near rock art sites.

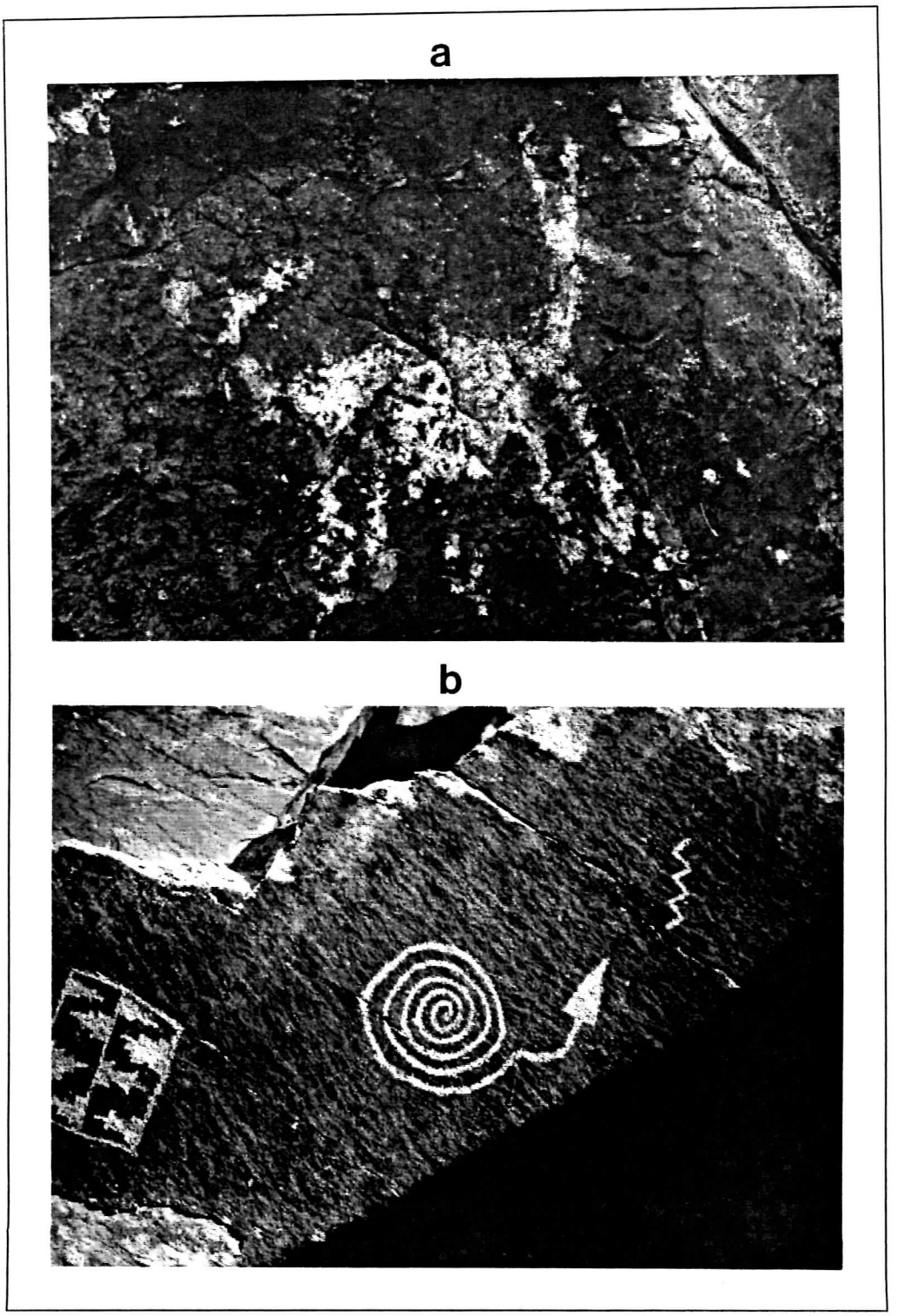


Figure 1.3. The direct percussion technique, visible in the zoomorph image (a) usually leaves "dint" patterns. The indirect percussion technique, visible in the geometric image (b) allows finer, more detailed images to be created. All rock varnish may be removed within the element area, giving a "smoother" effect. a, Saguaro National Monument (photo by R. Serface, 1990); b, Petrified Forest National Park (photo by R. Serface, 1991).

Tools used to create petroglyphs may be present at rock art sites. These include pecking stones, abraders, and chisel flakes. Bostwick (1989:15) found three greenstone cobble hammerstones and an igneous rock hammerstone scattered among the boulders at one site. Wallace (1989:125) also found many tools at rock art locales in the Painted Rocks area. It is suspected that many other tools remain unrecognized at petroglyph sites.

Busby et al. (1978) performed experiments in which petroglyphs were replicated under controlled conditions. They counted the number of blows, the length of time to create designs, the hardness of the rock surface, and other factors while making petroglyphs. One discovery they made was that rock varnish was easy to chip through, but the underlying rock was usually very hard. They suggest that this is why most petroglyphs are quite shallow.

There are two kinds of petroglyph elements: representational and geometric. Representational elements are those made to look like humans, animals, plants, or objects. In many cases, these images are very abstract, with the prehistoric artist possibly choosing only those portions that were thought by him or her to represent the essence of the person or animal.

Geometric petroglyphs are elements that do not resemble naturally occurring objects. They are often spirals, wavy lines, circles and other shapes. Many may have symbolically stood for other things, but in most cases, these meanings are unknown. Other images may have been created because they were visually pleasing or were replicas of elements found on pottery or fabrics. Geometric images also may have had religious or astronomical meanings.

The study of petroglyphs is entering a new age as more sites are studied and published and new methods to date previously undatable sites are developed. These new findings are discussed in detail in Chapter 2.

Pictographs

Pictographs, or paintings and drawings on rocks, are less common than petroglyphs. However, since these images have a greater likelihood of fading or weathering away, it is uncertain whether fewer pictographs were made by prehistoric people than petroglyphs or whether a limited number have survived.

The paint used for pictographs consisted of a pigment, a binder, and a vehicle. The pigment was the paint's color. In Arizona, red, white, orange, and black are most common. Other colors, including blue, green, purple, and pink occasionally appear. Most of the pigment is derived from minerals; hematite or argillite for red, kaolin clays for white, limonite for yellow or orange, turquoise and azurite for blue, malachite for green. Miller and Hurd (1992) performed an analysis of an unusual green pigment and discovered that its main constituent was chromium. Continued use of chemical analyses of pigments is expected to identify where pigments were obtained, as well as help conservators save some pictographs from deterioration. Organic materials were used also, especially for black, which was easily created with charcoal (Burton 1988). Reportedly, blood was used as pigment by some cultures; if this proves to be the case for Arizona, it could be an important finding because very small amounts of organic materials can be dated using accelerated mass spectrometry (discussed in further detail in Chapter 2).

Pigments were collected in the field as lumps of minerals, clays, or stones. These were then ground up in preparation for use as paint. Hematite was mined in several parts of the state, one such mine being found at Picacho Pass. Metates or grinding slabs containing smears of hematite (red pigment) and, in at least one case, turquoise have been discovered. It must be kept in mind that pigments were produced for other reasons, such as body adornment, ceramic glazes, and dyes; therefore, the discovery of a pigment smear on a metate may not mean that pictographs were being produced nearby.

It has also been suggested that the small cupules found at rock art sites may have been used to grind pigment; however, no supporting evidence for such use has been uncovered. Because cupules are usually exposed to the elements, any pigment residues could have weathered away long ago.

Pigment was applied to the rock surface either by itself or through the addition of binders and vehicles. A binder is a substance that helps the paint stick to a surface. Unfortunately, no detailed studies of prehistoric paint composition have taken place, except for kiva paintings found at Awatovi, and as a result the material used for binding agents is unknown. This is a problem for conservators, who need to know what was used to create the paintings that they are attempting to preserve. People have suggested a number of substances that may have served as binders, including egg whites, vegetable oils, and even human urine (the latter is easily transportable). At present, no one has conducted physicochemical tests of paint composition to determine exactly what sorts of binders were used.

The pigment and binder, when mixed, can be difficult to handle, usually because the substance becomes very thick. The vehicle is the portion of the paint that conveys the pigment and binder to the rock surface. Usually the vehicle is a liquid, and again we know little about what sorts of liquids were used by the prehistoric artists. Some say that it was water and that no evidence would be left behind, whereas others assert that the vehicle was human urine. In the latter case, there might be a chemical signature. Without compositional studies, this also remains a mystery.

Although the composition of paints is largely unknown, the methods for applying it can be deduced through archaeological and ethnographical examples and by studying the paintings themselves (Figure 1.4). Fingers appear to have been a common tool. Dabbed into the paint, they could be used to draw fat lines, apply small dots, or slap complete handprints to a rock surface. Handprints are a common element, and the prehistoric artists often thought up innovative methods. Lines could be painted on the palm and fingers and transferred to rock surfaces, leaving unusual elements. In other cases, negative hand prints were created by placing paint in a tube and blowing it over a hand placed on a wall. The paint would surround the hand, leaving the covered area blank. Paint brushes were fashioned out of yucca fibers, corn husks, or other fibers. These brushes were used to create most images. Careful trimming of fibers allowed finer lines to be applied. Pigment sticks, molded pigments, and crayons may also have been used.

Not all pigment was applied through paints. Charcoal drawings, using charred sticks or lumps of charcoal, were sketched directly onto rock surfaces. Lumps of paint might also be tossed against rock faces, leaving behind large splotches of color.

Like petroglyphs, representational and geometric pictographs were created. Most were made with a single color; however, polychrome or multi-colored pictographs were occasionally fashioned. Often the use of a second or third color was to add details, including facial expressions and clothing or jewelry on human figures.

As noted earlier, fewer pictographs survive because of their fragile nature. Unless they are placed in a sheltered location, they will erode away as dust and rain strike them. In some cases, vegetable or fugitive paints have disappeared, leaving behind mineral-based painted portions of images. The result can be figures missing heads or half of their bodies. Even elements painted with mineral paints will gradually disappear if exposed. Human vandalism can be very damaging to pictograph sites and is occurring at an alarming rate. The number of pictograph sites is decreasing each year, spurring the need for their study.

Geoglyphs

Geoglyphs are the third form of rock art and the least common (Figure 1.5). As explained previously, petroglyphs are created through reductive methods, removing areas of rock, and pictographs are created

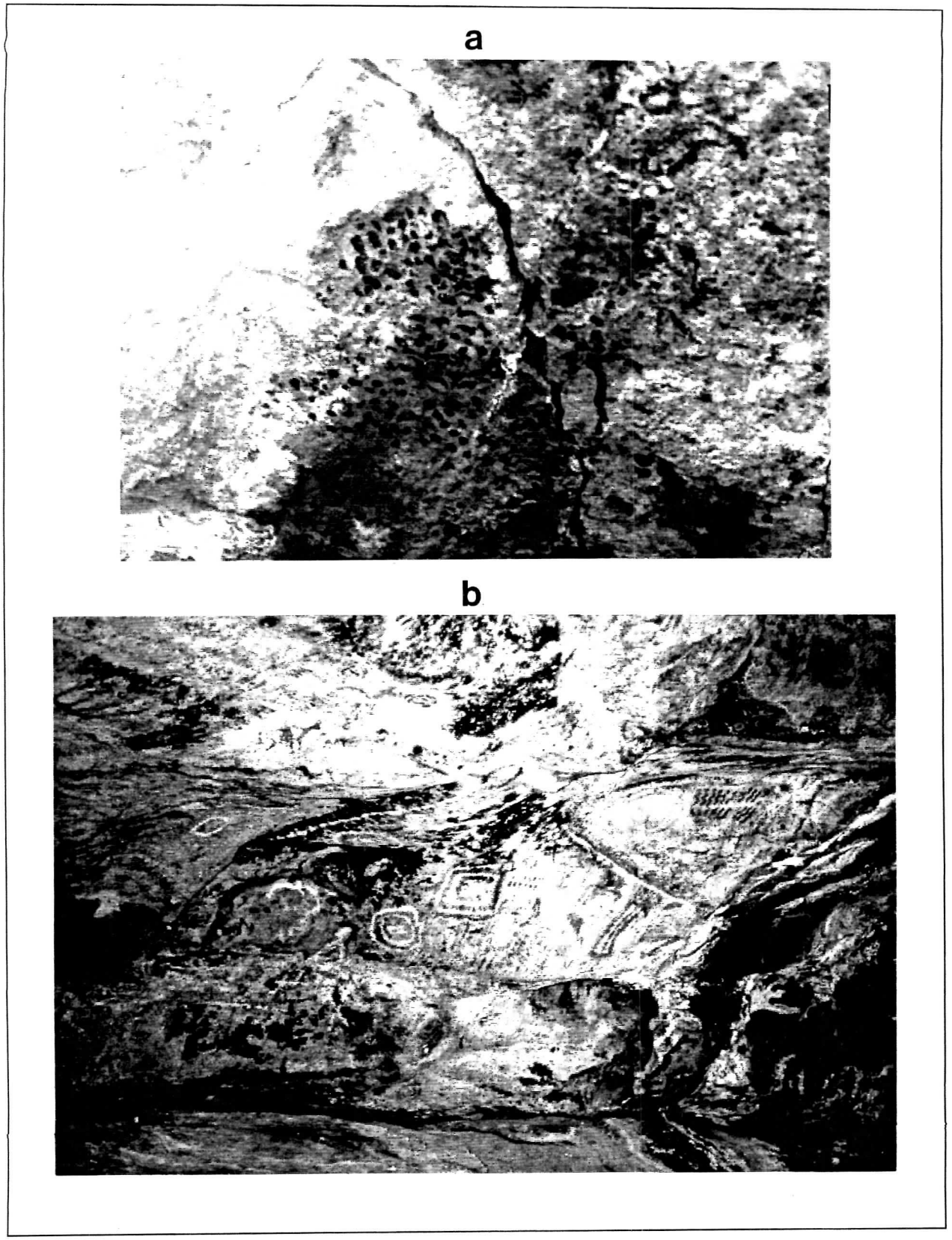


Figure 1.4. Pictographs were painted using several methods: a, finger-applied patterns, Organ Pipe National Park (photo by R. Serface, 1992); b, images painted using brushes, Mendoza Canyon site (photo by P. Whitley, 1990).

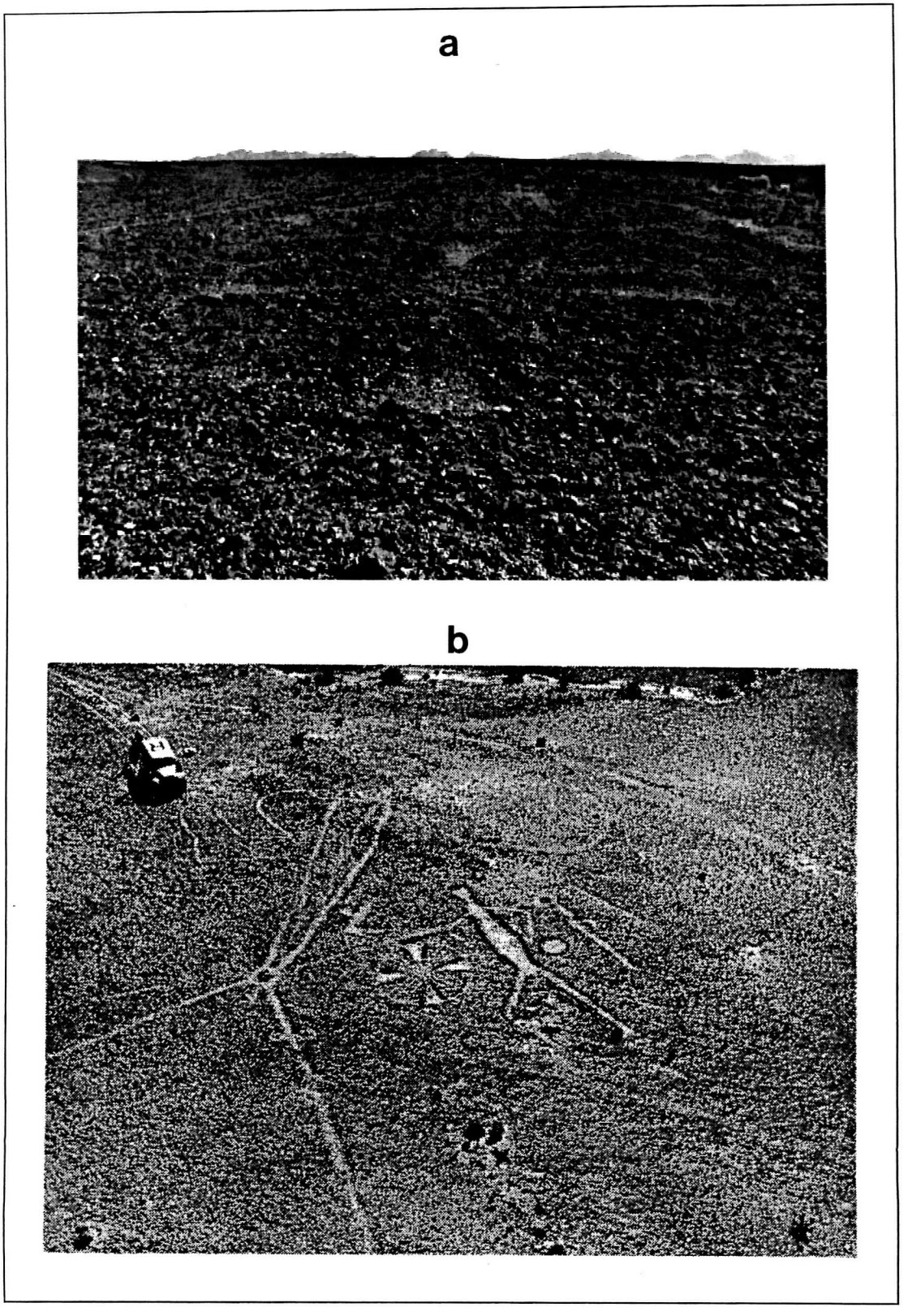


Figure 1.5. Geoglyphs are commonly found in southern Arizona: a, Geoglyph images are difficult to see from the ground. Close-up of a geometric image at the Ripley Geoglyph Group along the lower Colorado River on the western boundary of Arizona, south of Blythe, California (photo by J. Holmund 1992); b, aerial view of the same geoglyph images at the Ripley Geoglyph Group (oblique aerial photo by Richard H. Stewart ©National Geographic Society).

by adding something, a pigment, to a rock surface. Geoglyphs can be created through either method or a combination of the two. Some geoglyphs are made by carefully scraping away rock-varnished gravels and soil to expose the lighter colored, unvarnished gravel or soil present below the ground surface. Sometimes the scraped material is placed along the sides of the element to create small piles called berms that serve to further accentuate the element. Another method is to tamp down areas, compacting the soil and gravel in order to produce images. Some tamped images may be created by repeatedly walking or dancing across an area. A third method consists of placing rocks or piling granular dirt in alignments to form figures or merely lines of rocks. It is unknown whether the varied methods used to create geoglyphs reflect different functions for these elements or are merely the actions of different geoglyph creators.

Many things about geoglyphs are unknown. They are puzzling because of their large size and their very nature. Native Americans living in the Yuma area believe that some geoglyphs depict creation myths and were probably constructed during religious activities (Johnson 1986). Boma Johnson's research into the origins of geoglyphs suggests that the Quechan, Mojave, and Yavapai people are descendants of the people who created these geoglyphs (personal communication 1994). Geoglyph sites were the location of a number of activities, including ceremonial journeys. People molded the desert gravels to create representational and geometric figures along with pits, pathways, and staging areas. Johnson states that the main difference between geoglyphs and other types of rock art is that geoglyph sites were places where ceremonies could take place physically.

Like petroglyphs and pictographs, some geoglyphs are in the form of humans or animals, whereas others are geometric elements. Human figures often come in pairs, with one of the individuals incomplete (Johnson 1986). Animal figures include snakes, lizards, quails, and mountain lions. Other examples have been called dance areas or cleared areas, also known as "sleeping circles." Dance areas are circular or vaguely geometric and, as suggested by their name, may have been cleared for dance rituals. Cleared areas are small areas, usually circular or oval, that have been cleared of stones. Some believe that these are places where people slept and that the stones were removed to make the area more comfortable. Others believe that they were staging areas for ceremonies or activity areas. Yet another form are avenidas or trails, which are probably not rock art. However, they may be considered landscape art, and they are often classified as geoglyphs.

Of the three forms of rock art, geoglyphs are the least well known, primarily because they are difficult to find and document. Currently, only a handful of researchers have studied these images. Questions to date regarding who created these elements and when they were made have gone unanswered.

The three forms of rock art are not unique to Arizona; in fact, all three can be found across the world. Among the most famous rock art sites are Paleolithic cave paintings in western Europe, paintings of hunters and animals in the Sahara desert, Aboriginal petroglyphs and pictographs in Australia, and the Nazca lines in Peru, which are large geoglyphs.

A HISTORY OF ROCK ART STUDIES IN ARIZONA

When Euro-American explorers first visited Arizona, beginning around 1540, they found groups of indigenous people living throughout the area. Some of these people were creating rock art, just as their ancestors had done. Some of the Spanish also added their initials and comments to rock faces, continuing the tradition of rock art into the historic period.

Spanish explorers rarely noted the presence of rock art. One exception occurred when Padre Sedlmayrr visited the Gila Bend area in 1748 and reported the presence of rock art in what is now known as the Painted Rock Mountains (Wallace 1989:32, 36). However, there appears to have been little interest in Native American antiquities during the remainder of the Spanish period and during the Mexican period (1821 to 1854). This was in part a result of more pressing problems (namely survival), but it may also

reflect a lack of curiosity and a feeling of superiority by people of this time period over local, indigenous cultures.

The arrival of the first American explorers resulted in a number of cases where rock art was reported. In 1851, Captain Lorenzo Sitgreaves noted several geoglyphs (which he called Indian hieroglyphics) traced on the ground near the Colorado River. These were interpreted as signs warning them to turn away (Johnson 1986:32-33). In 1853, a geological expedition headed by William P. Blake found geoglyphs between Yuma and Pilot Knob in southwestern Arizona (Blake 1857:117). Six years later, the S. A. Bishop party came upon figures drawn on the ground by Mohave Indians. In this case the geoglyphs were recent, and bloody arrows piercing the figures sent a clear picture of what could be expected should the group continue (Johnson 1986:33).

The United States received southern Arizona in 1854 as part of the Gadsden Purchase, and the arrival of American soldiers spurred the first scientific research in the area. Gradually, reports of antiquities and accounts of Indian ruins filtered to Washington, D.C. The Smithsonian Institution and the Bureau of Ethnology actively sought data on ancient North Americans. Letters inquiring about rock art were sent out to persons working in Arizona or who had passed through.

As a result of these letters, the Smithsonian Institution published some of the first drawings of rock art found in Arizona (Figure 1.6). Mallery (1886, 1893) was investigating whether rock art found in North America represented attempts at writing or art. Members of the United States Geological Survey, the United States Army, and several artists sent drawings and descriptions of Arizona rock art to the Smithsonian. These individuals were very observant, noting the association of rock art sites with artifacts and commenting on the similarity between rock art elements and those found on pottery. A Lt. Col. Emory observed (about geoglyphs) that "on the ground nearby were also traces of some of the figures. . . ." He thought they were of recent origin.

Period photographs indicate that by the end of the nineteenth century, visits to rock art sites were popular, at least in the Tucson area. However, detailed scientific studies were not undertaken. Rock art was viewed as a curiosity, something to visit and occasionally remove or at least initial and date to prove one had been there. Archaeologists of the time period were understandably more interested in excavating ruins in order to collect specimens and reconstruct the cultural history of the region. The period from about 1890 until the 1930s saw very little interest in rock art.

Geoglyphs were rediscovered in 1932 when a pilot named George Palmer was flying from Las Vegas, Nevada, to Blythe, California (Johnson 1986). He spotted large human and animal figures on the ground and later returned to photograph them. He showed the pictures to Arthur Woodward of the Los Angeles Museum, who subsequently organized an expedition to study them. Woodward published the first accounts of geoglyphs in the Southwestern United States (Woodward 1932). Later visits culminated in the identification of dozens of figures.

Academic research on rock art remained low until the 1960s. Popular interest was growing, and many avocational archaeologists were recording and visiting rock art sites, as were many vandals and looters. Numerous sites were defaced or had rock art panels removed. While this had always occurred, the growing population of the state, higher interest by the antiquities market, and the use of off-road vehicles increased the problem. Geoglyphs were also affected and suffered damage when they were driven over by off-road vehicles. Some protection was provided by fencing several of the sites on BLM properties, but the presence of tracks around the geoglyphs serves as a reminder of past indiscretions.

The first major study of rock art in the Southwest was completed by Christy Turner (1963) in Glen Canyon, prior to the flooding caused by dam construction. His pioneering work included discussions with members of the Hopi tribe in order to identify elements, the first style descriptions relating changing elements with time periods, and a comparison of styles across the greater Southwest. Beginning in the 1960s, Ernest Snyder began to record petroglyphs in the South Mountains of Phoenix. He found over

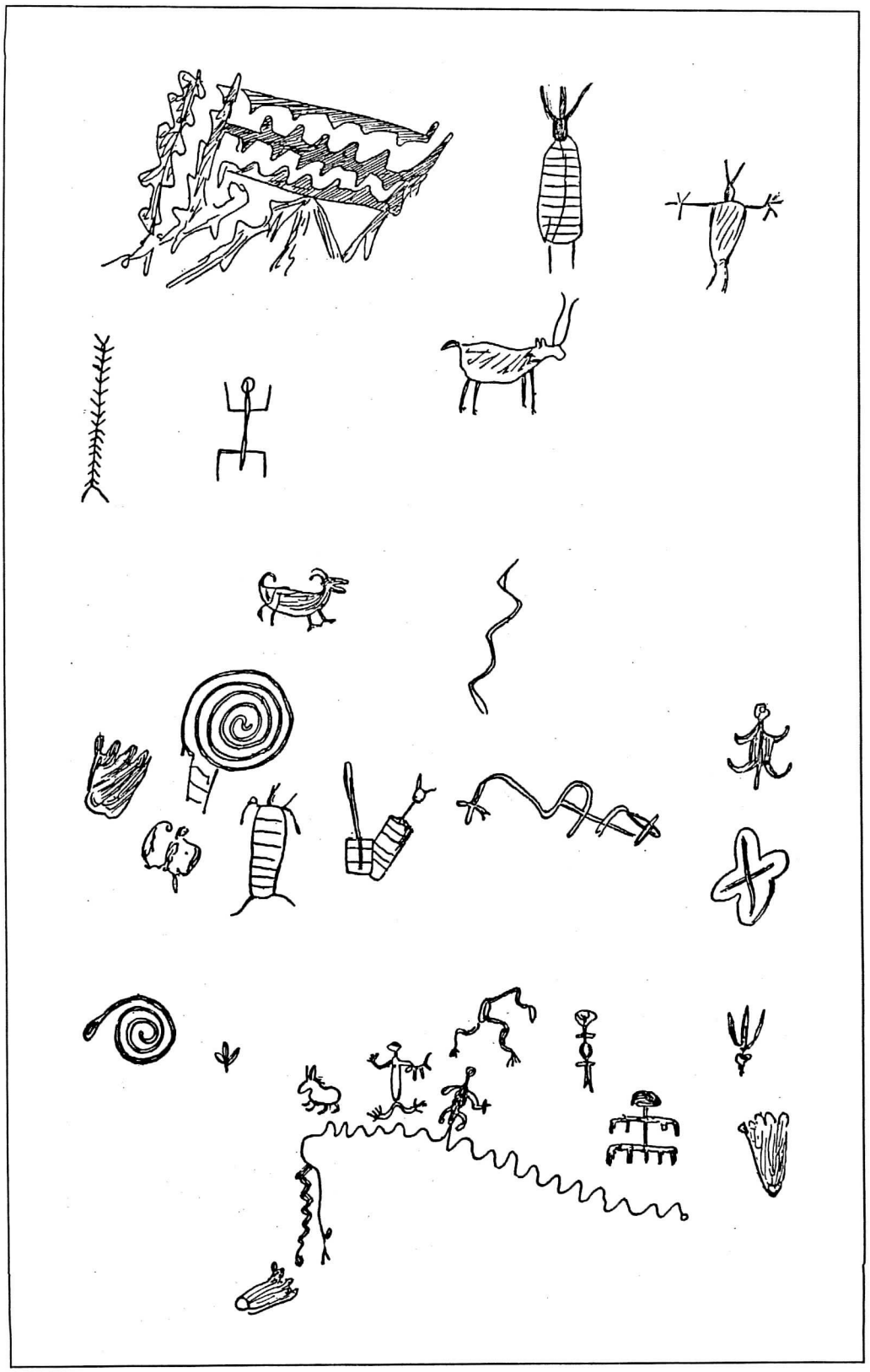


Figure 1.6a. Military personnel passing through Arizona in the 1870s and 1880s copied rock art for the Smithsonian. These petroglyphs are located 35 miles east and southeast of San Francisco Mountain (Mallery 1886).

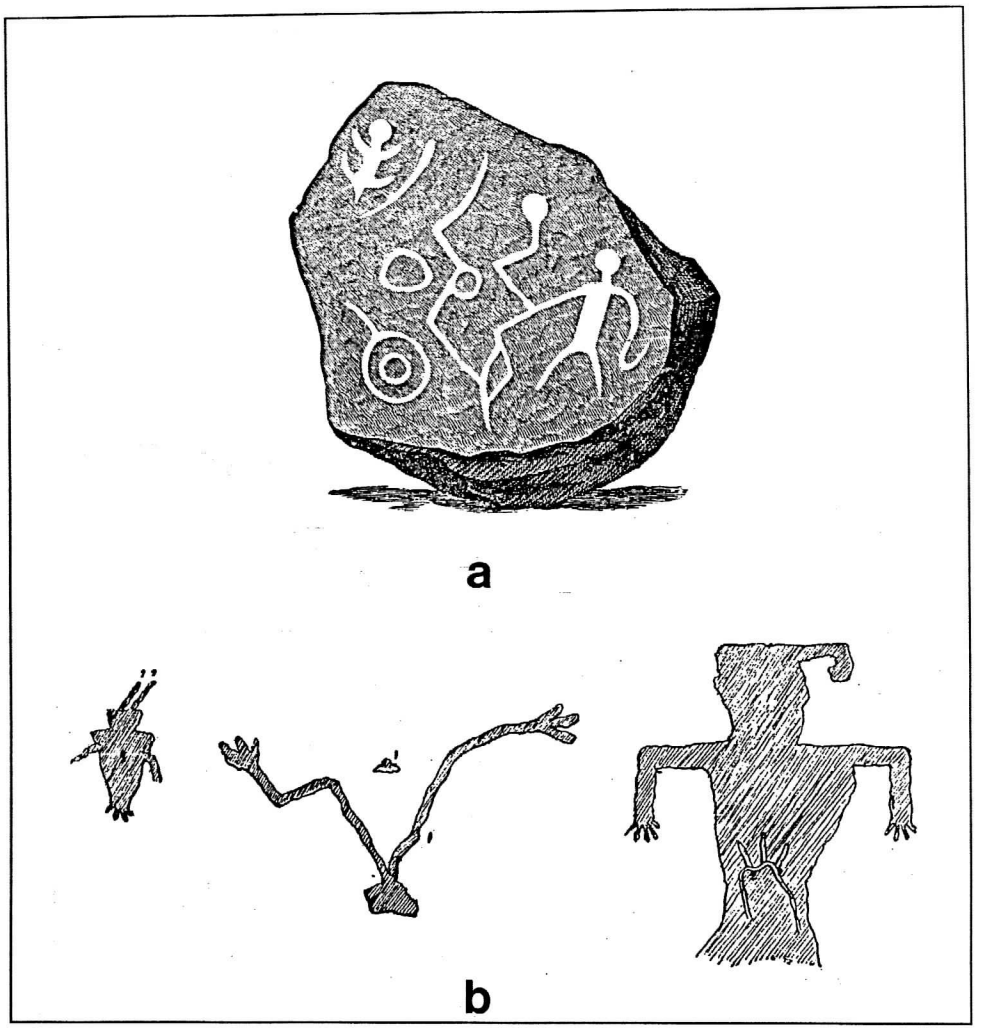


Figure 1.6b Military personnel passing through Arizona in the 1870s and 1880s copied rock art for the Smithsonian: a) Gila River, b) Shinumo Canyon (Mallery 1886).

2,000 images during his survey, which stimulated interest in Arizona rock art. Subsequent rock art research was completed by Campbell Grant in Canyon de Chelly, Peter Pilles along the Little Colorado River, and Polly Schaafsma throughout the state.

During the 1960s, the American Rock Art Research Association (ARARA) formed and in 1974 began holding annual meetings where rock art enthusiasts presented papers. The San Diego Museum of Man held its first Rock Art Symposium in 1976 and began publishing Rock Art Papers in 1983. These two organizations have been largely responsible for the increased academic interest in the topic in recent years.

Research in the 1970s and 1980s was conducted largely under government contracts. Many of these projects consisted of inventories of federal, state, and city properties (Bruder 1983; Bostwick 1989). Increased concern with rock art recording techniques was expressed by several researchers, and standardized field recording forms were developed. Subsequently, the data was collected in such a manner that if the site was destroyed, much of the rock art could still be studied on paper. The first scientific analyses of rock art examined issues regarding its function, looking for relationships between rock art and certain locations. Popular books on the topic also brought the beauty and mystery of rock art to a wider audience (Grant 1978; Schaafsma 1980).

As suggested by Figure 1.7, publications dealing with Arizona rock art have increased dramatically during the last two decades. Interest in the subject continues to grow as people explore Arizona on foot or through magazines and books.

PUBLIC PERCEPTIONS OF ROCK ART

Rock art images mean different things to different people. While some stand back and appreciate the elements as a legacy left by long vanished people, others delight in destroying them through spray paint, bullets, or by removing portable rocks (Figure 1.8). The public's perception of rock art is an important factor in its preservation. Unless the greater public can be educated about the need for protection, few rock art sites will be left undamaged for future generations to admire.

People visit rock art sites for a variety of reasons. Some are intrigued by the images, viewing them the same way one would view portraits hanging in a gallery. They are also impressed by the skill of ancient artisans. These individuals may travel great distances to view a particular site. Many of these aficionados can be considered experts on the subject, collecting books and comparing notes. These people feel that rock art should be protected and can often be relied on to stop others from vandalism.

Others seek religious experiences and enlightenment during visits to sites. These people are interested in preserving rock art sites because of their perceived religious value, in much the same way that others would seek to save a church building.

Unfortunately, many members of the public do not value rock art, and vandalism is an increasingly serious problem. Few sites have escaped from the people who scrawl and scrape their initials, spray paint names and obscenities, hammer away at patterns, and shoot bullets at prehistoric targets. The reasons for such actions are complex. For some, it is the desire to be immortalized. The placement of initials on a panel or boulder points out to other individuals that someone else has been there. Attempts to prevent such actions are often met with anger from the vandal, who may see nothing wrong with his or her action (Weaver 1985:19-20).

Others may damage and destroy rock art in order to feel powerful, knowing that their actions anger and sadden others. Similar to modern graffiti artists, who are intent on staking out their territories, modern vandals damage rock art in an attempt to create or gain power.

Some of this vandalism can be reversed, at least to some degree. Spray paint and other painted graffiti can be removed by trained conservators. Sadly, however, each act of vandalism results in a net loss of rock art.

On the other hand, some damage is unintentional. For example, persons may walk across, climb on, or touch rock art. As this occurs, rock art surfaces are eroded or stained by the oils found on human skin, or through chalking or by making rubbings. In some cases, rock climbers have unknowingly hammered pins into rock panels. Geoglyph sites are endangered by off-road vehicles and curious visitors who climb over fenced areas and disturb the desert pavement. Other geoglyphs have been destroyed by gravel mining; in some cases, the miners may not have known that the geoglyphs were present. Rock art sites have also been destroyed during development, especially in the Phoenix and Tucson basins. Protests by local residents have successfully protected one such site (Bostwick 1989).

Finally, others value rock art for all the wrong reasons. Some are intent on removing panels or boulders to display at their home or to sell for a profit. Most sites have now been stripped of small, easily transportable boulders. During looting, damage to nearby boulders and panels often occurs. The use of dynamite and power equipment to lift or sever rock art often destroys the particular work of art being removed or nearby images. The end result is pieces of rock art without known context. Individuals who are excited about owning of a piece of prehistoric rock art should compare their feelings to the emotions of those visiting looted sites.

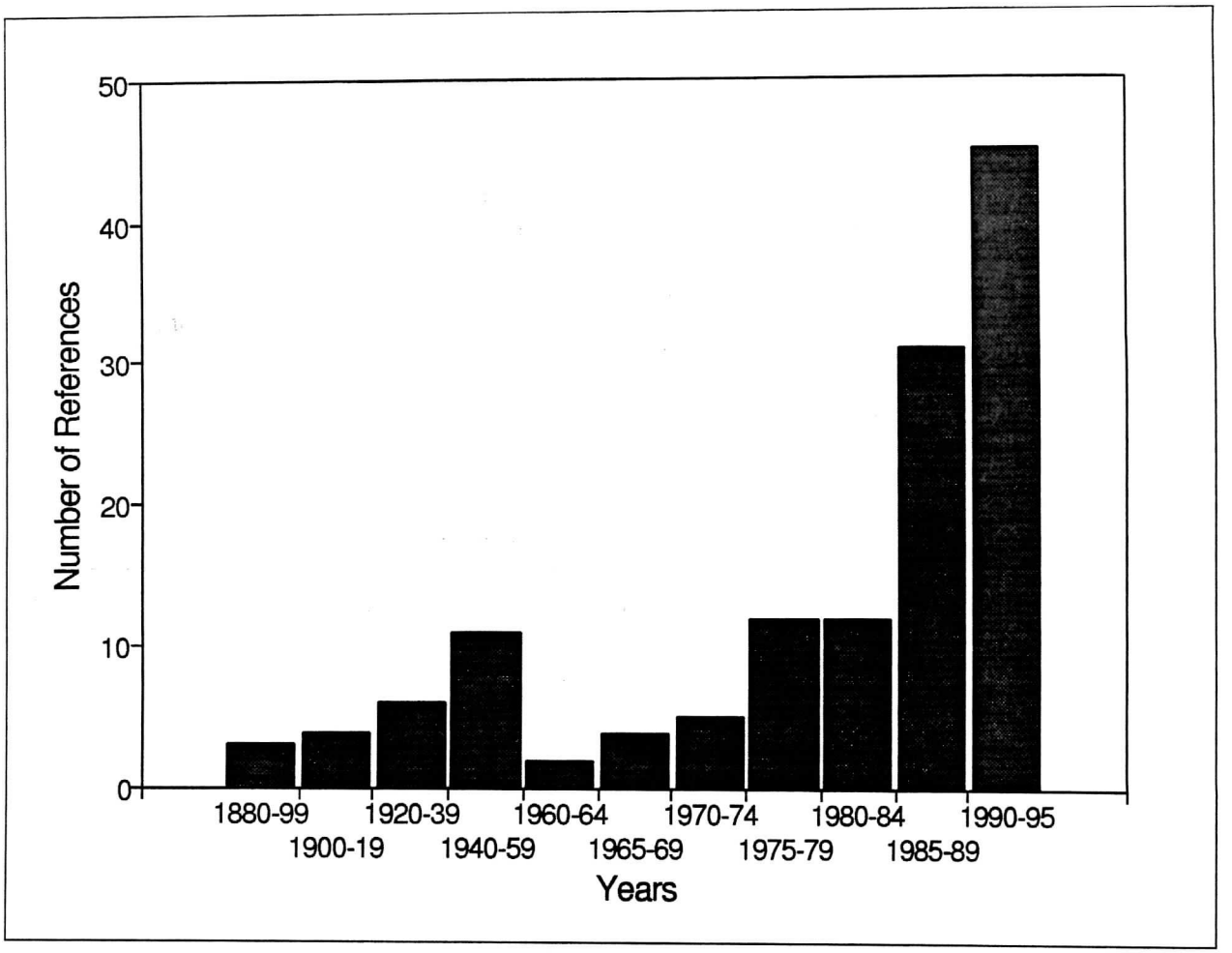


Figure 1.7. Graph of publication dates for Arizona rock art studies (see Appendix A).

While documenting the actions of a few, it should be noted that most people visiting rock art sites do so to enjoy their beauty and mystery. They travel great distances to stand in front of panels or boulders, pondering why the art was created, wondering at the skill of the artists, and puzzling over what the art work meant to its creators. Many experience intense emotions at rock art sites, believing that they contain supernatural powers or provide a link to past cultures.

Individuals witnessing vandalism at rock art sites are urged to report their observations to the police. It may be impossible and dangerous for someone to stop an individual from destroying rock art. Providing the authorities with a physical description of the vandals, along with a description of their vehicle and license plate number, can lead to the successful prosecution of people destroying a public resource. Publicity from such cases may eventually lead to a greater awareness of the need to preserve rock art.

NATIVE AMERICAN PERCEPTIONS OF ROCK ART

All prehistoric rock art was created by Native Americans, many of whom have descendants living today in Arizona (Figure 1.9). There are currently more than a dozen recognized tribes in the state, and rock art can be found on all of their reservations. Not surprisingly, perceptions of rock art vary between different groups and even among individuals within a tribe.

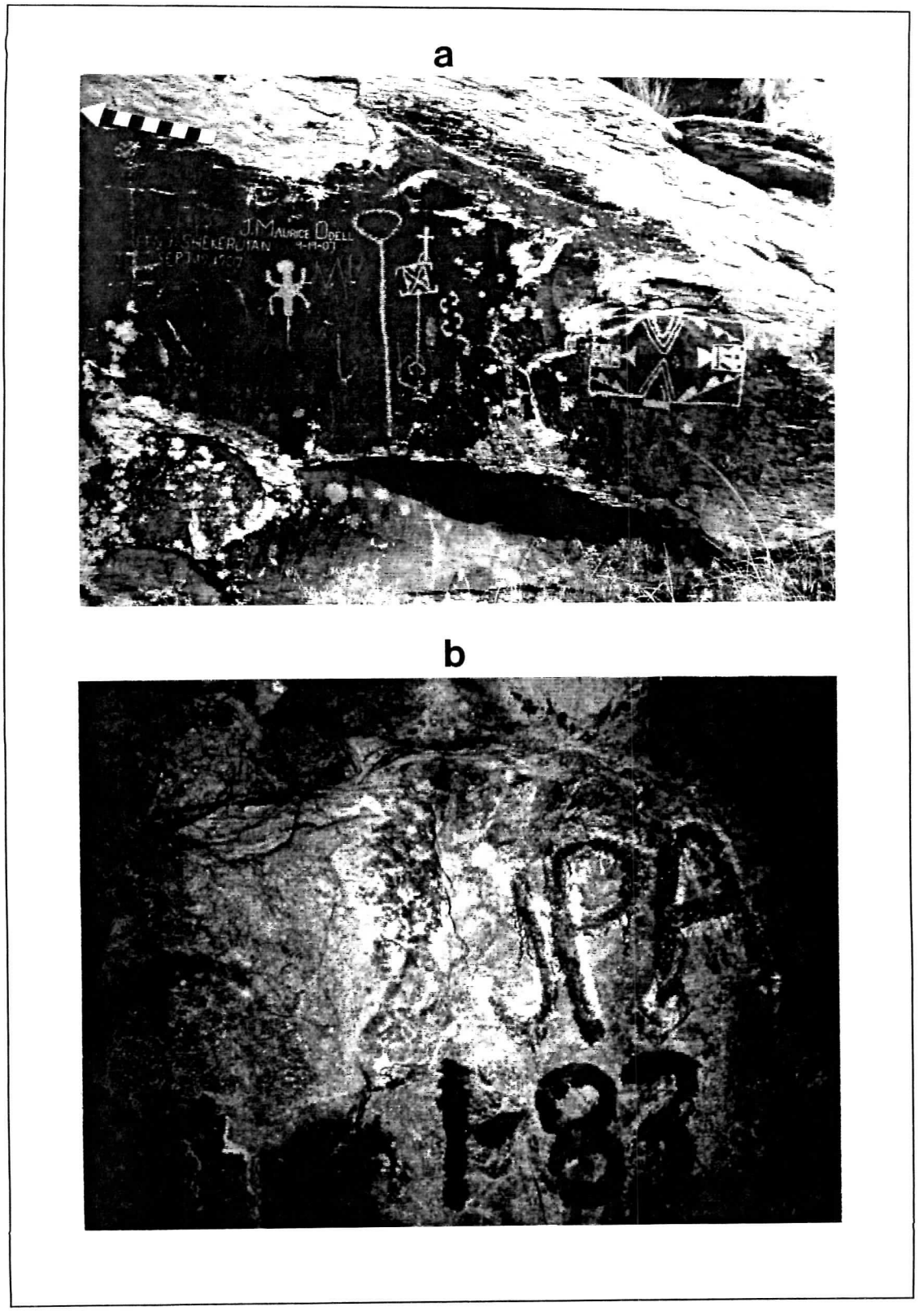


Figure 1.8. Vandalism of rock art has destroyed many prehistoric images: a, historic graffiti at Petrified Forest National Park (photo by R. Serface, 1991); b, modern graffiti at the Windmill site (photo by P. Whitley, 1989).

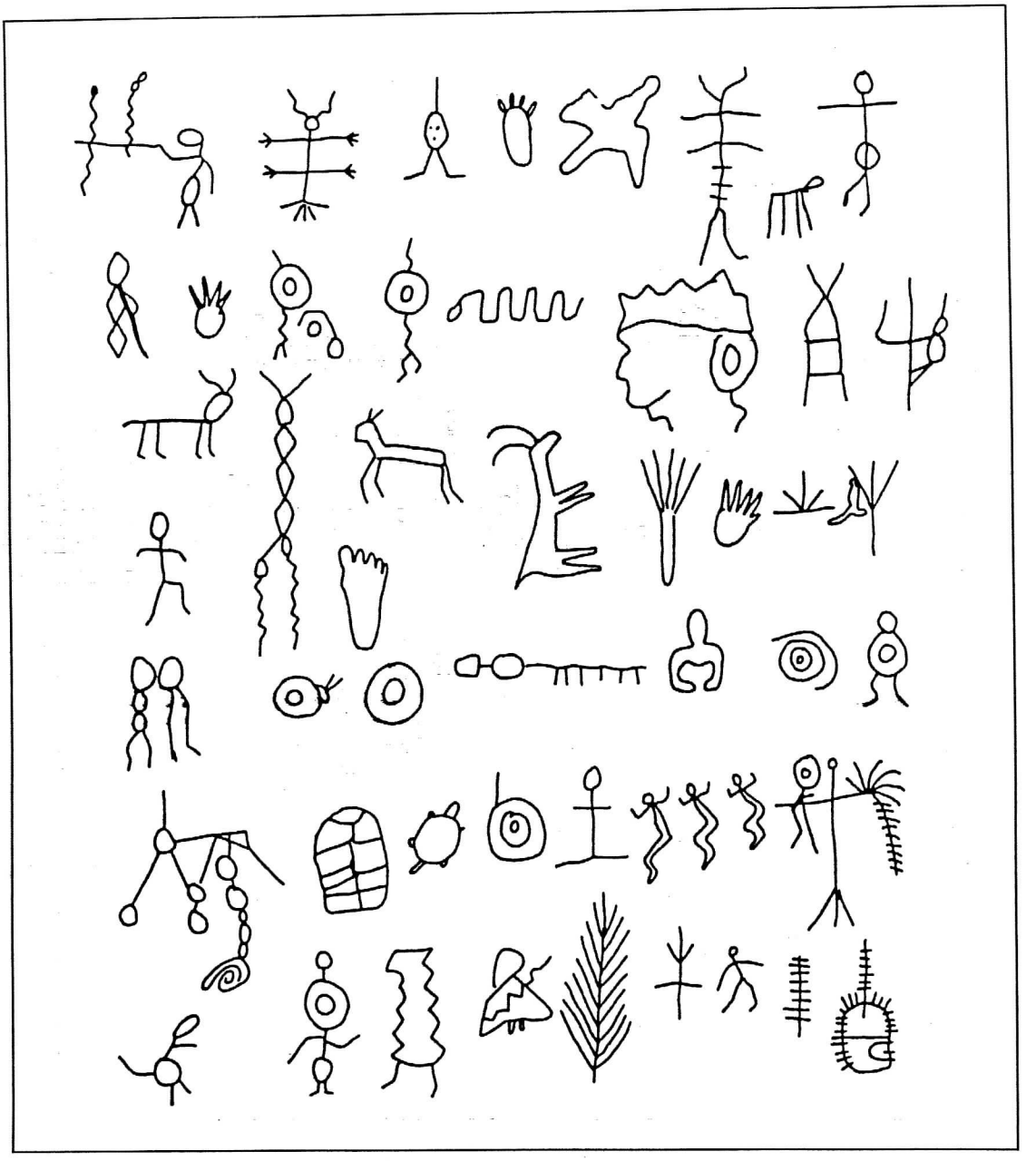


Figure 1.9 A modern Piman Native American drawing of rock art found at Hedgpeth Hills, Maricopa County (Bruder 1983).

Many Native Americans view rock art sites as sacred. The sacred nature of the place may be derived from the rock art itself or may be perceived because of the location of the site or the activities that took place there, with the rock art perhaps adding to the sacred aspect. Because of the sacred nature of rock art, Native Americans seek to find ways to preserve the sites and also to teach their own people about them, typically by taking younger individuals to the sites and discussing tribal traditions.

Recently, Arizona State University hosted a meeting with members of several tribes (Gila River Pima, White Mountain Apache, and T'ohono O'odham) at the Deer Valley Rock Art Center. Native Americans were asked to share their views on what the petroglyph site meant to them. The consensus was that the

rock art had been made by the ancestors of living people and that the site was sacred. It was apparent that Native American views on the reasons a site is sacred differ from those held by Non-Indians.

Individual interpretations varied. One tribal member stated that the glyphs at the site could be read like the pages of a book and that the art work told of the hunting adventures of the Hohokam. Not surprisingly, others noted that there was no standardized belief system as to what the rock art meant. An Apache informant disagreed with the interpretations of a Pima tribal member. However, both recognized the validity of their own views and those of other Native Americans.

All of the Native American participants said that rock art sites should be preserved and were dismayed at their continued destruction, noting that some of the damage was actually at the hands of tribal members. The educational potential of rock art sites for both Native Americans and others was stressed. Rock art was seen as one way to bridge the gap between past peoples and those living today, with future generations also being important. Leaders suggested that visits to rock art sites could educate and instill pride among Native American youths while at the same time honoring the memory of those who are gone.

Native American cultural resource managers have noted that cases of vandalism have increased on reservation lands. They believe that many sites are being destroyed because individuals are seeking recognition or merely because they are bored. In some cases, Native Americans have damaged rock art that they felt depicted evil spirits. By doing so, they were protecting their families. Native American cultural resource managers are developing programs to reduce looting and vandalism of archaeological sites, and several are investigating methods for reversing past damage to rock art.

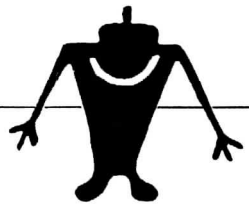
SUMMARY

Prehistoric Arizonans created three kinds of rock art: petroglyphs, pictographs, and geoglyphs. Although recognized by Euro-American travelers for hundreds of years, it is only within the last 30 years that rock art has been scrutinized by scientists. The study of rock art has been hampered by the inability to date sites; a lack of studies focused on research questions; and the feeling that examining rock art is somehow unscientific, that it is in the realm of speculation since many interpretations of rock art cannot be absolutely verified. The rise in popular interest, as well as the introduction of funding on contract projects, has forced archaeologists to study rock art, and as a result, its potential for providing valuable data is being realized. Native Americans are also being asked to contribute their understanding of rock art for the first time.

Unfortunately, these studies are occurring during a time when much rock art is in danger of destruction from looters and vandals. The general public, who visit rock art sites in increasing numbers, are gradually being made aware of the need for their preservation. One goal of this report is to educate the public at large on the reasons rock art should be preserved.

CHAPTER 2

THE STUDY OF ROCK ART



Thousands of rock art sites have been located in Arizona, and more are found every year during archaeological surveys and by hikers, hunters, and other average citizens. This chapter examines the different kinds of study that a site may undergo once it is discovered. At a minimal level, a site card can be filled out. A much bigger step is to record the site, preserving information about the images on paper and through photography. More detailed research may include attempts to date the rock art using the latest techniques or relying on older, more traditional methods. Another section of this chapter examines what previous researchers have thought about the function of rock art sites. While today's visitors may appreciate the elements as artwork, the original creator may have thought of the images in a different way. Lastly, contributions made by rock art studies to other fields are briefly explored.

DISCOVERING AND REPORTING A ROCK ART SITE

Rock art sites are found by many people. Sometimes hikers stumble across them as they stroll through the wilderness. In other cases, concerned citizens call attention to sites they have known about for years that are suddenly endangered by development. Archaeologists may discover sites during survey and inventory work. What happens when a site is found?

The first step in rock art research is to determine whether the site has been previously reported to one of the institutions that maintain site files in Arizona. Often, the state or federal agency that has jurisdiction over the property will have such records. As noted in Chapter 1, about 84 percent of the land in Arizona is owned by city, county, state, or federal governments (Walker and Bufkin 1986). Of these, the State of Arizona (through its three universities), the various National Forests, the National Parks, and the Bureau of Land Management have site files. Sites found on private land are often reported to one of the three state universities.

The Arizona State Museum at the University of Arizona and the Department of Anthropology at Arizona State University are currently active in assigning site numbers. Each uses a system whereby the state has been divided into roughly 30 quadrangles, each of which is in turn divided into 16 sections. Sites found in these smaller sections are numbered in order of their reporting to an institution. As an example, the petroglyphs that form part of the Los Morteros site near Tucson have been assigned the site number AZ AA:12:57 (ASM). This site is the 57th one recorded in section 12 of quadrangle AA in Arizona. One problem with this system is that sites can have more than one site number. There is no single statewide, centralized site database. For example, a site found on Forest Service land is assigned a Forest Service number and also could be assigned either an ASM or an ASU number (or both). Site numbers for rock art localities are listed in Appendix B. About 40 percent have been assigned ASM numbers. Most of the other sites have Forest Service, BLM, or Museum of Northern Arizona numbers.

If a discovered site has not been previously reported, a site card should be filled out. Figure 2.1 presents the revised version of the Arizona State Museum site form. A site card contains information about the physical location and condition of the site, what sorts of artifacts and architecture are present, and what culture created the site. A copy of the USGS topographical map with the site plotted is also included. This card serves as a permanent record for the site. A site number is assigned at the time the site card is created, and any paperwork or reports thereafter use the number for identification purposes. Often, a file is created where data collected on the site, including field notes, photographs, and published reports, is placed.

Side A

AZ ____ ____ ____ (ASM)

RECORDER ADMIN

Field No:_____ Recorders:_____/_____

_____/_____ NatlReg Opinion: _____

Recording Organization:_____ Date Recorded: ___/___/___

Proj. Name:_____

Site Name:_____

Land status (check one): PVT__ CTY__ CO__ ST__ TRIB__ USFS__ USFW__
NPS__ BLM__ DOD__ ACE__ BOR__ RTC__

Owner/Agency name:_____

Survey Colls: Y__ N__ Repository Inst:_____

Report Ref: _____

_____

LOCATION

Mapname USGS:_____ Series:___ State:___ County:_____ El:____ ft

Site size: (in Ft__ or M__) Length_____ Width_____ How measured: EST__ PACE__ MAP__ TAPE__

		BL	TWN	RNG	SC	SUBDIVISION
cntr UTM:	Z__ E_____ N_____					
peri UTM	Z__ E_____ N_____					
peri UTM	Z__ E_____ N_____					
peri UTM	Z__ E_____ N_____					
peri UTM	Z__ E_____ N_____					

How were UTMs derived: USGS Map____ GPS ____

INTERPRETATION

Site Description/Remarks:

AGENCY ADMIN

	Additional Documentation type	document location
Agency Site No:_____	_____	in _____
Agency Proj. No:_____	_____	in _____
Natl Reg Rec:_____	_____	in _____

ASM Site No: AZ___:___:____(ASM) ASM Proj No.: _____-____ ASM Permit No: _____-____

ASM ADMIN

ASM USE ONLY Class: __ Within AZ___:___:____(ASM)
QP __:__:__ Contains AZ___:___:____(ASM)
QP __:__:__ Biblio Ref. _____ Plotted ___/___/___ by___
QP __:__:__ Acc.No ___-____ AZSITE DE___/___/___ by___

Corrections:

ASM Site Card Rev. 12/3/93

ARIZONA STATE MUSEUM ARCHAEOLOGICAL SITE CARD

Side B

Feature Names Keyword List

1 Ash Stain
2 Artifact Scatter
3 Atalaya
4 Ball Court
5 Barn
6 Battle Site
7 Bedrock Grinding Stone
8 Bedrock Steps
9 Bin/Cist
10 Brick Kiln
11 Bridge
12 Burial/Grave
13 Burned Rock Midden
14 Cache
15 Cairn
16 Canal
17 Car Body
18 Cavate Room
19 Cemetery
20 Charcoal Stain
21 Church/Religious Structure
22 Clearing in Desert Pavement
23 Clay Quarry
24 Coke Oven
25 Compound Walls
26 Communication System, Linear
27 Constructed Linear Feature, Undefined
28 Corral
29 Cremation
30 Depression, Undefined
31 District
32 Dugout
33 Dump
34 Excavated Linear Feature, Undefined
35 Fence
36 Field
37 Field House
38 Fired Brick Structure
39 Garden
40 Graffitti
41 Grain Mill
42 Great Kiva
43 Hearth
44 Historic Settlement
45 Hogan
46 House Extant
47 House Foundation
48 Human Remains
49 Hunting Feature
50 Intaglio
51 Kiln
52 Kiva
53 Lime Kiln
54 Linear Border
55 Lithic Quarry
56 Lithic Scatter
57 Livestock Enclosure
58 Log Cabin
59 Masonry Structure
60 Midden
61 Milled Lumber Structure
62 Mine
63 Mine Waste
64 Monument
65 Mound, Structural
66 Mound, Trash
67 One Room Structure
68 Orchard
69 Ore Processing Facility
70 Ore Transport Feature
71 Outbuilding
72 Outhouse
73 Oven
74 Painted Petroglyph
75 Pecked Bedrock Depression
76 Petroglyph
77 Pictograph
78 Pithouse
79 Plaza
80 Posthole
81 Pottery Kiln
82 Public Building
83 Quarry
84 Railroad Track/Bed
85 Ramada/Shelter
86 Reservoir
87 Resource Procurement Area
88 Road/Trail
89 Roasting Pit
90 Rock Alignment, Undefined
91 Rock Feature, Undefined
92 Rock Pile
93 Rock Ring
94 Roomblock
95 Sawmill
96 Scatter, Sherd
97 Scatter, Trash
98 Shed
99 Shrine
100 Soil Control Structure
101 Spring Control Device
102 Stage Stop
103 Stockade
104 Sweat Lodge
105 Tank
106 Tent Base
107 Tower
108 Trading Post/Mercantile
109 Trailer
110 Trincheras
111 Wall
112 Water Control Device
113 Well
114 Wickiup
115 Windmill
116 Other (note in Feature Remarks)

Use, Culture, & Age Keyword Lists

Use

1 Unknown Use
2 Accidental Loss
3 Passive Accumulation
4 Observation
5 Resource Procurement
6 Agricultural
7 Manufacturing/Production
8 Conveyance/Transportation
9 Storage
10 Disposal
11 Communication
12 Monument
13 Art
14 Recreation
15 Commerce
16 Defense
17 Religious/Ceremonial
18 Government/Public Bldg.
19 Habitation
20 Subsistence/Food Prod.
21 Other (note in Feature remarks)

Cultural Affiliation*

1 Unknown
2 Native Culture
3 Native Archaeological Cult.
4 Paleoindian
5 Archaic
6 Anasazi
7 Cohonina
8 Hakataya
9 Hohokam
10 Mogollon
11 Patayan
12 Prescott
13 Sinagua
14 Casas Grandes
15 Salado
16 Trincheras
17 Extant Native Culture
18 Apache
19 San Carlos Apache
20 Tonto Apache
21 White Mtn. Apache
22 Hopi
23 Navajo
24 O'odham
25 Hia Ced O'odham
26 Tohono O'odham
27 Akimel O'odham
28 Pai
29 Havasupai
30 Hualapai
31 Yavapai
32 Seri
33 Southern Paiute
34 Tarahumara
35 Yaqui
36 Yuman
37 Chemehuevi
38 Cocopah
39 Halichidhoma
40 Halyikwamai
41 Kahwan
42 Kavelchadom
43 Maricopa
44 Mohave
45 Quechan
46 Zuni
47 Nonnative Culture
48 African-American
49 Asian-American
50 Euro-American
51 Mexican-American
52 Spanish
53 Other (please specify in Feature Remarks)

Age*

1	Unknown	
2	Post-contact	AD1500-Present
3	Recent	AD1950-Present
4	Historic	AD1500-1950
5	Post AD1700 Historic	AD1700-1950
6	Late Historic	AD1900-1950
7	Middle Historic	AD1800-1900
8	Early Historic	AD1700-1800
9	Prehistoric/HistoricTransition	AD1500-1700
10	Prehistoric	12000BC-AD1500
11	Ceramic	AD200-1500
12	Late Ceramic	AD1300-1500
13	Middle Ceramic	AD1000-1300
14	Early Ceramic	AD200-1000
15	Preceramic	12000BC-AD500
16	Preceramic/Ceramic Transition	500BC-AD500
17	Pre-500 BC Preceramic	12000BC-500BC
18	Archaic	8000BC-AD200
19	Late Archaic	1500BC-AD200
20	Middle Archaic	4800BC-1500BC
21	Early Archaic	8000BC-4800BC
22	Paleoindian	12000BC-8000BC

* Underlined terms are more general versions of the specific terms that follow.

ASM Site Card Rev. 12/3/93

ARIZONA STATE MUSEUM ARCHAEOLOGICAL SITE CARD

Figure 2.1. Arizona State Museum site card (reduced copy of new 6-page form).

Side C

Depositional Context: (choose as many as apply):

__ (1) Open, no depth
__ (2) Open, depth
__ (3) Open, depth unknown
__ (4) Open, exposed only in profile
__ (5) Rockshelter, no depth
__ (6) Rockshelter, depth
__ (7) Rockshelter, depth unknown
__ (8) Cave, no depth
__ (9) Cave, depth
__ (10) Cave, depth unk.

Topo. setting:

Vegetation:

Geology/soils:

Site Condition:

ENVIRONMENT

Site Type (choose one): __ (a) Artifact Scatter (No other features visible on the surface)
__ (b) Features with associated artifacts __ (c) Features with NO associated artifacts

Assemblage Composition (indicate quantities as counts, estimated ranges, "P" for types known only to be present, "0" for types not seen at the site.)

_____ prehis ceramic _____ FCR _____ glass _____ animal remains/artifacts
_____ chipped stone _____ shell _____ metal _____ plant remains/artifacts
_____ grnd stone _____ hist ceramic _____ hist wood _____ human remains

Diagnostics (indicate quantity of cultural/temporal/functional types as counts, estimates, or "P")

___ _____ ___ _____ ___ _____
___ _____ ___ _____ ___ _____
___ _____ ___ _____ ___ _____
___ _____ ___ _____ ___ _____

Assemblage Remarks:

ARTIFACTS

Feature Data: (Complete one feature record for each type of feature recorded for this site.)

Feature No. 1 Name[1] | Count | Use[2] | Culture | Age[2] | Period/Phase[3]

Feature Remarks:

Feature No. 2 Name[1] | Count | Use[2] | Culture | Age[2] | Period/Phase[3]

Feature Remarks:

FEATURES

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AZ ____ ____ ____ (ASM)

ARIZONA STATE MUSEUM ARCHAEOLOGICAL SITE CARD

Side D

Feature Data: (Complete one feature record for each type of feature recorded for this site.)

Feature No.___ Name[1] | Count | Use[2] | Culture | Age[2] | Period/Phase[3]

Feature Remarks:

Feature No.___ Name[1] | Count | Use[2] | Culture | Age[2] | Period/Phase[3]

Feature Remarks:

Feature No.___ Name[1] | Count | Use[2] | Culture | Age[2] | Period/Phase[3]

Feature Remarks:

Feature No.___ Name[1] | Count | Use[2] | Culture | Age[2] | Period/Phase[3]

Feature Remarks:

Feature No.___[4] Name[1] | Count | Use[2] | Culture | Age[2] | Period/Phase[3]

Feature Remarks:

FEATURES

1. See Feature Names Keyword List.
2. See Use, Culture, & Age Keyword List for choices for these fields.
3. Open field, enter any appropriate Period/Phase name.
4. Attach sheets as necessary for additional features.

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AZ ____ ____ ____ (ASM)

ARIZONA STATE MUSEUM ARCHAEOLOGICAL SITE CARD

Figure 2.1. Continued.

AZ ____:____:______(ASM)

Side F

ARIZONA STATE MUSEUM ARCHAEOLOGICAL SITE CARD

Site Location (Include scale)

ASM Site Card Rev. 12/3/93

AZ ____:____:______(ASM)

Side E

ARIZONA STATE MUSEUM ARCHAEOLOGICAL SITE CARD

Planview/Profile

ASM Site Card Rev. 12/3/93

KEY: Site Boundary
Drainage
Fence
Road
Artifact Concentration /////
Indicate North
Indicate Scale

Figure 2.1. Continued.

In many cases, a site has been reported, but the site card is incomplete or inaccurate. Additional data can be added to the site files to update them. In the case of rock art sites, the previously recorded information is crucial. This data can help determine whether the site has lost rock art since originally reported, and whether the site was completely recorded. Photographs taken during the original reporting can be compared to the current condition of the site to document vandalism or erosion. The data on the site card should be reviewed for accuracy, and corrections made when needed.

Although not called for on the site form, recorders should evaluate the National Register eligibility of the site. At the time of the recording, observations on the integrity of the site can be made, as well as whether the site meets any of the four criteria for eligibility. Most rock art sites would qualify due to their artistic merit and potential for providing knowledge on the prehistory or history of an area. As well, many may be considered as Traditional Cultural Properties. Chapter 5 discusses these issues in detail.

This study utilizes site data retrieved from a number of institutions and agencies, as noted in Chapter 1. Research assistant Roberta Serface entered collected data into a computer database, which is presented in Appendix B. Site locations have been deliberately removed from the appendix; however, they will be available to professional researchers through the State Historic Preservation Office (SHPO).

ROCK ART RECORDING

What happens to a rock art site after discovery varies. Most are left alone, with no scientific study taking place. Currently, more than 2,300 rock art sites have been identified in the State of Arizona, but less than 200 have been studied with published reports available to interested parties. Considering that many more rock art sites remain unreported, it is obvious that the majority of Arizona's rock art sites have not been recorded or studied.

Recording is the process by which data on rock art elements are transferred to coding sheets, drawn, and photographed. These data have great value because they serve as permanent records of what rock art was present at a specific time, they allow researchers to study the site while physically removed from it, and they give future researchers the opportunity to restudy the site. Recording is a serious endeavor that takes time, energy, and skill, and a person needs to be trained in methodology prior to attempting a recording project. Several organizations conduct field schools where appropriate techniques for rock art recording are taught. Enrolling in one of these programs provides training in the subject and opportunities to visit and record rock art sites throughout the state. The Arizona Archaeological Society typically holds one such field school every year.

What information should be recorded for a rock art site? The kinds of data used by researchers vary from study to study; therefore, a complete recording of each site is essential. Typically, this includes an element-by-element inventory, with drawings and photographs produced for each. While this may be easy to accomplish for small sites, larger rock art sites present a problem. Collecting data on hundreds or thousands of images can only be accomplished by careful planning and coordination. Perhaps the most important step in recording rock art is to develop a set of goals to guide research prior to the start of a project. Rock art recording should be more than just creating an inventory of elements. Instead, researchers should assemble a set of questions and attempt to answer them with the data they collect. These questions can be complex ones, such as attempts to identify statistical relationships between particular sets of elements and kinds of nearby sites, to quite simple ones, such as a comparison of the number of animal figures in low-elevation versus higher-elevation sites in order to plot the distribution of animal images.

Recording at a rock art site should begin with a survey in order to determine the site boundaries. All rock surfaces in the area should be examined for rock art. If possible, this should take place under varying lighting conditions because some rock art and ground figures may be practically invisible at certain times of the day. The ground surface around rock areas should also be studied to determine whether artifacts

are present. The location of these artifacts should be mapped in, and the kinds present identified. *Diagnostic* artifacts should be described, drawn, and photographed because these may be useful in assigning a date to the rock art site.

Recording systems have changed throughout the years. The need for complete and accurate records has forced rock art analysts to collect more and more detailed data. Early rock art researchers were interested primarily in the location of rock art and a brief idea of the kinds of images present. While providing baseline data that allowed researchers to identify the great diversity of rock art in the country, sites could not be directly compared with each other. Figure 2.2 presents a form and coding index used during the Painted Rock Survey (Wallace 1989).

In 1962, Heizer and Baumhoff published the first major study that used systematically collected data to answer questions relating to cultural change and the function of the elements. Heizer and Baumhoff visited over 100 sites in Nevada and eastern California. At each rock art location, they drew maps plotting the location of the rock art, sketched and photographed most elements, and classified each according to 58 categories. Heizer and Baumhoff were particularly interested in techniques used to draw petroglyph elements. They relied on one method that is no longer used—chalking in elements. Researchers used to chalk petroglyph (and even pictograph) images in order to allow them to be more visible in photographs. They reasoned that the chalk would weather away after a short period of time, and that it did not damage the elements. This has been shown not to be the case. Additionally, the use of chalk to enhance photographs added observer biases. People may chalk in what they think they see, leaving out or adding details. An alternative for chalking is to photograph rock art at different times of the day or under various lighting conditions.

Few, if any, sites in Arizona were recorded prior to the 1960s. Christy Turner (1963), Cheryl White (1965), and Ernest Snyder (1966) were pioneers in rock art studies. However, Alan Ferg's 1979 study of the Tumamoc Hill petroglyphs was the first major rock art study to be published that contained a detailed description of the recording techniques used.

In Ferg's study, recording started with the careful mapping of each boulder containing rock art. Each boulder face was treated separately, and the horizontal and vertical positions of petroglyphs were determined, as was the direction that the glyphs faced. The intrasite elevation for each glyph was noted, and clusters of boulders were grouped together for further analysis. While Ferg did not find a relationship between elevation and rock art, it is possible that one could exist. For example, certain plant species grow at specific elevations. If rock art was associated with plant collection, this might be visible through a comparison of rock art and plant elevations. The fact that elevation was recorded by Ferg makes future studies, based on questions like these, possible.

Freehand drawings and photographs were made for each glyph, where possible. The site was visited several times in different lighting conditions in order to view glyphs that might have been invisible at other times.

Ferg (1979) used a modified version of Heizer and Baumhoffs' element categories. Other researchers have used these categories, mainly because the use of a set of element names allows for comparisons to be made among sites (Wallace 1989). The use of classification systems is complicated by the fact that elements vary from site to site. One must consider whether to lump elements together (for instance, placing circles and ovals together) or to split them apart (keep circles and ovals separate) when reporting element frequencies. Ferg solved this problem by presenting a hierarchical or layered approach when reporting the kinds of images found at Tumamoc Hill. The lowest level consisted of counts of all the individual kinds of elements. Levels 2 and 3 lumped similar elements together. The last level splits elements into three broad categories (anthropomorphs, zoomorphs, and geometrics). Reporting elements in this fashion, as well as illustrating the kinds of elements, allows others to use the information, an important step in a field where little is known about element frequencies at many of the major sites. Because elements differ across broad geographic areas, new element categories may have to be created. Figure 2.3 presents some of Ferg's element classes.

FIELD NO.: HJ-16

PETROGLYPH SITE DATA ASM NO: T:13:69

No. Clusters: 1 Isolated boulder.

No. Panels: 3 Estimated panel count error: 0 (20% lg. rocks, 40% small rocks)
approx. 25 elements.

Superimposition Present? NOT READILY VISIBLE

Repecking Present? NOT READILY VISIBLE

Multiple Levels of Petroglyph Repatination? NOT READILY VISIBLE (BOULDER WAS VIEWED IN POOR LIGHT CONDITIONS)

Petroglyph Styles: GLA

Rock Type(s) and Patina Variability: ANDESITE. FAIRLY HIGH VARIABILITY. RECENT EXFOLIATION NEAR TOP. PATINA IS NOT COMPLETELY DEVELOPED OVER PANELS

Panel Sizes, Characteristics:
PANELS APPROXIMATELY 1m x 60cm. ORIENTED WITH TALL SIDE VERTICAL. PETROGLYPHS LOCATED ON 3 OF 4 SIDE PANELS

Associated Cultural Features:
TRAIL 3 m UPSLOPE (WEST) OF BOULDER. POSSIBLE SHRINE NEAR NW SIDE OF BOULDER. SHRINE CONSISTS OF NUMEROUS ROCKS OF VARYING ROCK TYPE (SOME FOREIGN) IN A SCATTERED PILE AROUND THE WEST AND N.W. SIDES OF BOULDER. TRAIL SPLITS HERE WITH ONE LEG DESCENDING FAN CREST AND THE OTHER CONTINUING ROUGHLY ALONG CONTOUR TO THE SOUTH.

Associated Water Resources:
~.5 KM TO N. EDGE OF GILA RIVER FLOODPLAIN. ~2 KM TO PRESENT DAY G.R.

Impacts from Inundation:
NONE

Vandalism: NONE

Other Impacts to Site:

Comments: ISOLATED
BOULDER IS IN PROMINENT POSITION AT THE TOP OF A COLLUVIAL FAN DESCENDING (NORTHEASTWARD) FROM POINT OF ROCK MOUNTAIN, APPROXIMATELY 200-300 m SE OF SADDLE BETWEEN P-O-R MOUNTAIN AND FORTALEZA MESA. OTHER BOULDERS FOUND 20-30 m FROM THIS BOULDER - GENERALLY ABOVE TRAIL. THIS WOULD BE THE MOST LIKELY BOULDER TO HAVE PETROGLYPHS IN THIS LOCALE, BOTH BECAUSE OF ITS ISOLATED PROMINENCE AND HIGHLY FAVORABLE PANELS.

PAINTED ROCKS PETROGLYPH PROJECT — ROCKWORK FEATURES
Field Site No.: PR-_____ ASM SITE NO. AZ T : 14 : 33
Recorded By: _____ Date: 12 / 11 / 1987

2 Feature Type: 2 1=Rockshelter, 2=Trinchera, 10=Talus Pit
3 Cluster: Is
4 Feature No.: 2

SIZE: (Put -9 if inapplicable)
5 Interior max. Length: 1 m.
6 Interior max. Width: 1 m.
7 Interior max. Ht.: .34 m.
8 Max. Interior Depth: -9 m. (Entrance to rear wall in shelters)
9 Wall Ht. max.: .34 m.
10 Wall Ht. min.: 0 m.
11 Wall Ht. mean: .2 m.
12 Opening Dia. 1 (Ht.): -9 m. (Only shelters and talus pits)
13 Opening Dia. 2 (Width): -9 m. (Only shelters and talus pits)

ADDITIONAL ATTRIBUTES:
14 Wall Preservation: 1 1=Collapsed, 2=Disturbed, 3=Nearly Intact. Describe:

15 Max. No. of courses in wall: 2
16 Natural bedrock or boulders used in wall construction? 1
1=yes, 0=no
17 Any wall rocks caliche covered? yes Describe locations: 1 sm. one - may be disturbed

FLOOR ATTRIBUTES:
18 Max. Soil depth: <10 cm.
Describe Soil Composition: silt with rocks

Special Attributes:

ASSOCIATED ARTIFACTS:
19 Ceramics: _____ 0=absent, 1= 1-10, 2= 11-50, 3=>50 sherds.
List Diagnostics:
20 Lithics: 1 quartz flake 0=absent, 1= 1-10, 2= 11-50, 3=>50 flakes.
21 Hammerstone: _____ 0-n
22 Pestle: _____ 0-n Pestle No.: _____
23 Mano: _____ 0-n Mano No.: _____
24 Agave Knives: _____ 0-n
25 Choppers: _____ 0-n
26 Ground Stone: _____ 0-n
27 Ground Stone Type: _____ If 9, List:
1 = Metate, type unknown 8 = Slab Metate
6 = Trough Metate 9 = >1 Ground Stone Type
7 = Basin Metate -9 = Indet.
B&W Photos: (If >1 photo, list them)
28 Roll: _____
29 Frame: _____

ASSOCIATED FEATURES:

	Fea1	Fea2	Fea3	Fea4	Fea5	Fea6	Fea7
Type	30 14	34	38	42	46	50	54
Cluster	31 I	35	39	43	47	51	55
No. in Cluster	32 4	36	40	44	48	52	56
Specific Assoc.	0						
No. Spec. Assoc.	33 0	37	41	45	49	53	57

Use seperate sheet for general summary of feature, if necessary.

Too small for sleeping circle. Setting is promising for a hunting blind.

Figure 2.2. Form and coding index used during the Painted Rock survey (Wallace 1989).

CODING INDEX FOR CLASS I PETROGLYPH ANALYSIS

BOULDER/PANEL DATA[a]

ASM Site No. ASMSITE[b]: Mark in upper right corner of form.
CLUSTER: A to n per site.
BOULDER: 1 to n per cluster.
PANEL: a to zz per boulder.
FACING: Direction towards which the panel faces, measured in whole numbers from Ø to 360° with Ø representing true north.
Inclination INCLIN: Angle from horizontal towards which the panel is raised, measured in whole numbers from Ø to 180° with Ø representing horizontal, 90° representing vertical (upright), and anything between 90° and 180° signifying an overhang.
Patination - Panel PATINPAN: This is an average taken for either the panel as a whole, or the portion of the panel chosen for glyph making if there are differences.

-9. Indet.
Ø. None (sharp edges)
1. Light (no chemical weathering)
2. Medium (has chemical staining)
4. Incipient varnish
5. Complete varnish

Surface Texture SURFTEX: This is an average taken for either the panel as a whole, or the portion of the panel chosen for glyph making if there are differences.

1. Smooth
2. Intermediate
3. Rough

Note Concerning Panel and Boulder Measurements: All panel and boulder measurements in the following variables are taken in cm. (whole numbers), and are intended to provide average measures that could be used to determine the approximate area of a panel and volume of a boulder. Note that bedrock outcrops are dealt with under boulder measures with a "-9".

Panel Size 1 (Width or Horizontal Axis) PANSIZE1
Panel Size 2 (Height or Vertical Axis) PANSIZE2
Boulder - Vertical Measurement BVERT
Boulder - Horizontal Measurement 1 BHORI1
Boulder - Horizontal Measurement 2 BHORI2

NOTES3

[a]This form is used in addition to the general Class II Coding Form 2.Ø to record Class I sites. This form is used specifically at the PANEL rather than the ELEMENT level of recording.
[b]Capitalized names are variable names used in computer analyses.

Figure 2.2. Continued.

CODING INDEX FOR CLASS II PETROGLYPH ANALYSIS

ASM Site No. ASMSITE[a]: Mark in upper right corner of form.
CLUSTER: A to n per site.
BOULDER: 1 to n per cluster.
PANEL: A to zz per boulder.
Element No. ELEMENT: 1 to n per panel.
Element Category ELCATEG: See design element coding index.
Element Elaboration ELELAB: Only to be used for the ELCATEGS marked with an asterisk on the ELCATEG coding index.
-9. Don't know if elaborated
0. Not elaborated
1. Elaborated
Element Class ELCLASS:
-9. Not assignable or ambiguous designs
1. Anthropomorph
2. Other Life Forms
3. Other Representational
4. Abstract
7. Scratched Petroglyphs
8. Historic
Patination-Element PATINA:
-9[b]. Indet.
0. None (sharp edges)
1. Light (no chemical weathering)
2. Medium (has chemical staining)
4. Incipient varnish
5. Complete varnish
PERIOD: If this does not correspond to PATINA, say why in NOTES.
0. Prehistoric (non-Archaic)
1. Historic or recent (includes graffiti)
2. Indet. historic or prehistoric
3. Possibly historic
5. Possible non-Hohokam prehistoric
8. Archaic
9. Possible Archaic
Execution of Element EXECUT:
-9. Indet.
1. Scattered dints
2. Pecked
3. Ground, or ground and pecked, or pecked to a point at which the design looks ground
4. Scratched
5. Scratched and pecked
6. Painted
7. Painted and pecked
8. Abraded
Weathered - Element ELWEATHER: Only marked if element has received impacts from non-patination related processes (e.g. spalling, scouring, etc.).
0. No element weathering
1. Yes, element is weathered
Lichen - Element ELLICHEN: Coded as 1 if lichens are present on top of (within peck marks of) design.
Lichen - Panel PANLICHEN: Coded as 1 if lichens are present on panel.
ROCKTYPE:
1. Felsite
2. Granite
3. Gneiss
4. Metasediments
5. Quartzite
6. Schist
7. Dacite
8. Diabase
9. Diorite/ Granodiorite
10. Latite
11. Monzonite
12. Andesite
13. Basalt
14. Ignimbrites
15. Rhyolite
16. Arkose/Silt/Mudstones
17. Limestone
18. Sandstone
19. Metavolcanic
Slope Height SLOPEHT: Position of boulder on hillside. Codes relate to the slope upon which the CLUSTER is located. It is a relative term not to be used in relation to mountains as a whole.
-9. Moved from original position, original location when glyph was made is unknown
1. Base of slope
2. Lower 1/3
3. Middle 1/3
4. Upper 1/3
5. Top
Vandalism - Element ELVAND1 and ELVAND2: If two of the codes apply, they are placed under ELVAND1 and ELVAND2. If more than two, the remainder are listed in the Continuation File (separate form).
1. Bash marks, abrasion, rock fall scrapes, scratches
2. Gunshots
3. Graffiti - scratched or pecked
4. Graffiti - painted
5. Broken - Portion of element missing

Figure 2.2. Continued.

Vandalism - Panel PANVAND1 and PANVAND2: If two of the codes apply, they are placed under PANVAND1 and PANVAND2. If more than two, the remainder are listed in the Continuation File form.

1. Bash marks, abrasion, rock fall scrapes, scratches
2. Gunshots
3. Graffiti - scratched or pecked
4. Graffiti - painted
5. Broken - Portion of panel missing
6. Boulder moved from original position
7. Broken - Complete panel is present on the remaining portion

Reevaluate this Design REEVAL: Place a one for this variable is there is some reason to want to pull this record for reconsideration. In most instances, a sketch of the design is necessary. If a design is thought to be non-Hohokam, non-Archaic, or non-Protohistoric (i.e. not typical of the Hohokam culture area), it should be coded with a one in this slot.

Superimposition SUPERPO1 and SUPERPO2: List element number this element overlies. Note that this space is left blank for the lowermost or oldest element. For the first 2 superimposed designs, list them under SUPERPO1 and SUPERPO2. If more than two, list them on the Continuation File form.

Repecking REPECK: List element number that is repecked. Note that this space is left blank for the original element.

Panel Integration PANINTEG: Number cases of panel integration consecutively by site. Ex: all elements involved in the second case of panel integration documented at Site X would be coded as "2."

Possible Element ELPOSS: Code as a one if there is uncertainty whether the element being coded, is in fact a design that was incorporated into a particular case of panel integration. It only refers to panel integration.

Number Indistinguishable NUMIND: Code as one if the number of elements involved in the particular case of panel integration being considered cannot be determined. Applies only to panel integration cases.

Feature Type FEATYPE1 and FEATYPE2: Select code for the primary associated feature and fill in FEATYPE1. If there are two associated features, place second feature code under FEATYPE2. If more than two, list them under FEATYPE variables on the Continuation Form.

1. Rockshelter
2. Trinchera
3. Trail
4. Quarry
5. Mortar
6. Trough metate
7. Basin metate
8. Slab metate
9. Cupule
10. Talus pit
11. Seep spring
12. Tinaja
13. Check dam, field system, contour terrace
14. Petroglyph (not used when coding a petroglyph panel)
15. Historic features
16. Small rockshelter or overhang
17. Structures (i.e. pithouses, etc.)

Feature Number FEANUM1 and FEANUM2: Fill in the cluster or number designation for the primary feature under FEANUM1. For clustered features, put only the cluster designation. If there are specific associated features within this cluster, list these under "Notes". For isolates, put the IS number. For multiple associated features, the second Feature No. is placed under FEANUM2 (corresponding to FEANUM2) and if more than 2, they are placed under the FEANUM categories on the Continuation Form.

Framing - Element FRAMEEL: Fill in Element No. of element framing this element. List only under elements which are framed. For the framing element, code this space with a "99".

Framing - Panel FRAMEPAN: Code with a one if the panel upon which this element is situated is framed.

Mirror Images MIRROR: Code with a one if this element is one of two "paired" or "mirror" images.

Rock Topography ROCKTOPO: Code with a one if rock topography is used as part of this design.

Obliteration - Element ELOBLIT: Code with a one if there is prehistoric defacement or obliteration of element.

2 Panels - Element TWOPAN: Code with a one if glyph extends onto two panels. Orientation and other panel information only recorded for primary panel.

ADD-ON ADDON: Code with a one if this glyph is an "add-on" to a previous element (this is recorded as a case of repecking).

Obscured - Panel OBSCURE: Code with a one if a portion of this panel is obscured which has or may have glyphs.

Faded - Elements FADED: Code with a one if there are additional glyphs present, but they are too faded or weathered to ascertain numbers or categories represented.

Boulder Moved BMOVE: Applies only to movement after glyph made.

-9. Indet. whether moved or whether moved after glyph made
0. Not moved
1. Moved in prehistory
2. Moved historically or recently (does not include vandalism)
3. Moved prehistorically and historically or recently (i.e. 2 episodes of movement)
4. Moved, indet. time
5. Prehistoric or Protohistoric

Element Broken ELBREAK:

-9. Indet. whether broken after glyph made
0. Not broken
1. Broken in prehistory
2. Broken historically or recently (does not include vandalism)
3. Broken prehistorically and historically or recently (i.e. 2 episodes of breakage) (does not include vandalism)
4. Broken, indet. time
5. Prehistoric or Protohistoric

Parent Boulder PARENTB: Applied only to boulders which have clearly broken off of another boulder which has glyphs and has been numbered. Put the boulder number this boulder originated from on the coding sheet.

-9. Broken, but don't know origin or don't care
0. Either an unbroken boulder, or a broken parent or original (source) boulder.

[a]Capitalized names are variable names used in computer analyses.
[b]"-9's" are used to signify missing data in the computer analyses and so will generally mean an indeterminate or ambiguous attribute value.

Figure 2.2. Continued.

PAINTED ROCKS PETROGLYPH PROJECT ASM SITE NO.: AZ T : 14 : 8
CLASS I BOULDER/PANEL DATA FIELD SITE NO.: PR-
CODING FORM 3.0

CLUSTER	D	D	D	D	D	TS	E	E	E	E
BOULDER	10	10	10	11	11	5	99	99	102	102
PANEL	a	b	c	a	b	a	a	b	a	b
FACINGº	40	40	37	32	34	289	-9	-9	82	347
INCLINº	83	89	80	84	80	35	-9	-9	20	70
PATIN-PAN.	2	2	2	4	4	4	5	5	4	4
SURFACE TEX.	2	2	2	2	2	2	2	2	2	2
PAN. SIZE1 (W)	46	77	41	39	41	47	35	67	37	36
PAN. SIZE2 (H)	67	47	60	50	70	42	29	33	37	57
BOUL VERT.	-9	-9	-9	-9	-9	-9	38	38	79	79
BOUL HORI. 1	-9	-9	-9	-9	-9	-9	60	60	51	51
BOUL HORI. 2	-9	-9	-9	-9	-9	-9	65	65	30	30

NOTES3:

PAINTED ROCKS PETROGLYPH PROJECT ASM SITE NO.: AZ T : 14 : 8
CLASS II DATA CODING FORM 2.0 FIELD SITE NO.: PR-
RECORDER: JFH DATE: 12 / 1 / 87

CLUSTER	F									
BOULDER	1	2	3	6	7	7	8	10	10	47
PANEL	a	a	a	a	a	a	a	a	a	a
EL. NO.	1	1	1	1	1	2	1	1	2	1
EL. CATEG.	1	-9	205	417	449	440	449	800	800	-9
EL. ELAB.	1									
PATINA-EL.	2	2	1	1	4	2	2	1	1	1
PERIOD-EL.	0	0	2	2	9	0	0	1	1	2
EXECUTION-EL.	2	2	2	2	2	2	2	4	4	2
WEATH-EL.										
LICHEN-EL.										
LICHEN-PAN.										
ROCK TYPE	6	6	6	6	6	6	6	6	6	6
SLOPE HT.	4	4	4	4	4	4	4	4	4	5
VANDAL-EL. 1										
VANDAL-EL. 2										
VANDAL-PAN. 1						1				
VANDAL-PAN. 2										
REEVALUATE		1								
SUPERPO 1										
SUPERPO 2										
REPECK										
PAN. INTEG.										
POSSIBLE EL.										
NO. INDIST.										
FEA. TYPE 1										
FEA. NO. 1										
FEA. TYPE 2										
FEA. NO. 2										
FRAME-EL.										
FRAME-PAN.										
MIRROR										
ROCK TOPO.										
OBLIT.-EL.										
2 PANEL										
ADD-ON										
OBSCURED-PAN.										
FADED-ELS.										
B.-MOVE										
EL.-BREAK										
PARENT B.										

NOTES: SEISMIC EVIDENCE [ON TAPE THAT WAS TAKEN FROM CAMERA] TOM GAIL KEVIN GAIL [PROBABLY KEVIN]

Figure 2.2. Continued.

PAINTED ROCKS PETROGLYPH PROJECT
CODING FORM 2.0

ANTHROPOMORPH/LIZARD ANALYSIS

ASM SITE NO.: AZ T:14:8

FIELD SITE NO.: PR-

CLUSTER		E	E	E	E	E	E	E	E	E	E
BOULDER		108	110	111	123	113	128	133	135	125	135
PANEL		b	a	a	a	a	a	b	a	c	c
EL. NO.		2	1	4	1	1	1	1	1	3	4
PAN. INTEG.								7			
REPECK EL.											
REEVAL.			1					1			
ARM ORI.	-9. Indet. 1. Up 2. Down 3. Straight out 4. One up, one straight 5. One up, one down 6. Connected up 7. Connected down 8. Arm curl down 10. Arm curl up 11. Both arms to one side (i.e. profile) 12. One straight, one connected down 13. Wavy	2	2	1	1	2	3	1	1	1	1
ARM STYLE	-9. Indet. 1. Curvilinear 2. Rectilinear 3. Part curvilinear, part rectilinear	1	1	1	1	2	2	1	2	1	1
ELBOW				1	1				1	1	1
KNEE			1	1					1	1	
LEG ORI.	-9. Indet. 1. Down 2. Straight out 3. Up 4. One up, one down 5. Connected down 6. Wavy 7. Legs curl up 99. Other	1	3	3	3	1	1	1	1	1	2
LEG STYLE	-9. Indet. 1. Curvilinear 2. Rectilinear 3. Part curvilinear, part rectilinear	2	2	1	2	2	2	1	1	2	2
HAND	-9. Indet. 1. Blob 2. 2 Fingers 3. 3 Fingers 4. >3 Fingers 5. Indeterminate form 7. Line 99. Other										
TOE	-9. Indet. 1. Blob 2. 2 Toes 3. 3 Toes 4. >3 Toes 5. Indeterminate form 7. Line 99. Other										
HEAD	-9. Indet. 1. Solid 2. Hollow 3. Line only 99. Other	-9	1	1	1	1	3	2	1	1	1
BODFORM	-9. Indet. 1. Stick 2. Expanded midbody, hollow 3. Expanded midbody, solid 4. Full body 5. Hourglass 6. Triangle 7. Other	4	3	1	3	3	1	1	1	1	1
TAIL	-9. Indet. 1. < Longest leg 2. > Longest leg 3. Problematic (approx. equal to longest leg)	1	-9	2	2	2	1	3	3	3	1
INTERP	1. Anthropomorph 2. Lizard 3. Problematic	1	3	2	2	2	1	1	1	1	1
ELAB	0. No 1. Yes	1		1				1		1	
ELAB. NOTE		17		17				4,18		5	

NOTES:

PREVIOUSLY BURNED

TAIL UNCLEAR

TAPERING TAIL

TAPERING TAIL

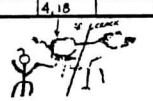


Figure 2.2. Continued.

ANTHROPOMORPH CODING INDEX

SITE
CLUSTER
BOULDER
PANEL
Element Number ELNUM

Panel Integration No. PANINTEG (Same as on Class II Form) - Not used

Repecking REPECKEL - Not used

Reevaluate this element REEVAL
- 0. No
- 1. Yes

Arm Orientation ARMORI
- -9. Indet.
- 1. Up
- 2. Down
- 3. Straight out
- 4. One up, one straight
- 5. One up, one down
- 6. Connected up
- 7. Connected down
- 8. Arm curl down
- 10. Arm curl up
- 11. Both arms to one side (i.e. profile)
- 12. One straight, one connected down
- 13. Wavy

Arm Style ARMSTYLE
- -9. Indet.
- 1. Curvilinear
- 2. Rectilinear
- 3. Part curvilinear, part rectilinear

Elbow ELBOW
- -9. Indet.
- 0. Absent
- 1. Present on 1 or both arms

Knee KNEE
- -9. Indet.
- 0. Absent
- 1. Present on 1 or both legs

Leg Orientation LEGORI
- -9. Indet.
- 1. Down
- 2. Straight out
- 3. Up
- 4. One up, one down
- 5. Connected down
- 6. Wavy
- 7. Legs curl up
- 99. Other

Leg style LEGSTYLE
- -9. Indet.
- 1. Curvilinear
- 2. Rectilinear
- 3. Part curvilinear, part rectilinear

Hand/fingers HAND
- -9. Indet.
- 1. Blob
- 2. 2 Fingers
- 3. 3 Fingers
- 4. >3 Fingers
- 5. Indeterminate form
- 7. Line
- 99. Other

Feet/toes TOE
- -9. Indet.
- 1. Blob
- 2. 2 Toes
- 3. 3 Toes
- 4. >3 Toes
- 5. Indeterminate form
- 7. Line
- 99. Other

Head Form HEAD
- -9. Indet.
- 1. Solid
- 2. Hollow
- 3. Line only
- 99. Other

Body Form BODFORM
- -9. Indet.
- 1. Stick
- 2. Expanded midbody, hollow
- 3. Expanded midbody, solid
- 4. Full body
- 5. Hourglass
- 6. Triangle
- 7. Other

Tail/Phallus TAIL
- -9. Indet.
- 1. < Longest leg
- 2. > Longest leg
- 3. Problematic (approx. equal to longest leg)

Interpretation INTERP
- 1. Anthropomorph
- 2. Lizard
- 3. Problematic

Elaborations Present ELAB
- 0. No
- 1. Yes

Type of Elaboration ELABNOTE
- 1. Hair
- 2. Arc over head
- 3. Arc between legs
- 4. Miscellaneous head
- 5. Extra body appendages
- 6. Circle over head or shoulder
- 7. Circle beside body
- 8. Circle between legs
- 9. Circle in hand
- 10. Bow (and arrow)
- 11. Stick/spear
- 12. Flute
- 13. Circle on line (attached to hand)
- 14. Maze line (meander attached to hand)
- 15. Testicles
- 16. Vulva
- 17. Upside-down
- 18. Scene
- 19. Elongated arms and/or legs
- 20. Circle on phallus or tail
- 21. Other circle
- 23. Horizontal
- 24. Maze line attached to head
- 99. Other elaboration

NOTES

PAINTED ROCKS PETROGLYPH PROJECT
CODING FORM 2.0

ZOOMORPH ANALYSIS

ASM SITE NO.: AZ T:14:8

FIELD SITE NO.: PR-

CLUSTER		B	D	E	15	E	E				
BOULDER		6	11	17	5	133	135				
PANEL		a	b	a	a	b	a				
EL. NO.		1	1	2	3	2	2				
PAN. INTEG.											
REPECK EL.											
REEVAL.											
BODFORM	-9. Indet. 1. Stick 2. Boat, Down, Hollow 3. Boat, Down, Solid 4. Boat, Up, Hollow 5. Boat, Up, Solid 6. Expanded Midbody, Hollow 7. Expanded Midbody, Solid 8. Blob 10. Curved Boat, Hollow 11. Curved Boat, Solid 99. Other	7	2	3	3	7	1				
MOUTH	-9. Indet. 1. Open 2. Closed	2	-9	1	2	-9	-9				
HORN	-9. Indet. 0. No Horns or Antlers 1. Antlers 2. Horns curved to back 3. Horns curved to front 4. Horns curved both to back and front 5. Present, but indet. if horns or antlers or ANTS	5	5	5	-9	-9	-9				
LEGS	-9. Indet. 1. 2 Legs 2. 3 Legs 3. 4 Legs 4. >4 Legs	1	-9	3	1	-9	1				
KNEES											
FEET	-9. Indet. 0. No Feet 1. Blob 2. Hooves 3. 3 Toes 4. >3 Toes 5. Line 6. Claws/Curved Toes	0	0	5	0	-9	0				
TAIL	-9. Indet. 0. No Tail 1. Straight Out 2. Curved or Angled Up 3. Curved or Angled Down	2	2	2	3	-9	2				
FACE DIR.	-9. Indet. 1. Faces Left 2. Faces Right	2	1	2	2	1	2				
ORIENT	-9. Indet. 0. Right-side Up 1. Upside Down 2. Tail Down 3. Head Down	0	0	-9	0	0	0				
MAT. CUL.	-9. Indet. 0. None present 1. Arrow or Spear 99. Other (list under notes)	0	-9	0	0	-9	0				
INTERP.	-9. Indet. / Problematic 1. Sheep 2. Deer 3. Dog 4. Cat 5. Sheep or Deer (Unidentified game animal) 99. Other	-9	-9	-9	-9	-9	-9				
SCENE	0. Either don't know or is not part of a scene 1. Hunting Scene 2. Herd Scene (i.e. group of zoomorphs) 3. Possible Scene (whatever type) 99. Other Scene	0	0	0	0	3	0				
ANTHROP						1					

NOTES:
E&I - SIDE VIEW OF ANIMAL & EARS OR HORNS PRESENT

D1b1

Figure 2.2. Continued.

ZOOMORPH CODING INDEX

SITE
CLUSTER
BOULDER
PANEL
Element Number ELNUM

Panel Integration No. PANINTEG (Same as on Class II Form) - Not used

Repecking REPECKEL - Not used

Reevaluate this element REEVAL
- 0. No
- 1. Yes

Body Form BODFORM
- -9. Indet.
- 1. Stick
- 2. Boat, Down, Hollow
- 3. Boat, Down, Solid
- 4. Boat, Up, Hollow
- 5. Boat, Up, Solid
- 6. Expanded Midbody, Hollow
- 7. Expanded Midbody, Solid
- 8. Blob
- 10. Curved Boat, Hollow
- 11. Curved Boat, Solid
- 99. Other

MOUTH
- -9. Indet.
- 1. Open
- 2. Closed

Horns and Antlers HORNANT
- -9. Indet.
- 0. No Horns or Antlers
- 1. Antlers
- 2. Horns curved to back
- 3. Horns curved to front
- 4. Horns curved both to back and front
- 5. Present, but indet. if horns or antlers

LEGS
- -9. Indet.
- 1. 2 Legs
- 2. 3 Legs
- 3. 4 Legs
- 4. >4 Legs

KNEES
- -9. Indet.
- 0. Not Present
- 1. Present

FEET
- -9. Indet.
- 0. No Feet
- 1. Blob
- 2. Hooves
- 3. 3 Toes
- 4. >3 Toes
- 5. Line
- 6. Claws/Curved Toes

TAIL
- -9. Indet.
- 0. No Tail
- 1. Straight Out
- 2. Curved or Angled Up
- 3. Curved or Angled Down

Direction Zoomorph Faces (from the viewer's perspective) FACEDIR
- -9. Indet.
- 1. Faces Left
- 2. Faces Right

Orientation ORIENT
- -9. Indet.
- 0. Right-side Up
- 1. Upside Down
- 2. Tail Down
- 3. Head Down

Material Culture Connected to Zoomorph MATCUL
- -9. Indet.
- 0. None present
- 1. Arrow or Spear
- 99. Other (list under notes)

Interpretation INTERP
- -9. Indet. / Problematic
- 1. Sheep
- 2. Deer
- 3. Dog
- 4. Cat
- 5. Sheep or Deer (Unidentified game animal)
- 99. Other

SCENE
- 0. Either don't know or is not part of a scene
- 1. Hunting Scene
- 2. Herd Scene (i.e. group of zoomorphs)
- 3. Possible Scene (whatever type)
- 99. Other Scene

Associated Anthropomorph(s) ANTHROP

NOTES
Record Number REC (Added during analysis)

PAINTED ROCKS
PETROGLYPH PROJECT

FILM 1 ROLL 6
PHOTOGRAPHER 1

PHOTOGRAPH DOCUMENTATION FORM 1.0

DATE	FRAME	ASMSITE AZ-	FIELD SITE PR-	CLUSTER	BOULDER	PANEL	ELEMENT	MULTIPLE PANELS	BOULDER SETTING	CLUSTER SETTING	SITE VIEW	FACING	DETAIL	OBLIQUE	VERTICAL	UPSIDE-DOWN	FLASH	COMMENTS	NEG. NO.
11/1/87	1	T-14-8		E	107	a									1				1
	2			E	123	a													2
	3			E	110	a									1				3
	4			E	111	a									1				4
	5			E	112	a													5
	6			E	113	a													6
	7			E	114	a								1	1				7
	8			E	115	a									1				8
	9			E	116	a								1	1				9
	10			E	117	a									1				10
	11			E	118	a		1											11
	11			E	118	b		1											11
	12			E	119	a									1				12
	13			E	120	a		1											13
	13			E	121	a		1											13
	14			E	122	a									1				14
	15			E	124	a									1				15
	16			E	124	b													16
	17			E	125	a									1				17
	18			E	126	a													18
	19			E	127	a													19
	20			E	128	a													20
	21			E	129	a									1				21
	22			E	131	a									1				22
	23			E	130	a													23
	24			E	132	a			1			8						POOR PHOTO 127-132 (PANORAMA)	24
	25			E	133	a													25
	26			E	133	b													26
	27			E	133	c									1				27
	28			E	135	a								1					28
	29			E	135	b													29
	30			E	135	c									1				30
	31			E	136	a													31
	32			E	136	b													32
	33			E	137	a													33
	34			E	138	a													34
	35			E	139	a													35
	36			E	139	b													36
	37			E	140	a									1				37

Figure 2.2. Continued.

PHOTOGRAPH LOG INDEX

FILM
1. 35mm Kodak Plus-X
2. 35mm Kodak Tri-X
3. 35mm Kodachrome 64
10. Kodak Plus-X 126
11. Kodak Tri-X 126

Roll Number ROLL

Photographer PHOTOPER
1. Henry D. Wallace
2. James P. Holmlund

DATE Format: MM/DD/YY

Frame No. FRAME (As taken in field)

SITE Format: XX:XX:XXX

CLUSTER Fill in only when applicable (if photo is of site as a whole, this variable would be left blank)

BOULDER Fill in only when applicable, else leave it blank

PANEL Fill in only when applicable, else leave it blank

Element Number ELNUM Fill in only when applicable, else leave it blank (If photo is of a panel, this would be left blank)

Multiple Panels MULTPAN If photo is of more than one panel, this would be marked "1" and there will be multiple records generated, one for each separate panel (all having the same FRAME number)
0. No
1. Yes, photo is of >1 panel

Boulder/Panel Setting BSETTING
0. No
1. Yes, photo is of boulder or panel setting

Cluster Setting or General View of Cluster CSETTING
0. No
1. Yes, photo is of cluster setting

General View of Site SITEVIEW
0. No
1. Yes, general view of site

FACE Direction photographer is facing when taking this photograph
0. Photograph is of something other than BSETTING, CSETTING, or SITEVIEW
1. North
2. Northeast
3. East
4. Southeast
5. South
6. Southwest
7. West
8. Northwest

Detail Photograph DETAIL
0. Not a detail photograph
1. Detail of superpositioning
2. Detail of repecking
3. Vandalism
4. Other (list)

Photo Taken at Oblique Angle OBLIQUE
0. No
1. Yes

Photo Taken Vertically VERTICAL
0. No
1. Yes

Photo Taken Upside-down UPDOWN
0. No
1. Yes

Electronic Flash used for Photo FLASH
0. No
1. Yes

NOTES

Negative No. NEGNO Number imprinted by filmmaker on negative. Leave blank for slides.

PETROGLYPH DESIGN ELEMENT CATEGORIES AND CODING NUMBERS

ANTHROPOMORPH (ELCLASS 1)

Anthropomorph	(1)	
Unfinished Anthropomorph	(2)	

OTHER LIFE FORMS (ELCLASS 2)

Invertebrate	(200)	
Lizard	(201)	
Tortoise	(202)	
Extended Snake	(203)	
Coiled Snake	(204)	
Sheep	(205)	
Deer	(206)	
Misc Warm-blooded Zoomorph	(207)	
Turkey	(208)	
Pelican	(209)	
Other Bird	(210)	
Uncategorizable Life Form	(211)	
Botanical	(212)	
Stylized Thunderbird	(213)	

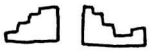
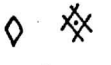
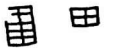
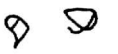
Terraced Element	(464)	
Rectilinear Meander	(465)	
Propeller	(466)	
Chevron/Triangle Motifs	(467)	
Square	(468)*	
Diamond	(469)*	
Broken Diamond	(470)	
Straight or Curved Line	(471)	
Single Zigzag or Wavy Line	(472)	
Zigzag or Wavy Lines	(473)	
Parallel Lines	(474)	
Diamond Crosshatch	(475)	
Grid Crosshatch	(476)	
Grid, at Least Partly Framed	(477)	
Reticulate	(478)	
1/2 Curvilinear, 1/2 Rectilinear Abstract	(479)	
Complex Motif	(480)	see Wallace and Holmlund 1986:65-66
Square Wave	(481)	

Figure 2.3. An example of an element classification system developed by Ferg and revised by Wallace (Wallace 1989).

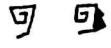
OTHER REPRESENTATIONAL (ELCLASS 3)

Map	(300)	see Wallace and Holmlund 1986: Figure 9.2
Atlatl	(301)	
Bow (and Arrow)	(302)	
Handprint (Human)	(303)	
Footprint (Human)	(304)	

ABSTRACT (ELCLASS 4)

Centipede/Cornstalk	(400)	
Bird Track	(401)	
Candelabra	(402)	
Circle	(403)	
Paired Circles/Figure Eight	(404)	
Circle Chain	(405)*	
Opposed, Intersecting, Wavy Lines	(406)	
Circle Pattern	(407)	
Circle Cluster	(408)	
Concentric Circles: 2 Rings	(409)*	
3 Rings	(410)*	
4 Rings	(411)*	
5+ Rings	(412)*	
Spoked Concentric Circles	(413)*	
Bull's Eye: 1 Ring	(414)*	
2 Rings	(415)*	
3+ Rings	(416)*	
Sun Disk	(417)*	
Asterisk	(418)	
Tailed Circle	(419)	
Double Tailed Circle	(420)	
Miscellaneous Tailed Circle	(421)	
Shell/Gridiron	(422)*	
Sectioned Circle	(423)*	
Circles with Connecting Line(s)	(424)	
Barbell	(425)*	
Circle(s) with Concentric Arc(s)	(426)*	
Grid Dint Pattern	(427)	
Dint Framing	(428)	

Figure 2.3. Continued.

Dint Line or Meander	(429)	
Miscellaneous Dint Pattern	(430)	
Cupule/Glyph	(431)	See Wallace and Holmlund 1986:187, Figure A-44.
Cupule/Glyph Line or Meander	(432)	See Wallace and Holmlund 1985:187, Figure A-45.
Curvilinear Meander	(433)	
Curvilinear Meander, Branching	(434)	
Curvilinear Abstract	(435)	
Single Arc/Semicircle	(436)	
Concentric Arcs	(437)*	
Counterclockwise Scroll: Curvilinear	(438)*	
Rectilinear	(439)*	
Clockwise Scroll: Curvilinear	(440)*	
Rectilinear	(441)*	
Connected Scroll: Curvilinear	(442)*	
Rectilinear	(443)*	
Interlocking Scroll: Curvilinear	(444)*	
Rectilinear	(445)*	

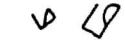
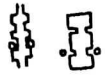
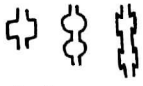
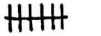
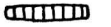
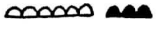
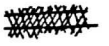
Running Connected Scroll: Curvilinear	(446)*	
Rectilinear	(447)*	
Butterfly	(448)	
Rectilinear Abstract	(449)	
Pipette	(450)	
Pseudo-Pipette	(451)	
Cross	(452)	
Outlined Cross	(453)	
Negative Cross	(454)	
X	(455)	
Outlined X	(456)	
Rake	(457)	
Double Rake	(458)	
Ladder	(459)	
Rain Cloud	(460)	
Rain	(461)	
Serrated (Barbed) Line	(462)	
Swastika	(463)*	

Figure 2.3. Continued.

Filled Circle		(482)	
Pinwheel		(483)	
SCRATCHED GLYPHS (ELCLASS 7)			
Scratched Chevron/Triangle Motif		(700)	
Scratched Crosshatch		(701)	
Scratched Hatchure Band		(702)	
Scratched Straight, Zigzag, or Wavy Lines		(703)	
HISTORIC (ELCLASS 8)			
Historic Glyphs:	Name or Initials	(800)	
	Dates	(801)	
	Name and Date	(802)	
	Cattle Brand	(803)	
	Other (Sketch)	(899)	

NOTE: Not Assignable or Ambiguous Designs are coded as "-9"

* Design elements whcih may be elaborated

Figure 2.3. Continued.

One problem that Ferg's study and other studies highlight is that a person's cultural background may bias what he or she sees in rock art. Researchers are aware that they are recording rock art that was created by people with whom they share little or no cultural background. As a result, the researchers are faced with the dilemma of how to describe and report images. One example is a set of elements called lizard-men. These are stick figures with a head, arms, and legs, along with an appendage between the legs. Researchers note that this appendage represents a penis in human figures. However, when the appendage extends to below the knees, it usually becomes a tail, and the image becomes a lizard. Is this correct? Or are researchers not willing to identify figures with exaggerated sexual organs or a short-tailed lizard? There are similar problems with identifying many other figures. Ferg (1979) and Wallace (1989) have emphasized that the element names employed in recent rock art recording are arbitrary and may not describe the figure in the same way the original artist would. Therefore, element names used by researchers are used as descriptive terms, and not necessarily as interpretative labels. Most published rock art studies relating to Arizona sites attempt to use variations of Ferg's element classifications. This has allowed researchers to compare images found at different sites, a task that allows for broader interpretation of regional and temporal variations in element distribution.

Ferg's 1979 study was known for its systematic approach. Simon Bruder (1983) furthered this approach as she developed a three-stage recording strategy for the Hedgpeth Hills site. This site consists of hundreds of boulders upon which petroglyphs have been pecked. An overall site map was created for each petroglyph location, using one or more of three methods. Photogrammetrically produced maps, which rely on stereoscopic pairs of photographs to produce very precise maps, were created. Additional maps relied on more traditional compass and measuring-tape methods or were made using regular photographs to plot boulders.

Recorders began at the boulder level, plotting the location of each onto a base map, assigning an individual number, and providing basic descriptive data on each, including size, number of panel surfaces with rock art (assigning each a number), and noting the presence of associated artifacts. Each panel surface was then described individually, with the facing, inclination, and the size of the panel measured; the color of the rock varnish noted; a brief note made on the dominant glyph element; and a list of drawings and photographs compiled. The Hedgpeth Hills project photographed elements in black-and-white and color film, produced freehand drawings, and traced selected elements on acetate. Attempts were made to produce photogrammetrically generated drawings for a small set of panels. Each element was individually sketched, a Munsell color taken for the pecked area, and a careful description of the element made.

Bruder's volume was one of the first to fully record a site. This data will be useful in years to come, as the Deer Valley Rock Art Museum opens. Besides providing basic data on the site, the volume and site records will allow future researchers to evaluate the site prior to its development as a major tourist attraction.

Wallace and Holmlund (1986) and Wallace (1989) documented the Picacho Peak and Painted Rock Reservoirs using a similar hierarchical approach. The many sites at both areas contained hundreds of boulders and panels decorated with petroglyphs. Keeping track of all of these boulders and elements was a formidable process made easier through the development of a numbering system. Glyphs were assigned cluster (group of boulders), boulder, panel, and element numbers. A particular element would receive number A-47b:5, representing Cluster A, Boulder 47, Panel b, and element number 5. Isolated boulders were numbered consecutively.

The numbered glyphs were then plotted on low-altitude aerial photographs and on a series of ground-level oblique photographs of each hillside. These latter photographs proved to be the most valuable in terms of locational recording because they allowed the researcher to easily relocate individual boulders, quite useful when evaluating a site's condition in later years. Large-format cameras were used to maximize resolution in each picture.

Detailed forms were filled out for each petroglyph site and each boulder or panel. A coding system derived from Ferg's 1979 study facilitated computer coding of elements. Specialized forms for anthropomorphs and warm-blooded zoomorph images were also completed. The study recorded data on the degree of patination, probable time period, weathering, slope height, superpositioning, repecking, framing, and panel integration. Both studies were designed so that others could use the data, which were entered into the computer for statistical analysis.

Through time, petroglyph recording has become more detailed and comprehensive, directed toward collecting as much data on individual elements as possible, and less destructive. The goal has been to make the notes collected a permanent record of the site. The information is complete enough so that, theoretically, a person could study the site without ever actually visiting it. Non-destructive techniques have become standard. Destructive techniques that have been used in the past, such as chalking in glyphs or writing identification numbers on panels, are no longer acceptable. Wallace and Holmlund (1986), when faced with a site with many boulders, identified which boulders were recorded by sticking labeled masking tape onto a portion of the boulder without rock art. Afterward, the tape eventually curled up, fell off, and decomposed. The use of standardized element lists allows other researchers to compare the elements found in their area with those reported in documents.

There are fewer pictograph sites in Arizona than petroglyph sites, and only a handful have had studies published. Pictograph recording techniques vary from person to person. Jeffrey Burton's study of rock art in the units of the Coronado National Forest (1988) resulted in the discovery of a large number of pictographs. Burton maximized data collection by visiting sites at different times of day or when weather conditions varied. Elements that were invisible under direct sunlight appeared when the sun was rising, or when clouds were overhead. He recorded the elements through photography. Each panel or figure was photographed with the camera held as perpendicular to the rock face as possible. A scale was included in each shot. The developed slides were then projected onto paper and traced. Finally, the tracings were compared in the field to the original element to verify accuracy. Burton preferred this method because it was non-destructive, requiring no taping of plastic or paper to the rock surface, was quick, allowed more accurate drawings to be produced, and the resulting drawings were easier to reproduce and more understandable in the final report than photographs. Burton classified pictograph images using Ferg's system, creating new categories when necessary. One problem that Burton identified was how to differentiate elements. The concern was whether two lines close together represented a single element or two separate elements. Because it is impossible to ask the artists what their intentions were when creating the images, this may never be known for sure. Wallace and Holmlund (1986) recognized this problem and used a code in the computer database that highlighted cases where an element might have represented more than one element.

Burton's pictographs were relatively non-complex and were usually monochrome. Polly Schaafsma recorded the Shaman's Gallery in the Grand Canyon. This site contains a number of very large, polychrome anthropomorphs. Schaafsma recorded the site using a ¾-inch, broadcast quality, color video camera, took black-and-white photographs and 35-mm color slides, and mapped in the site with a transit.

When recording pictographs, pigment colors should be matched to the colors found in the Munsell Soil Color Chart, with notations made at the time of drawing as to the lighting conditions and dampness of the rock surface. The Munsell Soil Color Chart, used by most archaeologists, contains standardized color chips in hues of reds, browns, whites, and yellows. The company also produces pages depicting blues and greens, which are typically used for describing certain tropical soils. Use of the standardized color charts allows others to identify the colors used in a particular drawing without actually viewing the image in the field or looking at a color photograph. Color film is unstable and begins to fade after about 30 years, making the standardized color descriptions even more important.

Recording pictographs is a more difficult task than recording petroglyphs due to the complexity of the images, the more detailed notes that need to be taken on techniques used to create the images, and

because pictographs are often poorly preserved. On the other hand, some people find pictographs to be an interesting challenge to record because of their uniqueness and complexity.

Geoglyphs have only been the subject of systematic recording in the last ten years. Prior to that, geoglyphs were located during aerial surveys and mapped during later ground reconnaissance. Holmlund (1994) has completed a survey of the Ripley geoglyph site along the Colorado River near Yuma. Traditional methods, relying on tape measures and compass readings, can be used to record geoglyphs. In addition, recorders can take overhead and infrared photographs, and map these images using electronic measuring devices.

In summary, rock art recorders in Arizona have collected increasingly detailed sets of information. In part, this is a result of the complexity of research issues that are being addressed; however, researchers also realize that their notes, drawings, and photographs may eventually be the only permanent record of a site.

A few basic techniques should be adhered to for all projects. The use of standardized recording sheets is strongly encouraged. Those that require a comprehensive set of data to be collected for each individual element are needed. The paper on which these forms are printed should be archival quality to allow future generations to examine them.

The site should be carefully mapped, using appropriate techniques. These can include aerial photographs, topographical maps, photogrammetrically produced maps, oblique photographs, or the simple compass and measuring-tape method. The maps should indicate which areas were examined and the location of recorded panels. Mapping will vary depending on the goals of the project.

Freehand drawings should be made for each rock art element, if possible. If the drawings are not to scale, some measurement of the size of the element is useful. All depictions should accurately reflect what is visible, with attempts made to refrain from interpreting eroded or obscured images. The paper on which final drawings are placed should be archival quality to enhance its preservation. Moore (1991, 1992, 1994) has evaluated how rock art is interpreted by artists and has studied the various methods used to record designs. She suggests that artists remind themselves of the purpose of recording and be sure that the information collected is correct.

Images should also be photographed in black-and-white and color slide film. Photography should be done during the time of day when the lighting shows the elements most advantageously. This may entail repeated visits during different times of day to get the best pictures. In other cases, the use of shading and supplemental lighting can overcome poor natural light. A standard photograph recording form should be filled out. Important data on the form includes information tying the photographed image to notes and drawings and the day and time the photography took place. Photographs should also be taken of the setting of the site. These will be useful for future researchers to evaluate changes to the site caused by weathering or vandalism. Negatives and prints should be placed in archival quality folders to ensure their preservation. As discussed previously, it is important to take black-on-white photographs because color film fades through time. The end result of any rock art recording should be a published study that documents the site in detail. A bibliography of published rock art studies of Arizona sites is presented in Appendix A. These reports provide other rock art researchers with basic data that can help achieve a greater understanding of the diversity of images in the state of Arizona. The notes, drawings, and photographs should be turned over to a state or federal institution so that the records can be archived in perpetuity. These notes would then be available for future researchers who may have new questions to ask.

DATING TECHNIQUES

One question that pops into everyone's mind when viewing rock art is, "How old is it?" One reason that rock art receives so little attention from time-obsessed archaeologists is that it is difficult and in many cases, impossible, to determine how old specific images are. As an example, the Hedgpeth Hill rock art site contains hundreds of petroglyph images. Simon Bruder, who studied the petroglyphs as part of an Army Corp of Engineers-sponsored research program, thought that glyphs were created by the Hohokam (1983). Others who have viewed the glyphs disagree and believe that these elements were largely created by the earlier Archaic period people (Bostwick 1989; Wallace and Holmlund 1986:86). Well-reasoned arguments, aided by the development of new dating techniques, are expected to eventually put to rest this debate.

Archaeologists have always been interested in time and have developed a number of ways to measure its passage. Two kinds of archaeological dates are produced: relative and absolute. An artifact or soil layer known to be older or younger than something else is relatively dated. As an example, when digging a site, deeper deposits are usually older. They are covered by more recent dirt. An absolute date is one that provides an actual or estimated age. A tree-ring date of A.D. 1243 and a carbon-14 date of 4500 B.C. ± 300 years are both absolute dates.

Rock art researchers have had to develop their own methods or have borrowed those used by other archaeologists in order to date rock art. Conventional dating tools used at archaeological sites, such as stratigraphic positioning, carbon-14, tree rings, and diagnostic artifacts, are not often applicable to rock art sites, many of which are not associated with any other archaeological remains. Over the years, rock art researchers have relied on both relative and absolute methods. Currently, most dating methods have been directed toward petroglyphs, with some applicable to geoglyphs. At present, methods for dating pictographs have lagged behind other forms of rock art, although the ages of pictographs are being determined through carbon dating.

Patination Studies

Once petroglyphs are chipped into the surfaces of rocks, the process of repatination begins again. The development of rock varnish is a slow and lengthy process. Rock varnish, as noted in Chapter 1, is a biochemical process where bacteria fixes clay, minerals, and organic matter to the surface of rocks. The process has only recently been identified, and research continues to uncover new data on how rock varnish forms (Dorn 1991). As an example, the rate of deposition is uncertain. Examination of historic graffiti has indicated that little or no repatination may have occurred during the last 100 years (Wallace and Holmlund 1986). Apparently, it takes several hundred years before rock varnish has visibly recoated pecked areas. However, it is uncertain whether deposition of rock varnish takes place at the same rate across large areas or even with small areas.

Early rock art researchers, including Mallery's informants (1886), noted that rock art figures were often coated with differing amounts of rock varnish. Subsequent superpositioning studies have confirmed that older elements are more patinated. This has led researchers to conclude that repatination studies can allow the relative dates for petroglyphs to be determined. Unfortunately, rock varnish develops at differing rates in different areas. Therefore, it is impossible to develop a broad patination scale that could be used to date rock art in the Southwest. Instead, patination scales must be created for individual sites.

At the same time rock varnish is developing, the process of weathering may also be taking place. Rocks that are exposed to sunlight, rain, wind, and temperature variations may exfoliate or erode. The amount of weathering varies depending on a rock's material and on microenvironmental factors relating to the rock's position.

Wallace and Holmlund (1986) evaluated the degree of repatination found at the Picacho Peak sites. They developed a classification system that ranked patina from 0 to 3 and used their system to suggest relative petroglyph dates. Their system was designed specifically for the Picacho Peak study. They note that regional, and even local, geological and microenvironmental factors influence rock varnish formation. Thus, attempts to date sites based upon rock varnish should consider each of these factors. As an example, researchers using patination to construct a regional rock art chronology should develop a scale for each kind of rock present. Wallace and Holmlund (1986) have noted that certain kinds of rocks, including those high in iron and manganese, develop rock varnish, whereas other rocks, in their case granitic gneisses, fail to do so and may actively erode or weather away. This also suggests that researchers should consider comparing rock art image frequencies within these rock kinds. If softer rocks are eroding away, older images may be obliterated, removing entire sets of images from a study.

Microenvironmental factors can vary among individual boulders and panels at a rock art site and at a greater scale between rock art sites. Therefore, rock art sites that are dated through patination studies should have similar environmental conditions (such as being exposed to the same amounts of rainfall, sun, or wind). It would be inappropriate to compare sites that are separated by broad geographic regions.

When these factors are controlled, patination studies should allow earlier petroglyphs to be separated from later ones. Instances of repecking of petroglyphs are common, and the rock art recorder should be aware that less patinated examples may represent older elements that have been reworked.

It is uncertain whether environmental conditions that result from human activities, such as acid rain, have affected rock varnish. One example where human actions have damaged the varnish to such an extent that repatination studies are hampered can be found at the Painted Rock Reservoir. Wallace and Holmlund (1986) discovered that exposure to reservoir water has removed the rock varnish from rocks. In the future, local environmental conditions, such as exposure to automobile or industrial fumes, could cause differences in patination, as could increased rain acidity.

Patination studies have been shown to be very useful for distinguishing which elements are older and younger at particular sites. However, care should be taken when evaluating patination found on rocks of differing composition or those exposed to different environmental conditions. If these factors are controlled for, researchers should be able to apply this method and get sound results.

Positioning on Rock Surfaces

Occasionally, the position of rock art can indicate its relative age. Turner (1963) discovered sets of "stranded" petroglyphs. These images had been pecked onto cliff faces by persons who had stood on a ground surface that later eroded away. Some elements were 30 feet up the cliff face. Often, a second set of images is present below the stranded elements. These lower images can be shown to have been made later because of the present ground surface and also because they are less patinated.

Dating stranded rock art can be difficult because any sites associated with the elements may also have been lost through erosion. However, the events that caused the erosion may have left evidence nearby. It is probable that floods scoured away the ground surface upon which the artists stood while creating the rock art. These floods may be identified through studies of tree rings, which record fluctuations in precipitation. Unfortunately, many floods probably took place in prehistoric times. Determining which one stranded a particular set of rock art is a daunting task.

Superpositioning

Rock art superpositioning occurs when one image is placed on top of another one (Figure 2.4). In many cases, petroglyph and pictograph creators chose the same rock surface that had been previously used.

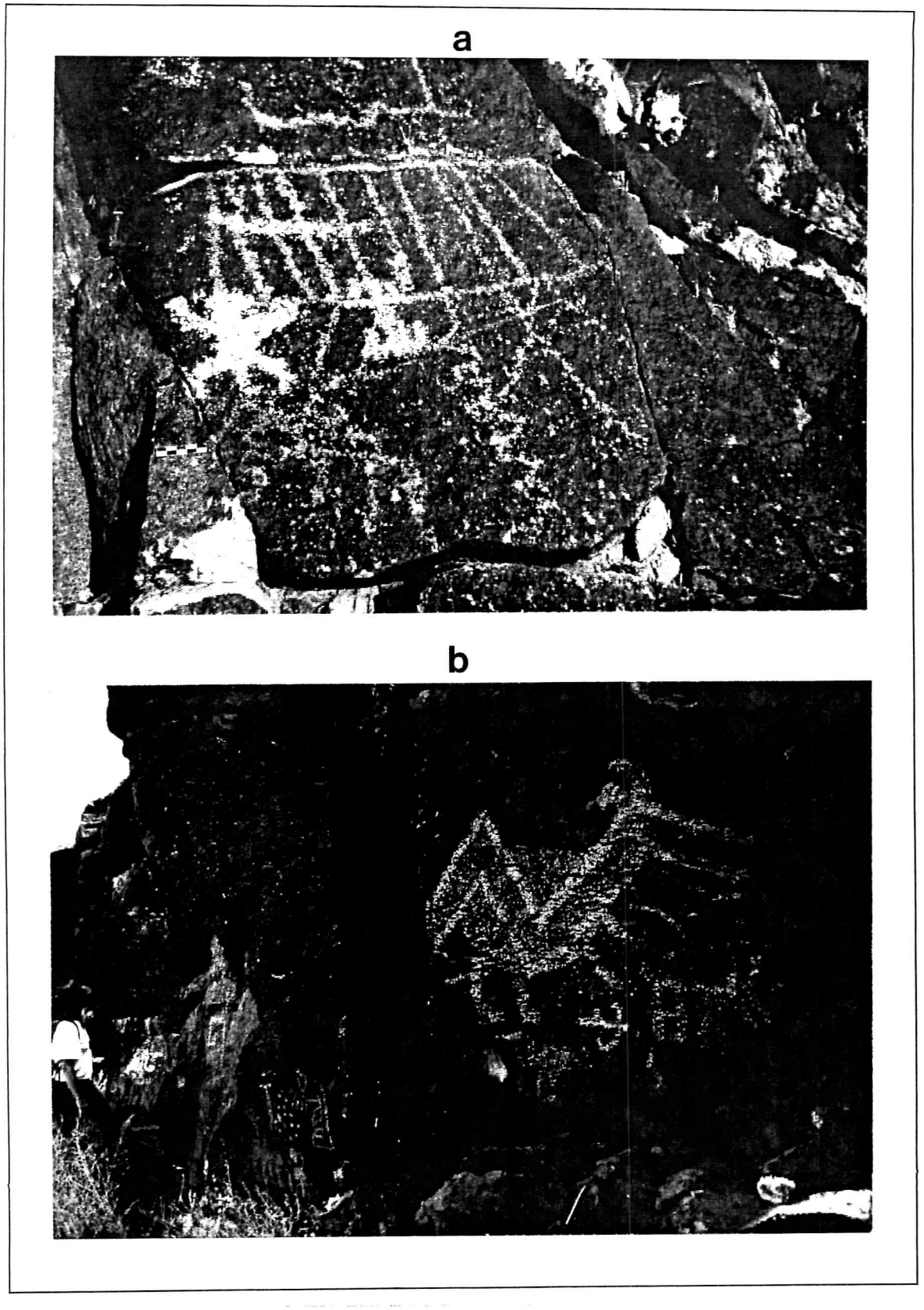


Figure 2.4. Examples of superpositioning: a, Archaic elements are partially covered by later images at site AZ T:14:33 (ASM) (photo by H. Wallace); b, zoomorph with superimposed geometric elements at Gillespie Dam (photo by H. Wallace).

Often, they pecked elements and painted images directly on top of older images. The underlying image is always older, although the length of time between the two events cannot not be determined without further study. By examining the kinds of elements that have been defaced through later rock art, researchers have been able to identify older styles.

As an example, the Western Archaic Petroglyph style was recognized because of the darker patination found on these elements and also because the elements are typically found below other images. In another case, Ferg (1979) used superpositioning to demonstrate that scratched glyphs present in the Tucson Basin were not modern graffiti. Previously, scratched elements were attributed to historic Apache Indians or Euro-American visitors. The presence of scratched elements below Hohokam period petroglyphs was proof that the Hohokam or their predecessors were also creating rock art using this technique. Since his study, other cases of this style have been reported in the Hohokam cultural area.

Lichen Growth

Lichen, which is commonly found on rock surfaces, has been proposed as a useful tool for dating rock art. Lichen grows at a steady rate, and recent studies have sought to date prehistoric earthquake activities and other events through lichen growth (Innes 1985). However, attempts to date rock art sites have been unsuccessful to date since lichen growth can vary from area to area depending on environmental factors. Turner (1963:15) noted that petroglyphs younger than 600 years rarely had lichen growing on them. The older Glen Canyon petroglyphs were more likely to have lichen growth. Bruder (1983:162) and Bostwick (1989:15) evaluated lichen found at two petroglyph sites in the Phoenix area and discovered that lichen growth varied significantly across individual elements and entire panels. The presence or absence of lichen was found not to be a good indicator of relative age. However, the possibility exists that lichen growth may be used in the future to help date rock art. It may be possible to identify the oldest lichen area on an area of rock art, and then this area could be dated through either radiocarbon techniques or possible through an evaluation of lichen growth cycles. This technique is expected to be refined in other fields, notably biology and geology, and may soon be used by rock art researchers.

Association with Archaeological Sites

The simplest method for dating a rock art site is to find a nearby archaeological site with diagnostic artifacts or architecture. The chronology for most areas of Arizona has been studied and revised over the last 100 years by archaeologists, and artifacts associated with certain cultural phases and time periods have been identified. The presence of Classic period Hohokam pottery near a rock art site may indicate that the petroglyphs were created during the same time period. If this can be shown to be a repeated pattern—that the style of rock art found is usually or always found in association with Classic period pottery—then it would be safe to assume that the two date to the same time period. However, it is important to remember that rock art could have been created prior to the use of the area by people who left artifacts behind or that artisans could have visited the location of past activities and decorated rock surfaces or scratched geoglyphs.

Several pioneering Arizona rock art studies have used this method. Christy Turner (1963) visited sites in the Glen Canyon that were threatened by inundation. He observed which kinds of pottery were present at each rock art site, using the known dates of manufacture for the ceramics to date the sites. The pottery kinds and petroglyph styles were found to be consistent, indicating that this method can be used to identify the dates of rock art sites; however, once again, one should be aware that inconsistent artifact dates and rock art styles probably indicate a prior or later use of a site by the rock artisans.

The association of rock art with sites can be tested under certain conditions. The base of rock art panels can be excavated to determine whether artifacts are associated with the panels, as well as to recover

organic materials that can be radiocarbon-dated or can provide additional data on activities at the rock art location (Loendorf 1994).

Many rock shelter sites contain materials that can be dated. In many cases, pigments, brushes, or other implements used to create rock art may be found in the floor fill. Organic remains can be dated using carbon-14 or AMS techniques, providing a fairly accurate date for the creation of the rock art.

In other cases, rock shelter rock art is partially covered with later archaeological deposits. In these instances, the rock art is earlier than these overlying materials, which can often be dated through the presence of diagnostic artifacts or datable organic materials. These cases are important because they allow a minimum age for the rock art to be determined.

Unfortunately, there are many more cases where rock art sites are not associated with diagnostic artifacts, or artifacts from several different time periods are present. Wallace and Holmlund note that "to be an effective dating tool, both the associated site and the glyphs themselves should indicate a narrow chronological range" (1986:71). Dating rock art sites through the association with nearby archaeological sites is to be done with great caution, but it can provide absolute dates for rock art sites under certain conditions.

Cation-Ratio and Accelerated Mass Spectrometry Techniques

The last fifteen years have seen the development of a new set of techniques that provide absolute dates using rock varnish. However, because these techniques are being developed and have provided erratic and unlikely results in some cases, considerable controversy surrounds their use. Currently, researchers are attempting to improve methodology and examine the underlying assumptions about how rock varnish was created. While controversial, the new methods hold promise that rock art may be accurately dated.

The two recently developed methods, cation-ratio and accelerated mass spectrometry, were developed by Ron Dorn, a professor at Arizona State University. They rely on a sample of rock varnish from within the petroglyph element to provide an absolute date. This is a minimum date—the rock varnish is at least a certain number of years old. The actual event preceding the rock varnish accumulation, such as petroglyph pecking, is actually older than the date produced by these methods.

The area of a rock's surface to be sampled for either method must be carefully selected. Stable surfaces without recent erosion are preferred since weathering would remove the varnish and start the process of revarnishing, resulting in an inaccurate (more recent) date. The rock surface also must have an adequate size for sampling. It is thought that microenvironmental factors may influence the biogeochemical stability of rock varnish; therefore, rocks with lichen growing on them or those that are close to the soil are excluded from study.

The Cation-Ratio Method

The cation-ratio method is based on the fact that rock varnish is an accretion of minerals and clay. Among these elements are calcium (Ca), potassium (K), and Titanium (Ti). Basically, after the varnish accumulates, these three elements are leached at different rates from the rock surface through weathering. Calcium and potassium are removed faster than Titanium. Therefore, the ratio of the amount of potassium and calcium divided by the amount of titanium (K + Ca:Ti) declines as rocks age. The result of this calculation is known as the cation ratio. Dorn suggests that this decline occurs at a measurable rate and that samples of rock varnish can be dated by calculating the ratio.

To supply a cation-ratio date, a sample of rock varnish is scraped from a surface. Care is taken to separate dust, organic materials, and fragments of underlying rock from the sample. The person removing the sample wears 10x to 45x magnification glasses to accomplish the task. Procedures to remove varnish

do not indicate whether a certain thickness or area is preferred; however, one would expect that the sample would extend to just above the rock surface in order to sample the entire rock-varnish layer.

The sample is then examined using proton-induced X-Ray emission analysis, which measures the concentrations of calcium, potassium, and titanium in the rock varnish. The ratio of potassium and calcium to titanium is then calculated.

Independent dating techniques (dates obtained from other sources at a site) are used to observe the rate of leaching in order to plot cation-ratio samples. Theoretically, after a certain number of samples are dated and a scale established, it should be possible to date sites in the vicinity, knowing their cation-ratio. Various independent dating techniques can be used to establish leaching rates. Dorn's (1983) analysis of volcanic rock from California relied on potassium-argon dating of numerous samples. Rock art sites could also be dated through their association with archaeological sites.

This method has been severely criticized. An initial problem is the lack of understanding about how rock varnish forms. Dorn assumes that rock varnish begins to accumulate soon after the rock surface is exposed. Whether this is the case or not is unknown at this time. The components of rock varnish can also be problematic. The clays that form most of the varnish are deposited on rocks through wind-borne dust. Changes in the amount of dust in the air could affect how much dust was deposited on rocks. Also, different kinds of dust might have different quantities of potassium, calcium, and titanium. Varnish could be formed from more than one source of clay, and as a result have differing chemical compositions. The cation-ratios may also differ among various varnish samples. Leaching rates also could vary substantially within a small area.

Leaching rates are established by estimating the age of the sample through potassium argon dating. Potassium argon dating is not problem-free and is believed to over-estimate dates under certain circumstances. Perhaps the most serious problem with the cation-ratio method are studies that show that the chemical composition of underlying rock may be the causal factor in ratio differences. As a result of the many problems, few researchers believe that this method has the potential to provide accurate rock varnish dates (Reneau and Raymond 1991; Dragovich 1988).

Accelerated Mass Spectrometry

Dorn developed a second method of dating using accelerated mass spectrometry (AMS). This method dates organic material incorporated into varnish. Organic material is absorbed into the clays and oxides that form rock varnish. Examination of rock varnish under high magnification by Dorn indicated that much of this organic material was still present and could be extracted and dated using the newly developed AMS technique. Analysis of the organic remains suggests that plants in the vicinity of the rock-varnished surface were the source of the organic matter.

A large area of rock surface must be scraped in order to produce an AMS date from rock varnish (1,500 to 20,000 cm^2). The basal rock-varnish layer must also be sampled because this is the oldest varnish on the rock, closest to the date when the rock surface was exposed. Hydrochloric and hydrofluoric acids are used to remove carbonates and silicates; sodium dithionite and acidified hydroxylamine hydrochloride are used to removed iron and manganese oxides. The remaining sample is dated using the AMS technique. Occasionally, samples of the underlying rock are dated to check to see whether it has been contaminated (the underlying rock should have little to no organic material).

Dorn has dated both artifacts and rock art with this method. Some of his dates have been very old, including several that suggest a pre-Paleo-Indian occupation of the North American continent (Whitley and Dorn 1993). As a result, the AMS technique has been vigorously criticized. The criticism is directed toward two problem areas. Rock varnish develops in patches that join through time. When a large sample is scraped, both older and younger organic material is collected. The resulting date may not accurately represent the date when the rock surface was first exposed. A second problem is that varnish

thickness varies, and scraping methods are not refined to the point that collection of only the basal layer is assured. Another problem is that it is possible that older organic material, present in airborne dust, is a constituent of rock varnish. These materials could result in older dates. Dorn's recent dating of artifacts to 21,400 to 12,400 B.P. suggests that this may be happening (Dorn et al. 1986). Lastly, this technique is destructive and can damage rock art. The amount of damage must be weighed against the potential knowledge extracted from the removed rock varnish.

Carbon Dating of Pigments

The pigments used to create paints often contain small amounts of organic material, especially in the case of black pigments, which are often carbon-based. These organic materials can be dated through carbon-14 or AMS techniques. At present, this method has been used in Europe and Australia; it has only recently been used in the Southwest (Chaffee et al. 1993).

A recently developed method uses low-temperature oxygen plasma to extract organic materials from prehistoric paint in order to provide carbon-14 for accelerator mass spectrometry (Russ et al. 1992). The method has provided dates that are in accordance with the expected date of the tested pictographs. In order to use this method, the extracted pigment must be free from recent contaminants, including hydrocarbon-based preservatives. The pigment must have an organic base, and the person taking the sample must be able to identify and segregate organic materials incorporated into the underlying rock (Chaffee et al. 1994).

Stylistic Comparisons

Early rock art researchers recognized parallels between rock art elements and those found on ceramics, basketry, fabrics, and painted wood items. It is reasonable to assume that elements were not media-specific. In other words, prehistoric artisans probably did not have one set of elements that they could only paint on ceramics and another that they could only chip onto rock surfaces. In some cases, the media being decorated would limit the kinds of elements, for instance, petroglyph images are usually less elaborate than ceramic elements because the use of a paint brush allows finer lines to be applied to pottery.

Examination of elements indicates that many cross-cut different media (Lindauer and Zaslow 1994). As well their treatment, the ways different elements are combined to form a composition have been found in more than one media. By carefully comparing elements, rock art researchers can uncover these similar elements. Most ceramic kinds are well-dated, and basketry and fabrics can be dated using carbon-14 or AMS methods or through their association with other artifacts. Rock art images that are duplicated on other media can thus be dated, if certain precautions are undertaken.

One precaution is that researchers need understand the history of elements before assigning dates to rock art. As an example, spirals are a common element for Hohokam petroglyphs. Similarly, spirals are found on pottery for much of the Hohokam chronology. This element would not be suitable for dating the rock art elements due to the broad time span during which it was used. On the other hand, Campbell Grant (1978) noted that a piece of Kana-a-Gray ware, which dates from A.D. 700 to 900, matched the crab-claw bighorn sheep images found at Canyon de Chelly. Because bighorn sheep imagery changed through time, it is highly probably that the crab claw sheep on the ceramic vessel was created at about the same time artists were chipping the image onto rock surfaces. This case highlights the importance of recording rock art sites completely and reporting the range of elements present. Dating rock art through stylistic comparisons will become easier once the full range of element diversity is known.

Seriation

Another method for dating rock art sites requires old and new techniques to be used together. Seriation, in which counts of a certain attribute are tabulated, was a technique that revolutionized the study of ceramics and contributed to a better understanding of chronology in late nineteenth-century Southwestern archaeology. Loendorf (1994) suggests that a comparison of the frequency of elements at sites can allow a seriation chart to be developed, with the increase and decrease in certain images graphically charted. When combined with modern dating methods, such as AMS and cation ratio, these seriated charts can provide rough chronological dates for other rock art sites.

Distinctive Material Culture

The presence of elements depicting certain kinds of material culture (artifacts) may be useful for establishing rough dates for rock art. Atlatls are a tool used to aid hunters when throwing spears. This device was often used by the Archaic period people. Sometime around A.D. 1 the bow and arrow began to be used. Bows and arrows provided hunters with a more accurate method for hunting game and replaced the atlatl in a few hundred years. Rock art containing bow and arrow images must date to after that time (Figure 2.5).

Another example is historic rock art with horse and rider images must date to after the Euro-American entrance into the Southwest. While the number of useful, datable images is few, they can provide important clues for dating rock art.

Summary of Dating Techniques

In summary, dating rock art remains a major problem. Rock art sites were basically ignored by archaeologists up until the last 30 years because excavators were more interested in studying conventional sites. While the archaeologists developed many techniques to date these sites, the techniques were not applicable, in most cases, for use on rock art. This is partly a result of the fairly recent development of techniques to date rock varnish. The methods are gradually being tested, refined, and rejected. More traditional methods of dating, such as the association with diagnostic artifacts and similar stylistic traditions, must be used cautiously. In many cases, it is impossible to show that a rock art site was created at the same time the associated archaeological site was occupied. In the case of stylistic trends, many have long histories, and the full range of element traditions has not been adequately documented for some media.

The future will see increasing refinement of dating methods and the development of new techniques. Current methods have been extensively criticized; however, these methods are in the development stage and are being refined as their problems are better understood. Radiocarbon techniques went through similar processes early in their development. Other concerns are the fact that these methods are destructive in nature, and that rock art is damaged when samples are taken. The new techniques rely on smaller and smaller samples; thus, the damage to the rock art may be mitigated by the knowledge gained through dating the work.

More traditional techniques will also be explored as well. In part, this will occur because they are low-cost, the research can be conducted by avocational archaeologists, and the techniques are non-destructive. Further work using patination studies, stylistic comparisons, and superpositioning, as well as a better understanding of the distribution of specific elements and sets of elements, will provide valuable new data and allow more sites to be dated. It is probable that using different techniques in conjunction with one another, such as patination studies of stylistic trends, may be employed with greater frequency.

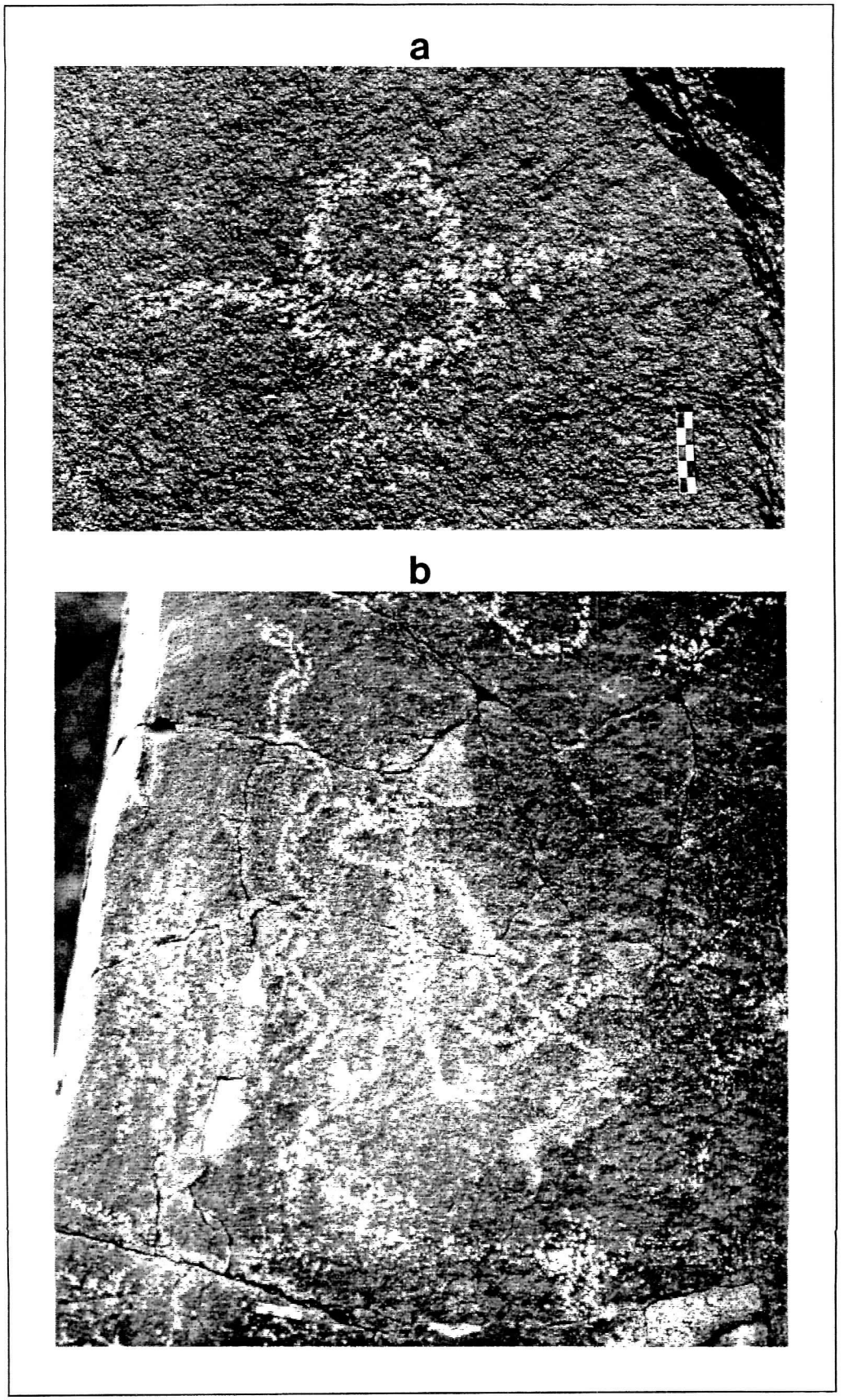


Figure 2.5. Atlatls were invented prior to the bow and arrow: a, Most atlatl images date to the Archaic period; b, younger bow-and-arrow images, Sears Point (photos by H. Wallace).

THE FUNCTION OF ROCK ART

One writer has noted that "Rock Art means many things to many viewers" (Wood 1976). The puzzle as to what rock art meant to its creators has yet to be pieced together, and in all likelihood, it will never be completely assembled. Because we do not have the opportunity to talk to the artists or watch them create images, we will never know for sure the reasons they chose to carve, paint, or scrape their elements. However, through the analysis of rock art location, element distribution, and association with other site kinds, we can narrow the range of possibilities. Also, consultation with knowledgeable Native Americans can provide insights as to the function of a rock art site.

Wallace (1983:236-239) outlined six possible functions of rock art in his discussion of the Rillito Peak petroglyphs. His explanations can be applied to pictographs and geoglyphs as well. The easiest explanation is that rock art may have served as **doodling** or **graffiti**, serving as an activity to take up idle time and busy hands. In such a scenario, one would expect extensive rock art to occur in the vicinity of village sites, where much time would have been spent, or in areas where activities frequently occurred, such as near agricultural fields or resource procurement areas. While many rock art sites are found near these places, many others are not. Frequently, rock art is found in isolated areas away from village sites or activity areas. Additionally, the investment in terms of time and energy in order to create rock art is substantial. Petroglyph creation requires patience and skill to chip away rock varnish. Pictograph production can only be completed after brushes are made and pigments prepared. Geoglyphs can be quite large and require the scraping and piling of gravel and earth. Doodling or graffiti is usually a spur-of-the-moment activity; therefore, it seems improbable that prehistoric rock art creation was simply a result of boredom or the need to use up extra time.

Another suggestion is that rock art may have been a **mnemonic device**. Mnemonic devices are used to assist a person in remembering something. Rock art could function is this way by helping the creator or his/her associates to remember a location for a specific reason. An example would be a rock quarry site, where a person might paint or carve a stone tool to indicate that quality stone was present. Mallery (1886) was the first rock art researcher to study this issue. He had thought that rock art was a form of "picture writing", or that the images told messages that could be understood if one had a key to the symbols. Eventually, Mallery realized that rock art found in North America probably meant something to the creator; however, without ethnographic informant data, this meaning was lost.

Ferg (1979:115) and Wallace (1983) also found no indications that specific images represented certain ideas or meanings. If the mnemonic devices were idiosyncratic, symbolic, or one-time-only elements, then it would be impossible to interpret them because we cannot ask the creator what they meant. Therefore, it is possible that rock art had mnemonic uses, but we cannot interpret them given our current knowledge.

Some rock art probably represents **clan** or **totem symbols**. Colton (1946) and Colton and Colton (1931) have documented the use of petroglyphs at the Willow Springs site as clan symbols. Members of a clan would stop and mark the boulders with their specific elements, resulting in a boulder covered with repeated elements. Similar repeated elements are found at rock art sites in other locations (such as lines of quadrupeds found at Hohokam sites or lines of anthropomorphs found at Anasazi sites). Lines of similar figures could merely represent an artist's liking for that particular image or may have been important for other reasons, such as the creation of a hunting scene. Clan symbols can be almost any size, making the identification difficult.

Isolated elements could also represent these symbols. Grant (1978) believed that large, round pictographs found near cliff dwellings in Canyon de Chelly may have represented clan symbols. As well, Turner (1963) reported that Hopi informants identified clan symbols occasionally among the elements in Glen Canyon.

In many cases, it may be impossible to know whether elements actually represent clan or totem symbols. Similar to the problems associated with identifying mnemonic devices, one must know what the clan

symbols were. Additionally, one must know something about the social structure of the group that made the rock art. Wallace (1983:237) notes that unless information about social organization is known, it can be difficult to state that they actually represent clan symbols and not some other element.

Decoration of one's surroundings may have been a reason for creating rock art, at least for petroglyphs and pictographs (the poor visibility of geoglyphs probably indicates that these were not created for aesthetic purposes). Elements may have been carved or painted onto rocks in places where activities took place, visually enhancing the area. Examples of such elements are often found in and around cliff dwellings, where geometric elements and hand prints adorn the rock surfaces above roofs (Grant 1978). The fact that rock art is often located at isolated locations indicates that not all rock art was purely decorative in nature. It might be possible to investigate the occurrence of elements with activity and living areas in order to identify those that may have been decorative in nature. However, this kind of research has not been conducted to date.

Another explanation is that rock art served as **trail markers, boundary markers**, or **territorial signaling devices**. Rock art is often found along prehistoric trails, game paths, and at resource procurement areas. Besides telling the traveler that he or she was following the correct trail, the placement and design of individual images may have told the traveler their location relative to other known locations. Julian Hayden (1972) believed that he had uncovered evidence for Hohokam shell collection expeditions when he noted shell-like elements along trails leading to the Gulf of California. Rock art could also serve as a territorial marker, similar to modern graffiti, telling other visitors that they were on someone else's turf or warning them away.

Lastly, rock art could have **ceremonial** or **religious significance**. Many archaeologists and rock art researchers believe that rock art was created as a part of religious activities. As well, Native Americans often interpret rock art locations as sacred sites. The belief that rock art sites were created as part of religious activities is a strong current in rock art studies. The question is, how does one identify whether a rock art site was created for religious purposes or for some other reason?

A number of approaches can be undertaken. One is to use ethnographic or informant data to identify such sites. In some cases, religious imagery that was formerly used or is currently used by Arizona Native Americans is present (Cole 1992). It is usually assumed that the site had a religious aspect due to these images; however, it is important to consider that certain elements may have started out in the secular realm before becoming religious in nature. As an example from Western history, the crucifix was used as a mode of execution by the Romans for many years. It was only after Christ was crucified that the cross took on a religious meaning.

Many researchers have suggested that rock art was created during shamanic rituals. Among these rituals were those that took place prior to hunting excursions. Rock art depicting animals, hunters, or weapons is often believed to be associated with such rituals. Unfortunately, there is little evidence to support such claims.

Another way to identify ceremonial rock art is through its placement. Art found in normally inaccessible places, such as inside caves, was most likely produced during religious events. It is doubtful that individuals would enter dark, enclosed areas for other purposes, such as resource collection or shelter. However, the number of cave sites is quite small; most rock art is found in open, exposed areas.

In Arizona, cases where rock art can be shown to be ceremonial or religious in nature are common. Most geoglyph figures are believed to have been created during or for religious events. Basically, the elements are difficult to see from ground level, especially in the case of representational figures. Explanations which rely on ethnographic accounts and Native American legends appear to satisfactorily explain their function.

Repeated use of areas for dancing has resulted in circles or vague geometric areas where the gravel has been tamped down. Johnson (1986:16-20) notes that ethnographic accounts confirm that dancing took place as part of ceremonial activities, sometimes involving healing rituals. The geoglyphs could be created by either removing gravel from an area to clear a dance path or by repeatedly traveling over the same area, stomping the element into the ground. Johnson suggests that geoglyphs may be related to Navajo sand paintings, which are in essence another form of rock art, although an impermanent kind.

Representational geoglyph figures are also thought have been created for ceremonial reasons. Mohave, Hopi, and Quechan legends all refer to twin figures. These figures represent two cultural heroes, one known as the Creation God and the other an apparent evil twin (Johnson 1986:40). Other figures are thought to have been created during healing ceremonies and coming-of-age rites.

Many petroglyph and pictograph images may be religious in nature. For example, Sally Cole has explored katsina iconography found at the Homol'ovi sites in northeastern Arizona. Katsinas are anthropomorphic figures that are historically used in Hopi religious ceremonies. They were developed in the prehistoric period, possibly as a means to integrate groups of people that were suddenly forced to live together. Many of the carved images she found resembled modern katsinas or examples found on prehistoric kiva walls. Cole noted that katsina petroglyph images were made to be visible and were located along paths or in close proximity to pueblos (1992:151). Visibility of these images may have been an important means of creating group identity, similar to the use of flags or other patriotic imagery. Schaafsma (1981, 1994) and Adams (1991) have examined the use of katsina imagery in great detail.

Other identifications of rock art as religious imagery abound. Wallace (1991) notes that the pipette figure, found only at Hohokam sites, may be related to a Mesoamerican mythological figure known at Tlaloc. Identification of Mesoamerican-influenced rock art imagery has not been systematic to date. Future work may help better understand Mesoamerican corrections to the Southwest. Painted eagles found at the Garden Canyon site may have religious significance (Altschul et al. 1993). Grant (1978) interprets may of the rock art elements found in Canyon de Chelly as being religious in nature. Specifically, these include flute players, birds, and shaman-like anthropomorphs. Among the many interpretations for these images are that they were created during life crises such as birth, puberty rituals, or initiations; to help increase fertility; or to aid in weather control (Bruder 1983:5).

Hoskinson (1990) has discovered that some petroglyphs appear to be associated with rocks struck by lightning. The relationship between rock art sites and natural and cultural features has been explored frequently, but this complex issue is still not completely understood.

Many researchers believe that rock art is associated with prehistoric astronomical observations. The study of the possible astronomical significance of rock art involves examining the relationship between specific panels or elements on a panel and certain celestial events. Typically, researchers watch how the alignment of the sun, moon, and stars interacts with rock art during the summer and winter solstices and the equinox. Also, researchers examine the alignments of prehistoric structures and search ethnographic accounts for evidence of monitoring the movements of the sun, moon, and stars (Preston and Preston 1987; Malville and Putnam 1989; Hoskinson 1992).

Spirals and circles, some with attached wavy lines, have often been associated with solar observations (Preston and Preston 1987). Recent studies of petroglyphs and geoglyphs in Arizona have focused on archaeoastronomy, but not all researchers agree on what the results mean. Examples of historic archaeoastronomical rock art exist, including the "observatories" painted on cave ceilings by the Navajo in Canyon de Chelly (Grant 1978).

A seventh possible function of rock art is to **record historical events** (Figure 2.6). This is known to be the case for a number of historic pictographs (Grant 1978:223). This may also have been the case in the prehistoric period. Petroglyph scenes with hunters and quadrupeds are present at many Hohokam sites. While some think that the scenes may have been created as part of a ritual prior to a hunt, it is also

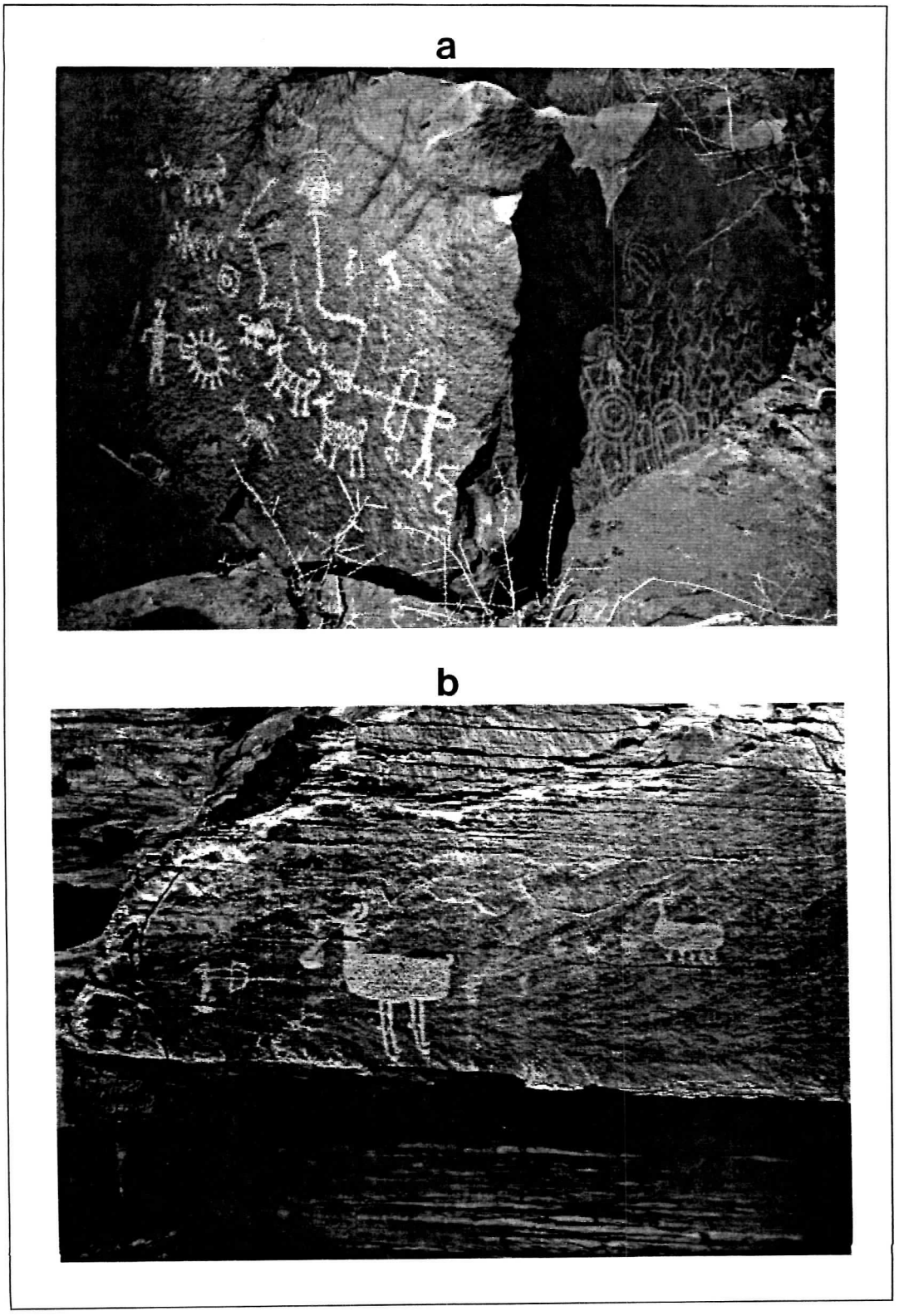


Figure 2.6. Rock art scenes may record historical events: a, hunting scene from Gila Bend (photo by P. Whitley, 1989); b, Anasazi hunting scene from Crack-in-Rock Ruins, Wupatki (photo by P. Whitley, 1992).

possible that the scenes were created afterwards to commemorate a successful hunt. In other cases, rock artists may have been depicting people, activities, animals, and other aspects of their daily lives. Several cases where prehistoric people were creating depictions of their surroundings in the form of maps have also been located.

One such map has been identified at Picacho Peak in Arizona ("An Ancient Map Pecked into Stone?" 1986). Another has been located in southern Utah (Prescott 1994).

Numerous scenes have been discovered at Anasazi sites. McCreery (1992) documents several scenes, including probable religious events. For example, she has analyzed and identified a cross-barred shaft as a paho stick, used in religious ceremonies. She subsequently examined petroglyphs throughout the Anasazi area and found numerous examples of hunting scenes with paho sticks, suggesting that scenes may represent both historical and religious events.

Currently, archaeologists are not able to determine the function of every rock art site. Ethnographic accounts and informant data have identified many examples; unfortunately, many Native Americans admit they are unsure what specific examples of rock art represent. In these cases, function must be explored through the study of the rock art placement, the kinds of elements present, and a comparison with images found on other media. Despite the difficulties inherent in interpreting rock art, it is expected that future studies will provide answers to the basic question of why rock art was created.

PALEOENVIRONMENTAL RECONSTRUCTION

Dorn (1992) has suggested that the analysis of thin sections of rock varnish can provide clues to the paleoenvironmental conditions that existed at the time the rock art was created. In order to be suitable for analysis, the rock varnish must have continuous layers with no periods during which the varnish eroded away. Eroded rock varnish may exhibit pits or truncations. Agents causing erosion can include fungi, wind, and wind-blown particles (Dorn 1992:2-5). A small chip is removed from the rock surface with a tungsten-carbide needle and then mounted on a glass slide for examination under a microscope or through electron microscopy.

Dorn has found four paleoenvironmental signals that can be evaluated with this method: 1) Paleoalkalinity results in rock varnish with reduced amounts of manganese; 2) Paleosilica skins can form on petroglyphs during times of greater moisture; 3) varying levels of paleodust settling result in changes in the micromorphology of the rock varnish. When more dust settles, the rock varnish layers are more layered; and 4) paleovegetation patterns can be examined through analysis of carbon isotopes caught in the varnish. Plants have differing types of carbon isotopes, and these types vary with how wet or dry the area adjacent to the rock varnish is. Dorn notes that paleovegetation studies are preliminary, and much work needs to be done on this topic (Dorn 1992:14-15). Eventually these methods may also be useful for determining the age of rock art since it may possible to link environmental fluctuations to rock varnish changes.

OTHER RESEARCH TOPICS

As more people have become involved in rock art research, the topics covered have diversified. Whitley (1994) and Bass (1994) have examined the issue of gender. Bass's study attempted to identify sexually specific imagery. It has proven difficult, if not impossible, to identify rock art elements that would have been created by persons of only one sex. In part, this is because we don't know what many elements represent. Also, the meaning of certain elements may have changed through time. Bass suggests that female shamans may have created some rock art and that identifying artifacts and/or activities associated with females may be possible. Ethnographic research is one method to help understand gender roles in rock art creation.

Christiansen (1994) has briefly touched on this issue, suggesting that the gender of the person who chipped designs onto rock surfaces might be identified through the presence of designs associated with artifacts manufactured by persons of only one sex.

The identification and study of shamanistic images has been an undercurrent throughout the history of rock art studies. Whitley's (1994) studies of rock art found in the Cosa Range in California indicates that a careful examination of rock art, the ethnographic record of a group, and archaeological data can result in a better understanding of how ancient cultures changed through time.

Several researchers have delved into the role that religious rituals, some of which involved the partaking of hallucinogenic substances; the development of trance states through fasting, chanting, or strenuous activities; and the interpretation of dreams played in the creation of rock art. They call art created during or as a result of these activities entopic art (Whitley 1994; Lewis-Williams and Dowson 1988). Whitley (1994) notes that Native American informants have explained that rock art sites depict men's dreams. Identification of these images requires Native American participation and may be made difficult by the age of a site (with no living informants) or by the desire of Native Americans to keep the information secret or personal.

PREHISTORIC EARTHQUAKE IDENTIFICATION

One unusual outcome of rock art research has been the identification of the occurrence of several prehistoric earthquakes in Arizona. In 1887, a major quake struck northern Mexico. In Tucson and surrounding areas, buildings cracked, boulders rolled down mountain sides, and unusual geological events took place. During the historic period, other earthquakes have shaken the state, but none appear to have been of this magnitude. Was this the worst quake to strike Arizona in the last few thousands of years?

Wallace and Holmlund's 1986 study of the Picacho Peak rock art sites brought to light evidence suggesting that at least two major earthquakes have taken place in southern Arizona in the past. The evidence for the quakes was found in cases where boulders had moved after the glyphs were pecked on them and where boulders were scarred after being struck by or striking other rocks. After recognizing that the only probable cause for this was earth movement, Holmlund (1986) developed a set of characteristics indicative of earthquake activity.

These characteristics include cases where a lighter, patinated boulder rests on top of darker patinated boulders; where petroglyph elements were damaged or broken, including cases where newly exposed areas are partially repatinated; the presence of elements which would have been impossible to peck, given the position of rocks; and the placement of elements on surfaces exposed during seismic activities.

Based on their study of the Picacho Peak glyphs, Wallace and Holmlund (1986) document two major prehistoric earthquakes that rattled southern Arizona, one occurring when the Gila or Hohokam style first appeared on the scene, and one sometime in the late Sedentary or early Classic period. In addition, evidence for the 1887 quake was also visible. At present, these earthquakes have yet to be precisely dated; however, the recently developed cation and radiocarbon techniques, coupled with attempts to date rock movements using lichen, hold promise for the future. Paleo-earthquakes are usually dated through *carbon*-14 dating along fault scarps. This method may help confirm or modify the events documented by Wallace and Holmlund.

Historic vandalism is one problem that must be dealt with because movement of boulders, along with recent scratches and scrapes, can obscure marks left during earthquake episodes. Future researchers should be aware of earthquake-induced movement of and damage to boulders. The evidence from Wallace and Holmlund's 1986 study suggests that a major earthquake occurs every 500 or so years.

SUMMARY OF ROCK ART STUDIES

Rock art research has increased in intensity within the last 30 years, primarily as a result of increased development in the Southwest, spurring cultural resource studies, and also because archaeologists have realized that important data can be found in these prehistoric images.

Recording techniques are becoming more scientifically oriented, with an interest in standardizing data collection, developing the most practical and non-destructive approaches, and collecting the most information possible. Often these site records are the only way to view rock art locations that are geographically inaccessible or have been destroyed by vandals, looters, and development. One concern is that these site records be available for others to examine. It is suggested that they be archived at one of the state institutions that maintain site files. In addition, archival-quality materials should be used to aid in the preservation of the data. Photographs, drawings, maps, and text can also be placed in computer databases and conserved in electronic formats. These formats allow the data to be copied and preserved in several locations, increasing researcher access and preventing the loss of data should a catastrophic event destroy a facility.

A primary concern for researchers has been to determine the date of rock art. Traditional means of dating have relied on association with nearby archaeological sites, a comparison of stylistic characteristics between differing media, and the study of superpositioning. New methods include patination studies, dating rock varnish through cation-ratio or AMS techniques, and the study of lichen growth. Each method has problems associated with it, but researchers are refining these methods and devising new ways of dating rock art.

Rock art was probably created for a number of purposes. Deciphering the reasons a particular panel of petroglyphs, a particular geoglyph, or a painting were made is difficult. Ethnographic and informant data suggest that many depictions were fashioned during ceremonies or religious events. Others are known to have been clan symbols, marking territory or serving as a sign that someone had visited the site. Other possible explanations are that rock art commemorated events, served as an activity to pass the time, provided information about game and other resources, decorated areas, or marked trails. While functional interpretations are often difficult, through various locational, diversity, and proximity analyses, one can identify clues to who was making the elements and their role in that person's society.

One bonus to rock art studies has been the identification of prehistoric earthquakes. Other new areas of study, many incorporating rock varnish analysis, are developing (Dorn 1991). One major topic of study the identification of rock art styles, remains to be addressed. This topic is presented in detail in Chapter 3.

ARIZONA ROCK ART STYLES

Researchers studying Arizona rock art have come to recognize that the images differ from place to place. One set of panels may be covered with painted pictures of humans. Another rock outcropping may have dozens of geometric forms pecked onto its surfaces, many almost completely invisible through weathering and repatination. The elements placed on rock surfaces vary from area to area and also through time. What do these differences mean?

Archaeologists have long recognized that sets of images, or styles, are clearly associated with cultural groups. As these groups change, developing new traditions and ways of life, styles change concurrently. Archaeologists are interested in identifying and studying style because it can provide basic data on cultural group boundaries and changes in traditions. Style also may provide insights into what was important to the prehistoric artists and their societies.

What exactly is style? Definitions of style are often long and complex, full of words that the average person rarely uses. Basically, a style is created by artists who consistently select certain elements within a range of possible elements. The appropriateness of these elements is established by the artist's society. The artist usually stays within these boundaries, although innovation and copying occur and account for the gradual change that takes place.

Style is very important to people. At the lowest level, it serves to unify them and create a group identity. As an example, clothing styles are one way people communicate to others about their cultural background, lifestyles, income, or position. Glancing at people, one can usually place them into categories based on what they are wearing. Similarly, prehistoric people could look at rock art and understand that it was created by a certain group, perhaps for a certain reason.

Unfortunately, rock art researchers do not have the option of asking prehistoric people whether a certain rock art style was used by one group or why the rock art was created. Instead, the researchers must examine rock art over a broad area in order to identify the patterns that define a style. In Arizona, many rock art styles have been identified due to distinctive sets of elements, techniques, and their geographical locations.

This chapter begins with a discussion of Arizona style names and how the names used in this report were determined. This is followed by a brief overview of Arizona prehistory. Finally, each rock art style is described in detail, with the characteristic images of each named. The location for the style is mapped, and representative elements are illustrated in photographs or drawings. The style section is divided into three broad time periods, and within each time period, geographical or cultural divisions are made. Each cultural group is briefly summarized to give the reader an impression of its history.

ARIZONA STYLE NAMES

A serious problem with rock art studies is the proliferation of style names. Many recognized styles have two, three, or even four different names. Unlike ceramicists, who create style names that are documented and then used by other researchers, rock art studies are plagued by the continual creation of new names. This creates confusion when one researcher uses a variant, whereas another uses a different name. A review of naming procedures used by researchers classifying Arizona rock art indicates that researchers have used temporal designations (i.e., Basketmaker III-Early Pueblo), locational designations (Glen Canyon 5), or a combination of locational and descriptive (Barrier Canyon Anthropomorph). In this

report, each style is given a three-part name. The first word is the name for the cultural group thought to have created the rock art. The second name is a descriptive name that has been given to a style by a previous researcher. (The second name may actually have two words due to past naming practices and can either be locational, temporal, or descriptive in nature.) The third name is the particular kind of rock art represented (petroglyph, pictograph, or geoglyph).

As each style is discussed, all previous style names are also presented. It is hoped that future researchers will select a standard style nomenclature and that researchers will consistently use these names. It has proven to be extremely difficult to map the distribution of rock art sites using style names provided in site records.

It is recognized that many people will be unhappy about the methods used to assign style names in this report. Style is one of the more difficult areas of rock art research because it has been so subjective to date. It is hoped that this report will spur a more conservative attitude for style name creation.

A BRIEF OVERVIEW OF ARIZONA PREHISTORY

Before discussing rock art, a brief overview of Arizona's prehistory and history is necessary. The state was first visited by people more than 10,000 years ago. These early people are called Paleoindians by archaeologists; no one knows what they actually called themselves. Paleoindians were first recognized archaeologically after several kill sites were discovered, each with the distinctive fluted points associated with the bones of extinct megafauna. Scientists came to believe that the Paleoindians were mobile big-game hunters, traveling behind the herds of mammoths and other animals that populated the state at that time. There was a tendency to focus on these spectacular sites because they were easier to discover and interpret. However, much of a Paleoindian's time probably was spent gathering plant foods and hunting small game.

In any case, the herds of mammoth, camelid, giant sloth, and large forms of bison eventually died out, either due to overhunting or possibly because of environmental changes. By 5500 B.C., the Paleoindians had to seek out a new lifestyle (Cordell 1984:122-123).

The Archaic period (5500 B.C. to A.D. 100) saw the development of hunting directed toward rabbit-sized and deer-sized animals and the use of many species of wild plants. The Archaic people were probably quite mobile, moving to new places after exhausting resources in an area. Archaic period sites are identified through the presence of distinctive projectile points and the presence of grinding stones used to process plant foods. The discovery of village sites indicates that some groups settled in the same area, perhaps growing the new crops brought in from Mesoamerica, to the south.

In Arizona the development of agriculturally based communities began around 1200 to 1000 B.C. Originally, agriculture may have been a part-time activity; people still depended on hunting and gathering of foodstuffs for most of their diet. Through time, agriculture became more important to these people, and as a result, they became more restricted to the area they canvassed for food and raw materials. Several cultural groups developed, living in similar ways but distinguished by certain kinds of artifacts or ways of constructing their houses. We know them today as the Hohokam, Anasazi, and Mogollon, and like the other earlier groups, what they called themselves is unknown. It is known that they were skilled in surviving in the desert Southwest. They developed new techniques to grow crops, including the use of irrigation. Craft production rose to new artistic peaks with the creation of decorated pottery and intricately woven fabrics and basketry. Ceremonial activities also became more elaborate, with carefully constructed facilities such as ballcourts and kivas. The Hohokam civilization grew increasingly complex and then quickly disappeared into the desert. The Anasazi and Mogollon people survived environmental and social problems and were found still living in their pueblos when the earliest Spanish explorers passed through Arizona in the 1540s (Plog 1979; Martin 1979).

The arrival of the Spaniards forever changed the lives of Arizona Native American groups. Many died as European diseases ravaged communities. Others faced new hardships brought on by changing intertribal relationships, exposure to new technology and ways of life, and integration into the Euro-American culture. Currently, about three million people reside in Arizona.

THE OLDEST ROCK ART IN ARIZONA

When was the first rock art created in Arizona? Other parts of the world, such as Europe and Australia, have very old rock art that dates to the end of the last ice age, perhaps as much as 40,000 to 50,000 years ago. Currently, the oldest rock art in Arizona is believed to be from the Archaic period. However, it is possible that older art exists. Paleoindian petroglyphs may not have been recognized due to their complete repatination, loss through weathering, or because elements thought to be Archaic period in origin may actually be Paleoindian. The problem of determining the date of the oldest rock art will not be solved until dating methods have been rigorously tested.

Whitley and Dorn (1993) have dated a geometric petroglyph from Petrified Forest National Park to the "Pre-Clovis" period. They extracted organic material from below the rock varnish layer in the weathering rind and interface layers. From this material, they obtained accelerator mass spectroscopy dates of about 18,200 and 16,600 years ago. These dates support their cation-ratio dates. Whether this petroglyph was created by a Pre-Clovis person remains uncertain since the dates and the techniques used are new and are currently controversial.

The examination of rock art sites throughout the greater Southwest resulted in the identification of a similar set of elements that were heavily repatinated, often lying below later elements. Unlike the later elements, the older glyphs are remarkably similar, suggesting that they were created by a very mobile set of people. In all likelihood, the creators of these elements were the Archaic period people.

As noted, the Archaic period saw an emphasis on hunting of small animals and the gathering of plants. The megafauna that the Paleoindians hunted were gone, replaced by the species such as elk, bison, deer, and antelope, among others. Archaic people developed new technologies and hunting methods in order to capture these species. The use of plant foods increased. Cultivated plants were introduced from Mesoamerica, however these plants were very gradually adopted and probably had little effect on people's lives until about 1 A.D. (Cordell 1984:153). Decreasing mobility is suggested by the use of local stone for tools. Baskets were used as containers, pottery was yet to be extensively produced. We know little about these people's religion except that the small fired clay figurines, typically of females, may have been important, perhaps as fertility symbols.

As noted above, people studying rock art in Arizona recognized that it wasn't all created during the same time period. It was obvious that some images were older than others. In many cases elements had been placed on top of earlier images. In other cases, images placed on the same rock art surface have weathered differently. By studying superpositioning, patination, and differential weathering, it was possible to determine that the earlier images differed significantly from later images. These earlier images have been named the **Western** or **Desert Archaic** style. Some refer to this style as the **Great Basin Abstract** style; however since Arizona is clearly outside of the Great Basin, the name **Western Archaic Petroglyph** style is used in this report.

The Western Archaic style was originally defined by Heizer and Baumhoff (1962), and it was also used by Schaafsma (1975, 1980:36-43), Hedges (1982), Hedges and Hamann (1992, 1993, 1994), and Wallace and Holmlund (1986). This element is found throughout Arizona, into eastern California, northern Chihuahua and possibly Sonora, southwestern Colorado, southern Utah, and eastern New Mexico. It dates to the Archaic period and in southern Arizona may have continued into the Hohokam Colonial period (perhaps as late as A.D. 800). Western Archaic rock art sites have been dated in New Mexico and Colorado, through the lack of bow-and-arrow elements and the presence of atlatls, site associations, carbon-14 dating

of overlying deposits, and AMS dating, as well as through Hohokam ceramic element correlations (Schaafsma 1980; Wallace 1989).

Western Archaic rock art elements are typically abstract and curvilinear, and stylistic variability appears to be quite low (Wallace 1989:37). Petroglyph elements are created through direct percussion; a hammerstone was used to peck the elements. These elements often follow the shape and surface of the rock panel upon which they are placed. Typical Western Archaic elements include grids, rakes, and ladders (Figures 3.1-3.3) (see Table 3.1).

Examination of the names given to various elements brings out one problem of rock art studies—what to call particular elements, especially geometric or abstract ones. Modern researchers have sought to establish standard element names that will be used by other researchers. One benefit of using these names is that this allows researchers to compare sets of elements among sites. One problem is that researchers may not know what an element represents, and therefore, they have to create names, usually based on the element's resemblance to an everyday item. As an example, the "centipede/cornstalk" element is a vertical line with smaller, perpendicular horizontal lines. While it resembles the centipede or corn stalk, it may have represented something else to the artist. Therefore, it is important not to equate element names with their interpretations.

Most Archaic period elements resemble those created by the later Hohokam. These include circles, bull's-eyes, concentric circles, sun disks, and parallel lines. In general, elements belonging to this style may be identified through their heavy repatination, their occasional presence below later images, and the adaptive use of rock surfaces during element placement. It should be noted that local variations occur for this style, but these are not yet well defined across Arizona (Wallace and Holmlund 1986:84-86)

The **Archaic Scratched** style has been recognized throughout Arizona. These elements are old enough to be completely repatinated, making it difficult to locate and interpret them. Elements are simple and may consist of curved lines, lines of small tick marks, chevrons, grids, and asterisks. Reuse of the same rock art panel is common, and as a result, individual patterns may be difficult to discern. Rectilinear patterns, similar to those found in pecked Western Archaic petroglyphs, are the most common elements. Occasionally zoomorphic elements are found, with snakes being the most prevalent (Pilles 1994). The date of this style remains uncertain, and modern dating methods have yet to be applied.

There are a number of local Archaic period styles. Among these is the **Chihuahuan Polychrome Abstract Pictograph,** which is distinct enough and located in a small enough area to be called a separate style, although many of the elements are similar to the Desert Archaic Abstract Petroglyphs (Schaafsma 1980:49-55; Burton 1988). This style consists of polychrome abstract elements in colors of yellow, red, orange, black, and white. Characteristic elements include short parallel lines and zigzags (Schaafsma 1980:49). Fringed lines, diamond chains, triangles, circles, dots, sunbursts, other abstract elements, and solid areas of paint have also been found (Burton 1988:32). This style has been found in the Gila River Valley (Rucks 1983) and in southeast Arizona (Burton 1988).

In northern Arizona, there are a few examples of styles that are found mainly outside the state. The **Archaic Barrier Canyon Anthropomorph Pictograph** style consists of paintings of long-bodied anthropomorphs fashioned in dark colors. These figures stand in rows below rock overhangs, presenting a ghost-like image (Figure 3.4) (Schaafsma 1980:61-72). Each figure is elongated and very abstract in form. Arms and legs are often lacking, and torsos may be decorated with white dots and linear patterns. Skeletal elements and figures with large staring eyes are distinctive. Zoomorphs include carnivores and snakes, along with small flying birds. The style has been dated to be older than A.D. 350, possibly extending as far back as 4000 B.C. The first recorded site of this style in Arizona is located in the Grand Canyon, to the south of where it is most often found, possibly representing the southernmost expression of this style (Schaafsma 1990). A few other sites with rock art of this style have subsequently been identified in the Kaibab National Forest, northwest of the Grand Canyon. Davenport et al. (1992) report Barrier Canyon pictographs at Snake Gulch, a northern tributary of the Grand Canyon. Pilles (1994) has

a

b

Figure 3.1. Western Archaic Petroglyph elements are typically rectilinear or curvilinear: a, Petrified Forest National Park (photo by R. Serface, 1991); b, Picacho Mountains (photo by P. Whitley, 1992).

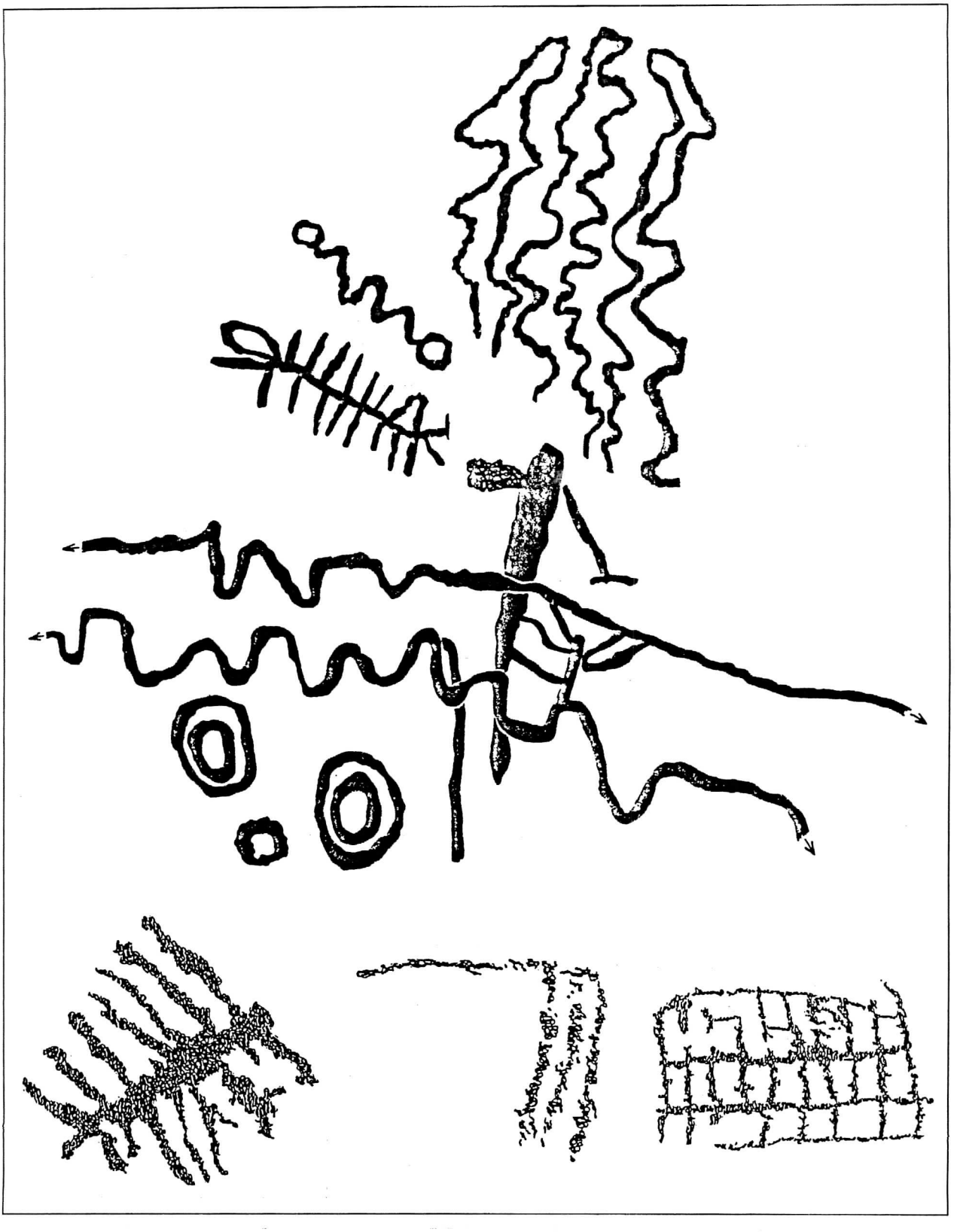


Figure 3.2. Grid and rake patterns are also typical of the Western Archaic Petroglyph tradition. Yuma Proving Ground (Schaefer et al. 1993).

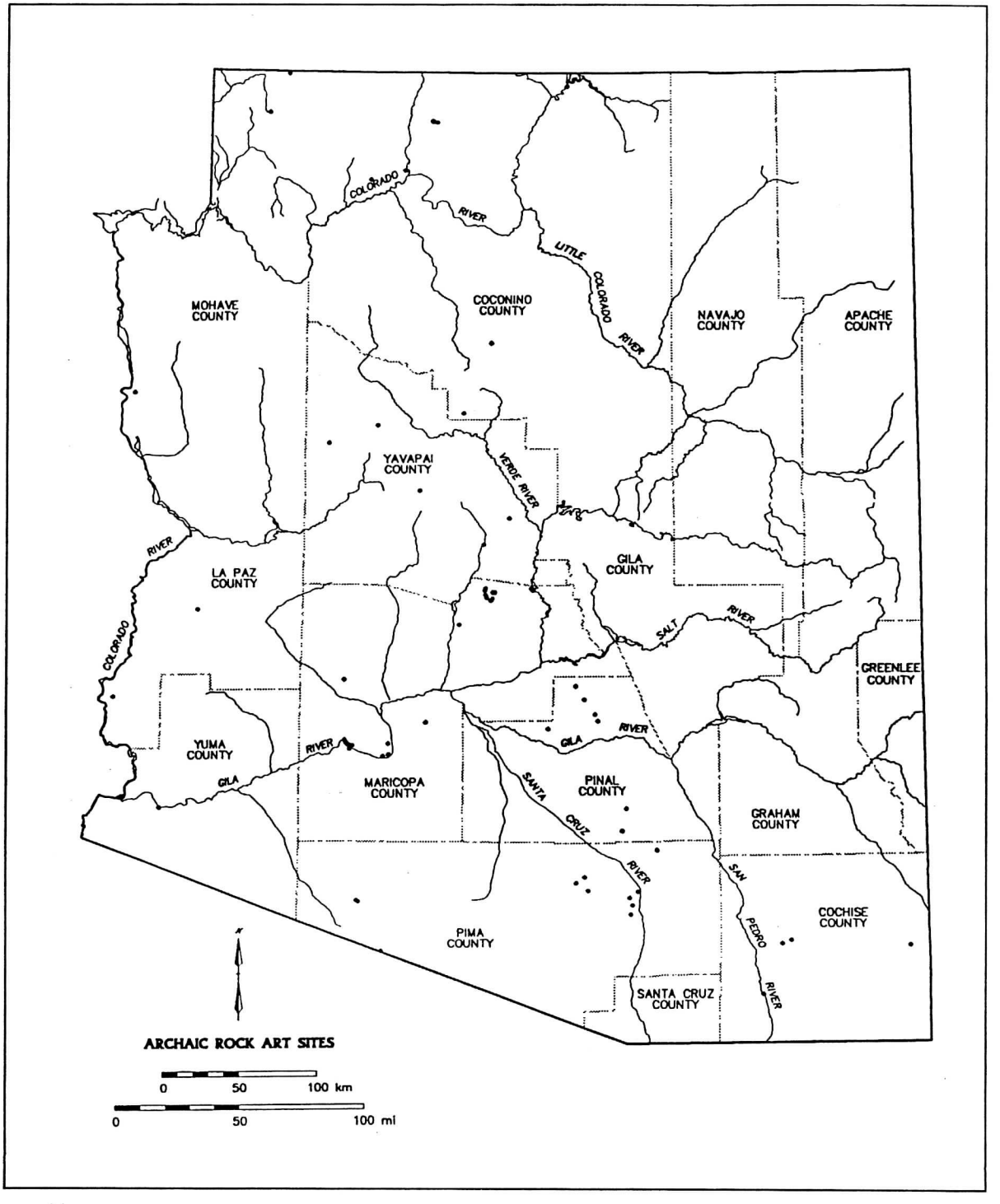


Figure 3.3. Distribution of Western Archaic Petroglyph sites in Arizona documented in site records.

Table 3.1. Typical Western Archaic Petroglyph Elements.

Category	Description
Anthropomorph	Footprint
	Vulvaforms*
Material culture	Atlatls
Zoomorph	Centipedes / cornstalks
Geometric	Grids
	Gridirons
	Rakes
	Double rakes
	Ladders
	Sectioned rectangles*
	Curvilinear margined grids*
	Curve-backed rakes*
	Single or sets of zigzags

*These elements may be unique to the Desert Archaic Abstract style.

also discovered several probably Barrier Canyon anthropomorphs in the Sedona area. These images have white rectangular torsos outlined in red, rounded "lump" heads and white dots extending along arms and across the figures' foreheads. These elements may represent the southernmost occurrences of this style.

Allen (1994) feels that the Barrier Canyon name should not be applied to the Grand Canyon pictographs. She prefers the name Grand Canyon Polychrome style and suggests that the designs found at eleven northwestern Arizona sties differ from the definition of Barrier Canyon style. Specifically, she defines the Grand Canyon Polychrome style as having crowded compositions, superimposed figures (often simplistic white forms that are superimposed over polychrome images), distinctive elements such and "panthers," three-headed and / or knob-shouldered figures, and quadrupeds. Anthropomorph figures may have eyelashes, painted fingernails, and polka-dot decorations, and many are life-size. Bodies are typically long, narrow, and rectangular. Many figures have no necks or shoulders or have their arms outstretched (Allen 1994:100) (see Figure 3.5). The images are painted in dark red, white, black, yellow, ocher, and olive green. Whether these pictography sites represent Barrier Canyon or a separate Grand Canyon Polychrome style will require further study.

The **Archaic Glen Canyon Linear Petroglyph** style (Schaafsma 1980:72-76) is found along the northeastern border of Arizona. It is also known as Glen Canyon Style 5 (Turner 1963:7) (Figure 3.6). It consists of deeply pecked, rectilinear outline forms. The elements are sometimes filled with horizontal and vertical hatching, and solid pecked areas are rare. Animal figures include mountain sheep and deer. Human figures have large torsos with arms and legs that are very simplified (Turner 1963:7). Elaborate headdresses are sometimes present. Abstract elements associated with this style include wavy lines, ticked lines, lines of dots, rakes, zigzags, ladders, connected circles, grids, and sunbursts (Turner 1963). Long wandering lines are particularly distinctive. This particular style may bridge the gap between the Archaic period and the Basketmaker Anasazi. Pilles (1975) and Schaafsma (1980:75-76) date the style to the Basketmaker II period.

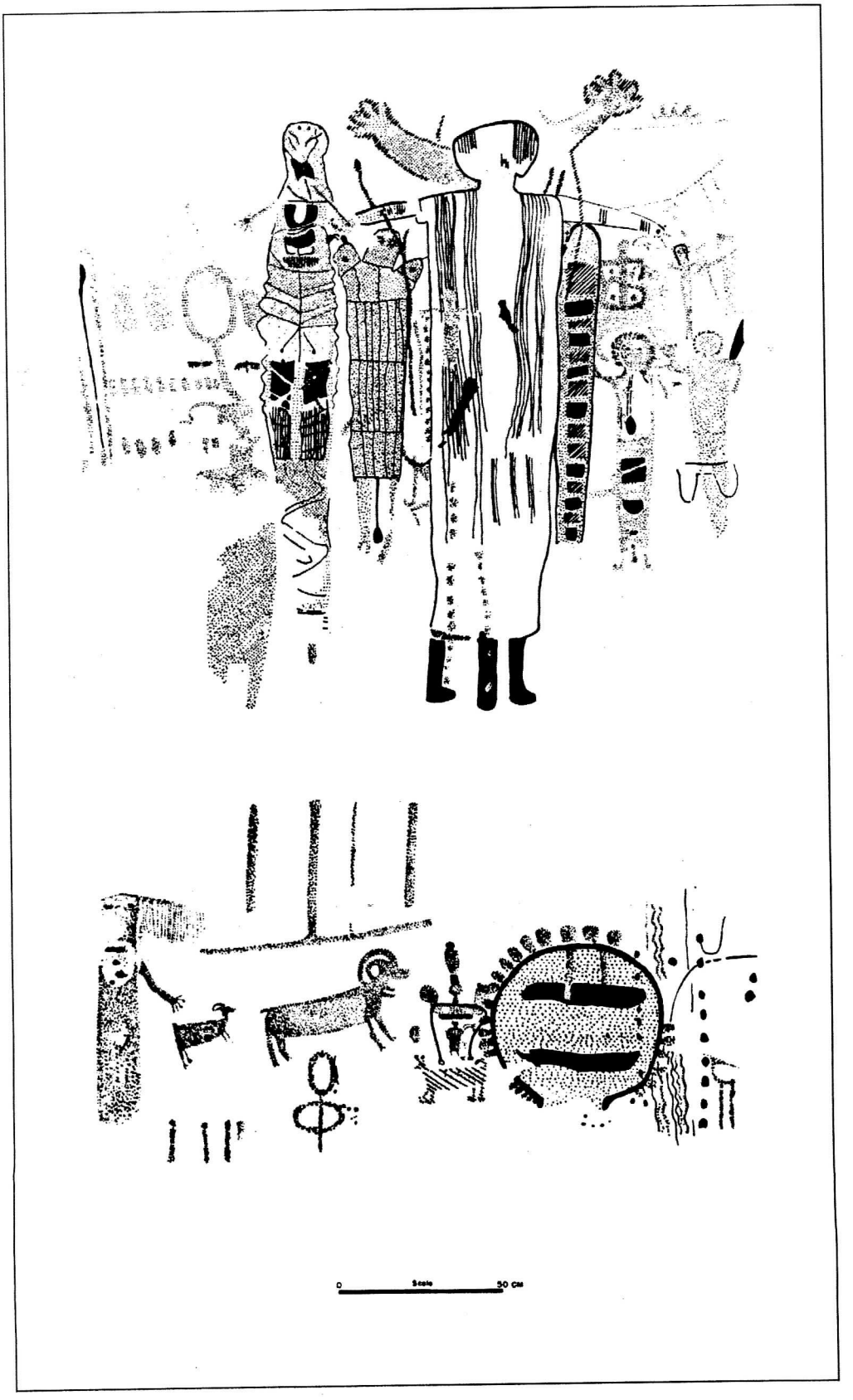


Figure 3.4. Archaic Barrier Canyon Anthropomorph Pictographs have been recorded in the Grand Canyon area. Shaman's Gallery, Grand Canyon National Park (Schaafsma 1990, courtesy of the Arizona Archaeological and Historical Society).

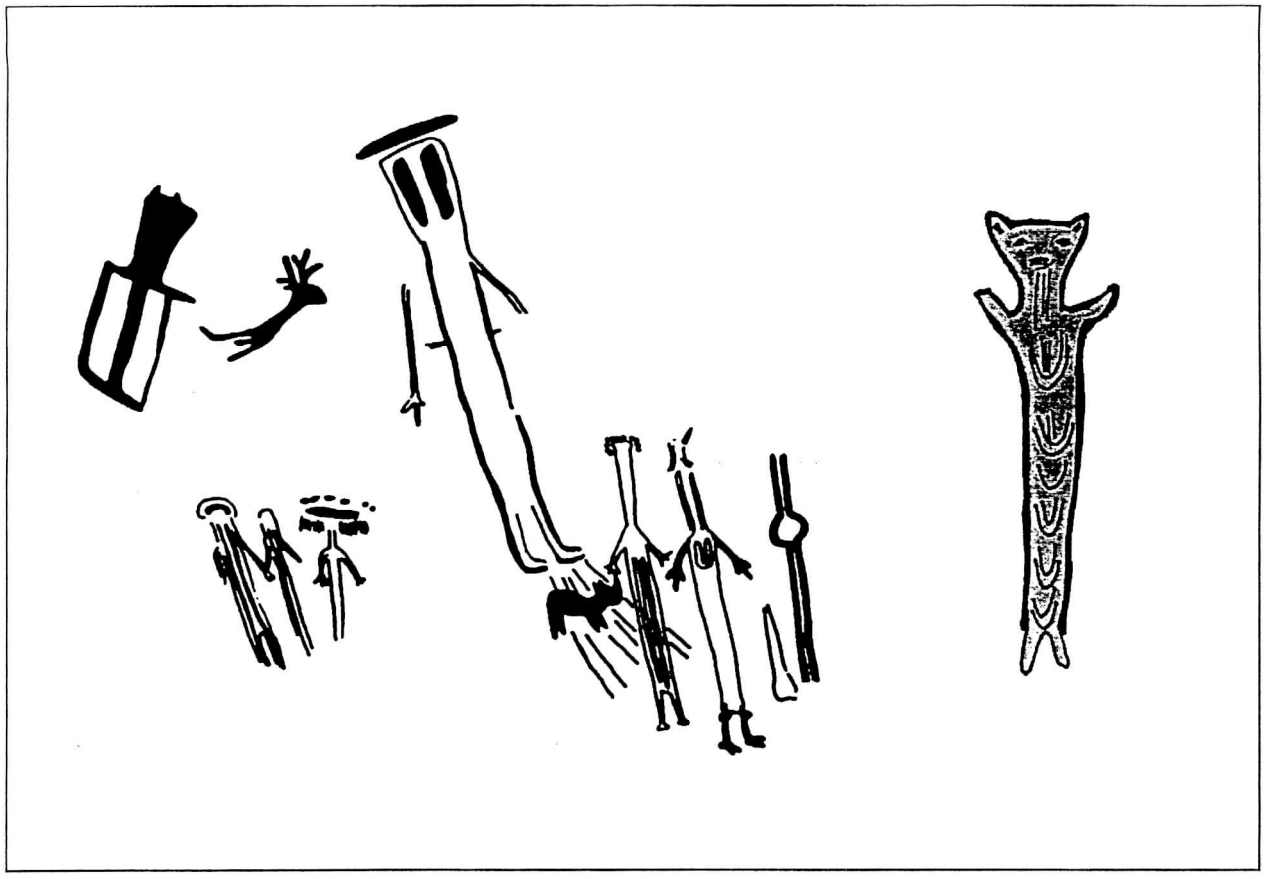


Figure 3.5. Archaic Barrier Canyon Anthropomorphs (also known as Grand Canyon Polychrome) style designs are found in northeastern Arizona (Allen 1994).

Researchers often find rocks with ground areas (Figure 3.7). In California, these are known as the **Pit and Groove** style. In that state, grooves are commonly found and pits are rare. In Arizona, the opposite is true. Many are thought to date to the Archaic period, but they continued long afterward. There is not even a consensus as to what these elements represent. Some believe they are art, whereas others suggest that they were created as part of tool preparation or food-grinding activities. Two ground areas are found: small round areas are known as cupule, and linear ground areas as grooves.

The basic problem (mentioned above) is whether these ground areas represent art or actually have a functional role. Wallace and Holmlund (1986) argue that the pits or cupules represent areas where ground stone tools or pestles were manufactured. They believe that multiple functions or activities were involved in the creation of cupules. Many cupules are associated with petroglyphs, and they suggest that the hammerstones used to make the elements may have been manufactured or retouched, creating cupules in the process. Other cupules are found in association with bedrock mortars, which are large holes worn into rocks. Bedrock mortars were used to process plant foods through pounding them with a large pestle. The cupules may have been produced as a by-product when the grinding ends of pestles were blunted for use in mortars (Wallace 1989:38-39). There are a few sites where cupules may have been created as art; however, it is improbable that these actually can be thought of as a style (Wallace 1989:39).

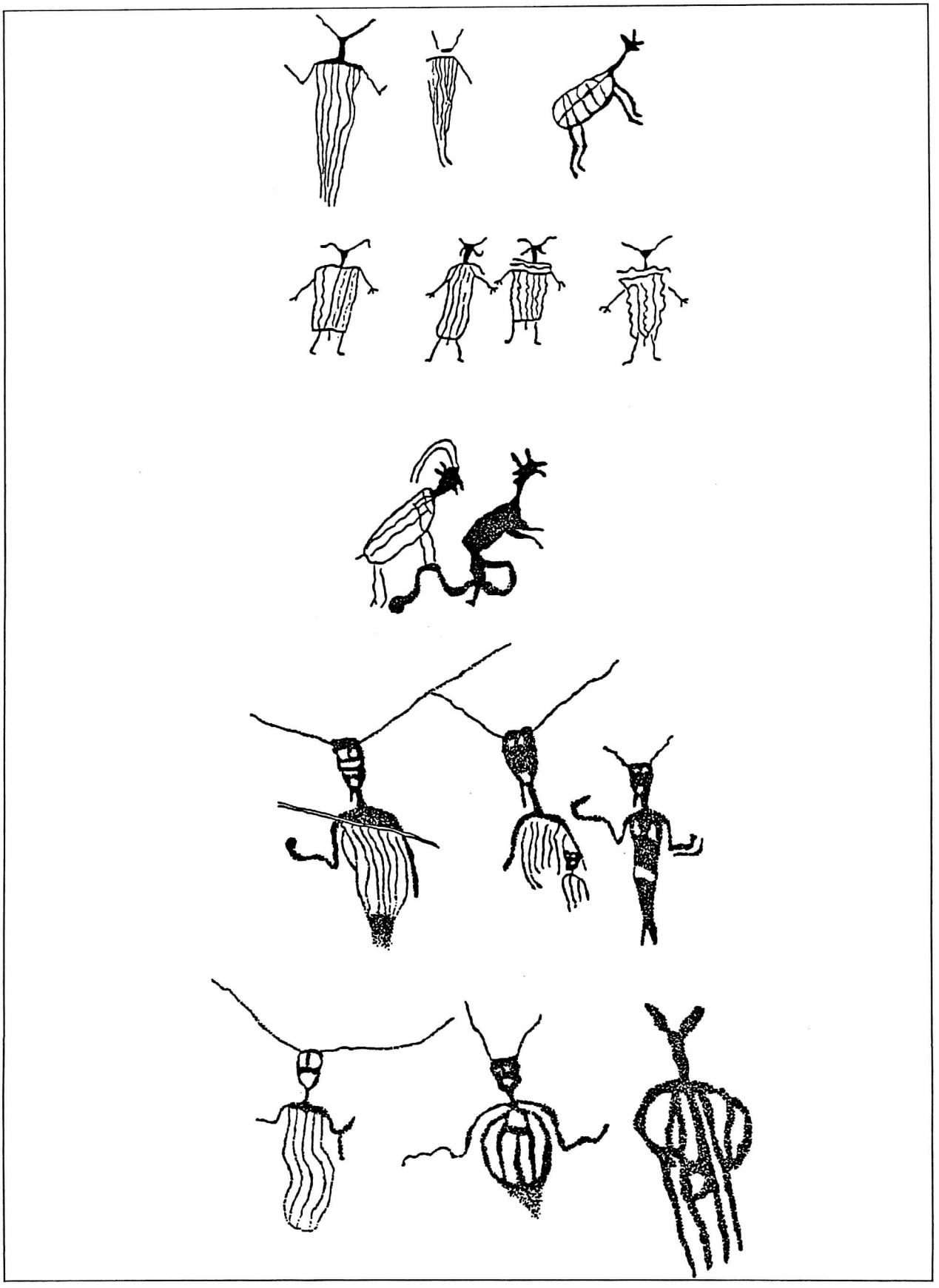


Figure 3.6. Archaic Glen Canyon Linear Petroglyphs are found in northern Arizona and are charactized by deeply pecked, rectilinear life forms (Davenport et al. 1992).

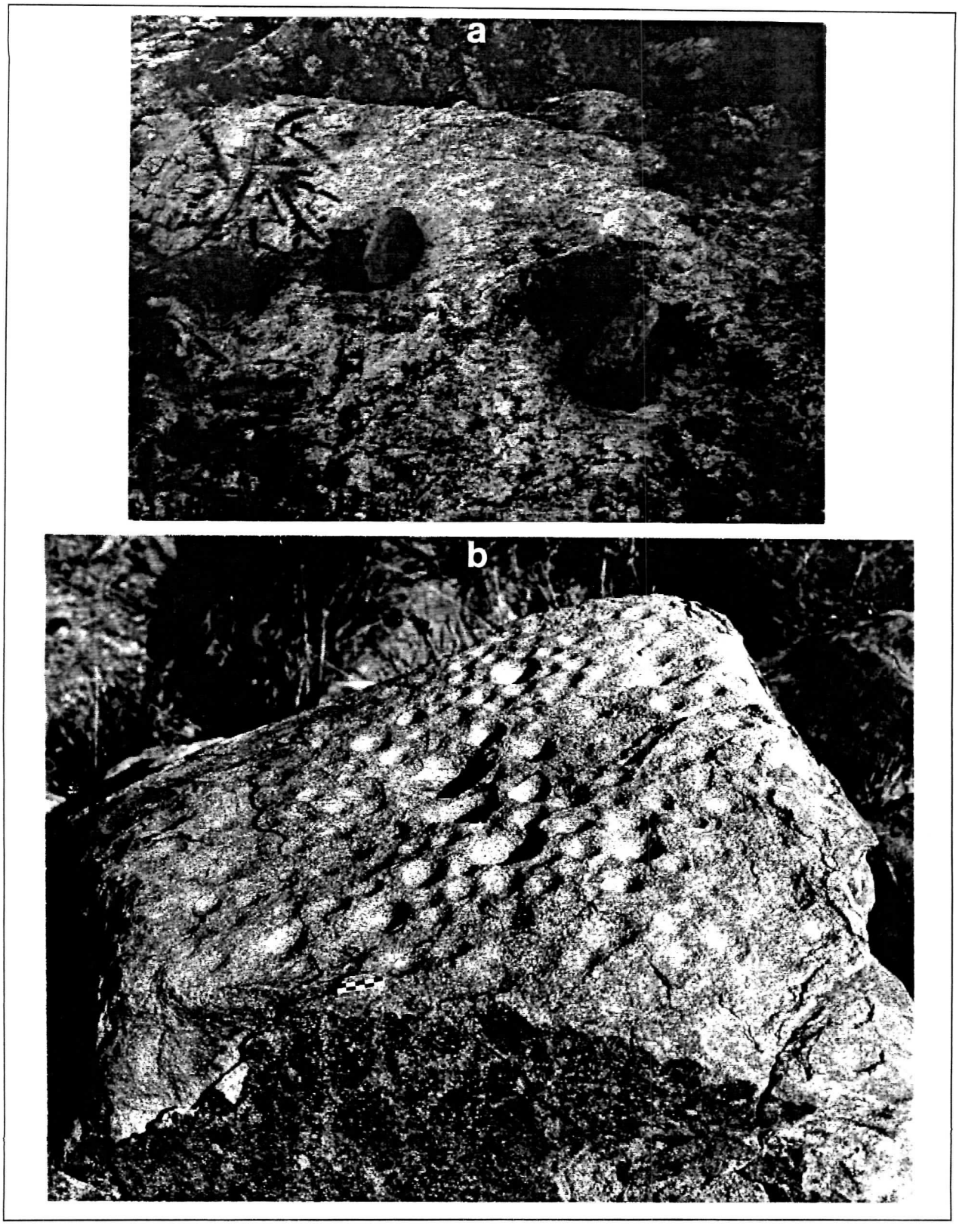


Figure 3.7. Cupules and bedrock mortars are often associated with rock art sites: a, Coyote Mountains (photo by R. Serface, 1993); b, Sutherland Wash (photo by H. Wallace).

THE DEVELOPMENT OF REGIONAL DIFFERENCES IN ROCK ART

The Archaic people were probably quite mobile, moving from place to place as they used up local resources. Eventually, some groups began to live in certain areas for extended periods of time, building more substantial houses, growing crops, and developing new technologies such as pottery manufacturing.

The development of regional styles of rock art occurred during a time period that also saw pottery, projectile points, houses, and other items become regionally diverse. People in certain areas chose one way of doing things over other possibilities. The reasons for such decisions are complex, and we will probably never know exactly why a certain method or style was chosen over another. One result of these decisions is the ability to delineate cultural boundaries through the study of certain traits that distinguish each cultural group.

Archaeologists have identified three large prehistoric cultural areas in Arizona: the **Hohokam** area in southern Arizona, the **Mogollon** area in eastern Arizona, and the **Anasazi** area in northern Arizona. The **Sinagua** area, in central Arizona, was home to a cultural group that existed from 600 to 1300 A.D. before merging with the Hopi (Pilles 1987). Other cultural groups include the **Salado** in the Tonto Basin, the **Patayan** in southwestern Arizona, the **Western Pueblo** in east-central Arizona, and the **Trincheras** culture is southern Arizona. Within the larger cultural areas there are also smaller regional groups. As an example, the Hohokam cultural area encompasses both the Phoenix and Tucson basin, but pottery kinds differ between these two regions. In terms of rock art, the three larger groups have been well-documented. Rock art researchers have been able to associate certain rock art styles with each of these major prehistoric cultural groups in Arizona due to the geographic distribution of the rock art and because the elements vary among areas. Each of the major cultural areas and its associated rock art is detailed below (Western Pueblo images are included with Anasazi and the Trincheras with Hohokam in this report).

Hohokam Rock Art

In southern Arizona, the **Hohokam Petroglyph** style and the **Hohokam Pictograph** style, also known as the **Gila** style, are most commonly found (Figures 3.8-3.11). Associated with the Hohokam people, who lived in the desert Southwest area around modern Phoenix and Tucson, these elements may have been created from A.D. 800 to A.D. 1450. The desert Hohokam grew corn, beans, squash, and cotton through dry farming, floodwater farming, or irrigation. They built their houses in shallow pits, using poles to support mud-covered roofs. Ramadas shaded areas where cooking or craft activities may have taken place. Later, many of the Hohokam chose to live in masonry and adobe pit and surface structures, some residing inside walled areas called compounds. Other distinctive kinds of architecture are the ballcourts and platform mounds, both of which may have served in Hohokam rituals. The Hohokam are well-known for their creation of red-on-buff ceramics, etched and carved shell jewelry, turquoise mosaics, and clay figurines. The Hohokam first cremated their dead, and then switched to inhumation burials.

The Hohokam also created large quantities of rock art, mainly petroglyphs. Most petroglyphs were produced using the direct percussion technique (Wallace 1983). The quality of the rock art varies from crudely pecked images to carefully executed scenes. Hammerstones have been found at a number of petroglyph sites (Bostwick 1989:15). Occasional pictograph elements have been found; their rarity may be a result of the lack of suitable surfaces or their placement on surfaces that were exposed to the elements, preventing long-term preservation.

The images made by the Hohokam were extremely diverse; however, a number of generalizations can be made. Both abstract and representational elements were created. Abstract or geometric elements include curvilinear elements, often incorporating variations of circles (Wellman 1979:78-79; Schaafsma 1980:93-91). These include simple circles, spirals, scrolls, bull's-eyes, and circles attached together by lines. Other geometric elements include meandering lines and outlined crosses.

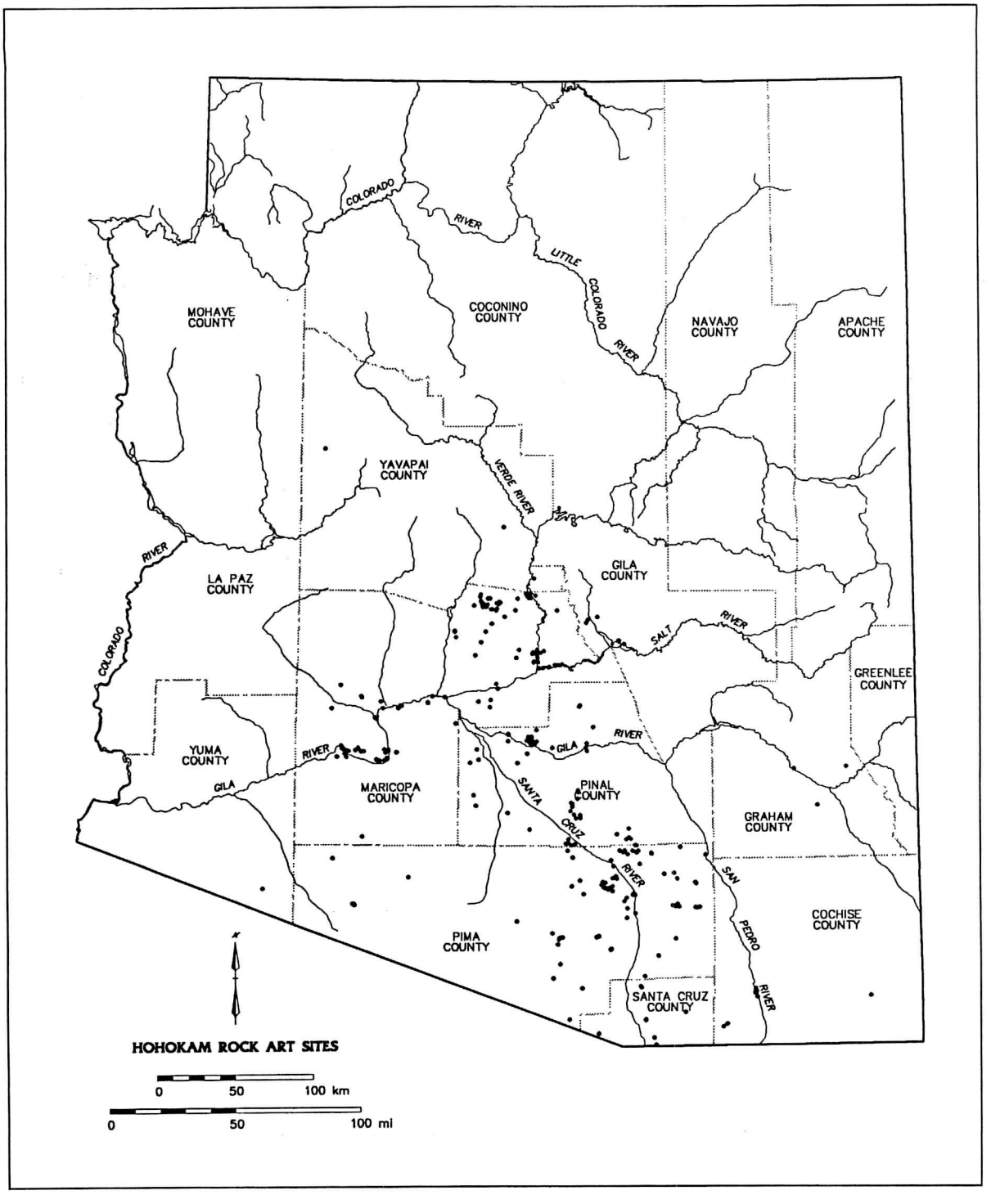


Figure 3.8. Distribution of Hohokam rock art sites according to site records.

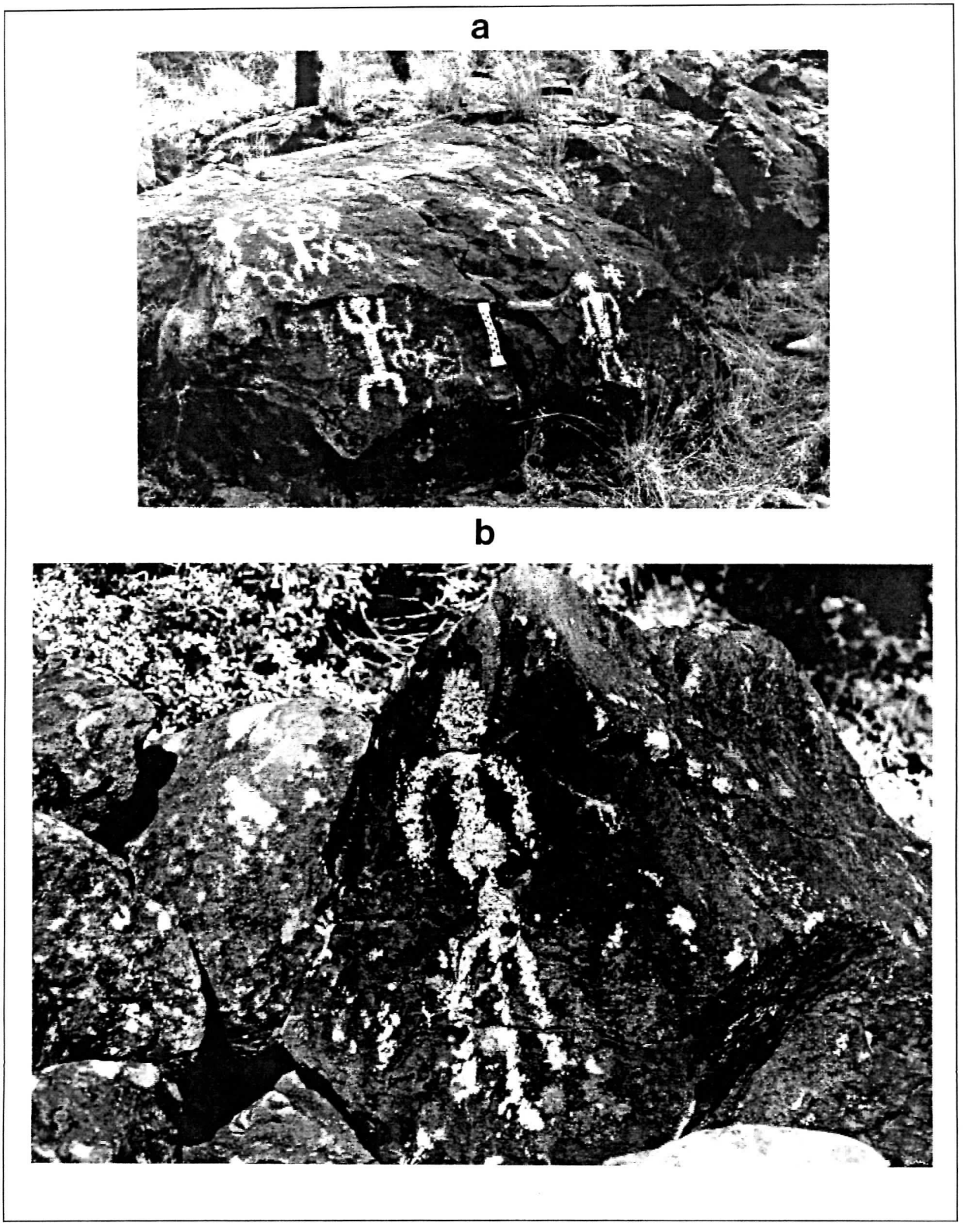


Figure 3.9. Hohokam Petroglyphs include many variations of human stick figures: a, Saguaro National Monument (photo by R. Serface, 1991); b, Pan Quemado (photo by P. Whitley, 1988).

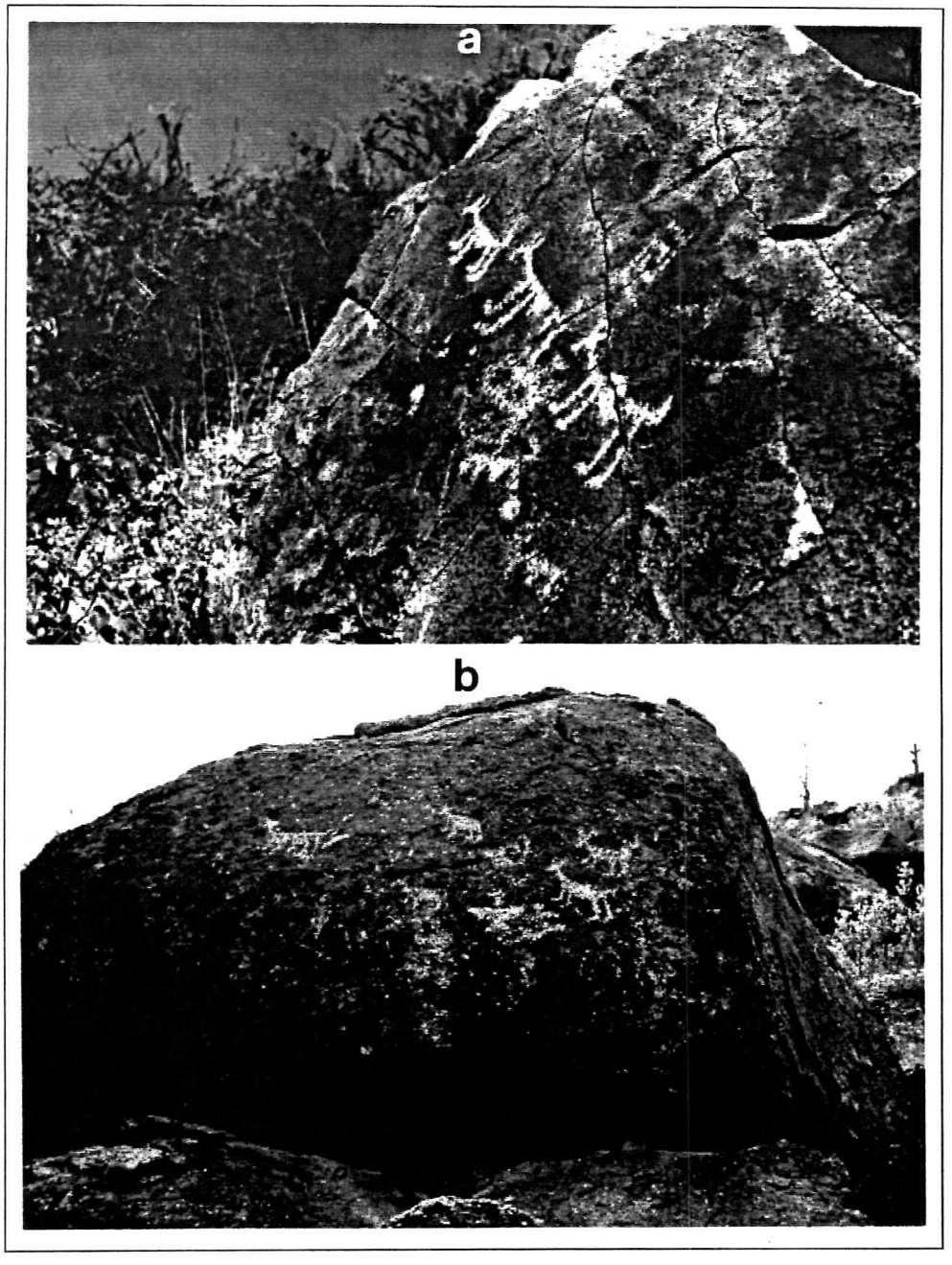


Figure 3.10. Zoomorphs from Hohokam rock art sites are often quadrupeds that could represent deer, antelope, dogs, or coyotes: a, Coyote Mountains (photo by R. Serface, 1991); b, Gila Bend (photo by P. Whitley, 1988).

A distinctive Hohokam geometric element is the pipette. These bilaterally symmetrical, lobed figures are believed to date to the Classic period (A.D. 1150 to 1450). Some of the pipettes have dots or circles between lobes. What these symbols mean is unclear, although they may represent a Mesoamerican deity, perhaps similar to one known as Tlaloc (Wallace and Holmlund 1986:151). Golio et al. (1994) have documented the presence of 59 pipettes, 21 of which are found in the South Mountains in Phoenix. They do not agree with the Tlaloc interpretation.

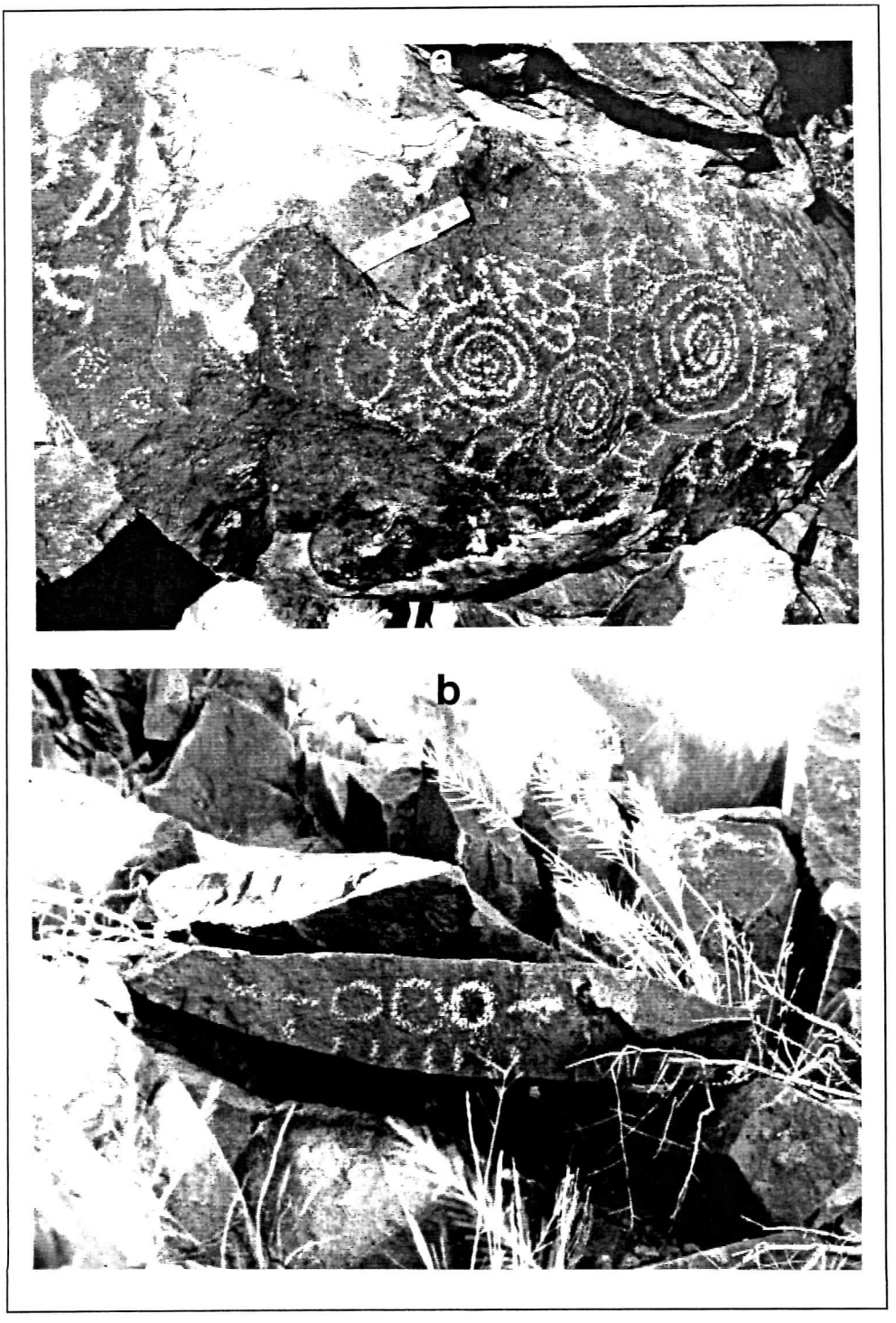


Figure 3.11. Hohokam Petroglyph geometric elements often incorporate circular patterns: a, Saguaro National Monument (photo by R. Serface, 1991); b, Organ Pipe National Monument (photo by R. Serface, 1992).

Representational figures are very common, often forming the majority of images at a particular site. Anthropomorphs are usually simple stick figures. Human figures often show movement, engaging in dance, flute playing, or in hunting (Jernigan 1992; Slifer and Duffield 1994:106). They are rarely elaborate; however, some human figures have expanded torsos, sexual organs, fingers, and toes, along with occasional headdresses, some of which may be feathers. Anthropomorphs found on Hohokam ceramics are often very similar to those depicted on rock art.

Animal figures are often unidentifiable to a particular species. These quadrupeds may have expanded midbodies or bellies. Some believe that they represent pregnant animals, whereas others think that this was merely the Hohokam way of depicting animals. Identifiable species include dogs or coyotes, mountain sheep, and deer or antelope. Sometimes the deer/antelope and mountain sheep have over-sized antlers and horns or horns that are reversed. Rarer species depicted include snakes (coiled and extended), turtles, birds, and insects. Lizards are common, although some of the lizards may actually be men with exaggerated sexual organs. Bird elements are rarer, but have been found in the South Mountains. Table 3.2 lists elements commonly found at Hohokam rock art sites.

Schaafsma (1980:83-91) noted that Hohokam style petroglyphs have abstract and representational elements appearing together on the same composition and that individual glyph placement was probably random. This may be the case for some panels; however, many examples of scenes have since been identified including possible births, a curing ceremony, hunting events, and a courtyard group map on Kitt Peak. Martynec (1986) documents one scene involving hand-holding human stick figures and with one person grasping a mountain sheep. Other scenes include lines of mountain sheep. Some of the reported randomness is a result of the reuse of petroglyph sites over and over again, obscuring earlier integrated elements.

Rock art researchers have reported element frequencies for a number of Hohokam petroglyph sites. These counts were examined to determine whether Hohokam artists typically chose one kind of element over another (See Table 3.3).

These frequencies indicate that there is considerable variability within the Hohokam Style area in terms of what elements were pecked onto rocks. Schaafsma (1980) believed that the Phoenix area had more life forms than the Tucson Basin, but this does not appear to be the case. Whether this variability demonstrates a particular artist's or group of artists' personal preferences, differing site functions, or temporal differences remains unknown.

Attempts to discover regional differences in Hohokam rock art are in their initial stages. Certain style markers such as hourglass-bodied anthropomorphs may be more common in the Phoenix area than in outlying areas. Table 3.3 demonstrates that simple element tallies will not be sufficient to discern regional variation. Instead, researchers must focus on the elements themselves, how they were made, and how they were placed in relationship to one another on the rocks. This may also allow for an understanding of how Hohokam rock art changed through time, an area that is also poorly known.

Non-archaeologists have noted that important information can be gleaned from rock art. David Brown (1993) has tracked animal populations in Arizona through the study of rock art. He notes the lack of javelinas in Hohokam petroglyphs, a fact that supports their recent movement into the state. Excavations at prehistoric sites have also failed to uncover javelina remains. Similarly, the study of bighorn sheep images may pinpoint their prehistoric distribution.

Ferg (1979) described what he called the **Hohokam Scratched Petroglyph** style. This style consists of lines scratched onto rock faces. Originally thought to be modern vandalism, he discovered several examples where the scratched elements underlay later pecked elements, indicating that they had greater antiquity, possibly even dating to the Archaic period. Martynec (1986:108-109) and Wallace (1983:205) document additional cases of scratched petroglyphs lying below later pecked examples. Martynec described the

Table 3.2. Hohokam Petroglyph elements.

Category	Description
Anthropomorphs	Stick figure humans
	Expanded torso humans
	Hourglass body humans
Zoomorphs	Unidentified quadrupeds
	Dogs or coyotes
	Deer
	Mountain lions
	Antelope
	Mountain sheep
	Lizards and lizard-men
	Snakes
	Horned lizards
	Rattlesnakes
	Turkeys
Artifacts	Bows and arrows
	Spears
	Flutes
	Staffs
Geometrics	Circles (circle clusters, chains, pairs, concentric circles, chains, bull's-eyes)
	Dint patterns
	Meandering lines
	Pipettes

Table 3.3. Elements at Hohokam style rock art sites (percentages).

Site	Anthropomorph	Zoomorph	Geometric
South Mountain[a]	17	34	45
AZ T:8:102 (ASU)[b]	29	32	39
Black Mountain[c]	42	9	35
Cumero Mountain[d]	37	11	66
Sutherland Wash 15[d]	23	16	59
Italian Trap[d]	34	18	48
Los Morteros[e]	19	6	73
Tumamoc Hill[e]	24	6	70
Red Hill[e]	33	4	52
AZ BB:14:27[e]	57	8	28

Sources: [a] = Snyder 1966; [b] = Bostwick 1989; [c] = Martynec 1986; [d] = Burton 1988; [e] = Wallace 1983.

scratched lines as forming rectilinear elements, including grids, diamonds, straight and wavy lines, zigzags, chevrons, triangles, and concentric squares (see Table 3.4).

Christensen (1992a) has reevaluated the distribution of scratched glyphs and has discovered that they are more widely spread than was previously thought. Scratches have been found to embellish petroglyphs in several ways: by adding details such as feathers and fingers; as a preform for further pecking, possibly as guidelines; as isolated random lines, grids, and crosshatching over existing petroglyphs; and as independent images, either geometric or occasional animals. Further study of scratched petroglyphs may allow for a better understanding of regional styles.

Hohokam Pictograph images are not well-known (Figure 3.12). Painted images found at Ventana Cave consist of black, white, and red anthropomorphs (Haury 1950:471). Both human figures are strongly abstract, and details around their heads may represent headdresses. A small cave site in the Tucson Mountains contains black pigment images of mountain sheep, deer, and possible antelope (Hartmann 1985). Hartmann's discussion of the site notes several other possible Hohokam pictographs. Few of these sites have been located, and it appears that either few were made, that the rock surfaces in the Phoenix and Tucson areas were not amenable to painting, or that they simply weathered away.

Important Hohokam rock art sites that visitors may see include the South Mountain petroglyph sites in South Mountain Park in Phoenix, several panels located on Tempe Butte in Tempe, Painted Rock State Park west of Gila Bend, and Signal Hill in Saguaro National Monument's West Unit. The Pueblo Grande Museum in Phoenix has several boulders with petroglyphs that are accessible to physically- or sight-challenged individuals. The Deer Valley Rock Art Center, which includes the Hedgpeth Hills site, will is open for public visitation.

Patayan Area Rock Art

Attempts to characterize the rock art of southwestern Arizona have only begun in earnest within the last ten years. This area was occupied by the Patayan who may (or may not) have been ancestral to the Yuman Indians (McGuire and Schiffer 1982). The material culture of the Patayan differs from the Hohokam to the east, especially in the form and technological attributes of their ceramics.

The **Patayan Sears Point Petroglyph** style has been defined by Ken Hedges (personal communication to Henry Wallace, 1993) (Figure 3.13). Hedges's work on petroglyph sites along the Colorado River and Wallace's work in Painted Rock Reservoir have resulted in the discovery of a number of factors that differentiate this style from the Hohokam, to the east.

Wallace found many similarities with Hohokam rock art; however, he noted that two distinctive element elements are present: "broken diamonds" and a diamond with two bent lines attached to the base (1989:41-42). Also common are anthropomorphs holding bow and arrows. Additional distinctive elements include zoomorphs with D-shaped bodies and anthropomorphs with fingers and toes. Table 3.5 lists distinctive element for this style. Currently, the Patayan area rock art is known only from a handful of published sites. Future work is expected to allow this style to be more formally described.

Southwestern Geoglyphs

Geoglyphs are earth figures found mostly in the southwestern corner of Arizona, although examples can be found as far east as Sacaton (Figures 3.14 and 3.15). Boma Johnson's 1986 study of geoglyphs found in the lower Colorado River and Gila River deserts indicates that they were created by local Native Americans, including the Mohave, Halchidoma, Quechan, and Maricopa. Solari and Johnson (1982) believe that the Mohave and their ancestors are the most likely creators of these images, some of which may have been made during the historic period. Johnson suggests that the designs were probably made

Table 3.4. Hohokam Scratched Petroglyph elements.

Geometric Elements
Grid hatchures
Diamond hatchures
Single or sets of straight, wavy, or zigzag lines
Chevrons and nested chevrons
Triangles and hatched triangle pendants from lines
Hatched bands
Concentric squares

Table 3.5. Patayan Sears Point Petroglyph elements.

Category	Description
Anthropomorph	Humans with fingers and toes
	Humans carrying bows and arrows with quivers
Zoomorph	Stylized eagles
	Animals with D-shaped bodies
	Animals with vertical positioning
	Animals with "ball" feet
	Long-legged water birds
Geometric	Broken diamonds
	Diamonds with attached bent lines or "legs"
	Shields

for use during religious ceremonies. The function of other earth figures is unclear; some may not even be considered rock art since they may represent the focus of other activities. Many geoglyphs consist of cleared oval or circular areas that are called "sleeping circles," although this term is probably incorrect. They could represent places where rocks were removed to make sleeping, sitting, staging, or other activities more comfortable. Thus, they do not represent art; however, they are recorded during surveys in geoglyph-rich areas as examples and remnants of past actions.

Several different types of geoglyphs may be present, and typically, more than one will be present at a single site. Southwestern Representational Geoglyphs are those earth figures that represent solitary humans and animals. These include a fisherman design found north of Quartzite, a quail figure along the Gila River, and a thunderbird near Parker. Like the paired anthropomorph designs, additional examples of this style are found across the border in California. Several examples are also found in the Sonoran Desert in Mexico (Hayden 1982:581-588). Often, anthropomorph figures come in pairs. Examples have been found near Sacaton and Needles. Paired humans also are commonly found across the Arizona border around the Blythe, California, area. The two Arizona examples represent the easternmost expression of this style. Typically, one of the figures is smaller and has a missing extremity. Johnson (1986) links these designs with creation and origin myths.

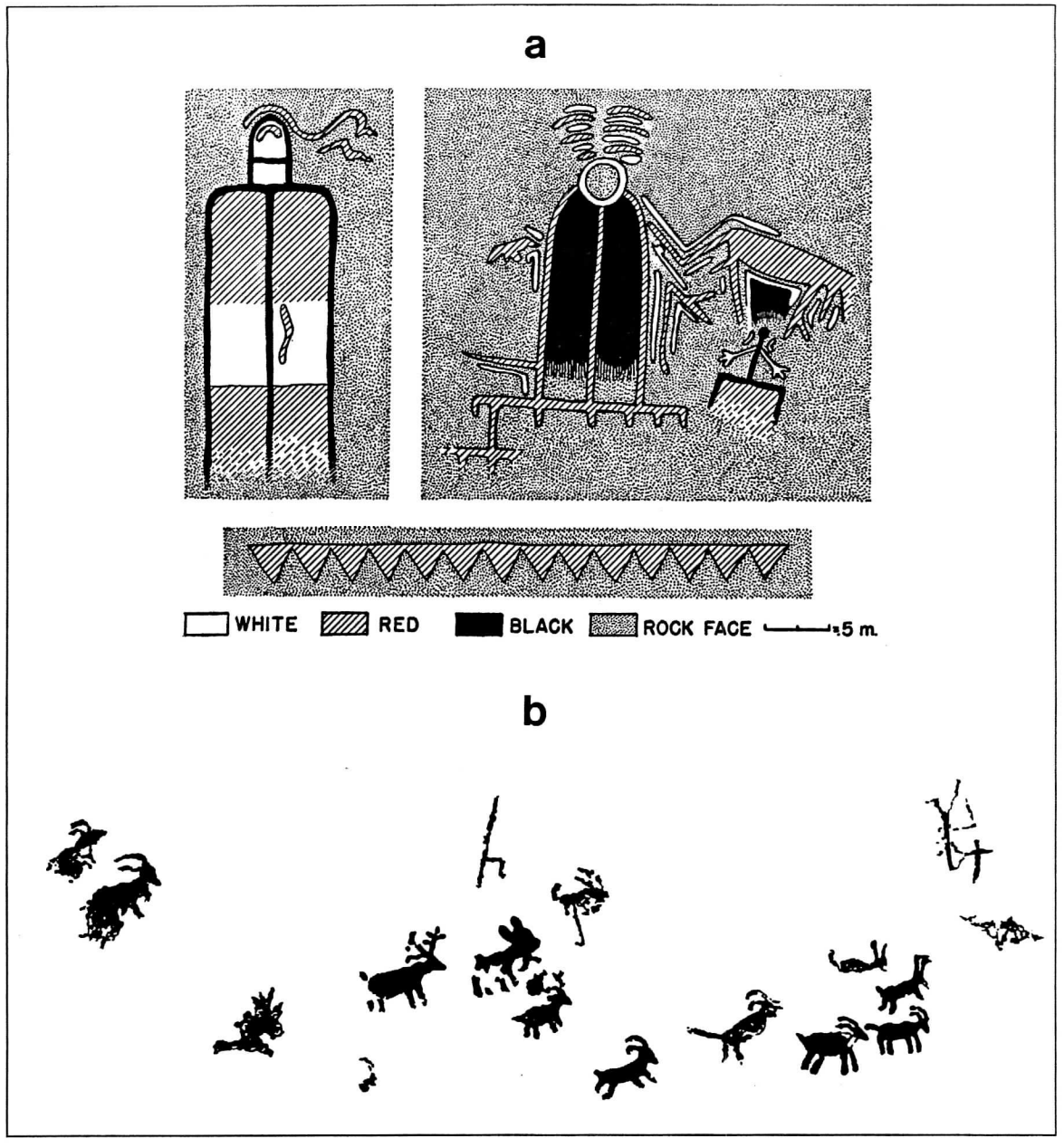


Figure 3.12. Hohokam Pictographs: a, Emil Haury identified these at Ventana Cave (Haury 1950); b, from the Black Sheep Pictograph site, drawn by John Murray (Harrison-Hartmann 1985) (courtesy of the Arizona Archaeological and Historical Society).

Southwestern Geometric Geoglyphs is a catch-all category into which miscellaneous geometric designs such as lines, squares, and circles can be placed. Among these are the so-called cleared areas (sleeping circles), which may not represent art at all and instead may have had a functional use. Also included in this category are rock alignments, squares, and circles. Both forms are found in California and in northern Mexico.

Southwestern Functional Geogylphs represent areas where activities took place. These can include pathways, summit paths, avenidas, most cleared areas, various rock alignments, and cairns. Historical accounts indicate that Native Americans performed ceremonies that required dancing or repeated walking

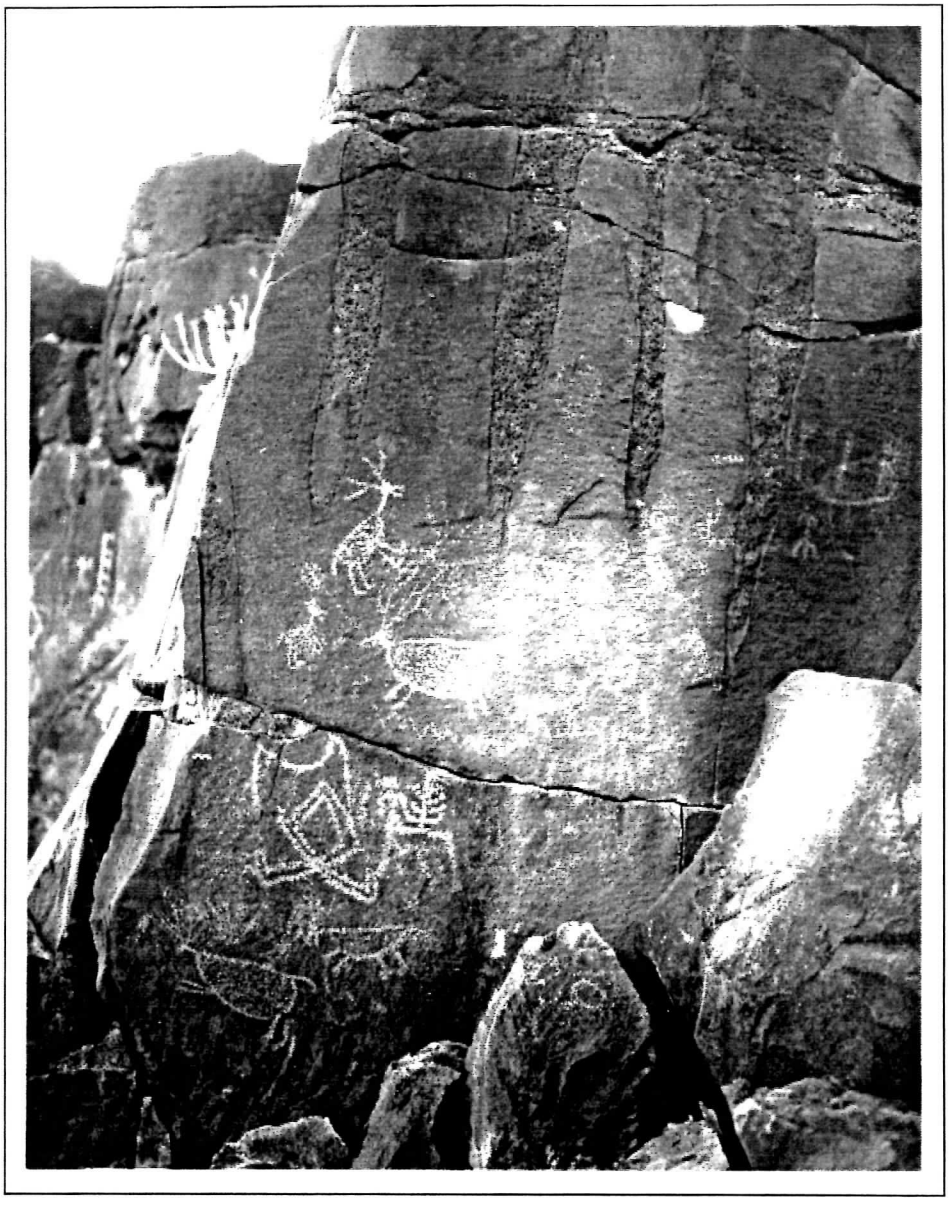


Figure 3.13. Elements typical of the Patayan Sears Point style include animals with D-shaped bellies and diamonds with bent legs (photo by H. Wallace).

along a certain area. Avenidas, which are trail segments cleared of rock, represent another form of this geoglyph. Most are located on flat terrace tops above river floodplains. They can be from 1 to 3 m wide and are usually less than 150 m long. Boma Johnson (personal communication 1994) suggests that these were most often used in ceremonial processions. Other trail segments are longer and allow trade routes and areas with important natural resources to be traced. Often artifacts, lost or abandoned during journeys, are found along avenidas. Summit paths are located on hillsides and connect the base of the hill to hilltop shrines or ritual areas. Many are found along the Colorado and Gila Rivers (Hedges and Hamann 1992). As noted above, in many cases two or three types of geoglyphs are found together.

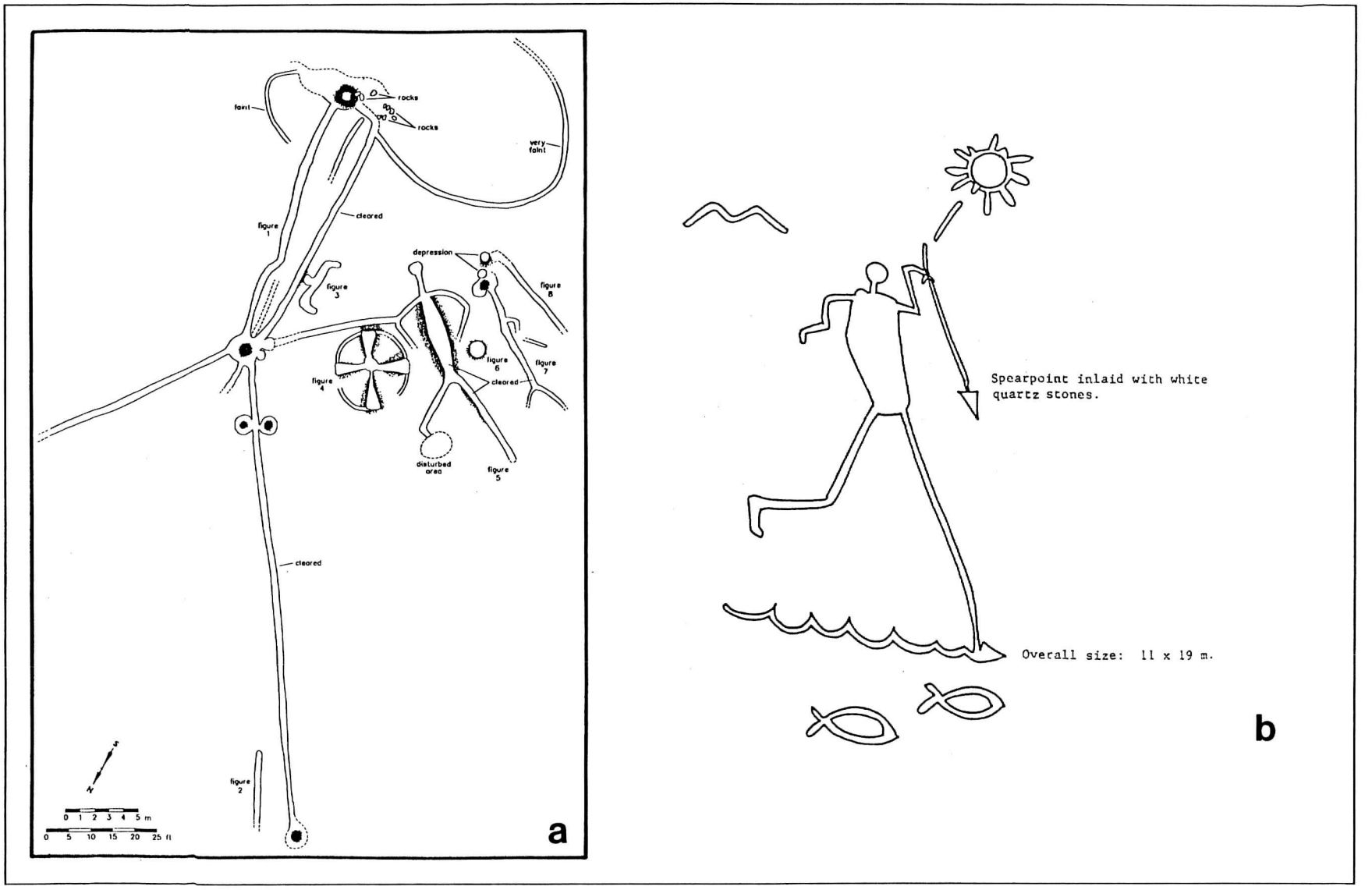


Figure 3.14. Geoglyphs found in Arizona include paired anthropomorphs and representational scenes: a, Ripley complex (J. Holmlund 1994:33); b, The Fisherman (B. Johnson 1986:138).

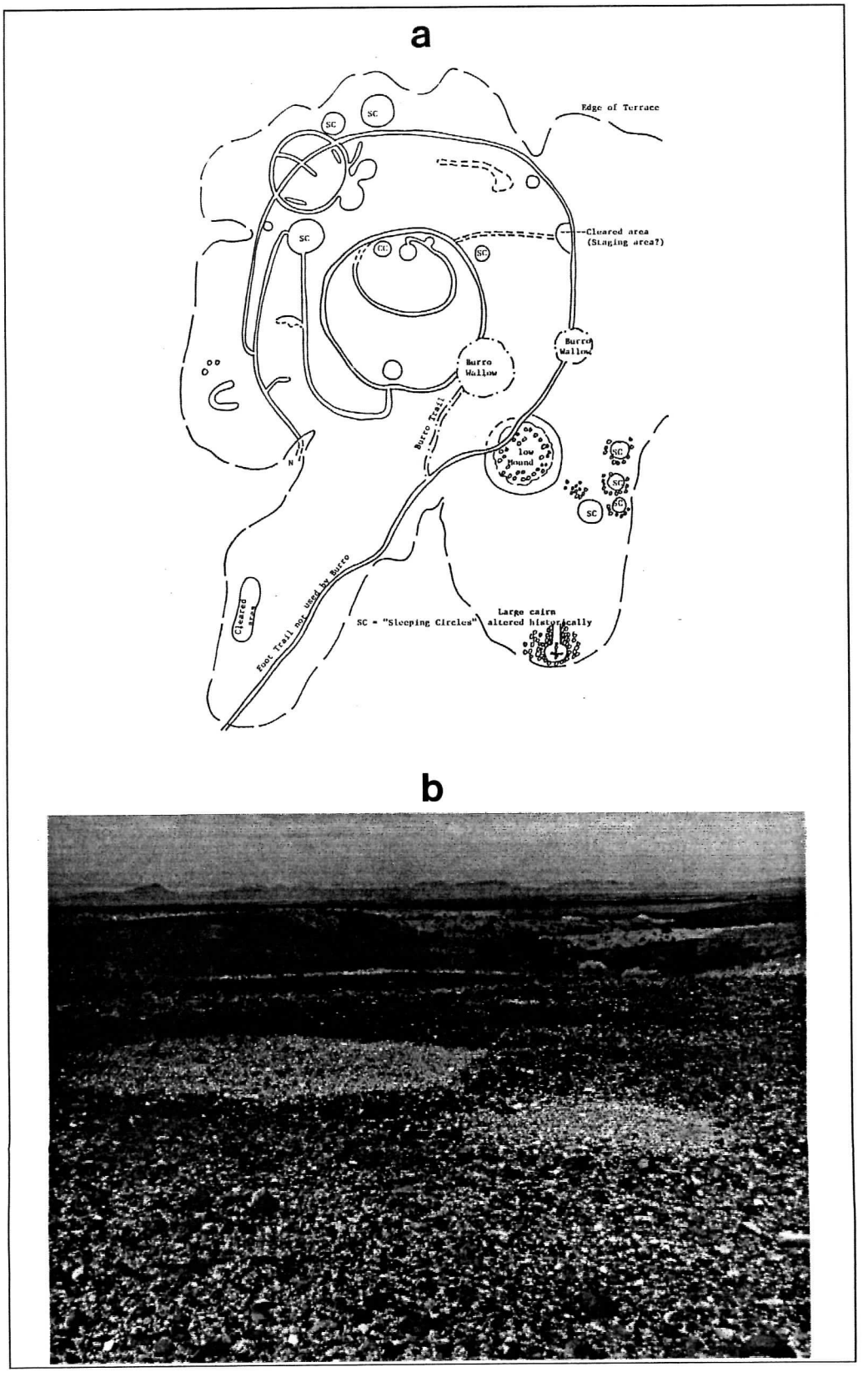


Figure 3.15. The most common geoglyphs are path patterns, representing dance areas or trails, and geometric images that include the so-called "sleeping circles," more accurately described as cleared areas: a, dance pattern along the Colorado River (Johnson 1986:139); b, cleared area (photo by J. Holmlund, 1991).

Mogollon Rock Art

The Mogollon culture is a name given to a set of people who lived in western New Mexico and Eastern Arizona between about 500 B.C. to A.D. 1400 (Martin 1979) (Figure 3.16). In many ways, these people were similar to the Anasazi and Hohokam; the differences among these groups reflect the different environments they were living in and exploiting. The Mogollon people originally lived in pithouse villages, but after A.D. 1000, they began to build pueblos in areas adjacent to their agricultural fields. Ethnobotanical remains indicate that they ate a variety of wild and domesticated plants and animals, including corn, beans, squash, walnuts, prickly pear cactus, deer, turkeys, and muskrats. Shifts in the relative amounts of wild and grown food suggest that farming became increasingly important through time. The Mogollon people were master potters, creating complex and beautiful red-on-brown, black-on-white, and polychrome wares after A.D. 700. When Spanish explorers first visited east-central Arizona, no traces of the Mogollon people remained except for the ruins they left behind. What happened to them is not known. Like other groups in Arizona, they left behind hundreds of rock art images; however, their rock art is not as well-known, as studies have only recently taken place in east-central Arizona.

The **Mogollon Red Pictograph** style was originally defined by Polly Schaafsma (1972, 1980) (Figure 3.17). Elements are usually small, painted in varying shades of red with the occasional use of white paint, and few images are present at any one site. Painting may have been accomplished through either the use of fingers to apply the pigment or possibly through brushes. Schaafsma (1980:191) suggests Mogollon Red images date from A.D. 500 to 1250. They are found in southeastern Arizona, mostly in rockshelters and below overhanging rock.

Geometric elements are quite simple and include zigzag lines, concentric circles, groups of circles, ovals, sunbursts, and parallel waves (Schaafsma 1975, 1980; Rucks 1983; Burton 1988; Jernigan 1992). Diamond chains, one-pole ladders, and short line series are also reported (Wellman 1979).

Anthropomorphs found in this style include static (non-moving) stick figure anthropomorphs, "hourglass" humans, and anthropomorphs with horned headdresses (Burton 1988:36-37). Bird tracks, fishes, birds, and unidentified animals are present in small numbers. Elements typically found at Mogollon Red Pictograph sites are summarized in Table 3.6.

Mogollon Chevelon Polychrome Pictograph elements are found in the central eastern portion of the state (Weaver 1991a, 1991b, 1991c) (Figure 3.18). Only a handful of sites with this style have been documented. All are believed to date from about A.D. 1100 to 1350. Elements are typically geometric in nature and include lines, multiple parallel lines, zigzag lines, rows of sawteeth, rainbow figures, crescents, concentric circles, one-pole ladders, dot patterns, and enclosed dot patterns. Animal figures are less common but include insects, snakes, toads or frogs, birds, and lizards. Human figures may have elaborate headdresses, exaggerated hands, and decorated clothing or body paint. Colors used to create these images include black, yellow, white, tan, and blue-green or turquoise; however, red is most prevalent. Table 3.7 summarizes elements found in this style.

Mogollon Jornada Petroglyph and **Pictograph** images are usually found in New Mexico, but several sites in southeastern Arizona have been found with Jornada-like images (Figure 3.19). The small number of such sites suggests that Arizona was on the periphery for this tradition. Jornada sites located in Arizona include a pictograph and petroglyph site in the Gila River Valley (Rucks 1983). Jernigan (1992:32-33) illustrates several pictographs from the Bonita Creek Cave site that appear to be *Jornada style*. These images were crafted in many colors, and the two elements include a horned lizard and a complex terrace/rainbow arch figure. Polly Schaafsma (1980:199-242) defines the Jornada style (also known as the Mimbres style) as including both petroglyphs and pictographs. Petroglyphs were usually crafted through direct percussion. Pictograph images are usually red; however, some elements incorporate other colors, including black, green, and white. Schaafsma believes that many of the rock art elements are similar to those seen on Mimbres pottery found in southwestern New Mexico. This pottery is well-known for detailed renderings of human and animal figures. She dates the rock art style from A.D. 1000 to 1450.

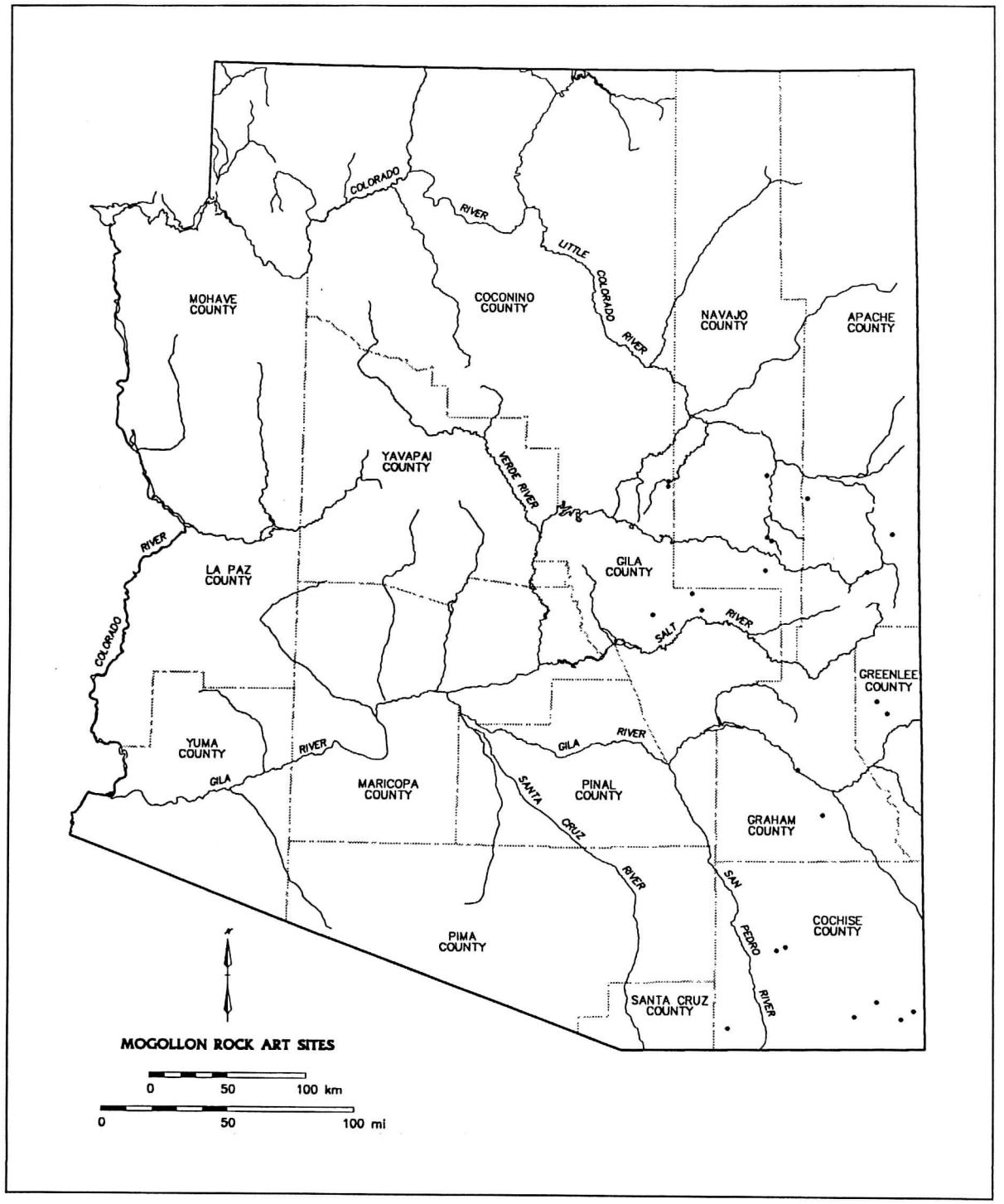


Figure 3.16. Distribution of Mogollon rock art sites in Arizona according to site records.

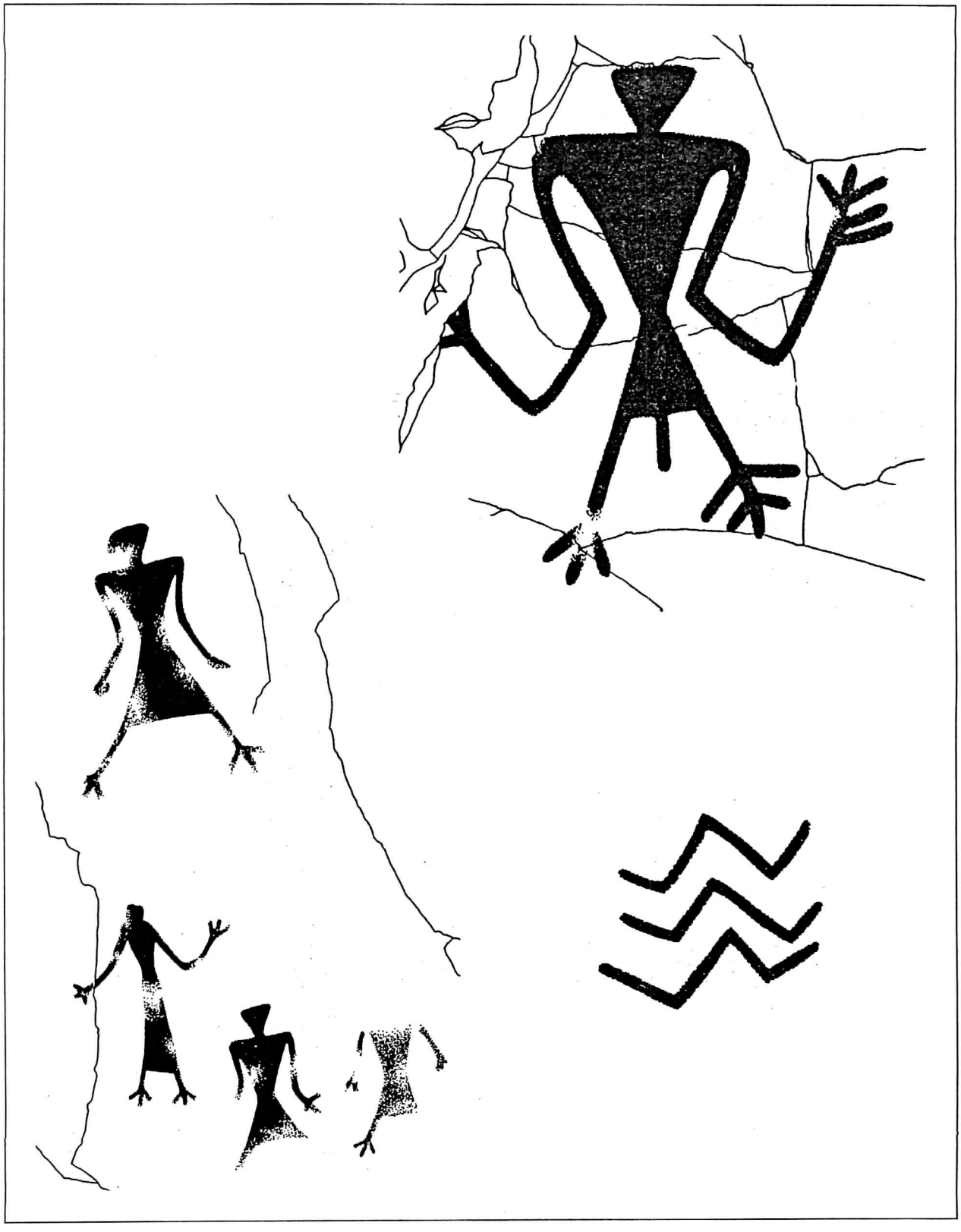


Figure 3.17. Mogollon Red Pictographs include hourglass anthropomorphs and parallel zigzag lines, among other elements (Jernigan 1992, various sites).

Table 3.6. Mogollon Red Pictograph elements.

Category	Description
Anthropomorphs	Static stick figures
	Hourglass figures
	Humans with horned headdresses
Zoomorphs	Bird tracks
	Birds
	Fish
	Quadrupeds
Geometrics	Zigzags
	Concentric circles
	Ovals
	Sunbursts
	Parallel waves
	Diamond chains
	One-pole ladders
	Short line series

Table 3.7. Mogollon Chevelon Polychrome Pictograph elements.

Category	Description
Anthropomorphs	Figures with headdresses and clothing or body paint
	Figures with exaggerated hands
Zoomorphs	Insects
	Snakes
	Toads or frogs
	Birds
	Lizards
Geometrics	Lines (parallel or zigzag)
	Rainbow figures
	Multiple crescents
	Circles
	Concentric circles
	One-pole ladders
	Dot patterns

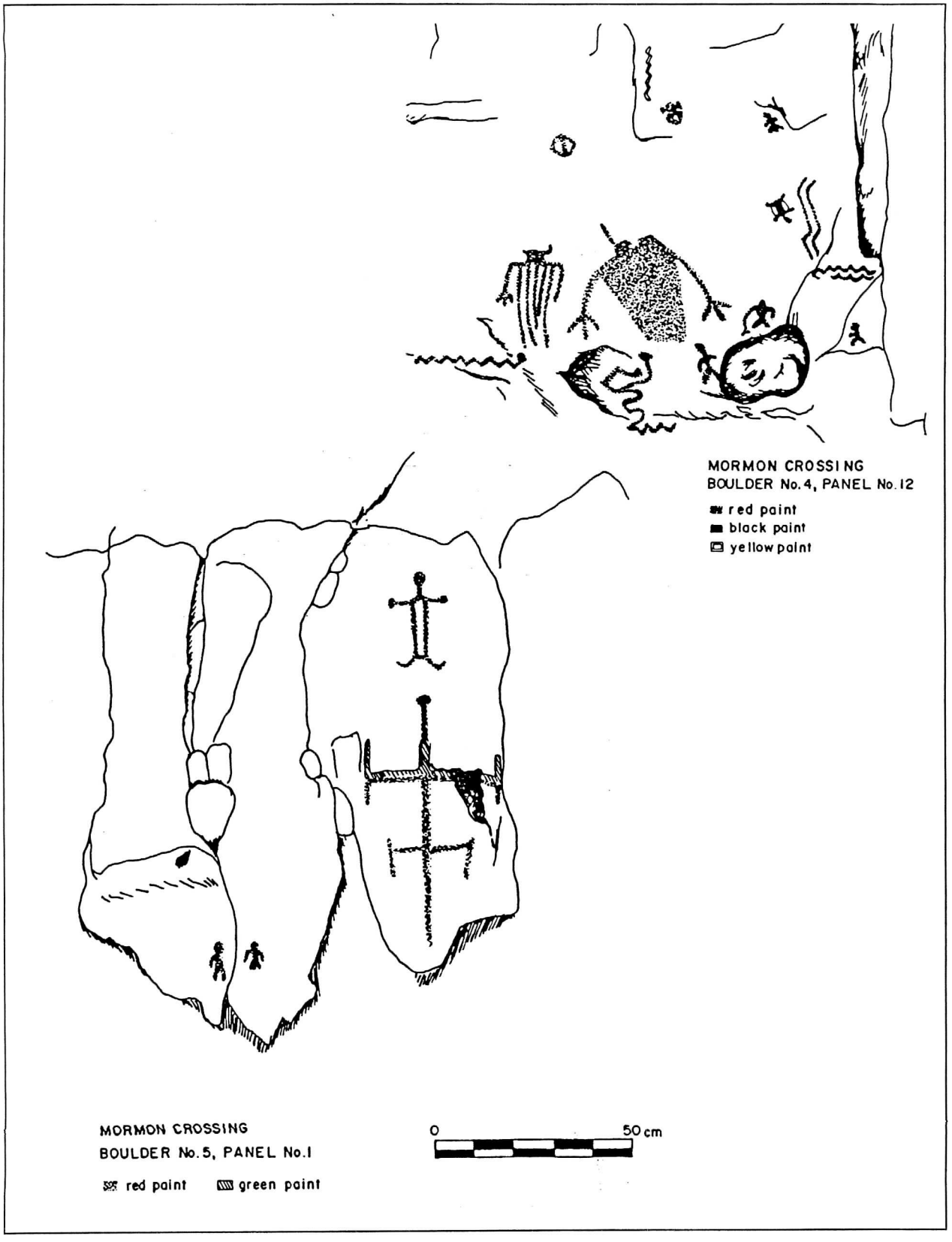


Figure 3.18. Mogollon Chevelon Polychrome Pictographs are found in east-central Arizona and include human figures painted in black, white, tan, and blue-green. Mormon Crossing site (Weaver 1991c).

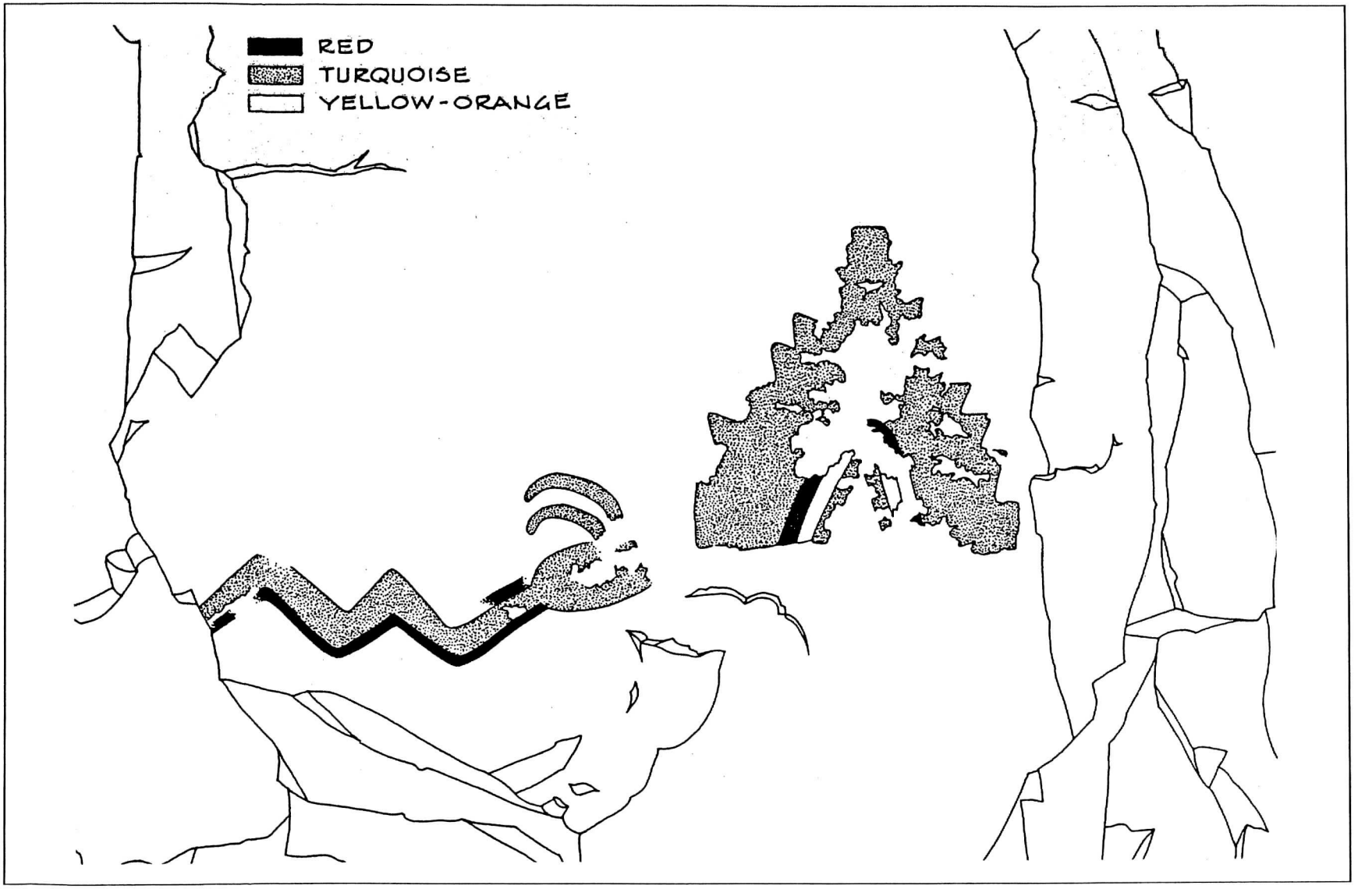


Figure 3.19. Mogollon Jornada Pictographs have been found at only a few sites in Arizona and include horned snake and rainbow arch elements. Bonita Creek Cave site (Jernigan 1992:33).

Geometric images typically found with this style include large blanket elements and cloud terraces. Anthropomorphic images include masks and faces. Flying birds, animals with bent legs, coyotes or dogs, and mountain sheep have been identified among the animal images, and mountain lions are sometimes present. Many other animal forms are so stylized to preclude identification. Mogollon Jornada element elements are listed in Table 3.8.

Many of the Jornada style images may have religious connotations. Mountain lions, cloud terraces, horned serpents, "Tlaloc" elements, and "mythical beings" are all reported from Jornada sites and are believed to have been important to Mogollon religion.

Mogollon Reserve Petroglyphs are found in central-eastern Arizona at several sites in the Show Low area (Weaver 1991a, 1991b) (Figure 3.20). This element was originally defined by Schaafsma (1980:191-196) and dates from about A.D. 1000 to 1400. Typical elements include large and small animal and human tracks, human stick figures, lizards, sheep, mountain lions, interlocking frets, concentric circles, sunbursts, and spirals, among others (see Table 3.9). Mogollon petroglyph elements have received little study to date; Weaver's studies are the first to adequately document the petroglyphs in this portion of Arizona.

Studies are just beginning to sort out the rock art in the central-eastern portion of Arizona. Doubtlessly, these proposed styles will change as more sites are located and studied. The three Mogollon pictograph styles are quite similar, and in fact, the artists painting the images may not have conceived of them as being separate styles. Since the full range of painted rock art is still poorly known for this part of Arizona, future researchers may lump the three styles together, or perhaps find new ones. None of the Mogollon rock art sites are readily accessible to members of the public.

Anasazi Rock Art

The name Anasazi was given to the archaeological culture found in northeastern Arizona, in the Four Corners area (Figure 3.21). The term itself represents the Navajo term for "enemy ancestor." Needless to say, certain descendants of the Anasazi do not care for the name. The Anasazi culture is currently called the Hisatsinom by certain archaeologists and members of the Hopi tribe; however, there is no consensus yet as to this name usage. Others prefer the term Prehistoric Western Pueblo. The Anasazi have become best-known for the cliff dwellings found at Mesa Verde and the huge pueblos found in Chaco Canyon. Major Arizona Anasazi sites include ruins found in Canyon de Chelly, the pueblo at Casa Malpais, Wupatki National Monument, and Petrified Forest National Park. Less well-known are the thousands of smaller sites scattered throughout northern Arizona.

The Anasazi occupation of Arizona has been divided into seven time periods. The earliest period is called Basketmaker II (no Basketmaker I period has been defined). The Basketmaker II period began around 100 B.C. and lasted until A.D. 400. It saw people living in caves and rockshelters, hunting and gathering foods, and making baskets and other woven items. The atlatl was an important tool used to help hunt game animals.

Around A.D. 400, the Basketmaker III period began. Pithouses were being built throughout the region, signaling an increase in population, and the first pottery was manufactured. The Anasazi people continued to hunt and collect food, but crops were also grown. Plant foods were processed in trough metates with two-handed grinding stones. The bow and arrow replaced the atlatl.

The Pueblo I period saw the construction of above-ground masonry rooms; however, pithouses continued to be constructed throughout the pueblo period. Subterranean structures called kivas appear to have been the center of ceremonial activities. Plainware pottery was the predominant kind crafted, but red-on-orange and black-on-red vessels were also made. Agriculture was increasingly important as a means to feed larger populations, and field systems that relied on irrigation and planting features helped provide extra food. The Pueblo I period lasted from about A.D. 700 to 900.

Table 3.8. Mogollon Jornada elements.

Category	Description
Anthropomorphs	Masks
	Faces
Zoomorphs	Flying birds
	Coyotes or dogs
	Mountain sheep
	Horned lizards
	Mountain lions
Geometrics	Cloud terraces
	Blanket designs
	Rainbow arches

Table 3.9. Mogollon Reserve Petroglyph elements.

Category	Description
Anthropomorphs	Human footprints
	Stick figures
Zoomorphs	Animal tracks
	Mountain lions or coyotes
	Mountain sheep
	Lizards
	Frogs
	Fringed-wing birds
Geometrics	Interlocking frets
	Sunbursts
	Spirals
	Concentric circles
	Grids
	Wavy lines
	Barred elements
	Outlined crosses

The Pueblo II and III periods, A.D. 900 to 1300, saw increasing aggregation, as people moved to larger, compact, multi-story masonry pueblos. Accompanying the population aggregation were intensive attempts to increase crop production through new agricultural practices. Pottery became more regional in form; however, throughout the area corrugated pottery replaced plainwares as the predominant form. Chipped stone tools were quite casual in their fashioning, and slab metates were used to grind corn and other plant foods.

The Pueblo IV period saw even more population aggregation, and some areas were actually deserted, perhaps as a result of environmental conditions such as drought or because the soil fertility had been ruined through over-farming. The Pueblo IV period lasted from about A.D. 1300 until the Spanish entrance into Arizona, which began around 1540. The Pueblo V period is therefore considered historic.

The Arizona Anasazi sphere has been called the Western Anasazi due to the occurrence of certain traits which distinguish it from sites found to the east (Plog 1979:108-109). However, rock art styles appear quite similar between these two areas. Within each time period there appears to be increasing diversity between areas, complementing trends visible in other media such as pottery.

At least four different researchers have assigned style names to Anasazi rock art (Turner 1963; Pilles 1975; Grant 1978; Schaafsma 1980). Sorting through the definitions is difficult, compounded by the lack of adequately dated styles. This report utilizes temporal periods to distinguish rock art styles, similar to Pilles (1974) and Grant (1978). Table 3.10 presents a concordance of the various style names proposed by rock art researchers.

The many names have resulted in some confusion over what style a particular site represents. This report lumps styles together by time period, which is somewhat unsatisfactory because it glosses over some differences. However, it was necessary to highlight broad differences between periods for the purposes of this report. Despite the proliferation of style names, fewer than a dozen well-illustrated reports exist for Arizona Anasazi rock art.

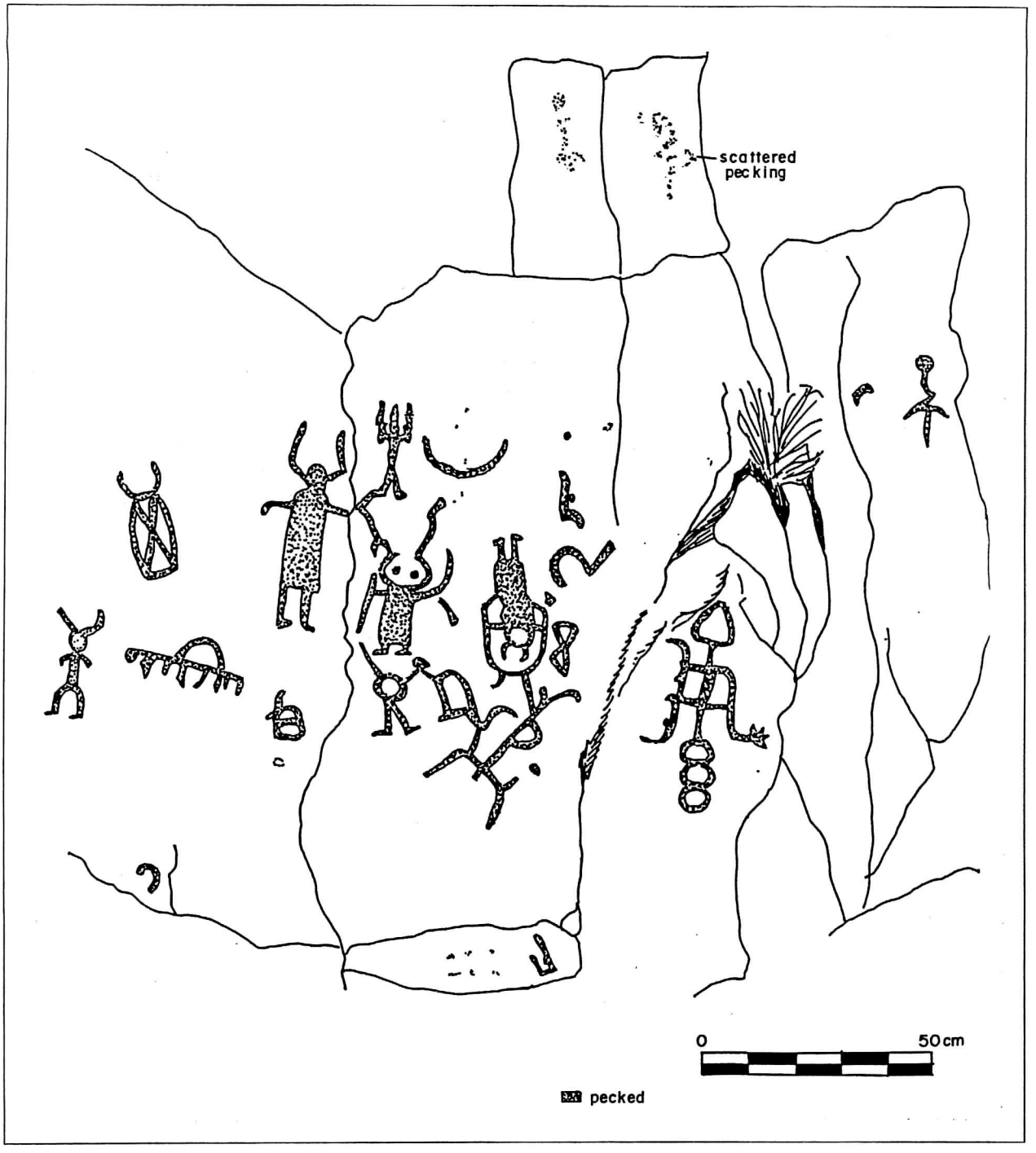


Figure 3.20. Examples of Mogollon Reserve Petroglyphs are found in east-central Arizona and are as yet poorly known. Pigeon Creek site (Weaver 1991a).

Anasazi Basketmaker II

The earliest Anasazi rock art is the **Anasazi Basketmaker II Pictograph** and **Petroglyph** style (Figure 3.22). This style is known for the large, broad-shouldered anthropomorphic figures that are often depicted in rows, pairs, or scattered along rock surfaces. It dates to the Basketmaker II period (100 B.C. to A.D. 400), based on associated sites. Anasazi Basketmaker II Pictograph images are often polychrome, and the

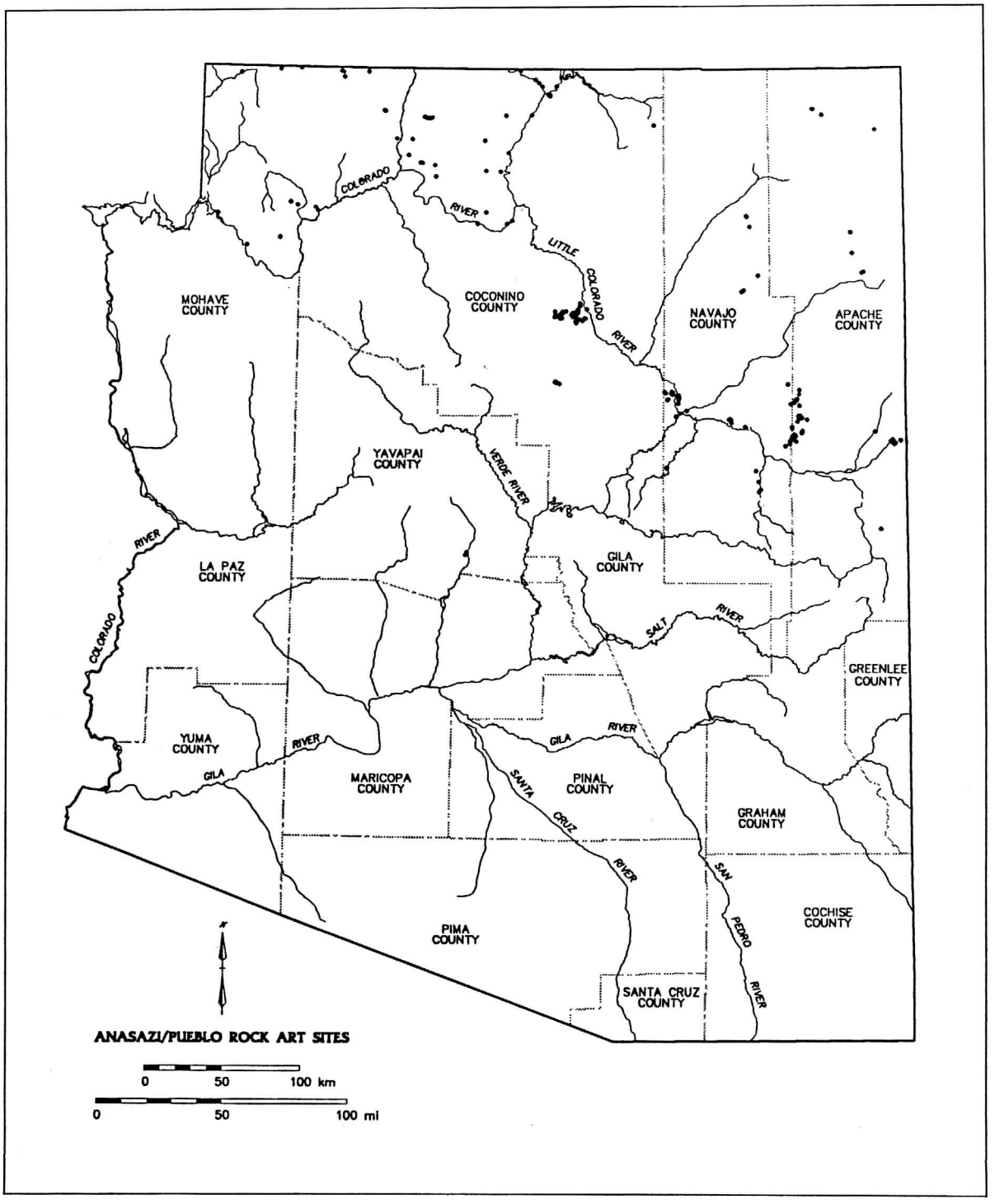


Figure 3.21. Distribution of Anasazi sites, based on current site records.

Table 3.10. Anasazi time periods and rock art style names.

Time Period	Style Name
Anasazi Basketmaker II (100 B.C. to A.D. 400)	Basketmaker (Pilles 1975:5-7)
	Basketmaker (Grant 1978:164)
	San Juan Anthropomorphic (Schaafsma 1980:109)
	Glen Canyon Style 5 (Turner 1963)
Anasazi Basketmaker III-Early Pueblo II (A.D. 400 to ca. 900)	Modified Basketmaker Early Developmental Pueblo (Grant 1978:171)
	Chinle Representational (Schaafsma 1980:122)
	Cave Valley Representational (Schaafsma 1980:131)
Anasazi Late Pueblo II-Pueblo III (A.D. 900/1000 to 1250)	Glen Canyon Style 4 (Turner 1963:6)
	Early to Middle Pueblo III (Pilles 1975)
	Late Anasazi (Schaafsma 1980:134)
	Kayenta Representational (Schaafsma 1980:143)
	Winslow tradition (Schaafsma 1980:155)
	Sinagua style (Schaafsma 1987:20; Anderson 1980:9)
Anasazi Late Pueblo III-Early Pueblo IV (A.D. 1250 to 1300)	Tsegi Painted style (A.D. 1250 to 1300, Schaafsma 1980:145)
	Glen Canyon Style 3 (Turner 1963:6)
	Late Pueblo III-Early Pueblo IV (Pilles 1975:10)
	Late Developmental Pueblo/Great Pueblo Petroglyphs (Grant 1978:201)
	Great Pueblo Rock Painting (Grant 1978:193)
	Rio Grande style (Schaafsma 1980:252)
Anasazi Pueblo IV (A.D. 1300 to 1540)	Glen Canyon Style 2 (Turner 1963:6)
	Pueblo IV (Pilles 1975:12)

human figures wear headgear, necklaces, earrings, and sashes. The humans are often quite detailed, with individual fingers and toes illustrated along with facial features. The images are immobile and face forward, with the arms drooping to the side, the legs stretched downward, and the toes pointing straight down.

Petroglyph human images are often as finely detailed as pictographs. Pilles (1975) considers the **Glen Canyon Style 5** to date to this time period, as noted in Table 3.10. Other images include handprints and atlatls, along with occasional mountain sheep with oval bodies and snakes (Pilles 1975:17; Schaafsma 1980:109-117; Grant 1978:166). Turner (1963:7) notes the presence of long "squiggle mazes." He also wrote that most Glen Canyon human and animal figures are outlined, and the interiors of these figures are not filled in (Table 3.11). Anthropomorphs and zoomorphs in the Petrified Forest, which probably date to this period, may have lines or crosshatching in their interiors (Christensen 1992b).

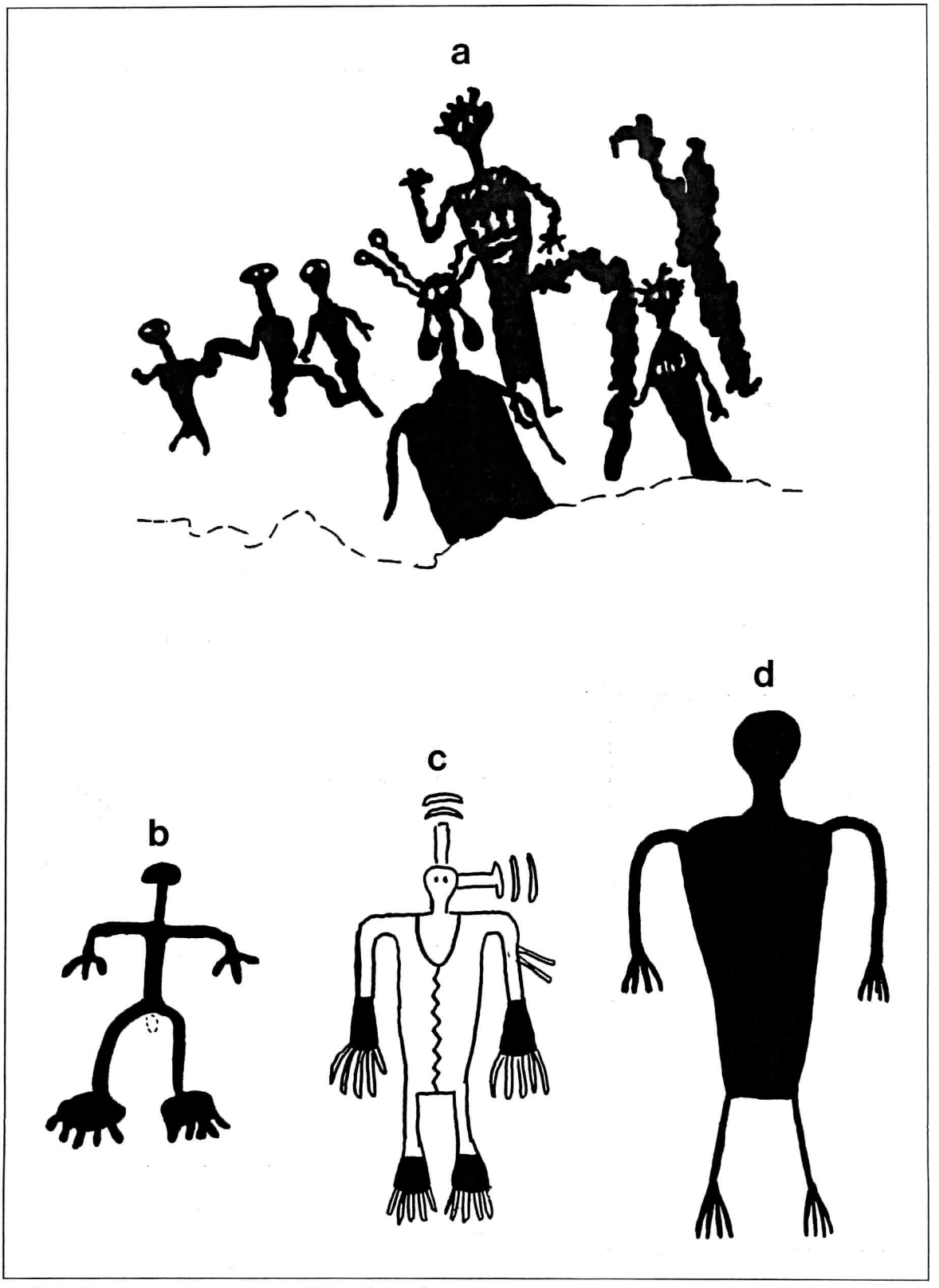


Figure 3.22. Anasazi Basketmaker II rock art typically includes broad-shouldered anthropomorphs: a and b, Homol'ovi (Cole 1992:133); c and d, Canyon de Chelly (Grant 1978:165,167).

Table 3.11. Anasazi Basketmaker II elements.

Category	Description
Anthropomorphs	Broad-shouldered, forward-facing humans with drooping arms and legs
	Handprints
Zoomorphs	Mountain sheep with oval or rectangular, hatched or cross-hatched bodies
	Snakes
Geometrics	Possibly "squiggle mazes," linear dot patterns, lines in their interiors, meandering lines, "plant-like" elements

Anasazi Basketmaker II style rock art was created during the end of the Archaic period. It differs from Western Archaic Petroglyphs in that many more anthropomorphs and zoomorphs are present. The presence of squiggle mazes suggests that elements based upon the typical Western Archaic curvilinear patterns were present.

Anasazi Basketmaker III-Early Pueblo II

The **Anasazi Basketmaker III-Early Pueblo II Pictograph** style developed around A.D. 400 and lasted until about A.D. 900 (Figures 3.23, 3.24, and 3.25). Basically, rock artisans diversified the types of images they painted. Human figures became more active, with triangular torsos, the omission of body extremities, and with the occasional foot turned to the side rather than down. The figures often are arranged in rows or stand together holding hands. Stick-figure humans also appear. Some run, walk, sit in groups, or even play the flute. The use of headdresses continues, some with birds perched on or replacing the head (Grant 1978).

Non-human figures also appear, especially birds. Turkeys, ducks, and cranes are identifiable, but many birds remain anonymous. Only a few quadrupeds appear, with mountain sheep occurring most frequently (Grant 1978:180; Schaafsma 1980:125-126). Other elements include rainbow arcs, feathered darts, parallel lines, spirals, concentric circles, and handprints.

The **Modified Basketmaker-Developmental Pueblo** style saw the introduction of new petroglyph elements. At Canyon de Chelly, the elements were pecked deeply into rock surfaces so that the figures stand out in oblique lighting (Grant 1978:183). Among the portfolio of images were distinctive bighorn sheep. These sheep have open mouths and split hooves that look like claws. The same element has been found on a ceramic vessel from Mummy Cave. Other petroglyph elements include human stick figures, turkey-headed humans, and bear and bird tracks (Grant 1978:182-183).

Schaafsma dates the **Anasazi Cave Valley Representational Pictograph** style to the Basketmaker III period. This style is found in the extreme northwestern portion of the state. Pictographs attributed to this style are painted in black, red, yellow, green, pink, and white. Front-facing humans with tapering torsos and flat heads are depicted. Arms and legs are usually quite short and sometimes appear as triangles, and headgear is sometimes present. Stick-like anthropomorphic figures are occasionally present, as are quadrupeds, birds, dot rows, wavy lines, and concentric circles (Schaafsma 1980:131-132). This style is similar enough to Anasazi Basketmaker III-Early Pueblo II style as to be considered basically the same. Table 3.12 summarizes Basketmaker III-Early Pueblo II elements.

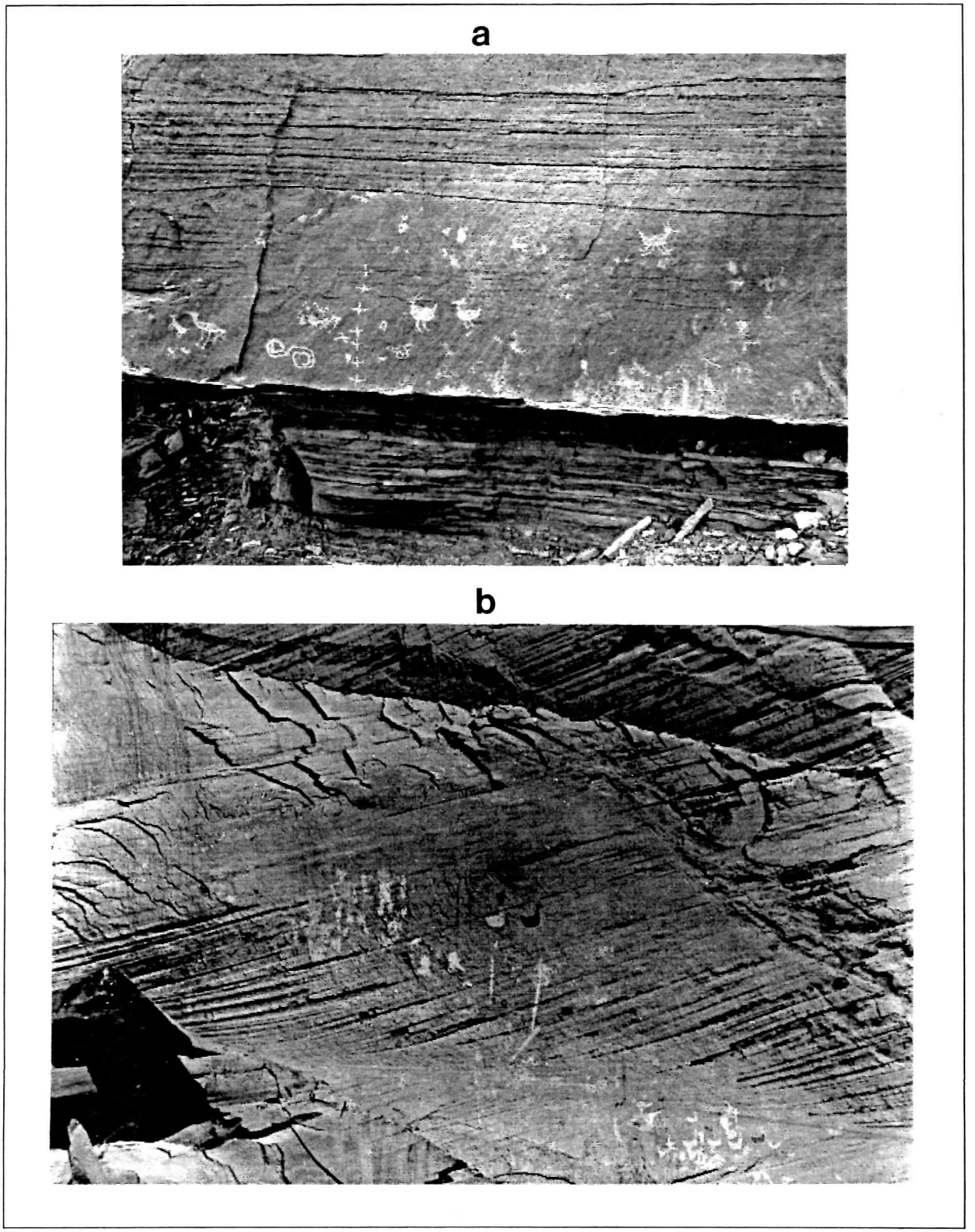


Figure 3.23. Bird images are common in Anasazi Basketmaker III-Pueblo II rock art: a, Wupatki (photo by P. Whitley, 1992); b, Canyon de Chelly (photo by P. Whitley, 1992).

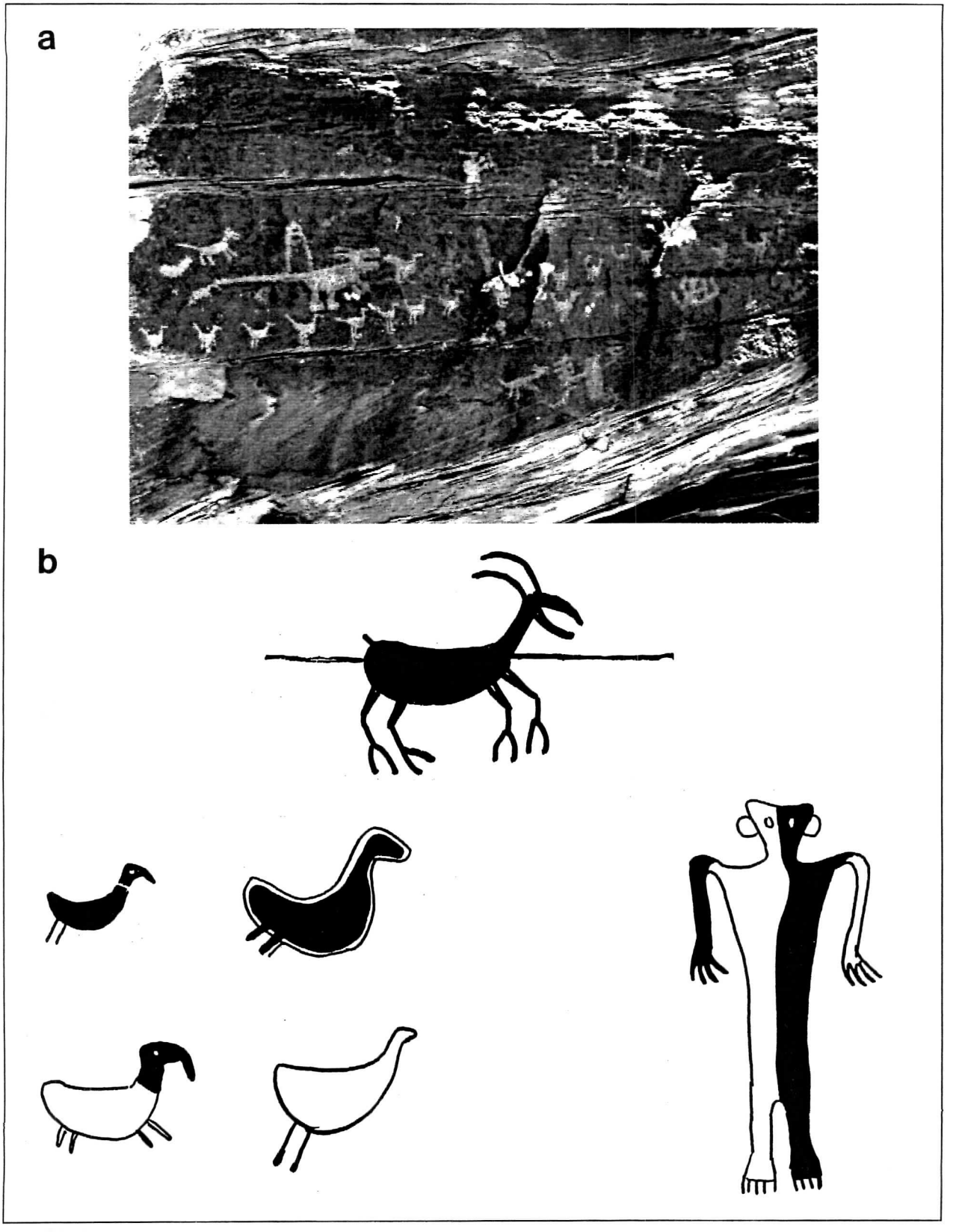


Figure 3.24. Some Anasazi Basketmaker III-Pueblo II rock art elements include crab claw bighorn sheep and active figures: a, Petrified Forest National Park (photo by R. Serface, 1991); b, Canyon de Chelly (Grant 1978).

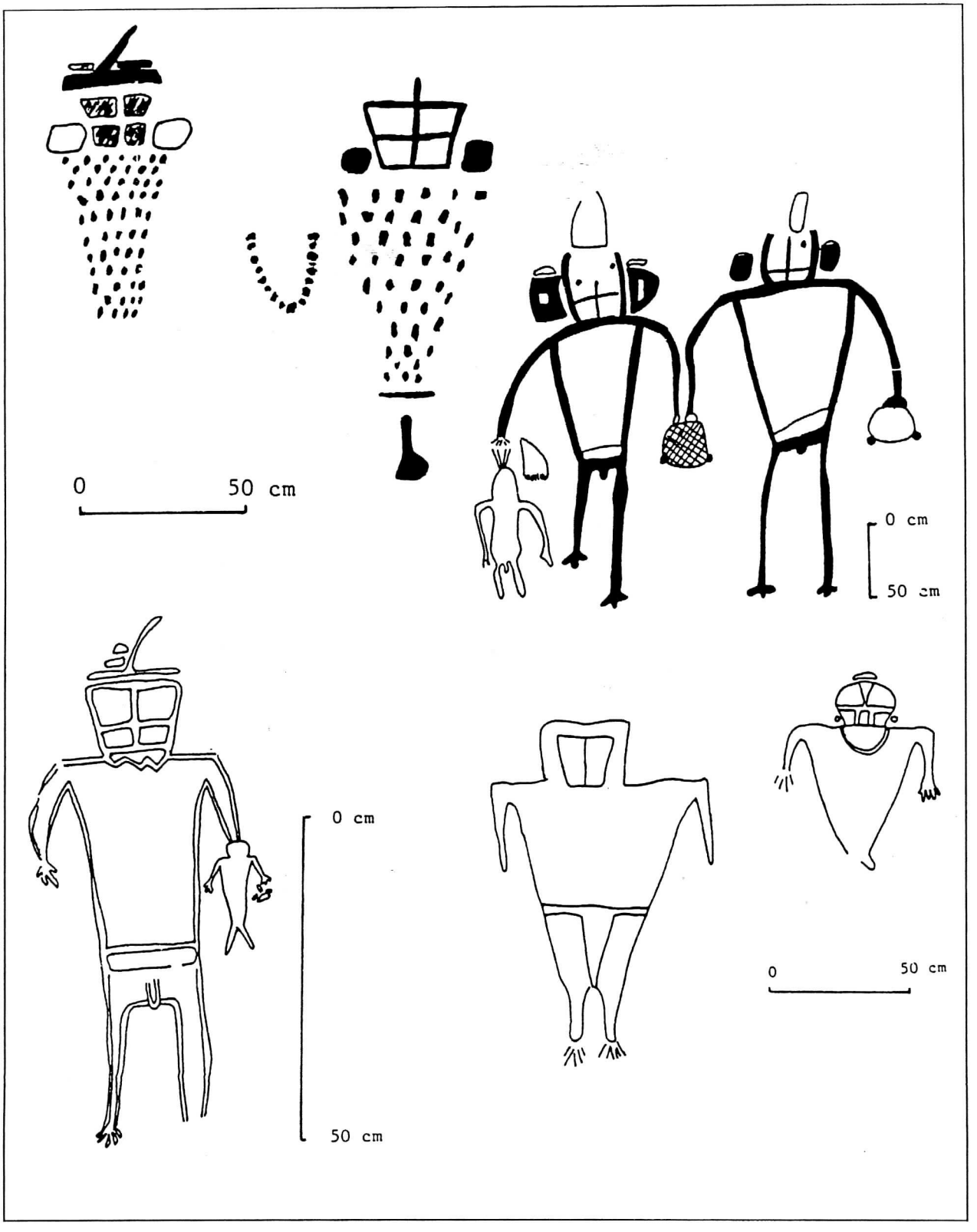


Figure 3.25. Basketmaker III-Pueblo II anthropomorphs from Snake Gulch display variability in how the human form is portrayed (Davenport el al. 1992).

Table 3.12. Anasazi Basketmaker III-Early Pueblo II elements.

Category	Description
Anthropomorphs	Humans with triangular torsos, feet turned to side, extremities may be missing
	Active stick figures
	Handprints
Zoomorphs	Birds
	"Crab claw" mountain sheep
Geometrics	Rainbow arcs
	Feathered darts
	Parallel lines
	Spirals
	Concentric circles
	Dot rows
	Wavy lines

Anasazi Late Pueblo II-Pueblo III

The Anasazi Late Pueblo II-Pueblo III period saw Anasazi populations shifting to aggregated pueblos, often hugging the bases of cliffs. The reasons for this change in living arrangements are debated by archaeologists. Some say it was the result of increased conflict, resulting in the need for better security.

Others see the population aggregation as a result of grouped activities such as communal field irrigation. Rock art changed concurrently, becoming increasingly regional in scope (Figure 3.26).

Anasazi Late Pueblo II-Pueblo III Pictographs were very well-executed, and a wide range of elements was created. Diagnostic elements included birds, flute players, hunting scenes, anthropomorphs with large appendages and genitals, open-mouthed mountain sheep, concentric circles, and spirals (Turner 1963:7).

Schaafsma (1980) suggests that rock art of this period can be identified to quite small time spans. Her **Anasazi Kayenta Representational** style rock art is found in an area encompassing Glen Canyon, Tsegi Canyon, and Monument Valley and dates from A.D. 1050 to 1250. Large numbers of mountain sheep are this style's foremost image. Many sheep have long, curving horns and cloven feet. Other representational images include birds and bird tracks, lizards, snakes, hunting scenes, anthropomorphs with enlarged sexual organs and appendages, concentric circles, flute players, and sandal elements, among others (Schaafsma 1980:143).

The **Anasazi Late Pueblo II-Pueblo III Petroglyph** style developed during the late Pueblo II and Pueblo III periods, beginning around A.D. 1075 (Pilles 1975:7-10) (Figure 3.27). Most of the Anasazi Late Pueblo II-Pueblo III rock art is petroglyphs, some of which were placed on surfaces made smooth through grinding. Complex geometric elements consisting of bold frets, circular scrolls, spirals, rectangular spirals, and other patterns were carefully pecked onto rock surfaces. Some of these elements resemble textiles, basketry, and pottery (Pilles 1975:9).

Life forms include human figures with hands and feet and oversized sexual organs. Lizards, some of which resemble Hohokam lizards, are found, as are mountain sheep and deer, centipedes, and scorpions.

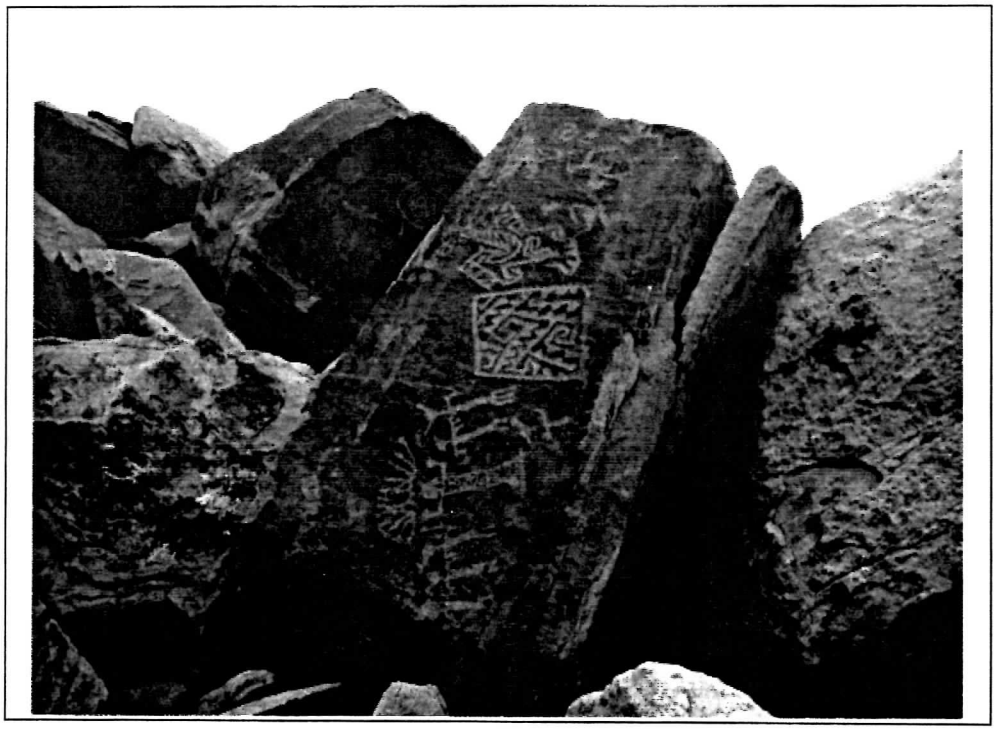


Figure 3.26. Anasazi Late Pueblo II-Pueblo III rock art includes many examples of elements based on textile patterns. This example is from the Petrified Forest National Park (photo by R. Serface, 1991).

Life forms include human figures with hands and feet and oversized sexual organs. Lizards, some of which resemble Hohokam lizards, are found, as are mountain sheep and deer, centipedes, and scorpions. Human and animal tracks are also prevalent. Schaafsma (1980:157) believes that some of the figures are integrated into scenes. This style corresponds to Turner's Style 4 (Turner 1963) (Table 3.13).

Late Pueblo III-Early Pueblo IV

The Pueblo IV period is known as a time of progress and innovation. There was a shift from villages to towns during the period from A.D. 1325 to 1600. Concurrent with this shift were changes in rock art element. The **Anasazi Late Pueblo III-Early Pueblo IV Petroglyph** style, also known as the Glen Canyon Style 3 (Pilles 1975:10-12; Turner 1963:6), saw a fluorescence in petroglyph production (Figure 3.28). Glyphs were produced through both direct and indirect percussion. In some cases, varnish was removed in larger areas, such as the bellies of animals. In Canyon de Chelly, Late Developmental Pueblo/Great Pueblo petroglyphs were lightly pecked onto rock surfaces, in contrast to earlier, deeper pecking. Petroglyph and pictograph images are similar, but the former were usually executed in a more skillful fashion (Grant 1978:203).

Common images found on this style of rock art include round- and triangular-bodied humans, birds, deer, and bighorn sheep, many of which are impaled by arrows or spears, snakes, spirals, and sandal tracks. Many of the human figures wear headdresses. The types of animals portrayed differ from area to area, perhaps indicating prehistoric animal distribution (Grant 1978; Pilles 1975:11). Table 3.14 summarizes prevalent elements.

Figure 3.27. Scenes, in this case possible ritual, are present in Anasazi Late Pueblo II-Pueblo III rock art. Cave of Life, Petrified Forest National Park (photo by R. Serface, 1991).

Table 3.13. Anasazi Late Pueblo II-Pueblo III Petroglyph elements.

Category	Description
Anthropomorphs	Humans with oversized sexual organs and appendages
Zoomorphs	Lizards
	Mountain sheep
	Deer
	Centipedes
	Scorpions
Geometric	Fret work
	Circular scrolls
	Spirals
	Rectangular spirals
	Textile-like patterns

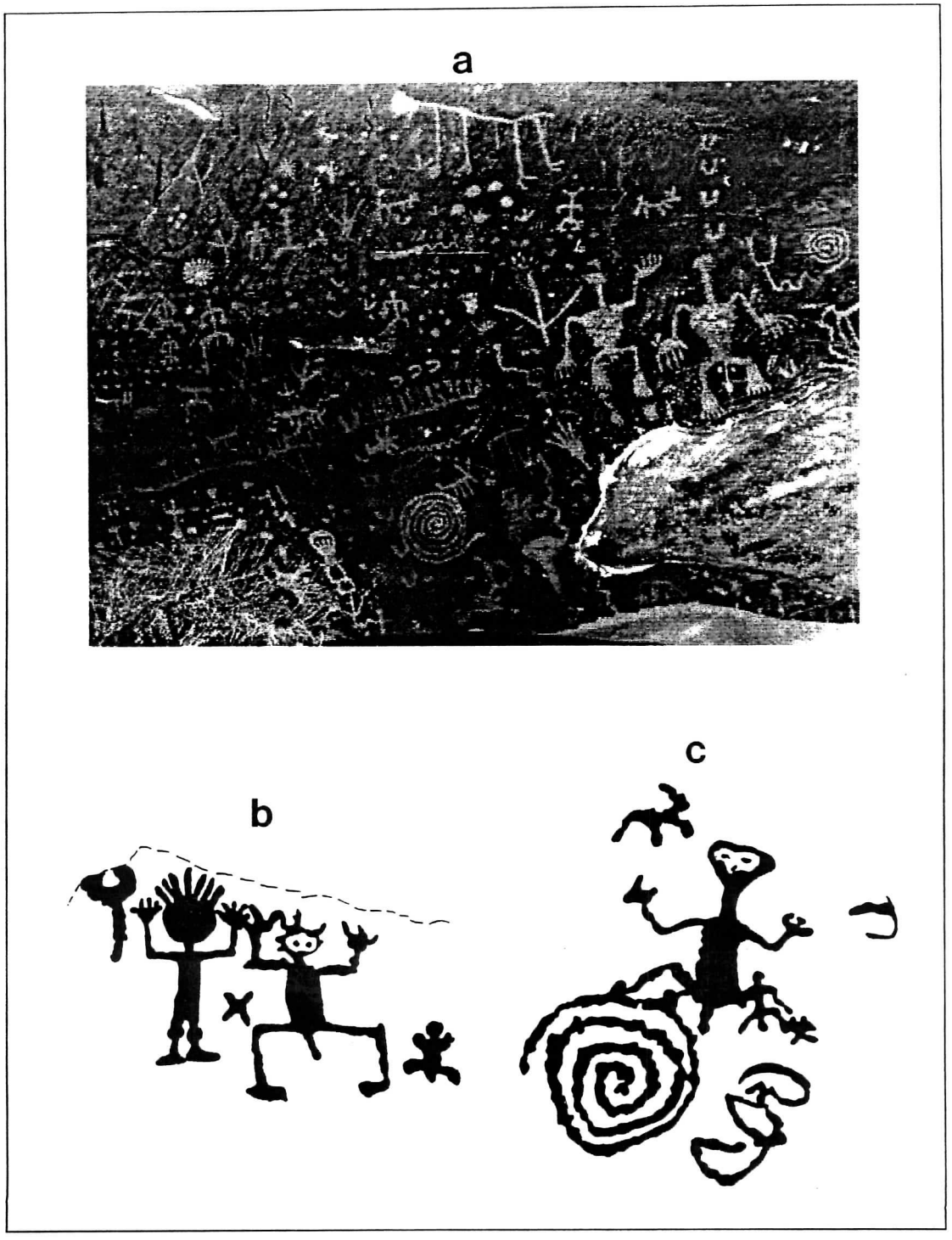


Figure 3.28. Anasazi Late Pueblo III-Early Pueblo IV rock art often depicts humans with oversized appendages and sexual organs: a, Petrified Forest National Park (photo by R. Serface, 1991); b, Puerco Ruin, Petrified National Forest (Cole 1992:137); c, Nuvakwewtaga in Chavez Pass (Cole 1992:137).

Table 3.14. Anasazi Late Pueblo III-Early Pueblo IV Petroglyph elements.

Category	Description
Anthropomorphs	Round- and triangular-bodied humans
	Sandal tracks
Zoomorphs	Birds
	Deer
	Bighorn sheep
Geometrics	Circular designs
	Spirals
	Figure eights
	Crescents
	Squiggles

The **Anasazi Tsegi Painted Pictograph** style, which belongs to the Late Pueblo III-Early Pueblo IV time period, followed the Kayenta style rock art and dates from A.D. 1250 to 1300 (Figure 3.29). Found in Tsegi and Navajo Canyons and south to Canyon de Chelly, these images are often poorly executed. Paint is smeared onto the rock surfaces or poorly applied. Little attention to detail is observable. White, tans, pinks, and purple clays were used as pigments, but no polychrome pictographs were made. In some cases, balls of pigment appear to have been tossed or thrown against the rock walls.

Human figures of this style include stick men, humpbacked flute players, and humans with headdresses. Many are depicted in action: running, crawling, playing flutes, and even being struck by an arrow. Dogs, deer, birds, sheep, lizard-men, concentric circles, and negative elements are also found. (Grant 1978:200; Schaafsma 1980:145). Handprints are common, many found above the roof lines of cliff dwellings. White circular elements, commonly found to the right of cliff dwellings, may have signaled information about a group's clan status or religious affiliation (Grant 1978:193-200; Schaafsma 1980:148). Table 3.15 summarizes typical Late Pueblo II-Pueblo III rock art images.

Pueblo IV

The Anasazi Pueblo IV period, which dates from about A.D. 1300 to 1600, saw major population shifts, the abandonment of some areas, and the movement of many people into large pueblos. At the same time that populations were aggregating into the large pueblos, rock art was changing dramatically. A major image of this period was the katsina figure, which first appeared in large numbers. This figure was religious in nature, and some speculate that its proliferation is a sign of the development of techniques to integrate groups of strangers through membership and participation in religious activities and ceremonies.

Anasazi Pueblo IV Petroglyph rock art anthropomorphic images include katsina masks, katsina figures, footprints or sandals, and stylized humans (Figure 3.30). Facial features are present on the masks and among the figures, and many are recognizable as specific katsinas (Cole 1992). Zoomorph depictions include unidentified animals, mountain sheep, and birds, whereas geometric elements include circular elements, figure eights, crescents, and squiggles (Pilles 1975:12-14; Schaafsma 1980:287-289; Cole 1992). Specialized techniques used during this time period include the removal of rock varnish from figure interiors; however, most images are merely pecked outlines. Many elements are found inside circular frames, a characteristic that may be unique to this time period (Turner 1963:6). Table 3.16 summarizes common elements.

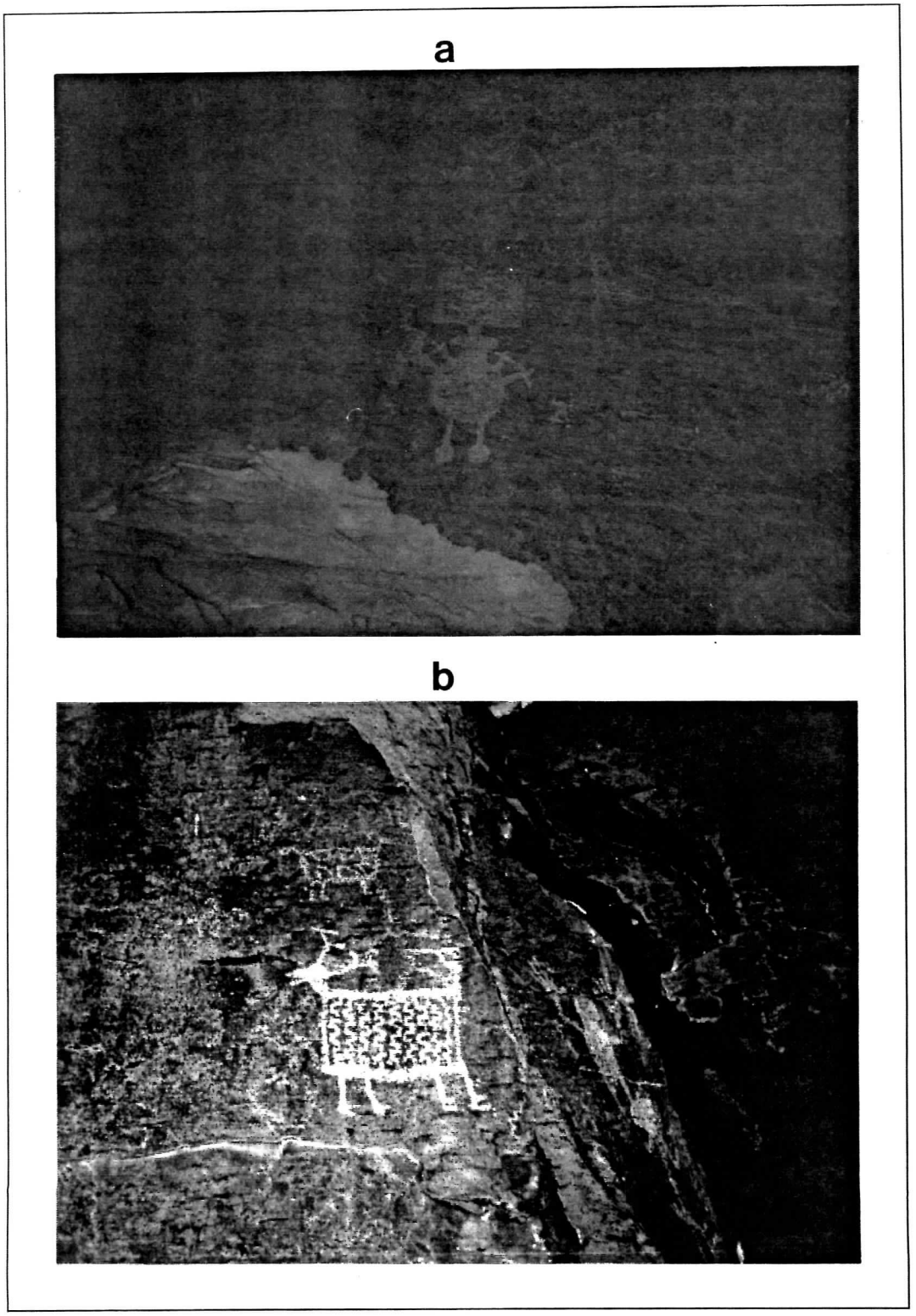


Figure 3.29. Anasazi Late Pueblo III-Pueblo IV elements include bighorn sheep and elaborate anthropomorphs: a, Cottonwood Wash (photo by P. Whitley, 1989); b, Casa Malpais (photo by B. Marshall, 1992).

Table 3.15. Anasazi Pueblo III-Early Pueblo IV Pictograph elements.

Category	Description
Anthropomorphs	Humans with enlarged sexual organs and appendages
	Flute players
	Sandal designs
	Handprints
	Moving stick figures
Zoomorphs	Mountain sheep with long, curved horns and cloven feet
	Birds
	Bird tracks
	Lizards
	Lizard-men
	Snakes
	Dogs
	Deer
Geometrics	Concentric circles
	Spirals
	Negative designs
Other	Balls of paint tossed against surfaces

Table 3.16. Pueblo IV Petroglyph elements.

Category	Description
Anthropomorphs	Katsina masks
	Katsina figures
	Stylized humans
	Footprints and sandals
Zoomorphs	Mountain sheep
	Birds
Geometrics	Figure eights
	Crescents
	Squiggles

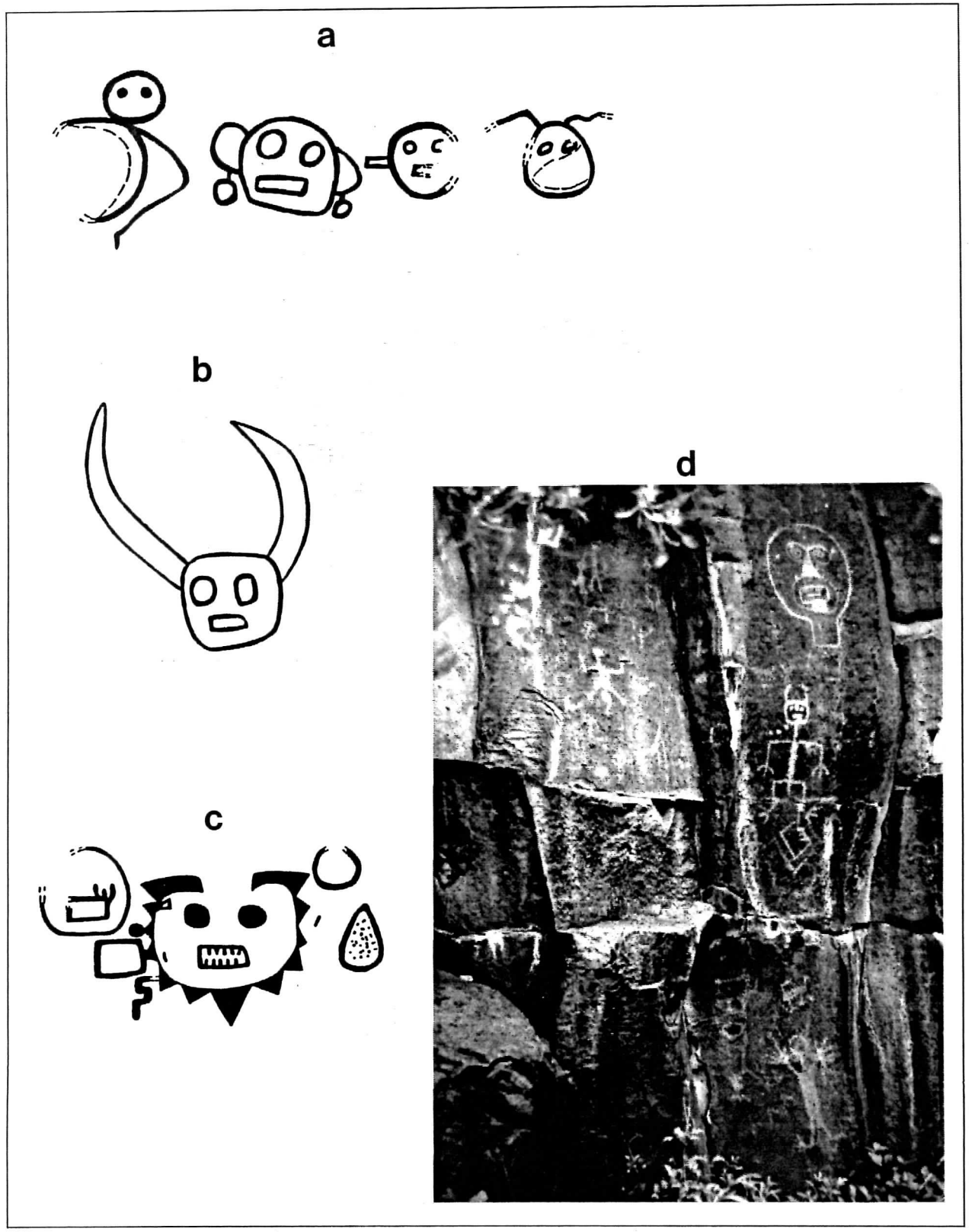


Figure 3.30. Katsina masks are commonly depicted in Anasazi Late Pueblo IV rock art: a-c, Homol'ovi (Cole 1992:72, 88); d, Casa Malpais (photo by B. Marshall, 1992).

Crotty (1990) has examined Pueblo IV petroglyphs and compared them to Jornada Style designs from New Mexico. She reports that Anasazi Pueblo IV petroglyph artisans differed from Jornada Style artisans in that they tended to crowd multiple designs, usually small, on a single rock face. Humans were presented frontally, with emphasis placed on the knees and with feet turned in the same direction. Shield bearers, with their torsos covered by the shield, are a distinctive design. Some anthropomorphs may have quivers filled with arrows, the fletched ends protruding. Masks or human heads are usually round, often with protruding ears and/or horned headdresses (Crotty 1990:159-160).

As discussed earlier, many of these elements may have been created for ceremonial or religious reasons. Other elements may represent clan symbols (Grant 1978; Schaafsma 1980). Similarities with ceramic elements have been noted in a number of locations (Turner 1963:6; Pilles 1975:13). The first Spaniards visited the Anasazi pueblos in the late 1500s and early 1600s. They observed paintings inside kivas and on the walls of buildings. Their descriptions of pueblo artwork suggest that rock art received less attention than other forms of artistic expression during this time period (Schaafsma 1980:246-252).

The rock art of central Arizona has not been as well studied as other areas. **Sinagua Petroglyphs** are found north of Flagstaff in the Wupatki and Walnut Canyon areas (Figure 3.31). Distinctive elements of this style include "textile" images, similar to patterns found on fabrics and pottery (Schaafsma 1987). Other images include stylized mountain lions with tails that curl up over their backs, antelope, deer, lizards, human footprints, bear tracks, and humans with expanded midbodies. Often the anthropomorphs are engaged in activities such as hunting with bow and arrow, playing flutes, giving birth, or sexual intercourse. Some individuals have hair-bobs and earrings or may carry staffs (Schaafsma 1987:22). Abstract elements include large spirals, outlined crosses, and textile-like patterns. Sinagua petroglyphs contain elements commonly found in both the Hohokam and Anasazi areas.

Other mid-state rock art styles are still poorly known. In the Cohonina area, Peter Pilles has reported anthropomorphs with long fingers and toes, the arms of these figures pointing up or down. He has noted similarities between some of these designs and those found in the Patayan area. In the Little Colorado-Kayenta area, many hunting scenes can be found. In the Northern Sinagua area, shield designs, unusual lizard-men, and masks are found. The Verde area has some textile designs and hunting scenes.

The **Sinagua Pictograph** style has recently been studied by Peter Pilles (1994). Pictographs of this style are most often white, with red, black, ochre, salmon, green, and blue pigments also utilized. Anthropomorphic images include handprints, mostly white with some red examples. Patterned prints, stencils, and full handprints can be found. Patterned prints were created by painting designs onto a hand and then placing the palm onto the rock.

Anthropomorph figures are usually broad stick figures with occasional examples that have fully formed bodies. Some resemble Basketmaker style figures found to the north. Head ornamentation and feet are often present, but fingers, toes, and facial features are absent. Hair "whorls" can be found on the sides of some heads, suggesting that these may represent female figures. Flute players (kokopellis) and burden-basket-carrying figures are present.

Big game animals are the most common zoomorphs and include deer, antelope, elk, and mountain sheep. Dog or coyote-like animals are also found. Water birds are the most common avian element, although birds are quite uncommon. Snakes, on the other hand, are frequently found with both naturalistic and highly stylized forms present.

Geometric elements include crosses, outlined crosses, and dotes, all of which may have astronomical significance. Large, circular sun or shield designs are also present. These may have filled-in circles, central circles, or dots, or they may have fringes running around their periphery. Sinaguan pictographs are thought to date from about 1150 A.D. to 1300 A.D. (Pilles 1994).

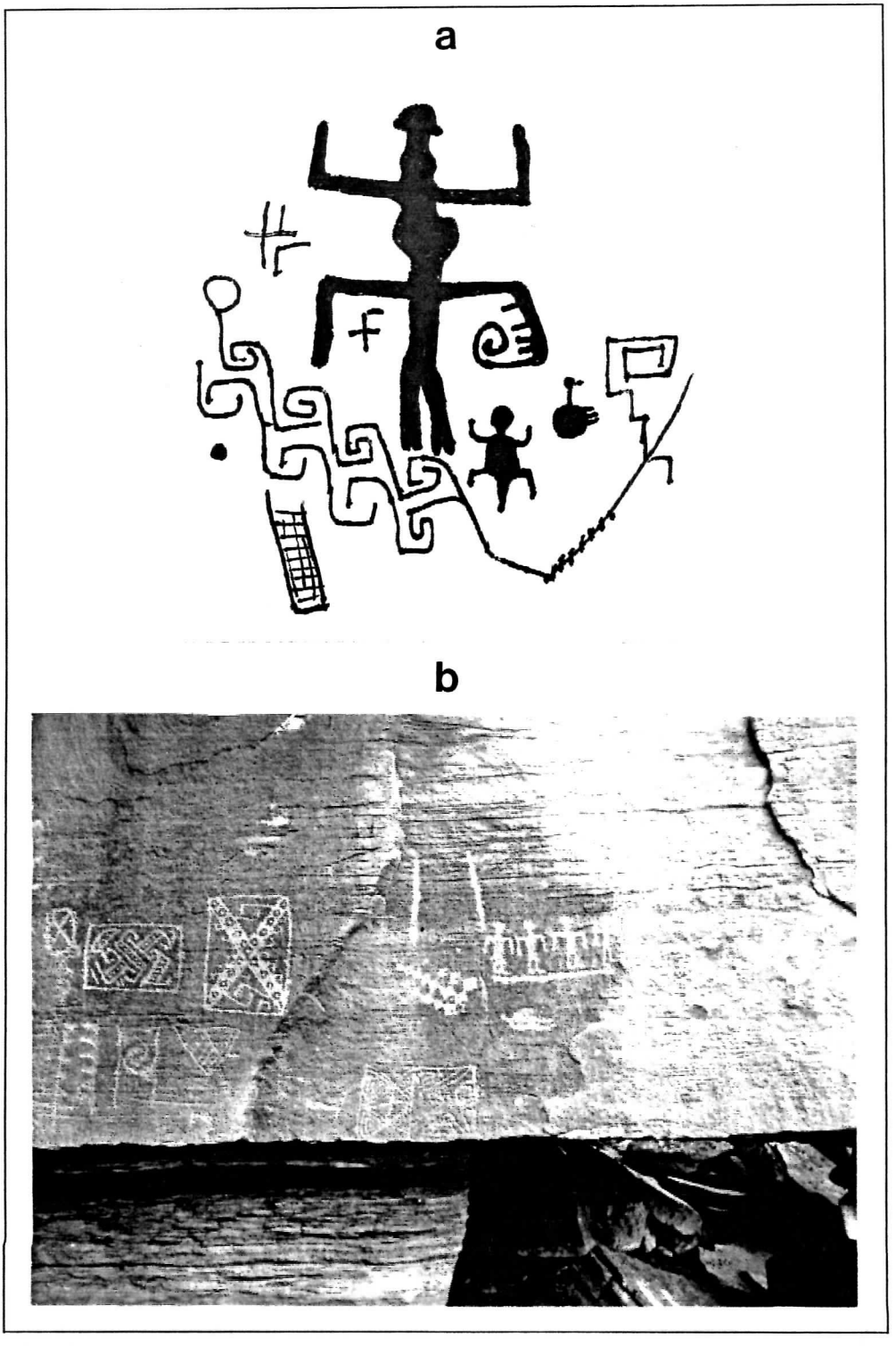


Figure 3.31. Sinagua Petroglyphs include bizarre lizard forms and geometric forms, including interlocking hooks: a, Wupatki/Walnut Canyon area (redrawn from Schaafsma 1987). Textile patters are also representative of this style: b, Wupatki (photo by P. Whitley, 1992).

HISTORIC PERIOD ROCK ART

Although this volume is directed toward documenting prehistoric rock art, it is important to discuss historic examples also. Some groups bridged the gap between the prehistoric and historic periods, continuing to create rock art as Spanish explorers and priests, Mexican soldiers and families, and enterprising Euro-Americans traveled and moved to Arizona.

Historic Native American Rock Art

Historic Native American residents of Arizona include people descended from prehistoric residents and those who emigrated into the area immediately before or during the Euro-American contact period (circa 1540). When Spanish explorers first traversed the region, they found people inhabiting most areas of the state. Many were producing rock art, examples of which are briefly discussed below.

The Navajo and the Apache are relatively recent arrivals to Arizona, traveling into the state around A.D. 1500. Prior to that date they traveled on the plains, hunting bison. After moving into Arizona and New Mexico, the Apache traded bison hides with Puebloans, an activity observed by early Spanish explorers.

Among the examples of **Historic Apache Pictograph and Petroglyph** rock art that have been identified, most are found in southeastern Arizona (Figure 3.32), Pictograph and petroglyph images include horse-and-rider images, as well as zoomorphs, wavy lines, lizards, anthropomorphs, rayed figures, and masks (Schaafsma 1975, 1980). Pictographs are created using dry charcoal and white, red, yellow, and black pigments.

The Circle I site near Willcox contains faded black-and-white shields decorated with circle elements and a fringe border (Schaafsma 1980:337). Other images include a spotted serpent-like figure, a thunderbird, and a lizard holding a circle in its mouth. Another Apache site is located in the Malpais Hills northeast of Tucson. Small figures are scattered around the walls and ceiling of a rockshelter. These include figures with heads surrounded by halos or sunburst elements, a lizard, several black-and-white snakes, and shields (Schaafsma 1980:337-340). Two horse-and-rider scenes are located in the BLM Safford district (Rucks 1983). The Garden Canyon site, located on Fort Huachuca, contains numerous examples of Apache pictographs (Altschul et al. 1993).

Most reported **Historic Navajo Petroglyph and Pictograph** rock art depictions have been from New Mexico; however, many can be found in Canyon de Chelly and northeastern Arizona (Figure 3.33). Petroglyph elements are shallowly incised or scratched, whereas pictographs are painted with white pigment or drawn with charcoal (Pilles 1975:15-16). Horse-and-rider elements are commonly found. Through time, these became increasingly naturalistic.

Earlier images are quite stylized, with the bodies of both horse and rider blocky and stiff. Human figures are often hourglass-shaped, and occasional deer are associated with the horses. These images are thought to date between A.D. 1600 and 1800. Horse-and-rider petroglyphs and pictographs became more naturalistic between 1800 and 1860. The horses are still parallel-sided, but painted examples appear more lifelike, and riders wear recognizable clothing. Post-1860 horse-and-rider rock art is very naturalistic. In part, this reflects a greater knowledge of horses, but the development of compulsory education for Navajo youths is also thought to be a causal factor (James and Davidson 1976).

Among other Navajo images, of special interest are planetaria or star paintings. These depictions are found on the ceilings of caves or below rock overhangs and have stars represented by small crosses. These sites are viewed as sacred by modern Navajo medicine persons (Grant 1978; Schaafsma 1980:322-324; Jett 1984).

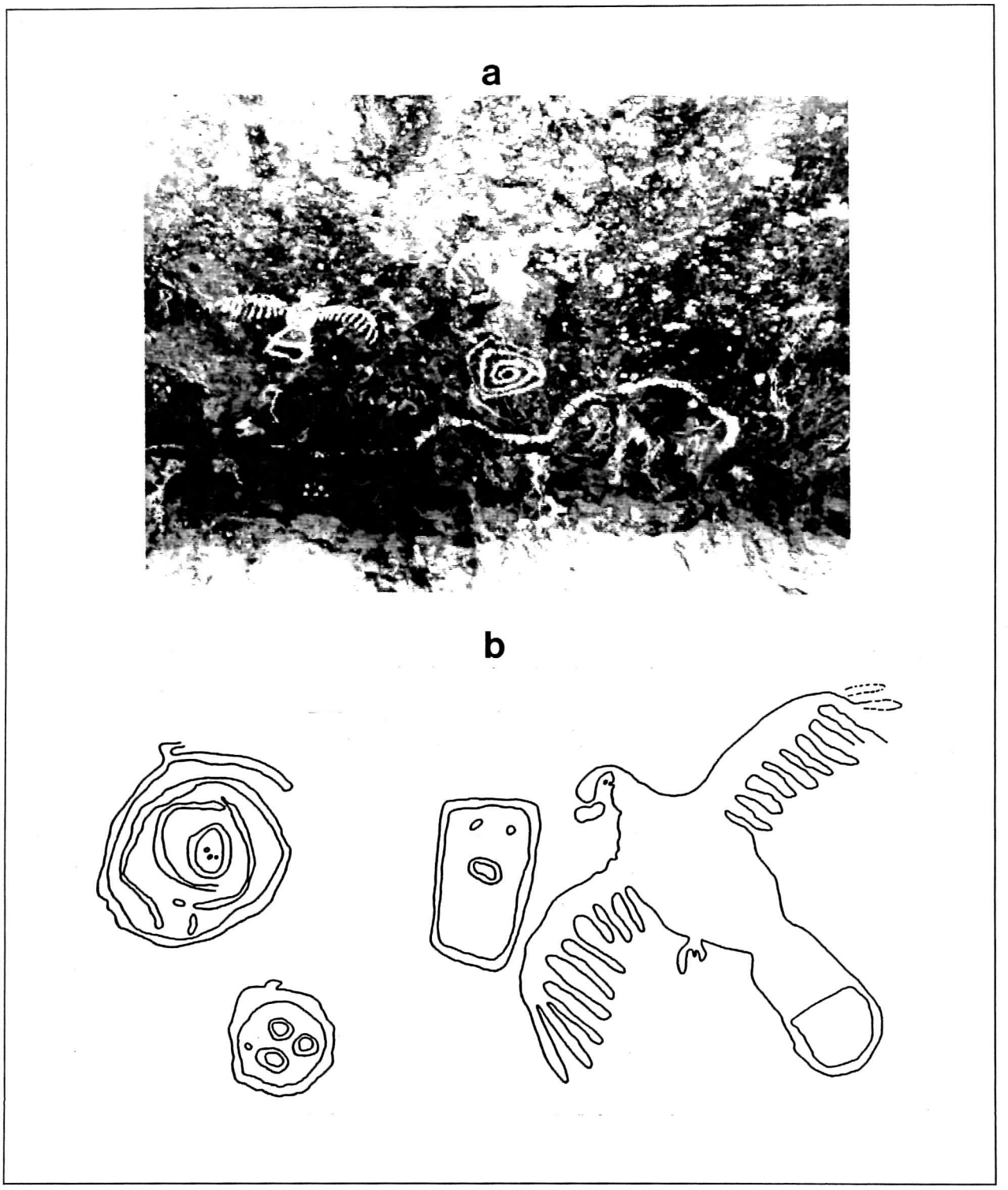


Figure 3.32. Historic Apache Pictographs include eagles, wavy lines, and spirals: a, Garden Canyon (photo by P. Whitley, 1991); b, Garden Canyon (Burton 1988:243).

Figure 3.33. Horse-and-rider images are common in Historic Navajo Pictographs. Canyon de Chelly (photo by P. Whitley, 1986).

Navajo rock art is still created by sheep herders and other persons passing time. The elements are more naturalistic, and representational images are most common. Many elements may be incorporated in a single scene. Horse-and-rider elements are frequently created, and the horses have become increasingly lifelike through time, with an emphasis on slim-bellied figures.

Historic Yavapai rock art is very diverse, especially when compared to preceding styles in the area. Despite the variety of methods used, Yavapai styles share many of the same elements (Pilles 1994). The **Protohistoric/Historic Yavapai Pictograph** style is found in the Sedona area and dates from about 1580 to the 1890s, based on the association of artifacts and inscriptions. Drawings and paintings are both present. Elements drawn with charcoal are most common and include horse-and-rider images as well as big game animals. Supernatural beings with headdresses, elongated bodies, and fingers and toes can be found. These may represent *akaka* figures, tiny beings that are associated with mountains, rocks, high places, and supernatural powers (Pilles 1994). Other pictographs were drawn with red crayons, paints, or mud paints. Some elements resemble earlier Sinaguan pictographs. Mud-painted elements are either orange-red or white. A layer of paint several millimeters thick was applied when creating these elements, but most of the paint has fallen off, leaving only faint traces behind.

Protohistoric/Historic Yavapai Petroglyph style incorporates images that were pecked, scratched, or scratched and abraded onto rock surfaces. Snakes are the most common scratched elements whereas

akakas are the most prevalent scratched and abraded elements. Yavapai scratched designs are less patinated than Archaic Scratched petroglyphs, which they resemble. Some scratched panels are several meters wide and contain zigzag scratched elements (often repeatedly superimposed) and *akaka* figures, some with headdresses and body designs. Pecked elements are present at one site and include zoomorphs and outlined *akakas* (Pilles 1994).

Several sites appear to have example of **Historic Tohono O'odham Pictograph** rock art (Figure 3.34). Emil Haury identified images found at Ventana Cave as being created by historic Tohono O'odham (Haury 1950:470). These include several persons riding horses and a series of vertical parallel lines, which might represent tally marks. Other images include a rectangle outlined in white paint and a series of joined triangles.

Historic Tohono O'odham Petroglyph rock art has been identified in at least one site in Mexico. Carrico (1983) states that petroglyphs fashioned by historic Tohono O'odham include stick figures with outlined heads, facial features, knees, and five fingers and toes. Other elements include crescents, crosses, and circles. A bearded man with a cross was also reported. Currently, no published reports describe Tohono O'odham petroglyphs in Arizona; however, they may exist.

Historic Patayan/Yuman Petroglyphs are found in southwest Arizona. These include depictions of horses and rides and anthropomorphs holding shields (Wallace 1989:62).

Historic rock art in the areas around the Hopi pueblos has been poorly reported, but examples of **Historic Pueblo Petroglyphs and Pictographs** are known (Figure 3.35). The most famous example is the Tutuveni (Willow Springs) site. Hopi Indians have repeatedly carved petroglyphs on boulders at this site, each person placing his or her own clan symbol on the rocks.

Historic Pueblo rock art often includes katsina mask paintings. Recent years have seen increased realism, thought to be a result of the influence of Euro-American art. Historic Pueblo rock art is a continuation of themes and elements created during the Anasazi Pueblo IV period. Despite the oppression and hardships that the Hopi, Zuni, and other Native Americans of northeastern Arizona underwent, their artistic traditions were perpetuated.

Not every historic group produced rock art. Gifford (1932:290) wrote that the Southeastern Yavapai did not make either pictographs or petroglyphs and claimed that they did not understand their meanings. However, Gifford notes that Yavapai adolescents made new petroglyphs in imitation of old ones. Additionally, information given to early ethnographers may have been incorrect. It is probably that the Yavapai were misleading Gifford or that only a select few were creating images. Today, the Yavapai claim to have created many of the rock art images found in the Prescott and Salado area (Pilles 1987, 1994)

Historic Euro-American Rock Art

The most prevalent **Euro-American** pictograph and petroglyph images are initials or names, often accompanied by dates, that are carved or pecked onto rock surfaces (Figure 3.36). Increasingly, spray paint has replaced carving. Unfortunately, modern graffiti artists frequently place their elements on the same rock surfaces that prehistoric artisans used. As a result, it is difficult to find rock art sites that have not been vandalized. Human behavior is often difficult to explain, and the reasons someone destroys rock art are not always clear. The end result is the destruction of a particularly sensitive art form. Euro-American graffiti over 50 years old is currently protected as an important cultural resource.

Historic Euro-American rock art can provide clues to when areas were first explored by Euro-Americans, can help identify trails and immigration routes, and may provide biographical and genealogical data (see Figure 3.36b).

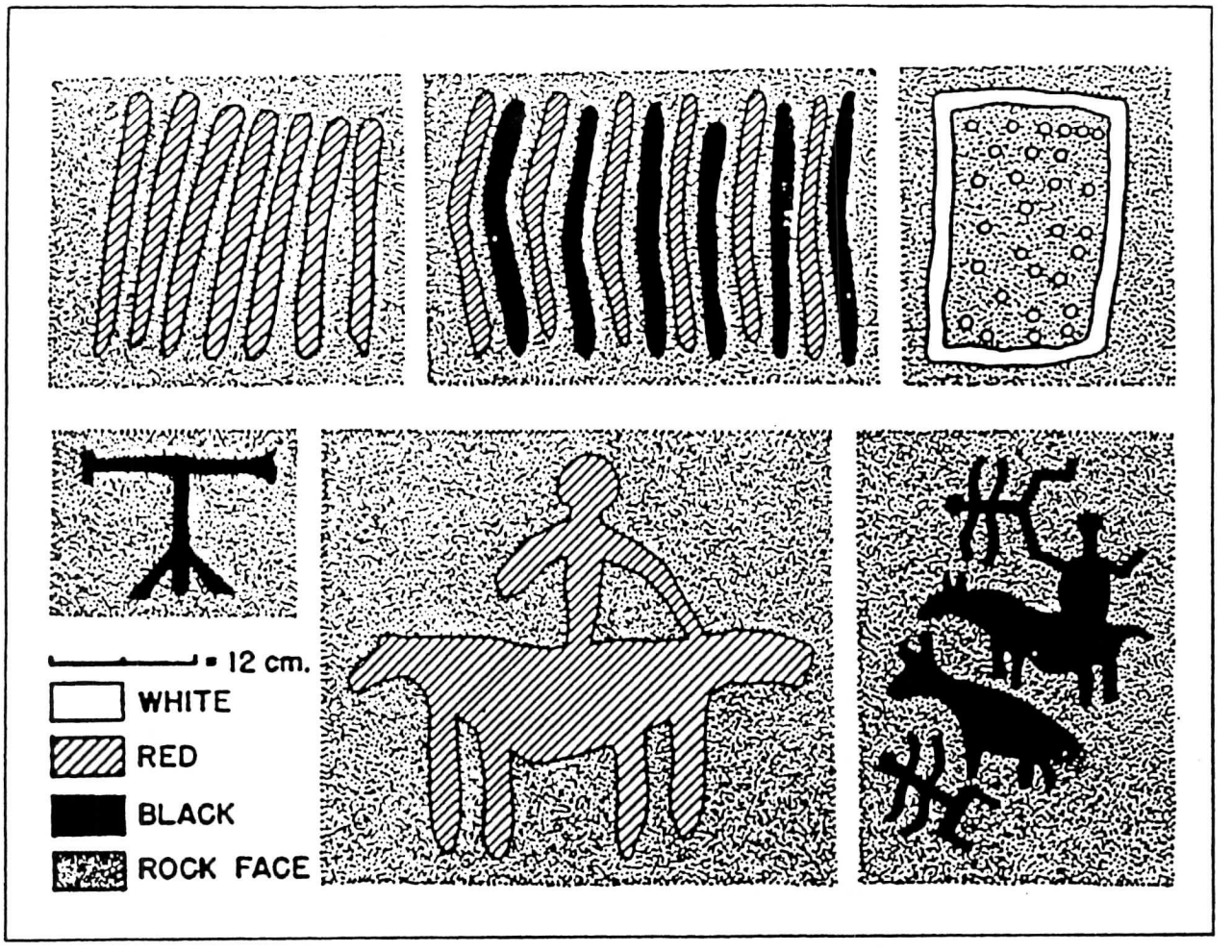


Figure 3.34. The only published possible Historic Tohono O'odham Pictograph was reported by Emil Haury. Ventana Cave (Haury 1950).

A COMPARISON OF ROCK ART AND OTHER MEDIA

Prehistoric people decorated other items as well as rock surfaces. Elements were incorporated onto the surface of ceramic vessels, into textiles and basketry, on plastered surfaces, onto tools and other utilitarian objects, into jewelry, and probably onto their own bodies in the form of painting or tattooing.

Rock art researchers have always sought out these similarities since they provide a method for dating petroglyphs (Figure 3.37). As an example, the crab-clawed zoomorphs found on the walls of Canyon de Chelly were also discovered on a ceramic vessel that dated from about A.D. 700 to 900. Assuming that the symbols date to the time period, this allows the rock art to be dated. In another case, Jernigan (1992) (1992) noted that *Mogollon* Red style pictograph and Encinas Phase Mogollon ceramics bore very similar elements, indicating that they might date to the same time period. Stewart et al (1990) explored similarities between Mogollon ceramics and rock art in New Mexico and found many similarities; however, the number of cases appears to be quite small considering the total body of decorated vessels.

Christensen's 1994 examination of geometric elements found among Petrified Forest National Park petroglyphs and ceramics and textiles from northern Arizona resulted in the discovery that many of the elements are common among all media. For example, 18 of the 20 most common motifs found among rock art are also found on ceramic vessels. Christensen notes that among the historic Hopi men were the weavers and women made pottery. This dichotomy may suggest that both sexes created rock art, employing designs they used in their respective crafts. Unfortunately, this theory is impossible to test.

Hohokam rock art and ceramic vessels share many images, especially anthropomorphs and zoomorphs. In Hohokam rock art, 25 to 65 percent of rock art images are representational whereas from 7 to 32 percent of decorated Hohokam ceramics bear such designs (Antieau 1981:166) (Table 3.3). The number of zoomorphs declined dramatically after the Santa Cruz phase, so it may be useful to date Hohokam rock art sites by examining the frequency of such elements.

Why is there a difference between Hohokam rock art and ceramics? One explanation is that it is easier to put certain images on certain media. It is easier to paint complex geometric elements on ceramics than to peck them onto rock surfaces. While this may be the case in some instances, there may also be functional explanations. For example, elements relating to hunting or procuring resources may have been more popular in rock art because the rock art sites were located closer to the sources of these activities. On the other hand, geometric images found on pottery may have stood symbolically for animals or humans. In either case, continued research is necessary before the correspondence between certain images and certain media is better *understood*.

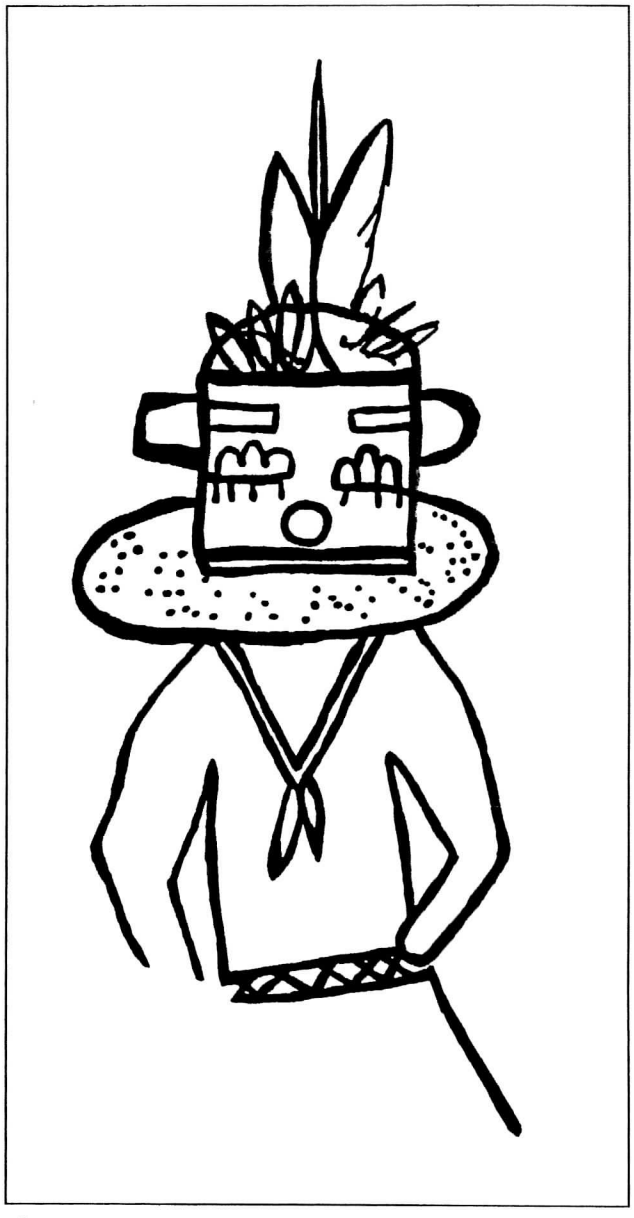


Figure 3.35 Historic Pueblo rock art includes katsina figures, a tradition that continued from prehistoric times. Petrified Forest National Park (Burton 1993:97). In another case, Anasazi kiva murals contain images, mostly katsinas, that are duplicated in Mogollon rock art (Cole 1992).

SUMMARY

This descriptive discussion of rock art styles found in Arizona has had two purposes. One has been to sort through the published styles and provide a brief descriptive summary of each. In some cases, individual styles had been assigned three or four different style names, so these have been combined into a broad style name. In all likelihood, many of the styles have regional trends. Among Anasazi sites, this already has been recognized, accounting for many of the small phase or area distinctions. It is probable that further research will result in a similar discovery for the Hohokam area rock art. The style names

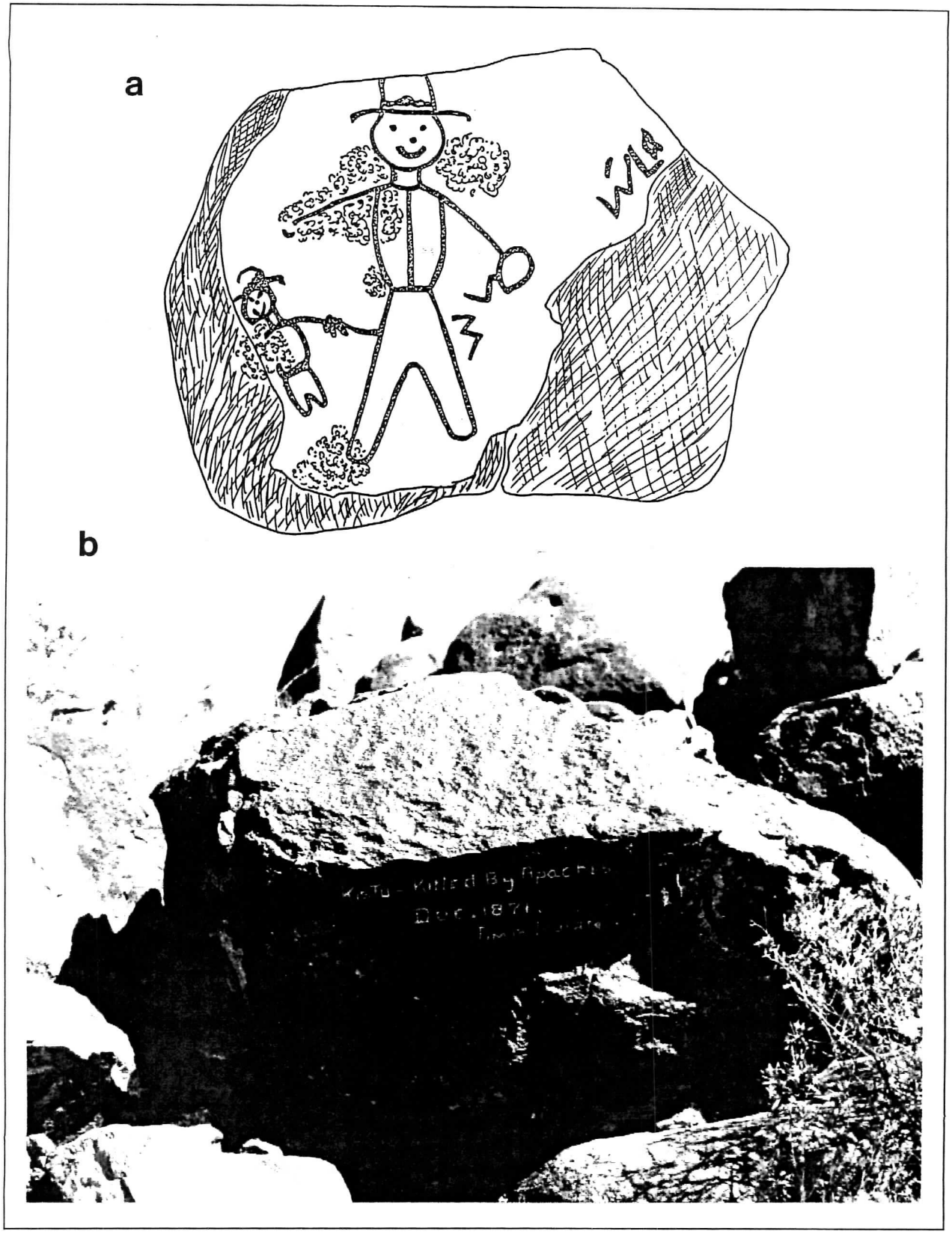


Figure 3.36. Historic Euro-American rock art can include inscriptions, initials, and representational images: a, Fools Hollow Lake (Weaver 1991b); b, Picacho Mountains (photo by P. Whitley, 1988).

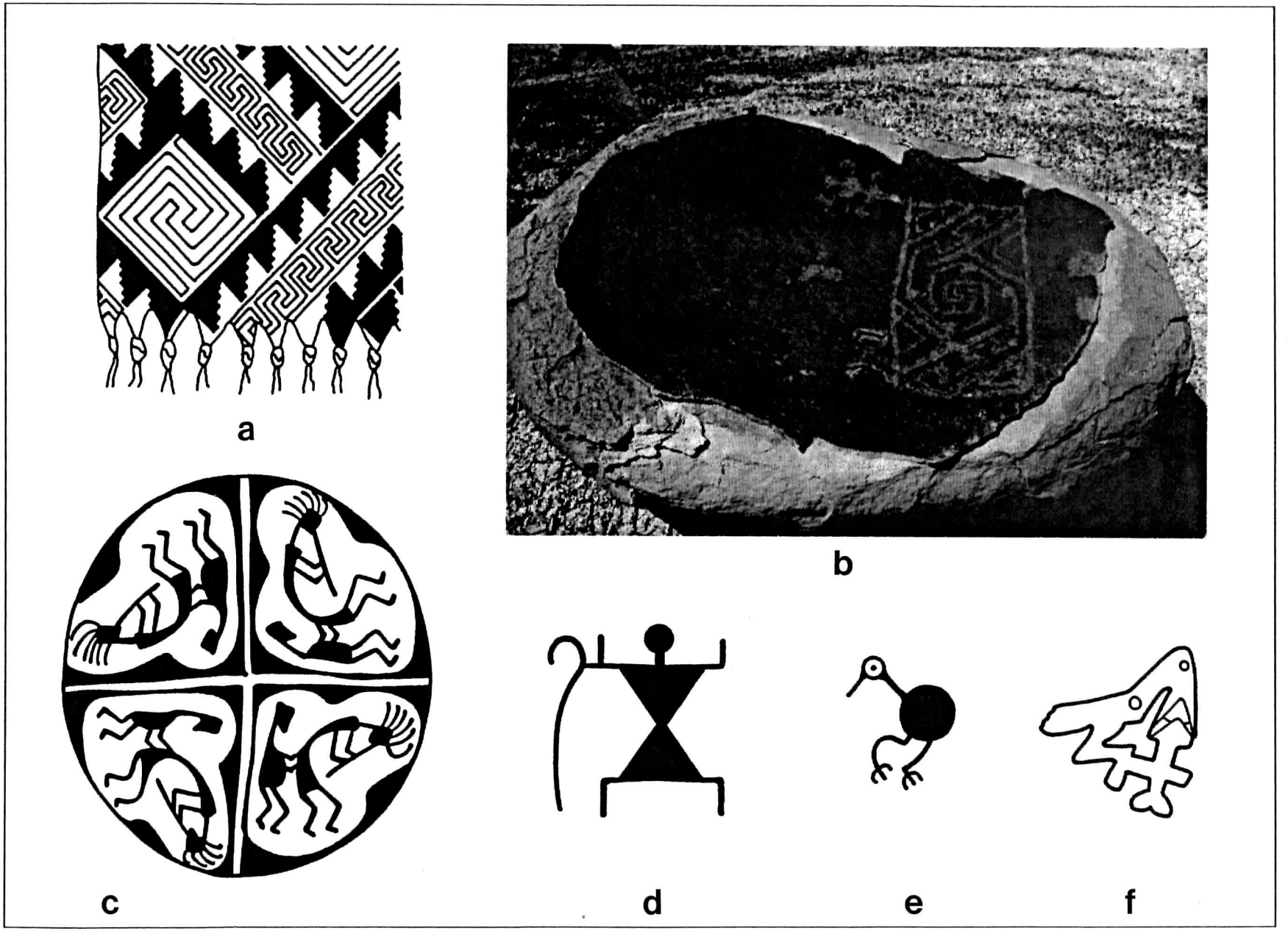


Figure 3.37. Many rock art elements resemble designs from other media: a, textile design from Tonto National Monument (Cummings 1953:128); b, textile-like rock art, Petrified Forest National Park (photo by R. Serface, 1991); c, Santa Cruz Red-on-buff plate (Gladwin et al. 1938:plate CLVIII); d and e, Hohokam rock art elements, South Mountain Park, Phoenix; f, Hohokam shell ornament from the Citrus site near Gila Bend (Wasley and Johnson 1965:103). All illustrations by Ron Beckwith.

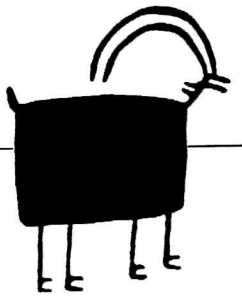
suggested in this volume are an initial step toward a better understanding of the diversity of Arizona rock art.

Future researchers are urged to document in greater detail element frequencies and their distribution in time and space, and perhaps record more detailed observations of techniques, since the latter appear to have changed significantly through time in some areas. In addition, discussion comparing rock art to other media needs to be better illustrated, and the reasons behind media-specific imagery investigated. Are these differences the result of limitations presented by specific materials, or are there underlying functional or cultural reasons that certain elements appear only on certain images?

As more research is conducted at rock art sites, knowledge about rock art styles will be further refined. New styles will probably be identified, especially for central Arizona. Old style names, including those presented here, will be changed and updated as research continues. Some researchers believe that style designations should be dropped altogether since style definition is so subjective.

Chapter 4 presents a summary of Arizona's reported rock art sites, discusses some methods for preserving rock art or mitigating past damage, briefly notes what is known about Native American attitudes toward rock art, and outlines some areas of future rock art research.

CHAPTER 4



THE FUTURE OF ROCK ART IN ARIZONA

In the last 50 years, Arizona has undergone a period of unprecedented growth. The population of the state has risen from 500,000 in 1940 to its current level of close to three million (Walker and Bufkin 1986). As more and more people move to the state, houses and businesses are built, freeways widened, and dams constructed. Among the many archaeological sites that are destroyed during development are rock art sites. Also, rock art is damaged by looters and vandals or unintentionally by visitors. What can be done to halt or reverse such damage? This chapter discusses opportunities to preserve and protect rock art resources in the state of Arizona. First, however, an examination of the rock art sites identified as part of this project is undertaken.

ARCHIVAL RECORDS OF ARIZONA ROCK ART SITES

A primary goal of the rock art study was to collect data from site records housed in Arizona institutions. More than 2,300 sites were documented as a result of this census. A site can consist of a small set of images on one panel, a large number of panels, or an entire district containing rock art (such as South Mountain in Phoenix). Doubtlessly, if each site were reexamined, the number of sites would increase. Appendix B presents site records in an abbreviated form, leaving out specific locational data. Individuals interested in this data should contact the State Historic Preservation Office (SHPO) or individual record repositories. Access to locational data is typically restricted to individuals with a professional interest in the field. A much larger number of sites probably remain unreported. How can the total number of rock art locations in Arizona be estimated? One method would be to conduct surveys in randomly selected portions of the state. These surveys would have to consider such factors as the kinds of exposed rock present, topographical features, and the density of human occupation across the landscape. However, it is uncertain if such surveys could accurately estimate the number of sites.

The quality of the archived records varies for two reasons. Older records contain little data; often only locational data and a small amount of descriptive information are provided. Site recording improved dramatically as a result of the initiation of cultural resource management, so more recent records are usually quite detailed. However, the data differ from institution to institution because different site-reporting forms have been used. Therefore, the use of standardized site records is strongly encouraged, and researchers are urged to submit site records to a single institution. The Arizona State Museum in Tucson currently houses the most records in the state; therefore, it is sensible to archive materials there. The number of duplicate site records would be reduced, and rock art data would be more accessible to other researchers. Copies of site records may also be archived at the Deer Valley Rock Art Center, thus creating a centralized repository of rock art site data and enhancing the study of these sites.

The data collected for this report allowed a number of questions to be addressed for the first time. The following section discusses these findings in detail.

ROCK ART DATA COLLECTED IN THE STUDY

During the rock art study, a variety of data, some of which are presented in Appendix B, were entered into a computer database. This information can be used to examine the locations of rock art sites and the kinds of sites commonly found, and it can help plot the future course of rock art studies in Arizona.

Geo-Map, Inc., prepared maps using UTM coordinates pulled from site records. In all, about 60 percent of the 2,367 site records contained this data. The map, Figure 4.1, demonstrates that sites are scattered across the state; however, many are clustered in several areas. These clumps represent rock art regions that have been intensively examined, usually as a result of cultural resource management surveys. Many of the grouped sites are located in National Parks or National Forest lands. As an example, clusters visible on the map include Petrified Forest National Park, the Painted Rocks Reservoir, and Coconino National Forest. Areas without rock art sites do not represent locations where art was not created; instead, these areas have simply not been surveyed, rock art sites present have not been reported, or site records lack UTM coordinates.

Another method for examining where sites have and have not been located is to determine the average number of reported sites per square mile for each of Arizona's counties. A total of 2,041 site records supplied data indicating in which counties the sites were located (see Table 4.1). The number of reported rock art sites per square mile varies from .004 (Greenlee County) to .033 (Yuma County). The state average is .018 sites per square mile (.020 if sites without specific county locations are added).

What do these numbers mean? They certainly do not reflect the density of rock art sites in the state; that is, one cannot say that Greenlee County has fewer sites than Coconino per square mile. This is because not all portions of the state have been studied equally. Instead, the numbers suggest which areas have been most intensively surveyed—in this case, Apache, Coconino, Pinal, Maricopa, and Yuma counties. However, only a fraction of the rock art sites in these counties probably have site cards. Even those counties with the highest reported sites per square mile need additional survey and site recording. For example, about one-quarter of Apache County's recorded rock art sites are located within Petrified Forest National Park, which comprises less than five percent of the county land area. Many of the remaining sites are located in Canyon de Chelly National Monument. The overall impression is that certain areas have been intensively studied, whereas others have been ignored.

It is suggested as a first step that researchers focus on those counties with the fewest reported sites per square mile--Mohave, La Paz, Navajo, Graham, and Greenlee--in order to increase the number of recorded sites. These counties contain examples of some intriguing kinds of rock art that are as yet poorly known. For example, Greenlee County contains one of the few Mogollon Jornada Pictograph sites. Do others exist? How far westward into Arizona are these sites found, and do other forms of culture exhibit similar Mogollon influence? Similar questions could be posed in other areas. A second step would be to examine areas where few sites have been found. As indicated by Figure 4.1, these areas could include northeastern Coconino County, northern and southern Navajo County, southern Apache County, all of Greenlee County, eastern Mohave County, northwestern Maricopa County, and central Pima County.

A more pressing problem is that published reports are lacking for large geographic areas. This became obvious during this study when attempting to document the distribution of certain styles in Arizona. In general, the southeast, east-central, and southwest portions of the state have been poorly published to date. Jernigan (1992) reported on several sites in south-central Arizona and Weaver has documented sites in east-central Arizona. The importance of study in these areas is highlighted by their reports, which illustrate examples of styles of rock art that are as yet poorly known in the state. Published documents on individual sites allow researchers from across the state and throughout the world to "visit" sites without actually traveling to them. They also preserve site data on paper, where information will survive even if the site or the archive housing records are destroyed. The recent surge in publication of baseline site data is expected to continue into the near future.

Prior to this study, the perception of rock art researchers was that petroglyph sites were the most common in the state, followed by pictograph, and then geoglyph sites. This study confirms this perception. Petroglyphs are found at 83 percent of the reported rock art sites, pictographs at 16 percent, and geoglyphs at only two percent (Figures 4.2-4.4). Whether these numbers are accurate is uncertain, given the large numbers of unreported or undiscovered sites. Because pictographs and geoglyphs are more

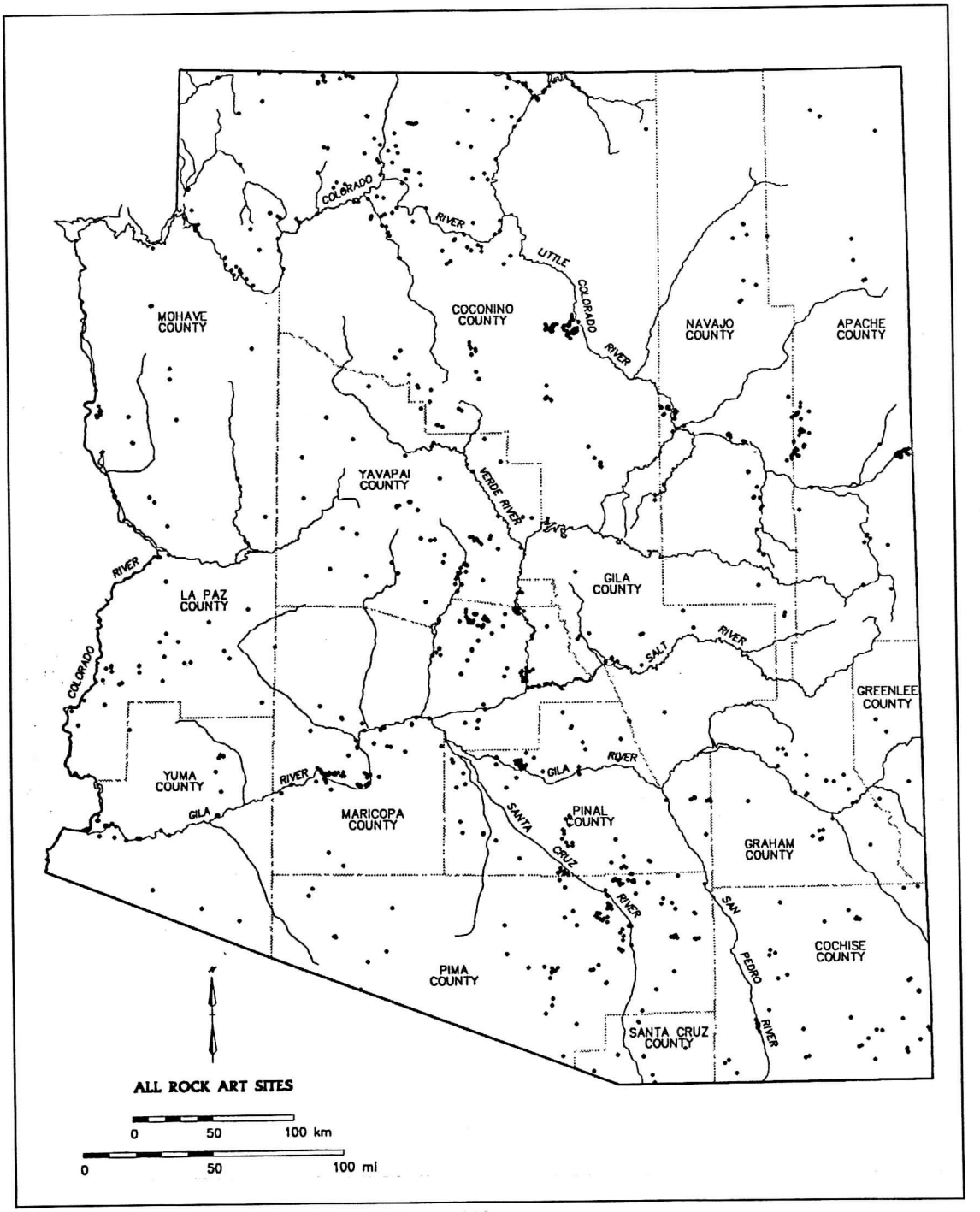


Figure 4.1. Distribution of rock art sites in Arizona, according to site records.

Table 4.1. Rock art sites reported in each Arizona county.

County	Square Miles	Number of Rock Art Sites	Sites Per Square Mile
Apache	11,174	197	.018
Cochise	6,256	95	.015
Coconino	18,573	429	.023
Gila	4,750	80	.017
Graham	4,610	48	.010
Greenlee	1,874	8	.004
La Paz	4,500	39	.009
Maricopa	9,226	248	.027
Mohave	13,260	155	.012
Navajo	9,911	119	.012
Pima	9,241	160	.017
Pinal	5,378	129	.024
Santa Cruz	1,246	21	.017
Yavapai	8,093	134	.017
Yuma	5,485	179	033
Total	113,577	2,041	.018

likely than petroglyphs to be lost through weathering away, the original number of these sites is unknown.

The occurrence of each rock art kind was investigated at a county-wide level in order to determine whether certain kinds were concentrated in geographic areas. This could occur because rocks conducive to each kind of rock art may be located in specific areas or because cultural factors may influence which kind of rock art was created. Table 4.2 lists by county the kinds of rock art sites identified during this study.

More than 90 percent of the rock art found in the central portion of the state, including Yavapai, Maricopa, and Pinal Counties, is petroglyphs. This is not surprising, given the difficulty in finding more than a handful of examples of Hohokam, Pima, or Papago pictographs. It appears that pictograph creation either did not occur in this area in great frequency; that it was done in areas where it subsequently weathered away; or that for some reason, these sites have yet to be reported.

Pictographs are most prevalent in the northwest and southeast corners of the state, with 32 to 53 percent of the rock art sites in these locations having painted images. Geoglyph images are found only in the southwest corner of the state, concentrated in La Paz and Yuma counties.

Even at a gross level, these findings suggest that the kind of media used in rock art was important to artisans. Also, the physical characteristics of the materials with which the artists created rock art may have been important. Geoglyphs are found in areas with rock-vanished desert pavement. This ground cover is found mostly in the southwestern corner of Arizona. Other groups may have created geoglyphs; however, the passage of time may have erased any traces of these images.

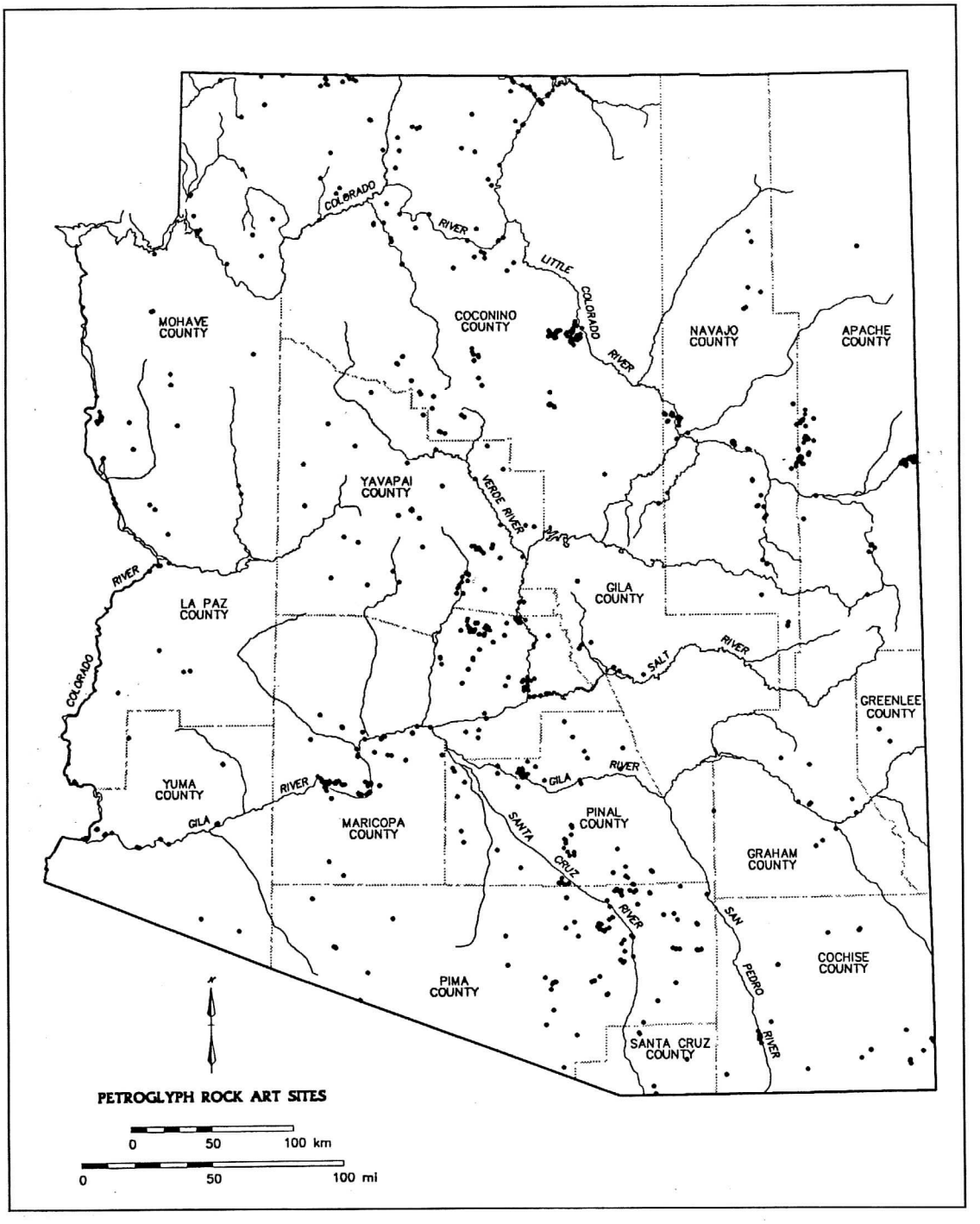


Figure 4.2. Distribution of petroglyph sites in Arizona, according to site records.

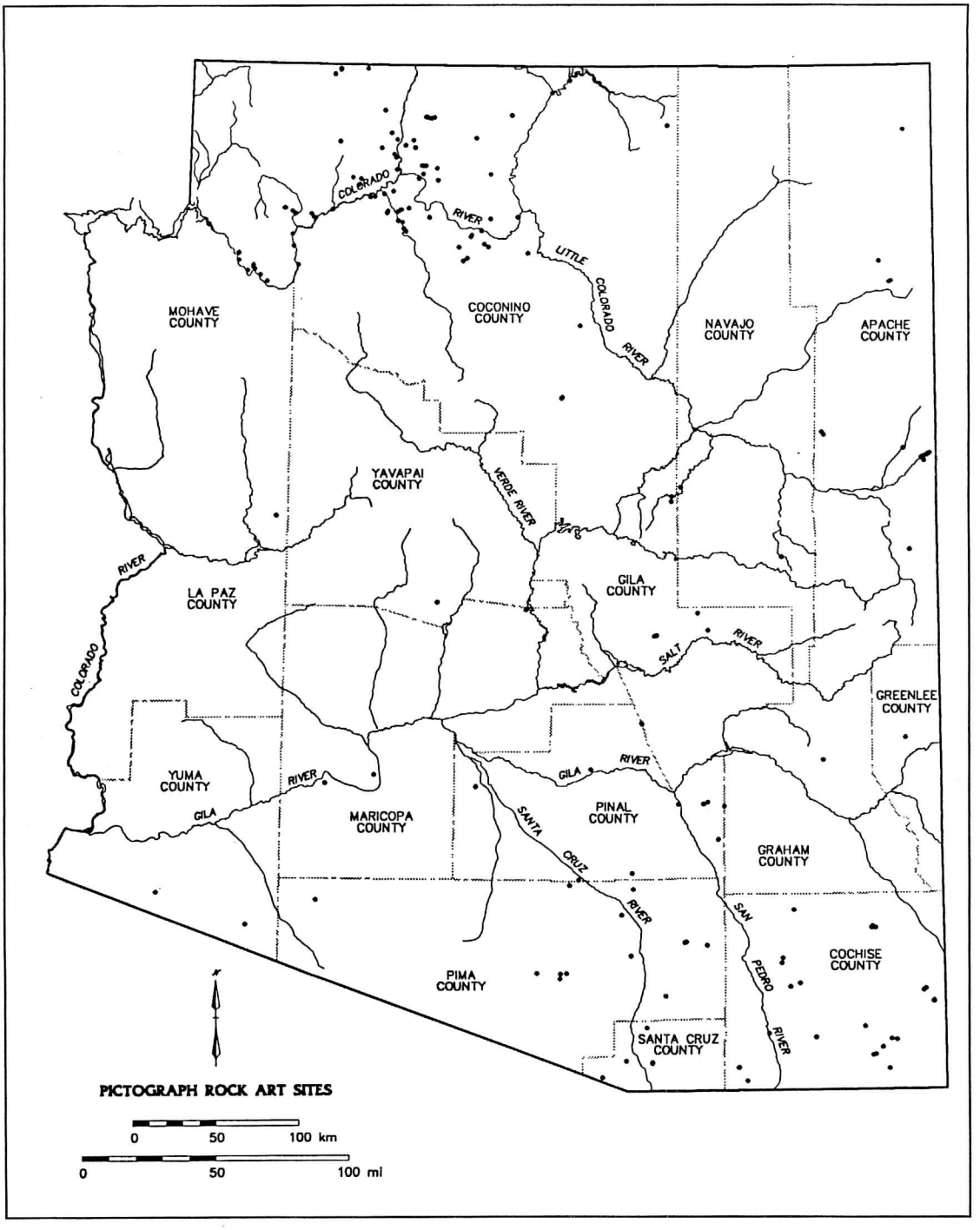


Figure 4.3. Distribution of pictograph sites in Arizona, according to site records.

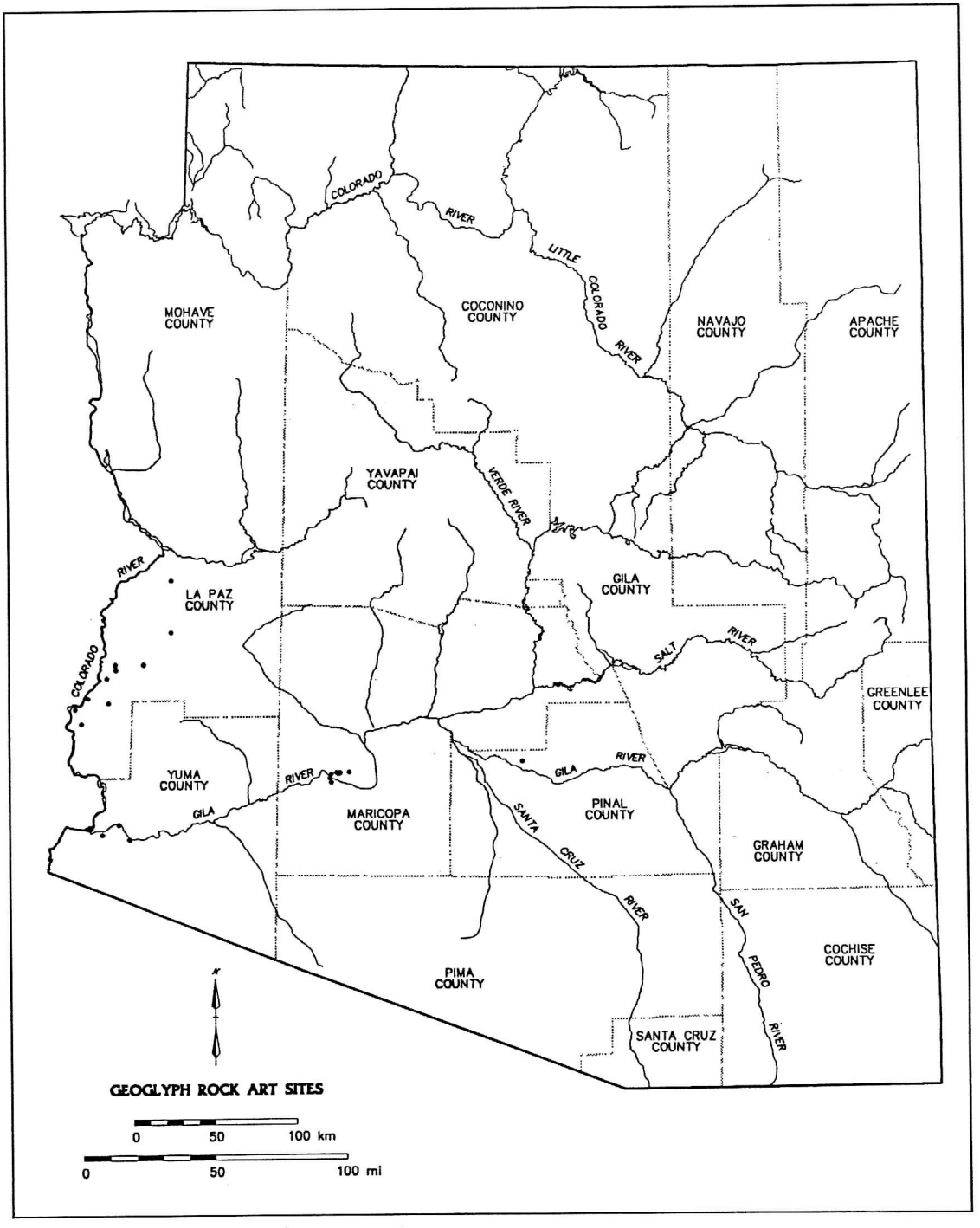


Figure 4.4. Distribution of geoglyph sites in Arizona, according to site records.

Table 4.2. Rock art site types by county count.*

County	Petro	Petro/Picto	Picto	Geo	Pit and Groove/Cupule
Apache	160	12	20	0	5
Cochise	37	4	43	0	3
Coconino	304	30	69	0	1
Gila	59	0	15	0	0
Graham	23	1	9	0	2
Greenlee	3	0	2	0	0
La Paz	14	1	1	16	0
Maricopa	216	0	3	1	0
Mohave	87	11	44	0	0
Navajo	97	5	6	0	0
Pima	118	5	19	1	6
Pinal	97	1	7	2	5
Santa Cruz	6	3	9	0	0
Yavapai	110	0	4	0	0
Yuma	103	5	8	33	1
Unknown	205	15	55	1	1
Total	1638	93	314	54	24

*Sites with county recorded on the site reocrds.

The numbers of panels and elements were reported for many sites. Of 743 sites with panel counts, the range was from one panel (337 sites) to 610. The mean number of panels per site was about 8, whereas the median number was 30 panels. It is obvious from site records and published accounts that the number of panels varies dramatically among sites. The number of individual elements also varies. A total of 769 site records listed the number of elements found at particular sites. They ranged from one element (151 sites) to a high of 1,845 for the North Pass site. The mean number of elements was 25 (the total being 19,126 elements), whereas the median was 47. Again, considerable variability exists in these counts, and it is impossible to ascertain their accuracy. The indications are that an incredible number of rock art images are present in the state.

The kind of associated sites found with rock art was also coded, with many sites having more than one kind of association (Table 4.3). Artifact scatters are most prevalent, followed by habitation sites, resource exploitation areas, and rockshelters. Many of the artifact scatters may represent habitation sites where architecture such as pithouse sites is invisible. One problem with interpreting this data is that recorders may be biased toward identifying specific site kinds with the rock art. Future work, similar to Wallace's 1983 examination of rock art sites in the Tucson area, may allow for a better *understanding* of this complex relationship,

Site records often listed the suspected cultural affiliation of the rock art creators. In most cases, investigators probably derived this data by examining artifacts from associated sites, through knowledge of which groups lived in the area, or through guesswork. Many of these cultural affiliations are probably incorrect. A single site may have as many as four identified cultural affiliations. The identified affiliations are presented below in Table 4.4.

Table 4.3. Sites associated with rock art.

Site	Number
Habitations	378
Resource exploitations	260
Rockshelters	282
Caves	83
Artifact scatters/quarries	645
Trincheras	8
Stone circles	21
Stone walls/rock alignments	58
Ceremonial sites	23
Defensive/fortifications	5
Granaries	7
Trails	59
Rock features	21
Canals	2
Checkdams	14
Ballcourts	2
Historic sites	48

Table 4.4. Cultural affiliations of rock art.

Culture	Number	Culture	Number
Archaic	122	Cohonino	78
Basketmaker	17	Pai	7
Hohokam	552	Zuni	2
Trincheras	3	Hopi	12
Yavapai	13	Apache	43
Patayan	20	Navajo	24
Salado	17	Piman	3
Sinagua	113	Papago	12
Mogollon	52	Yuman	15
Fremont	3	Pauite	10
Anasazi	221	Cerbat	7
Kayenta	10	Hakataya	36
Pueblo	125	Spanish	3
Western Pueblo	7	Historic	163
Havasupai	16	Anglo	27
Cochise	2	Modern	16
Cocopa	1	Unknown	776

It is not surprising that Hohokam rock art is the most common, given the size of this cultural area. The presence of Sinagua and Salado sites in central Arizona is of special interest because this area has been poorly reported. Is the rock art of this area different from that of surrounding regions? This is one region that needs to have its rock art studied and published.

Site records infrequently contain specific style data, but most that do so are fairly recent. These style names are listed in Table 4.5. It was not possible to ascertain whether these style identifications are accurate. Site records are expected to contain this data more often in the future.

Summary

The data collected during the rock art study indicate that Arizona has a wealth of rock art sites and that the opportunities to make significant contributions exist for researchers. Many areas of the state have received little attention or, when they have, have not had the data published. Some of this data has been collected at various archives and agencies. The need for a centralized site record database is clear. It is suggested that the rock art data be archived at the Arizona State Museum, although another possible location might be the Deer Valley Rock Art Center. One of the goals of this institution is to preserve rock art data, and as the only museum in the state focused entirely on rock art, this may well be the best place for archiving rock art site data.

PRESERVING THE PAST FOR THE FUTURE

As Arizona heads toward the twenty-first century, a concerted effort must take place in order to ensure the survival of many of the state's important rock art sites. Most sites are located on public lands that are under the management of various city, county, state, and federal agencies. This often preserves the rock art sites from the destruction of development, especially after the enactment of laws requiring cultural resource protection on state and federal lands. However, the isolation of these lands also allows individuals to loot and vandalize rock art sites with little fear of being caught. Also, natural forces can result in damage to rock art sites (see Table 4.6). The end result is a gradual reduction in the number of rock art sites available for study, for public visitation, or for use by Native Americans. How are we to protect these sites?

Once created, rock art is exposed to natural agents that can lead to its destruction. In all probability, a great deal of rock art, especially pictographs, has disappeared as rocks weather away or become repatinated. This slow, gradual process can be controlled in certain instances, but misguided attempts to slow or halt the process often actually endanger the art. Human visitors are the greatest threat to rock art, either by intentionally or accidentally damaging it. Despite the many dangers that exist for Arizona rock art, though, the outlook is not necessarily bleak. A number of methods for protecting, preserving, and conserving rock art exist, and their successful application can save sites from unnecessary destruction.

PROTECTING ROCK ART

Rock art protection must begin at the individual level. Each person who visits a rock art site should appreciate the significance of the resource and understand that others deserve to view the art in its pristine state. Unfortunately, many people have not observed this simple rule. As a result, the Federal and State governments have passed a number of laws protecting archaeological sites.

Table 4.5. Arizona rock art styles identified in site records.

Style	Number
Western or Desert Archaic	25
Chihuahuan Polychrome	8
Barrier Canyon	1
Gila or Hohokam	71
Patayan	10
Mogollon Red	27
Jornada	4
Snake Gulch/Cave Valley	15
San Juan Anthropomorph	2
Great Basin	2
Chevelon Polychrome	2
Grand Canyon Polychrome	1
Reserve	4
Chevelon Polychrome Abstract	2

Table 4.6. Agents contributing to rock art deterioration and destruction (Office of Technology Assessment 1986:167).

Natural Agents	Human Agents
Bacteria	Development
Direct contact with water	Looting
Exfoliation of stone	Vandalism
Insects	Pollution
Joints and cracks	Off-road vehicles
Lichen	Rock climbers
Surface accretion	Rubbing, taking molds
Vegetation	
Wind abrasion	

Cultural Resource Legislation

Protection of archaeological sites began with *The Antiquities Act of 1906* (Public Law 59-209; 344 Stat. 335; 16 U.S.C. 431-433). This law provided for the protection of historic, prehistoric, and scientific remains, or any object of antiquity on Federal lands. Criminal sanctions for the unauthorized destruction or appropriation of antiquities from Federal lands were also established. This law was fundamental in establishing the government's power to protect, preserve, and study archaeological remains present on its lands.

In 1916, *The National Park Service Organic Act* (Act of August 26, 1916, 39 Stat. 535, 16 U.S.C. 1-4) created the National Park Service. This act provided legal protection for national parks, including the historic objects that they might contain.

The Historic Sites Act of 1935 (Public Law 74-292; 49 Stat. 666; 16 U.S.C. 461-467) authorized the establishment of National Historic Sites and authorized efforts to preserve cultural resources lost to construction activities. This act was the first to recognize that the Federal government should mitigate damage to archaeological sites.

The construction of a number of dams prompted the passage of *The Reservoir Salvage Act of 1960* (Public Law 86-523; 74 Stat. 220; 16 U.S.C. 469-469c). The Federal government took responsibility for protecting sites that could be lost through construction activities.

The National Historic Preservation Act of 1966 (Public Law 89-665; 810 Stat. 9155; 16 U.S.C. 470) encouraged the preservation of historic properties at the Federal, State, and private levels; expanded the National Register of Historic Places to the state and local levels, and declared a policy of historic preservation, among other things.

Sites that might be damaged or destroyed by Federal construction projects gained increased protection with *The Archeological and Historical Preservation Act of 1974* (Public Law 93-291; 88 Stat. 174, amended 1988). This law amended the 1960 Salvage Act and specified that up to one percent of the total amount expended on Federal projects be spent on the mitigation of possible damage to cultural resources.

The Archaeological Resources Protection Act of 1979 (Public Law 96-95; Stat. 712, 16 U.S.C. 470) provided protection to archaeological sites found on public and Indian lands, as well as specified that persons violating this act could be fined up to $100,000 and imprisoned for up to five years, as well as losing property such as vehicles.

In 1990, the United States provided legal protection to Native American grave sites through the passage of the *Native American Graves Protection and Repatriation Act* (Public Law 101-601). This law seeks to preserve Native American burial sites from looting and desecration on Federal lands. In Arizona, the legislature passed similar laws in 1990, A.R.S. 41-844 and A.R.S. 41-865, which protect burials on state and private lands. While directed toward Native American burial sites, the discussion of sacred objects might also apply to certain rock art sites.

Together, these and other laws provide a legal basis for the protection of archaeological sites. The Federal and State governments have taken the position that prehistoric and historic cultural resources deserve protection, and unauthorized damage to archaeological sites should not be condoned. Recently, police agencies have begun to investigate cases of looting and vandalism at archaeological sites, and the court system has begun to prosecute these cases successfully.

However, despite the passage and enforcement of these laws, looting and vandalism have continued. Why is this the case? In part, persons may destroy archaeological sites for personal gain. The market for prehistoric artifacts, including rock art panels and boulders, is quite lucrative. Individuals involved in the illegal sale of these items are aware of the cultural resource protection laws and choose to ignore them. In those cases where individuals have been caught, they often have not been punished or have received minimum sentences. Only recently has stricter enforcement of these laws taken place. It is hoped that the publicity surrounding these cases will reduce the amount of looting since the prospect of being sent to jail, having one's vehicle confiscated, or having fines assessed does not appeal to most people.

Education and Rock Art Preservation

In addition to deliberate theft or vandalism, other individuals simply do not know that it is illegal to remove archaeological resources. Attempts to educate the public should be directed toward this group. Public education should begin with school children, with the significance of cultural resources instilled at an early age. This education could include classroom visits by archaeologists, as well as trips to museums and archaeological sites. The Office of Cultural Resource Management at Arizona State University staffed a Public Education Coordinator for four years through the Roosevelt Platform Mound Study. This individual gave talks to civic groups and classrooms, conducted site tours, created public displays, and staffed booths at fairs. The end result was very positive, as many citizens of Arizona became excited about the archaeology of the state. These interested individuals can be expected to help preserve the past.

Education about archaeological resources can take place in many forms. Arizona has one of the most successful programs for teaching the public about the subject—Archaeology Month in Arizona—in March of each year. Programs, lectures, and open houses serve to bring archaeologists in contact with the public, many of whom have never been exposed to archaeology. Among the events that provide education about rock art are site tours, lectures, and video presentations. Articles in popular magazines, newspapers, and items on the evening news can also emphasize the need for rock art preservation.

An inexpensive method for furnishing some degree of protection to sites has been instituted by the Arizona SHPO office. The Site Steward Program matches volunteers to a particular archaeological site. The volunteer regularly visits the site and monitors its condition, evaluating whether vandalism, pothunting, or natural events such as flooding are affecting the site. When human activities are creating problems, the site can be more frequently monitored in an effort to catch the culprits. In several cases, this has been successful. Natural problems can be mitigated, if necessary.

Pilles (1987) reported on a highly successful method for protecting heavily visited rock art sites in Coconino National Forest. Several sites were under assault by vandals and also were being damaged unintentionally by visitors. In this case, the Forest Service allowed a single tour operator to conduct guided visits to the site. During each tour, visitors were instructed on the history of the site, they were taught rock art "etiquette," and their visit was supervised. As a result, vandalism decreased, and visitors received a more comprehensive rock art experience. The tour guide also served as a site guardian. Clearly, it was in the Forest Service's best interest to ensure that the site remained unvandalized and clear of trash. While not suitable for every site, guided tours may be one of the best methods for taking people to a rock art location and providing them with an opportunity to better understand why rock art should be preserved.

The Pueblo Grande Museum and Cultural Park, City of Phoenix Parks, Recreation, and Library Department, provides about 50 guided tours of petroglyph sites each year. These tours enable site etiquette and significance to be explained to members of the public. Tour participants probably will follow these guidelines when visiting other sites.

Other public education efforts have included pictograph coloring sheets distributed by the Coronado and Coconino regional forests. These sheets are provided to schoolchildren and include preservation messages that teach children about pictographs and why they should be preserved.

The Western Archeological and Conservation Center of the National Park Service has had success teaming up volunteers and members of the American Rock Art Research Association (ARARA) to record rock art sites. Members of the public are given opportunities to preserve and document rock art sites in Arizona's National Parks. These people then become advocates for rock art preservation and are likely to report inappropriate activities that take place at rock art sites to the proper authorities.

As a result of the heightened concern for protecting cultural resources, the public has become a vocal advocate for the preservation of rock art sites. One example is the Greenway Road and 17th Avenue petroglyph site, which was threatened during road construction activities. A local resident complained about the possible damage, and as a result, the site was preserved and recorded by the City of Phoenix's archaeology staff (Bostwick 1989).

Other Means of Protecting Rock Art Sites

Unfortunately, not every person attends an archaeology fair or is taught in the classroom that cultural resources should be respected. When these individuals discover an archaeological site, their curiosity can lead them to damage or destroy the resources as they search for artifacts or leave evidence of their presence in the form of graffiti. A number of methods can deter such actions.

Perhaps the least expensive method is to post signs at a site that has come under assault. In some cases, such as on private land or in sensitive areas, these signs may warn people about trespassing onto the property. Although signs may restrict access to certain sites, doubtlessly angering some visitors, this course of action may be the only way to preserve a site. This method is used by the Arizona State Land Department, which has posted signs at several important archaeological sites that were being damaged by visitors. The signs state that the land is off-limits to visitors. However, interested individuals are given a phone number and directed to contact the State Land Department if they desire a tour of the archaeological site. The signs have probably served to protect these archaeological sites, and similar methods may be useful at rock art sites.

In other situations, sites that are being visited may be protected through the placement of interpretive signs explaining the significance of the site and creating an official presence for the setting. The signs could discuss the nature of the rock art, its role, age, or cultural affiliation. The importance of preserving the resource could be stated, as well as the legal consequences of damaging the site. This may result in visitors' actively preventing vandalism when it is spotted.

Padgett (1993) and Pilles (1987) suggest that a visitor book may further the official presence at a site, as individuals will feel that the site is regularly attended to and monitored. Vandalism is less likely to occur if the visitor thinks that an official may visit at any time. The site should be regularly visited, and any trash present should be collected. Cleaner sites are more respected by visitors.

More expensive alternatives can only be conducted at a few sites–those most likely to be damaged by visitors, or those that contain particularly valuable rock art. In extreme instances, fences may be erected to protect an area. In Arizona, the Garden Canyon Pictograph site, the Rappell Cliffs Rockshelter, Malpais Hills, and the Painted Rocks State Park have been surrounded by a fence to deter vandalism and inadvertent damage (Figure 4.5). In the first two cases, the fencing prevents unauthorized visits, although the fences may tempt some people to climb over or tear down the enclosure. At the State Park, the fencing encloses the area, preventing rock art-covered boulders from being removed.

In cases where fencing is not an option, the installation of boardwalks or hand rails may guide visitors around the site while keeping them away from the rock art (Padgett 1993). The majority of people will stay on the boardwalk or within the hand rails; however, some people will still insist on leaving the walk or climbing across hand rails. That activity is simply impossible to prevent.

A combination of these methods may have to be used at certain sites. For example, a pictograph site may need a handicapped-accessible boardwalk installed, with interpretive signs and a particularly important area fenced off. The limiting factor is that there is rarely the money to build such facilities.

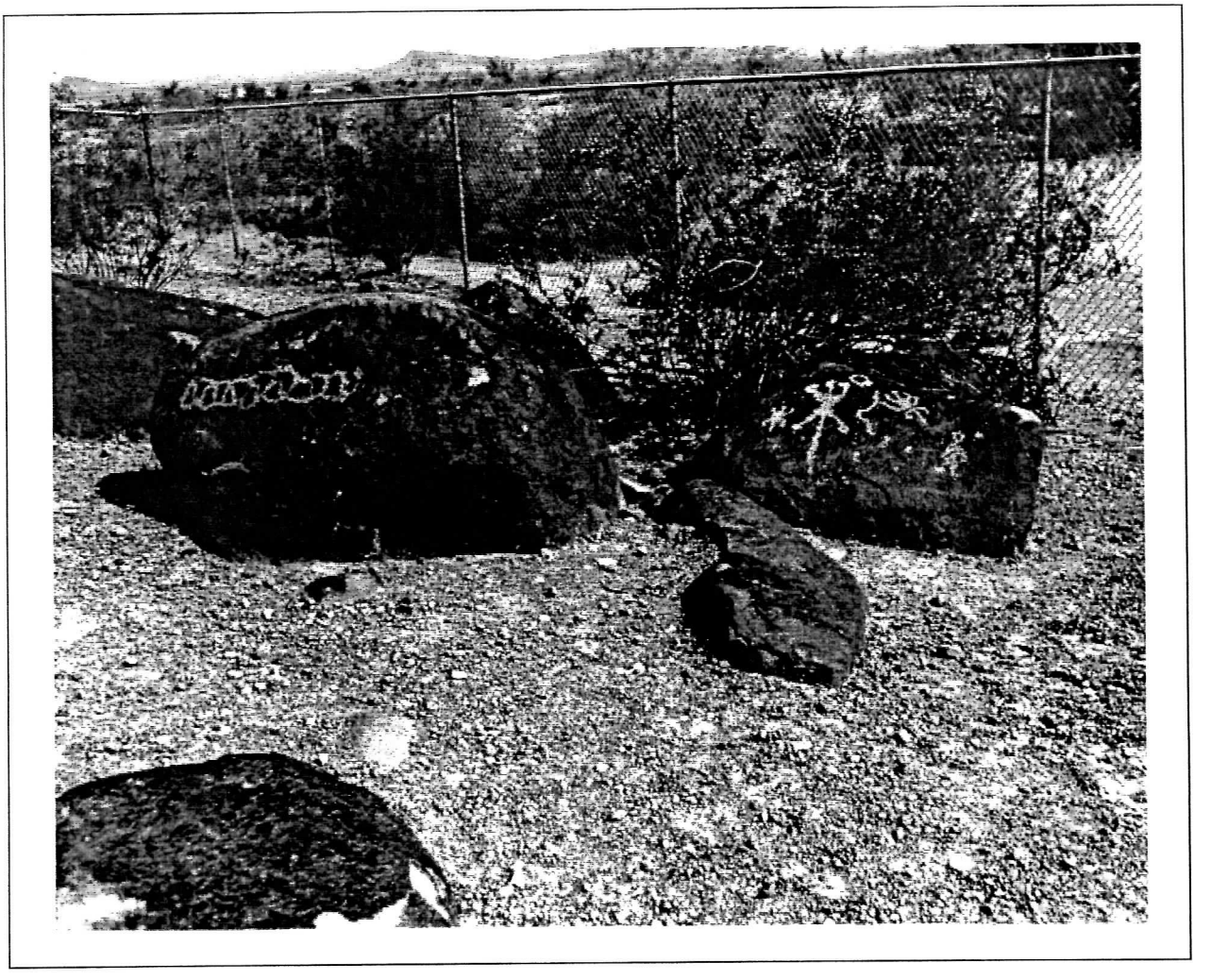


Figure 4.5. Fencing sites may be one method for protecting them. Painted Rocks State Park (photo by P. Whitley, 1988).

Mitigating Past Damage

Most rock art sites located in urban areas or near well-traveled paths have suffered from vandalism. This can include bullet pockmarks, etched graffiti, painted graffiti, or damage caused by off-road vehicles or human feet. Natural conditions also can lead to the exfoliation of the rock surface, detachment of pigment areas, or reduced visibility of geoglyph elements.

For example, petroglyph sites in South Mountain Park in Phoenix were first recorded in the early 1960s by Ernest Snyder. In the mid 1980s, Janet Golio began a project to re-record the 419 sites. Comparison of photographs taken during each survey led to the discovery that in the 25-year period between the two, 22 percent of the South Mountain Park rock art panels had been vandalized. Ten percent of the rock art had been stolen, the boulders carried away for placement in yards or inside homes. Another 12 percent had been damaged or destroyed by vandals, developers, or used as targets for bullets or paint. Golio and Snyder (1993) discovered that the more accessible a rock art site is, the greater the probability that it will be damaged. Hedges (1994) has reported on the theft of a major petroglyph panel from the Sierra Estrella Mountains.

This is disheartening since it suggests that many members of the public are actively damaging rock art. However, in some cases, this damage can be reversed by trained conservators. A conservator is an

individual trained in the preservation of historic or prehistoric artifacts. Typically, this person has a background that includes classwork in chemistry, art history, and anthropology, among other topics. His or her role is to prevent items from deteriorating, reversing the process when possible by stabilizing the object being treated. In other instances, conservators may be required to clean and repair damage caused by weathering or human actions. Conservators typically employ nondestructive, reversible techniques.

Conservators working at rock art sites note the difficulty involved in protecting and preserving the art. In part, this is because little work has been done to date, and techniques are still being refined. Another factor is that it is impossible to develop standardized methods and materials because the underlying rock, materials used to create rock art, and the artist's techniques vary dramatically from site to site and even within a particular site (Silver 1989). For example, a method to remove paint at one portion of a site may have deleterious effects in another area because the rocks are exposed to different amounts of moisture. Few conservators have training in rock art conservation and, when faced with a problem, must experiment to determine which approach works best.

Price (1989) suggests the implementation of an eight-step methodology for conservation treatment. Documentation of the site should take place first. He suggests that the complete recording of a site take place prior to any conservation work. Recording preserves data on the site prior to the implementation of conservation and also prevents the loss of data should future vandalism take place. Recorders and conservators also can exchange important data. Recorders can identify the material of the rock, the pictograph pigments, the microenvironmental conditions of the rock art, and the problems that the rock art may be undergoing. Conservators often discover unseen rock art, including elements covered with spray paint or those that are vary faint.

The next step is to analyze the factors initiating deterioration. Natural and human agents causing damage are reviewed. The diagnosis of the problem identifies which particular agents are damaging the rock art. A review of treatment options can thus take place. Which methods are most suitable? Each method must involve the least amount of intervention possible, must be reversible, and must incorporate compatible materials. In terms of intervention, the conservator wants to avoid altering the original rock art as much as possible. Reversibility means that any work done on the rock art be reversed and that future treatment, if new methods are developed, can take place. Compatible materials are those that will not react adversely with natural materials. For example, a solvent used to remove spray paint should not also remove the rock varnish.

A review of treatment options should be undertaken at this point and a management decision made. Silver (1989) advises conservators to move slowly when approaching rock art. Waiting may allow natural forces to clean human graffiti from surfaces. However, one problem with waiting is that graffiti inspires more graffiti. The placement of signs explaining why the graffiti has not been removed and discussing the proposed methods may alleviate visitor concern and stop individuals from attempting to clean rock art themselves, as well as creating an official presence discouraging further vandalism.

Conservation methods should be tested on small portions of the rock art site, preferably in places away from the actual art, if possible. After each method has been tried, a decision must be made as to which ones have worked, their efficacy, and whether to proceed with further treatment. If treatment takes place, it must be fully documented with before and after photographs, an inventory of materials used along with which portions were treated with which materials, and an evaluation as to the effectiveness of the conservation program. The last step in the treatment program is to evaluate, monitor, and maintain the rock art site.

Currently, only a few rock art studies for Arizona have included discussions of conservation programs (Pilles 1987; Burton 1988). Padgett (1993) removed historic graffiti at the Rappell Cliffs site, a prehistoric pictograph location. Padgett carefully documented each stage of her project, photographing the graffiti areas prior to and after removal. She tried a variety of methods before selecting the one that worked best. These methods were first tested in areas away from the rock art, and after the most useful method was

determined, writing was removed from the rock art area. Padgett also made recommendations on how to best protect the site from future damage. Pilles (1987) documented methods used to remove graffiti at a number of sites in Coconino National Forest. He discovered that the simplest method, spraying water onto charcoal graffiti, worked the best. Low-tech methods were found, in these instances, to remove and reverse damage while also promoting preservation of the rock art.

Conservators are able to remove spray paint, charcoal marks, and pencil marks; however, bullet holes and etched graffiti are not as easy to reverse. Attempts have been made to mask them by filling in damaged portions of the rock. In most cases, though, these marks will remain as evidence of past indifference to rock art. Silver (1989) cautions against attempting to remove all graffiti at sites since this can damage the underlying rock structure. In some cases, she suggests the use of natural materials to mask damage, using soil present at the site to cover remnants of spray paint. Pilles (1987) used a similar technique to cover scratches in charcoal-coated cave walls. In both cases, the appearance of a "clean" site was promoted as one method for protecting the site from future vandalism.

Bock and Bock (1990) have reexamined rock art panels in Petrified Forest National Park where a conservator attempted to mitigate graffiti and spalling damage to panels (Elvidge and Moore 1980). The conservator used an artificial desert varnish to coat these areas, but 10 years later, the artificial varnish was noticeably darker. These darker areas actually encouraged graffiti artists, who used the areas because they were essentially a "clean slate." Other methods used by the conservator, such as treating stained petroglyphs with hydrochloric acid, were also discouraged by the Bocks, who correctly assumed that it is better to refrain from treating problems if the treatment can damage the rock art.

Another area that conservators must face is whether graffiti represents vandalism or a historic resource. Older painted and etched graffiti may include the signatures of early visitors to a site, including some who can be identified from historical documents. Burton (1993) found that the creators of some of the historic graffiti present at Petrified Forest National Park could be identified through Civilian Conservation Corps records. One important reason for preserving historic graffiti is that it allows an evaluation of how the rock surface is changing. The rate of rock varnish accumulation can be studied by examining dated graffiti, and the weathering of rock can be determined. In general, historic graffiti more than 50 years old is considered a cultural resource and should only be removed if it is jeopardizing underlying rock art.

Conserving rock art is an expensive procedure, which explains why it is so rarely undertaken in Arizona to date. In the future, more sites are expected to undergo conservation. Luckily, much of the painted graffiti will eventually weather away, especially at sites that are exposed to the elements.

NATIVE AMERICANS AND ROCK ART

Most rock art in Arizona was created by the ancestors of today's Native Americans. As part of their cultural heritage, rock art is an important resource for these people. Many rock art sites are viewed as sacred, whereas others are used as places to bring Native American youths back to their roots, teaching them about their past. Many rock art sites can be considered Traditional Cultural Properties, and as such can be listed on the National Register of Historic Places (see Chapter 5).

Until recently, most rock art research was conducted by Euro-American scientists or enthusiasts. The past few years have seen a growing interest in the field by Native Americans. More rock art studies are incorporating Native American opinions and interpretations of rock art. In some cases, Native Americans admit that their link to the rock art has been severed through the passage of time (e.g., Bruder 1983). In many other instances, though, Native Americans are able to identify the themes and even the meaning of rock art. It is expected that Native American informants will provide important data for future research projects.

The development of tribal cultural resource management programs places protection of rock art sites on Native American shoulders. Discussions with cultural managers in October of 1993 indicated that they are ready to meet this challenge. Unfortunately, these managers also noted that the problems plaguing rock art sites elsewhere are also occurring on their reservations. Looting and vandalism by youths were two specific problem areas noted, as were limited resources to fund the protection and conservation of archaeological resources. On an upbeat note, the managers were beginning to learn how to write grants to fund these programs and were excited about the cultural education opportunities that rock art could have for their tribal members.

Attempts to contact Native American tribes in order to document their opinions about rock art were unsuccessful. In part this may have been a result of not contacting the correct individuals. In other cases, the individuals contacted did not want to discuss aspects of their tribal culture with complete strangers. It is suggested that rock art researchers develop contacts with Native American groups who may be associated with the rock art in their study area. As well, Native Americans should be encouraged to contribute to rock art studies, either as informants or as the author of such studies.

THE FUTURE OF ROCK ART STUDIES

Rock art studies are in a transitional phase, moving away from the perception that rock art is somehow in the realm of the esoteric toward a more scholarly pursuit of knowledge. Additionally, cultural resource managers are dealing with rock art sites more often, locating them during surveys, protecting sites from vandals, and determining which ones to record and to what extent. The possibilities for discovery of important new sites is high. New styles may be found, and old ones redefined.

Much of the work that lies ahead is at a basic management level. Rock art resources need to be inventoried and recorded, and this should be a prime objective. This basic information will provide researchers with baseline data that will survive even if the site is lost. Complete recording utilizing non-destructive techniques is urged. Given a large set of sites, managers must select which ones deserve immediate attention. Those that are in clear danger of being lost will require recording first.

Standardized recording forms should be used by all researchers. These forms should prompt the complete and accurate collection of data at each rock art site. A site record also should be prepared for each known rock art property. The Arizona State Museum has recently replaced its old site cards with an updated version. It is suggested that researchers utilize this form, and that all site records be filed at the Arizona State Museum in Tucson. The importance of a single, centralized site record repository must be stressed. During the course of this study, it became apparent that the records housed throughout the state are incomplete and difficult for professional researchers to access. As noted above, researchers also should consider depositing copies of site forms and recorded data at the Deer Valley Rock Art Center. One advantage of doing so is that this facility will serve as a repository for rock art data, and researchers will not have to thumb through other site records in search of this specific kind of data.

The development of new computer technologies poises powerful opportunities for rock art researchers. It is currently feasible to store analog data and digital images in computer databases. In the near future, researchers will be able to visit rock art sites seated in front of a computer screen, viewing elements and studying other data with ease. The use of this technology will facilitate the study of rock art in ways yet unseen.

Dating techniques will also continue to be refined. Old methods, such as cross-dating through ceramic and textile elements, will be re-explored and may prove to be extremely useful. The new techniques will be restudied and decisions made as to how they can and cannot be applied. New methods will doubtlessly be developed. In the foreseeable future, many more rock art sites will be dated using old techniques, refined new ones, or a combination of both.

Once out of the field, rock art researchers will be focusing their attentions on a better understanding of the spatial and temporal distribution of elements and styles. The geographical extent will be determined through comparison with other sites. The increased use of computers during rock art studies will facilitate such explorations.

Another area of study may include a more detailed analysis of rock art's relationship to other activities. Researchers will examine the reasons that rock art was created and will test their hypotheses through the use of computer databases containing detailed data sets.

Native American perspectives will be increasingly important. Currently, only a few studies have garnered information from Native Americans (e.g., Turner 1963; Bruder 1983; Johnson 1986). Future studies, many by tribal cultural resource management teams, will bring the views of the rock art creators' descendants into the picture.

FURTHER READING

Many readers of this volume will be interested in studying the topic in greater detail. Appendix A presents a comprehensive bibliography of published rock art studies for sites in Arizona. The availability of these reports varies from library to library. Most can be found at the three major universities in the state (Arizona State University in Tempe, University of Arizona in Tucson, and Northern Arizona University in Flagstaff). More popular books on the subject can be found in bookstores specializing in Southwestern topics. The following books are suggested for further reading:

Discovering Prehistoric Rock Art by Kay Kenady Sanger and Clement W. Meighan, 1990. Wormwood Press, Calabasas, California. This book presents a basic overview of the three kinds of rock art found worldwide. Besides presenting basic data on how rock art was created, the volume presents detailed instructions on how to safely and accurately record rock art.

Picture Writing of the American Indians by Garrick Mallery, 1893. Tenth Annual Report of the Bureau of American Ethnology. Washington, D.C. (has been reprinted). Mallery's ground-breaking study was the first to incorporate rock art data from the entire United States.

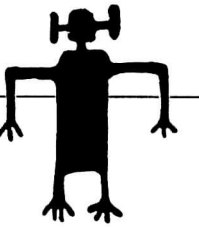
Canyon de Chelly: Its People and Rock Art by Campbell Grant, 1978. University of Arizona Press, Tucson. This well-illustrated volume discusses the Basketmaker, Anasazi, and Navajo rock art found in Canyon de Chelly, in northeastern Arizona.

Indian Rock Art of the Southwest by Polly Schaafsma, 1980. School of American Research, University of New Mexico, Albuquerque. Schaafsma's overview of Southwestern rock art illustrates examples of many styles found throughout Arizona, Utah, Colorado, and New Mexico.

Earth Figures of the Lower Colorado and Gila River Deserts: A Functional Analysis by Boma Johnson, 1986. The Arizona Archaeologist, Phoenix. Johnson recounts the history of geoglyph studies, discusses the possible function of the figures, and illustrates all known major geoglyphs.

Chapter 5 presents a detailed discuss of the procedures and guidelines of the National Register of Historic Places. Listing to the Register is one method of protecting rock art sites.

CHAPTER 5



ROCK ART AND THE NATIONAL REGISTER OF HISTORIC PLACES

The National Register was established by the Federal government to aid in the preservation of sites important to the history and prehistory of the United States. To be eligible for listing in the National Register of Historic Places, a property must possess significance. Its significance must satisfy at least one of the National Register criteria, and the significance must be derived from an understanding of historic context (National Park Service 1991:7-10). In addition, a site must possess integrity, being able to convey the site's character. Traditional Cultural Properties are also eligible for listing on the National Register. These sites are of special importance to ethnic and cultural groups.

Rock art sites benefit through nomination to the National Register for several reasons. The nomination process requires that the site be documented. This documentation assists in preserving the property by establishing its significance and by identifying the characteristics that give the property its integrity (National Park Service 1991:1). The records are preserved in perpetuity by the federal government and are available at both the state and federal levels to interested researchers.

One use of such documentation is to monitor the condition of sites through time. The nomination forms typically contain photographs, drawings, and written descriptions of properties. These may be important in the future to evaluate the extent of damage occurring at sites. In cases where vandals or looters are apprehended at National Register sites, the documentation can be useful.

National Register sites are also more likely to receive funding for their study, preservation, and protection. These sites have been recognized by the National Park Service as representing important cultural properties. Public and private funding is therefore often available through grants, donations, or other means.

The National Historic Preservation Act of 1966 (as amended) and federal legislation 36 CFR 800 require that archaeological mitigation of National Register eligible sites take place if these sites are to be affected by sale, development, construction, or other forms of land use.

This chapter presents an overview of National Register guidelines and examines how rock art sites can be evaluated in order to determine whether they are eligible for listing. These guidelines include areas of significance, the National Register criteria, the integrity of a property, and determining a Traditional Cultural Property.

Three rock art property types are found in Arizona, as discussed in Chapter 1. Petroglyphs are most common, followed by pictographs, and then geoglyphs. The three property types are easily identifiable, given their mode of manufacture and/or placement. Because of the large number of petroglyphs within Arizona, it might be desirable to identify specific temporal or regional property types (e.g., Anasazi Basketmaker II or Hohokam petroglyphs). However, it is beyond the scope of this report to make such distinctions and, because the database of published reports is so small, somewhat premature. For example, Hohokam petroglyphs might be lumped together as a single property type today, whereas future researchers might discern temporal distinctions that allow Hohokam petroglyphs to be stylistically separated into several time periods. Similar preservation problems, within each of the three property types make it most reasonable to examine rock art at this level.

THE NATIONAL REGISTER CRITERIA

The significance of a site is generally measured in terms of the National Register Criteria. Under criterion A, a property is eligible if it is associated with historical events that have made a significant contribution to the broad patterns of our nation's history. Properties associated with people famous on a national, regional, or local level are eligible under criterion B. Sites that have characteristics of a type, period, or method of construction; which represent the work of a master; or that possess high artistic value are eligible under criterion C. Places eligible under criterion D have or are likely to have the ability to yield information important to history or prehistory.

AREAS OF SIGNIFICANCE

Persons nominating sites to the National Register seek contexts that have made properties significant to our nation's history. Rock art may be eligible for the National Register under the following areas of significance: Exploration/Settlement, Religion, Ethnic Heritage, Art, Landscape Architecture, Prehistoric Archaeology, Historic-Aboriginal Archaeology, and Historic-Non-Aboriginal Archaeology.

Exploration and Settlement (Criterion A)

Rock art is often associated with settlements and trails. Studying when the rock art was created, its placement, association, and other aspects may allow for a better understanding of the Exploration and Settlement of a region, especially for the historic period. Boundary definitions and/or cultural areas can also be examined through the identification of distinct or rare elements.

Religion (Criterion A)

Lastly, the category of Religion is an important area of significance for rock art. Many researchers believe, and many Native Americans concur, that rock art was often created as part of religious activities. Ceremonial/belief systems (including archaeoastronomy and shamanism) are topics that receive a great deal of public interest. The study of rock art can thus add to our knowledge of Native American belief systems, religious practices, and traditions.

Ethnic Heritage (Criterion B)

The significance category of Ethnic Heritage may apply to both prehistoric and historic rock art. Many Native Americans trace their ancestry to prehistoric peoples. Rock art is one tool to link prehistoric and modern groups. Historic Native American and non-aboriginal groups have also created rock art, and a study of the depictions can help establish and fill out the history of these groups.

Art (Criterion C)

Individuals viewing rock art today may understand it to be an art form, and *many sites* would be considered significant under this category. One problem with this is that rock art was probably not created as art; rather, it was made for other purposes. It may be difficult or even impossible to discern the rationale of the creators. Therefore, caution should be exercised before using art as an area of significance.

Landscape Architecture (Criterion C)

Under the category of Landscape Architecture, one could study how rock artisans designed and arranged rock art across the landscape, searching for patterns of design placement and location. Cultural and sacred landscapes may incorporate rock art. The entire landscape, or perhaps certain portions, may be important to understanding how people used an area or how the area was significant for ritual activities.

Prehistoric and Historic Archaeology (Criterion D)

Virtually all rock art properties are also considered archaeological sites. It may be difficult to determine whether a specific site represents a prehistoric or historic period site or an aboriginal or non-aboriginal site. Many rock art sites have the potential of providing data on the history and prehistory of a region or of a specific culture. For example, a study of the clothing depicted in rock art can provide clues as to how people dressed, clues that may not survive elsewhere because textiles and animal skins are usually not recovered from archaeological sites. In another case, the study of the distribution of certain types of elements may indicate how extensively people interacted prehistorically.

Each of these areas of significance can be applied to the three property types. Most rock art sites may be significant under more than one category. For example, geoglyph designs in southwestern Arizona could be studied under the categories of Prehistoric Archaeology, Landscape Architecture, and Religion. Further study, including discussions with Native American informants, may indicate additional areas of significance for rock art. One problem with evaluating rock art property types in terms of areas of significance is that the original function of the rock art is usually unknown. As a result, persons examining rock art must consider each assumption they make carefully and determine whether personal biases and interests are influencing judgments on which areas of significance they are applying to a rock art site. Using a multi-dimensional approach to studying rock art is probably the best method for uncovering new information.

ROCK ART AND THE NATIONAL REGISTER CRITERIA

Only a few rock art sites would qualify under criterion A or B because it is difficult to associate past events with rock art, and prehistoric rock art creators are unidentifiable. In other words, rock art might represent specific events or sets of events, but this may be impossible to determine because we cannot talk to the artists.

In some cases, historic rock art can be associated with specific individuals or events. For example, a Navajo named Little Sheep is believed to have created many horse-and-rider images in northeastern Arizona (James and Davidson 1976:38). These sites may be eligible due to their association with this individual, who is recognized as an important person among the nineteenth-century Navajo. In other cases, rock art serving as trail markers may be identified. Since trade and transportation were important activities during both prehistoric and historic periods, these rock art sites might be eligible. The following sections examine how the four criteria are applied to each of the three rock art properly types.

Petroglyphs

As stated in Chapter 1, petroglyphs are images cut into rock surfaces. Under criterion A, historic inscriptions, such as the purported De Niza inscription, are likely to eligible under criteria A or B. Archaeological surveys in the Petrified Forest National Park have identified rock art left behind by Civilian Conservation Corp (CCC) workers in the 1930s. This rock art is now eligible for the National Register under criterion A due to the important activities of the CCC workers.

Under criterion C, properties with high artistic value are eligible, as are those that are distinctive of a type, period, method of construction, or as a whole represent an important work. Rock art sites are generally viewed as important works of art, embodying the style, beliefs, and world view of their creators. Individual sites represent single or multiple rock art creation activities where artisans depicted ideas and events important to them as individuals, or to their community as a whole. The most common interpretation of rock art sites is that they were created as part of religious activities. If this is true, rock art presents information about these people's belief systems and their outlook on life. This information may survive in no other form.

Many petroglyph sites would be eligible under criterion C because of their high artistic value. For example, petroglyphs of exceptional quality and workmanship may be eligible. Rare examples of a certain style or technique, such as abraded petroglyphs, may make them unique enough to warrant nomination under this criterion. However, it is important to remember that petroglyphs were probably not created as art and that the prehistoric Native American conception of what was art certainly differs from that of present-day Arizonans.

Most rock art sites would also be eligible under criterion D because they are considered archaeological sites and have the potential to provide significant information on the history or prehistory of Arizona. Many rock art sites also have associated archaeological sites and materials. The relationship between rock art and other activities is as yet poorly known. The study of an archaeological site with associated rock art may provide important information about the lives of prehistoric peoples. Topics of study for petroglyphs could include the chronology of rock art, cultural interactions, trade, ritual activity, subsistence, astronomical observations, and activity patterning, among others (see Chapter 2).

For example, a study of petroglyph elements can allow for a better understanding of prehistoric interaction or boundary maintenance. Archaeologists have recognized that certain elements appear to have been associated with certain sets of people. Bent-legged diamonds are thought to be indicative of Patayan petroglyphs. The appearance of an isolated example in the Tucson area may indicate that people from southwestern Arizona were traveling to areas to the east, or that interaction with the Patayan people was taking place. The development of regional rock art element typologies may be an effective way of documenting population movements, especially if dating methods are refined.

Pictographs

Pictographs that can be associated with historic events are relatively few. These include drawings of Spanish soldiers riding horses, found in northeastern Arizona, or historic Euro-American drawings depicting nineteenth-century activities such as sheepherding. These examples would be eligible under criterion A, since they can be associated with historic events or activities.

Pictographs eligible under criterion B must be associated with people famous at a local, regional or national levels. Perhaps the best examples would be historic depictions attributed to specific artists. These could include Navajo, Hopi, or Euro-American pictograph creators.

Under criterion C, pictographs with high artistic value would be eligible. For example, the Archaic Barrier Canyon pictographs, documented by Polly Schaafsma in the Grand Canyon (1990, see Chapter 3), would be considered eligible. These figures depict human, animal, and possibly supernatural figures, as well as geometric shapes. Painted beneath an overhang, the well-preserved images reflect a stylistic tradition that flourished for a short period of time, possibly the work of a handful of artists. The study of these images allows for a better understanding of the beliefs and lifestyles of these long-vanished people.

Pictographs also have the potential to provide significant knowledge about a region's prehistory and history. Besides allowing archaeologists to reconstruct changing activity patterns, group interactions, or religious practices, pictographs may also yield clues to how people dressed, and the roles of men and

women, and they also may allow chronological dating using the rock art's pigment. Most pictograph sites would be potentially eligible under criterion D.

Geoglyphs

Boma Johnson (1986) suspects that geoglyphs were made during ceremonies in which dances and other activities celebrated creation stories. These geoglyphs would be eligible for nomination under criterion A because they are associated with important events for the prehistoric and historic residents of the Yuma area. Other geoglyphs, such as avenidas, are thought to mark trade routes and would be eligible because these paths were important conduits of people, raw materials, and finished products in the prehistoric period.

Few, if any, geoglyphs would be eligible under criterion B because virtually all are prehistoric in nature. Historic geoglyphs have been documented, but it may be difficult or even impossible to associate them with specific individuals.

Geoglyph images are potentially eligible under criterion C. Carefully crafted by moving, removing, or tamping down desert pavement, some of these images were apparently used during religious ceremonies and contain information on the beliefs and world view of Native Americans living in southwestern Arizona (Johnson 1986). Some of the anthropomorphs and zoomorphs are important and mysterious images that required careful planning and coordination during their construction. Geoglyphs therefore would be eligible because they are distinctive in terms of how they were constructed and the time period for which they were made.

Most geoglyphs would be eligible under criterion D because their study can provide important and significant knowledge on the lifestyles and customs of the residents of southwestern Arizona. For example, a study of the distribution of certain types of geoglyphs such as sleeping circles, as well as their morphology and associated artifacts, may allow us to better understand exactly what these cleared areas were.

Summary

An examination of rock art sites that have been previously nominated to the National Register suggests that criteria C and D are the most frequently used. No examples of criteria A and B were present, a result of the inability to associate rock art sites with specific events or people. However, there are a number of sites that are potentially eligible under these criteria, especially those created during the historic period.

THE INTEGRITY OF A PROPERTY

In order to be eligible for listing to the National Register of Historic Places, a property has to meet at least one of the four criteria of eligibility, discussed above. In addition, it must possess integrity. The *National Register Bulletin No. 15* (National Park Service 1990:44) defines integrity as "the ability of a property to convey its significance." There are seven types of integrity: location, design, setting, materials, workmanship, feeling, and association. Each is discussed below, but it must be recognized that these are ideals developed for evaluating historic standing structures. Properties associated with archaeological sites need not possess all types of integrity in order to be National Register eligible. Rock art sites, because of their age, may be situated in settings quite dissimilar from their original surroundings, but this does not mean that they lack integrity.

Location

"Location is the place where the historic property was constructed or the place where the historic event occurred" (National Park Service 1991:44). In order to be eligible for listing, a rock art site must be in its original setting. The location of a particular site may be important for understanding why it was created. For example, a petroglyph boulder found in its original position provides information about the environmental and/or cultural setting of the rock art. If the boulder is moved by looters to a new location, this information may be lost.

Petroglyphs present a potential problem because they are often pecked onto boulders, and these boulders have the potential for movement, either as a result of human activities (such as pushing them down a hill or through bulldozing) or natural events (such as slope erosion or earthquakes). The question posed is whether a boulder that has rolled downhill is eligible for the National Register. Each case must be examined separately. Several questions must be asked: Is it possible to determine the boulder's original location? Has the movement of the boulder caused it to lose its association with other rock art or sites? Considerations regarding whether moved boulders are ineligible must be carefully thought through. In some cases, moved boulders can still provide significant information (e.g., Holmlund 1986). In addition, the older a piece of rock art is, the greater the likelihood that it has been moved to some extent. Therefore, eliminating all examples of moved rock art might remove from eligibility consideration important examples of older art. When large rock art sites are considered, this may not be a problem because some boulders will have remained in position, whereas others will have moved. Those in their original location would be eligible, and those that have moved should be evaluated. In some cases, rock art was added to boulders after they were moved, complicating the issue!

Although pictographs might also have been painted on rock surfaces that were moved, few would survive the movement and the subsequent exposure to environmental conditions such as rain or wind. Geoglyph images cannot be moved without completely destroying them.

In general, rock art that has been completely removed from its original location, typically through looting activities, would not be considered eligible because its original setting has been lost. However, if it is possible to return the rock art to its original location, this may not be the case. For example, it may be possible to identify the original position of looted rock art by examining weathering patterns on the rock surface or adjacent rock surfaces, by matching depressions left by the boulder, or by using photographs and maps to reestablish the position. In these cases, rock art sites may regain their integrity if the rock art is replaced.

Rock art that has been moved by natural events, such as erosion or earthquakes, needs to be carefully reviewed. In many cases, the movement has been minimal, and it is still possible to view the original location in which the rock art was created.

Design

"Design is the combination of elements that create the form, plan, space, structure, and style of a property" National Park Service 1991:44). All rock art is created as a result of humans who have recreated certain images from their minds and have transferred them to rock surfaces. Each image or set of images found at a rock art site was placed there for a reason, one that may elude modern viewers. *The integrity of a* rock art site's design may be lost if the site has been extensively defaced, if many of the rock art elements have been removed, or if virtually all of the rock art has been lost through weathering. To retain design integrity, it is important to be able to see and understand the original design at both individual and collective levels.

Petroglyph sites that have undergone extensive looting, through the removal of the majority of the boulders containing the art, may have lost design integrity, especially if the application of the designs was

done in a special way. For example, rock art that was used by prehistoric astronomers may not retain design integrity if portions of the astronomical device have been removed.

Pictograph sites that have been defaced to such an extent that it is no longer possible to discern the original elements will have lost design integrity. Similarly, geoglyph sites that have been obliterated by off-road vehicles will also have lost design integrity.

On the other hand, natural processes such as erosion or repatination may also damage or destroy rock art elements, obscuring some designs. For example, repatination of Archaic period petroglyphs has left many almost illegible. However, these designs may be found through careful examination of the rock surfaces. New technologies may develop that will allow seemingly lost or damaged designs to be retrieved. Therefore, some poorly preserved sites may still be able to convey their original design integrity to a researcher.

When examining design integrity, it is important to consider whether the surviving rock art, its position in the landscape, and its materials continue to reflect the function of the site, the prehistoric technology used to create it, and its aesthetic value.

Setting

"Setting is the physical environment of a historic property" (National Park Service 1991:45). Setting differs from location in that it refers to the character of a place in which the property performed its historic or prehistoric role. Individuals examining a site's setting must evaluate how certain characteristics of the site—surrounding topographic features, vegetation, simple manmade features such as paths, and complex manmade features such as a compound or pithouse—help individuals understand how the site was used.

Modern use of an area may compromise prehistoric settings. For example, grazing cattle may remove native vegetation, the building of a highway may remove or obscure nearby topographic features, and changes in the water table may dry up nearby streams. This alone should not make a site ineligible, however, because archaeologists can learn how the setting has changed, reconstructing past environmental conditions and the appearance of the land prior to historic times. This information can allow others to understand the original setting. More isolated rock art sites often survive in a condition similar to the original appearance and are thus able to convey the original setting. These sites would therefore have setting integrity.

Materials

"Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property" (National Park Service 1991:44). Most, if not all, rock art sites must have materials integrity in order to be considered for National Register eligibility. Rock art, by definition, is created on rock surfaces, or in the case of geoglyphs, on the ground surface. As well, pictographs are made with pigments applied to the rock surface. These materials must be intact in order for a site to have materials integrity. This is typically not a problem. If rock art loses its materials (the rock surface, gravel, or pigment), it would not be eligible because the resource would be lost or invisible.

Reconstructed rock art would not be eligible for listing. No examples of such are known in Arizona, but they may include rock art created to replace those lost in the past.

Workmanship

"Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory" (National Park Service 1991:45). Rock art sites are prime examples of prehistoric and historic workmanship. The elements found at these sites convey the artisan's ability to create imagery. These images can be studied from a technological viewpoint, examining the methods used to create them, or aesthetically, because the rock art is considered by many to be art.

Workmanship at a rock art site may be compromised if the art has been heavily defaced or weathered, so that a person studying it cannot understand how the image was created or what the image originally looked like. Petroglyph images that have been smashed by vandals, pictograph images that have been exposed to hundreds of years of wind erosion, and geoglyph images that have been driven over accidentally by vehicles may all have lost the integrity of their workmanship.

Well-preserved rock art, where it is possible to study the techniques of the creator, would be eligible. Some damaged rock art may be eligible because it may still be possible to study how it was created.

Feeling

"Feeling is a property's expression of the aesthetic or historic sense of a particular period of time" (National Park Service 1991:45). Feeling is an almost abstract concept that is related to a site's setting. Basically, does the property convey its original character? In the case of rock art, does the art itself and the neighboring area convey a sense of what the site was like prehistorically?

A rock art site's "feeling" may be lost if it has been heavily vandalized, destroyed by erosion, or surrounded by modern development. In many ways it is difficult to evaluate "feeling integrity." First, places do change through time, and some of the associations or reasons for selecting a particular location for rock art may change also. For example, the people who created geoglyphs in the area around Yuma may have done so during the course of religious rituals that occurred as people traveled through the area gathering foodstuffs or on trading missions to distant places. People visiting a geoglyph, for instance a sleeping circle, may be able to imagine the setting, but they must ignore modern traffic noises from a distant freeway or the sound of airplanes passing overhead.

Secondly, it is impossible to recreate the "aesthetic sense" of rock art sites because most people viewing rock art have few links to the prehistoric artists. While rock art might evoke emotional sensations in a viewer, it is unclear whether a prehistoric person looking at the rock art had the same emotions. The question boils down to the ability of the rock art to convey the original character. How does one evaluate this when one does not know what its original character was?

Despite these problems, many rock art sites have the ability to convey "feeling" due to the excellent preservation of the art and its setting. In general, evaluating rock art sites based on feeling integrity is difficult. The use of Native American informants may be one way to wrestle with this issue.

Association

"Association is the direct link between an important historic event or person and a historic property" (National Park Service 1991:45). Most rock art remains in the location at which it was made and therefore retains its association integrity. Some rock art, such as petroglyph boulders that have been removed from their original property, would not be eligible because they lack adjacent physical features that are necessary in order to understand the property's history.

Cultural and/or sacred landscapes may also need to be intact. Consultation with Native Americans may be necessary to determine whether association integrity has survived subsequent land use changes or vandalism.

Although removal might make a petroglyph or pictograph ineligible due to its lost association, there are many cases where the site of origin for a removed glyph can be determined through earlier photographs or matching break lines. Opportunities to return the glyph to the site would allow association integrity to be reestablished.

Currently, only a few rock art styles have been listed on the Register. A special effort should be made to seek out and nominate sites with styles that have not been listed to date.

Additionally, many rock art sites are located in or near other components of an archaeological site. Those that have well-preserved archaeological materials have good association integrity. Disturbance of subsurface archaeological materials through development or pothunting may result in a loss of association integrity; however, the rock art site itself would continue to have association integrity if it were undisturbed.

Integrity Summary

Integrity is not a simple issue to assess. In the case of archaeological sites, a major problem results from the changes wrought by nature and humans on the landscape around sites. Rock art sites found in urban areas may no longer resemble the condition of the region when the rock art was created. Does this mean that integrity has been lost? Integrity evaluations usually rely on a qualitative assessment. It is difficult and even damaging to a resource to attempt to evaluate integrity quantitatively, scoring each category on a numerical scale. Such a method would be impractical and impossible to duplicate because it is a subjective assessment. Slaughter et al. (1992) examined lithic resources in a SHPO-sponsored preservation study. They suggested dividing archaeological sites into three levels of investigation (artifact, site, and region) and evaluating each in terms of integrity. A similar approach can be used for rock art resources, using the element, the site, and the regional levels.

Element Level

At the element level, each element or group of elements can be examined at a site in order to help understand whether integrity is present. Are elements well preserved? Are they in their original position? Have they been extensively damaged by natural or cultural forces? Are elements being removed from the site by looters? Does the original patterning of these elements survive? The integrity of the workmanship, materials, and design should be the focus at the element level.

Site Level

At the site level, Slaughter et al. (1992) suggest that processes such as erosion, deposition, and soil formation be evaluated in order to better understand whether the site is National Register eligible. For rock art sites, these processes should also be assessed. As well, the general condition of the site should be examined. Is it being encroached upon by development? Does the surrounding area accurately convey the original appearance of the site? Are associated features such as villages or artifact scatters well preserved? Setting, location, and feeling are best addressed at the site level.

Regional Level

At the regional level, one could compare rock art sites in a region to determine the relative state of integrity for a particular site. In an urban setting, a site may appear to have lost all integrity due to changes in the near environment. However, when compared to other sites that have been affected even

more, this site may represent the one with the most integrity in the area. The integrity of the association of rock art should be evaluated at the regional level.

Rock art sites are a fragile resource and are subject to both environmental and human-caused changes that can affect their integrity. It is important to understand this issue and to consider it carefully before deciding whether or not a site has lost its integrity.

DETERMINING A TRADITIONAL CULTURAL PROPERTY

Most rock art sites in Arizona were created by the prehistoric Native American residents of the state. These sites may be eligible for inclusion in the Register if they have traditional cultural significance. The National Park Service states that "a traditional cultural property (TCP) is eligible for inclusion because of its association with cultural practices or beliefs of a living community that are rooted in the community's history, and are important in maintaining the continuing cultural identity of the community" (National Park Service 1993:1). Other cultural and ethnic groups may have traditional cultural properties, and rock art researchers working with historic sites should become acquainted with the beliefs and customs of each group. Native American rock art sites are discussed in this section.

A large number of rock art sites contain religious symbols or iconography depicting supernatural beings and events. Others document the Native American use of an area during the prehistoric period, and as a result, they may represent a tie between prehistoric and historic Native Americans.

Identifying rock art sites that might be considered traditional cultural properties begins with consultations with Native Americans who ascribe traditional cultural significance to locations within the study area. They should be contacted and asked to evaluate particular rock art sites. These groups should be identified through background research and consultation with SHPO, ethnographers, archaeologists specializing in the area, and local Native American groups. Tribal patrimony is an important issue because distant groups may indicate that distant sites are important to their heritage. Therefore, every attempt should be made to solicit opinions from all Native American groups that have an interest in a particular region.

Each group should be contacted directly. In Arizona, tribal leaders or cultural resource managers can identify specific individuals who might be willing to provide information. When discussing rock art sites with these individuals, one must be aware of local customs and traditions. It is possible that they may not want to share all information about certain sites with an outsider. In addition, one may want to contact several different individuals in order to more fully understand the significance of the property. The information gathered during these consultations may be very sensitive, so the informants should be asked whether the information can be published or released to the public.

Not every site may be considered a traditional cultural property. Obviously, a traditional cultural property must be an actual property, and all sites with intact rock art could be considered properties. However, the integrity of the site should be evaluated. Two questions can be asked about the property: First, does it have an integral relationship to current traditional cultural practices? Second, does the relevant relationship between these practices or beliefs and the property survive? Also, a rock art site must be 50 years old or older and significant to the tribe as a whole in order to be eligible. After examining integrity, one should examine the property according to the National Register Criteria. As noted above, most rock art sites would be eligible under criteria C or D.

Next one would determine whether the property might be excluded under any of the National Register criteria. Of special importance is the too rigorous application of the "religious property" rule. The National Register guidelines attempt to avoid the appearance that the government favors one religion or belief over another. Therefore, properties with a connection to a religious group may be excluded from

the National Register. However, a Native American site should not be excluded automatically if the site has a religious function.

Relocated properties are usually ineligible. A moved piece of rock art would not typically be considered eligible, but the moved resource may still be considered a traditional cultural property (National Park Service 1993:14). Native Americans may view the rock art itself as significant, rather than its location.

Other reasons for exclusion are less likely to apply to rock art sites. These include birthplaces and graves, cemeteries, reconstructed properties, commemorative properties, and properties less than 50 years old. Properties that were used prehistorically, then abandoned, and then used again in recent times may be eligible as traditional cultural properties. This is especially important due to the revival of many traditional Native American practices in recent years.

Many rock art sites are potentially eligible as Traditional Cultural Properties, including sites where Native American religious activities take place. The number of such sites may grow as Native Americans reclaim and/or revitalize dormant traditions. One example of a Traditional Cultural Property rock art site is the Willow Springs site, a National Register-listed location where Hopi tribal members have marked their clan symbols on rocks throughout the years. It would be important to consult with Native American tribes as to which rock art sites are important to their members as cultural properties.

In summary, determining whether a rock art site represents a traditional cultural property requires consultation with Native American groups. The beliefs and traditions of these people should be used when considering whether a particular site is National Register eligible. A more detailed discussion of traditional cultural properties is found in the *National Register Bulletin No. 38*, available from the National Park Service or through SHPO.

NOMINATING A ROCK ART SITE TO THE NATIONAL REGISTER

How can one determine whether a particular site should be nominated to the National Register? The nominating procedure is not easily undertaken. First, one should determine if the site has already been nominated in order to prevent duplication of efforts. If it has not been nominated, the next step is to determine who has jurisdiction over the property. If it is private property, the landowner's permission is necessary before the nomination process begins. If the property is on public lands, the permission of the land manager should be sought.

The researcher should evaluate the site according to the National Register guidelines. What areas of significance are represented by the property? Is the site eligible under the National Register criteria? What is the integrity of the site—has vandalism or looting resulted in the inability of the site to convey its historical significance or provide important knowledge? Finally, does the site represent a Traditional Cultural Property?

If the site appears likely to be National Register eligible, one should then prepare nomination forms. The National Register application process may seem daunting to someone unfamiliar with the paperwork, but SHPO officials can provide guidance and assistance in preparing these forms. Detailed instructions on how to fill out National Register forms are available from SHPO or the National Park Service. The National Register Bulletin 16, *Guidelines for Completing National Register of Historic Places Forms* (National Park Service 1991) is one such guide.

A number of Arizona rock art properties have been nominated to or have been listed in the National Register. These are summarized in Table 5.1. The records collected during this study indicate that as many as 194 rock art sites in the state have been listed or have been nominated to the Register.

Table 5.1. Arizona rock art nominated to the National Register of Historic Places.

Site	County	Date Listed
Newspaper Rock Petroglyphs Arch. District	Apache	7-12-1976
Puerco Ruin and Petroglyphs	Apache	7-12-1976
Council Rocks Archaeological District	Cochise	1-16-1987
Garden Canyon Petroglyphs	Cochise	7-30-1974
Tutuveni	Coconino	12-3-1986
Willow Springs	Coconino	12-3-1986
Bullethead; Snake Gulch Rock Art MPS	Coconino	11-21-1992
Checkered Men; Snake Gulch Rock Art MPS	Coconino	11-21-1992
Head Hunters; Snake Gulch Rock Art MPS	Coconino	11-21-1992
Rock Family; Snake Gulch Rock Art MPS	Coconino	11-21-1992
Rocketeers; Snake Gulch Rock Art MPS	Coconino	11-21-1992
Twins; Snake Gulch Rock Art MPS	Coconino	11-21-1992
White Man Cave; Snake Gulch Rock Art MPS	Coconino	11-21-1992
Wise Men; Snake Gulch Rock Art MPS	Coconino	11-21-1992
Ripley Intaglios	La Paz	11-20-1975
Eagletail Petroglyph Site	La Paz	9-28-1988
Painted Rocks	Maricopa	11-25-1977
Hedgpeth Hills Petroglyph Site	Maricopa	2-16-1984
Painted Desert Petroglyphs and Ruins Arch. District	Navajo	6-24-1976
Cocoraque Butte Archaeological Site	Pima	10-10-1975
Gunsight Mountain Archaeological District	Pima	6-21-1991
Sutherland Wash Rock Art District	Pima	10-19-1993
Ha-Ak Va-Ak Intaglio	Pinal	9-6-1979
Honanki	Yavapai	2-10-1975
Sears Point Archaeological District	Yuma	10-16-1985

Rock art properties found in 10 of Arizona's 15 counties have been listed to date. The most extensive coverage, in terms of individually documented properties, is in Coconino County. In this case, rock art sites found along a single canyon were nominated as part of a multiple property listing. Most of the remaining nominations are for archaeological districts, and as a result, multiple rock art sites are listed.

However, the total number of rock art sites on the National Register is relatively small, at most representing only about five percent of the more than 2,300 rock art sites identified during this study. This indicates that additional sites should be nominated to the National Register.

Which sites deserve listing? It is suggested that attempts be made to list rock art locations found in each county, and that sites representing each major style be listed. Several sites that could be listed are presented in Table 5.2. Some of these may already be in the nomination process.

Table 5.2. Some rock art sites that could be listed on the National Register.

Site	Important Quality
Bonita Creek Canyon and Cave sites	Example of Mogollon Red and Jornada pictographs
Canyon de Chelly sites	Unique Basketmaker, Anasazi, and Navajo art
South Mountain Park	Large assortment of Hohokam elements
North Pass/Shelter Gap	Overlapping Archaic and Hohokam elements
Coyote Mtn. District	Examples of Apache Pictographs
Shaman's Gallery	Archaic Barrior Canyon Pictographs
Pichacho Point	Overlapping Archaic and Hohokam elements
Picture Rocks	Particularly elaborate Hohokam art
Red Rock Canyon sites	Blend of Archaic, Hohokam, and Patayan elements
Gillespie Dam	One of the largest sites in the state; unique Patayan, Hohokam, and Archaic elements
Palo Verde Hills	Large concentration of Hohokam elements associated with other cultural features
Horseshoe Mesa	Concentration of rock art in little-known Verde Valley
Malpais Hill	Large Apache Pictograph site
Pan Quemado	Large concentration of Archaic and Hohokam elements, plus other associated cultural features
Fresco Cave	Patayan and Apache Pictographs, Coronado NF
BB:14:21, Saguaro National Monument	Large number of Hohokam Petroglyphs
Sutherland Wash	Archaic and Hohokam Petroglyphs, cupules
Tom Ketchum Cave	Hohokam Petroglyphs, some historic graffiti
Little Black Mountain	Archaic and Anasazi Ppetroglyphs
Black Draw Discovery	Large Mogollon Petroglyph site
Q:11:97, Lyman Lake	Many panels of Anasazi (?) petroglyphs
Q:1:230	Large numbers of Pueblo and historic petroglyphs
Q:1:207	Many Anasazi Petroglyphs
L:16:1	Parker rattlesnake intaglio
Yuma area	Geoglyph concentrations

While National Register nomination may not protect a rock art site from environmental conditions or from looters and vandals, the data collected and preserved may allow future researchers to evaluate the site using the date of nomination as a baseline to review changes and deterioration through time.

The following section summarizes how National Register guidelines would be used when evaluating a specific rock art property. A petroglyph site is given as an example.

EVALUATING A ROCK ART SITE'S NATIONAL REGISTER ELIGIBILITY

Researchers examining a rock art site must evaluate its areas of significance, whether the site meets at least one of the four criteria, whether it retains integrity, and whether the site is a Traditional Cultural Property.

Areas of Significance

As discussed in Chapter 1, a petroglyph is a property type created by pecking, scraping, scratching, or otherwise abrading a rock surface in order to make a design. Petroglyph sites are the most common form of rock art found in Arizona. When evaluating a petroglyph site, each of the areas of significance should be considered in order to determine which ones are most applicable. Petroglyph sites are most likely to be significant under the following categories: Prehistoric Archaeology, Art, Religion, and Landscape Architecture.

National Register Criteria

Criterion A—Is the petroglyph site associated with important events or trends in history?

Determine the nature and origin of the petroglyph site. Chapter 3 presents rock art styles and their probable dates, if known. These examples, as well as those found in other publications (see Appendix A), may be used to compare rock art in the field. Knowing the date and origin allows for the identification of the historic context. A property is only eligible if it can be related to a particular time period or cultural group (National Park Service 1991:22). In a broad sense, we may not know which particular group created designs found at a site; however, prehistoric Native Americans can be considered together as a cultural group, similar to how Western Archaic people are subsumed together, even though they may have belonged to more than one cultural group.

Evaluate the petroglyph site to determine whether it is associated with a historic event in an important way. Examples could include petroglyph sites that commemorate a battle, mark an important trail, or mark a group or clan's territory.

Criterion B—Is the petroglyph site associated with a significant person (national, regional, or local level)?

Identify the person or persons who created the petroglyph (this criterion is most applicable to historic period persons). Determine what contributions this person made at the local, state, or national level. For example, an inscription left by a Spanish explorer or by a Civilian Conservation Corp worker could be eligible. As well, a petroglyph carved by an identified historic Native American might be eligible if this individual was significant in the past.

Criterion C—Is the rock art a distinctive example that embodies a type, period, or method of making rock art, does it represent the work of a master or possess high artistic values, or does it represent a significant entity whose individual components may lack individual distinction?

Identify the stylistic type, time period, and methods of construction for the petroglyph site. Document the kinds of designs, their distribution, and number. Examine other nearby rock art to determine whether the particular site contains examples of high artistic value or, when examined as a whole, is an important example of a particular type of petroglyph.

Determining whether a particular petroglyph site is an example of high artistic value is difficult, especially because the rock art may not have been created with this in mind. "Low artistic" value petroglyphs might result from the type of rock that the designs were placed on, from the function of the rock art, or from differences in Native American and Euro-American artistic ideals. What one culture may feel is ugly or beautiful may differ from what another culture feels. Concepts such as art, artistic values, and beauty may vary greatly among cultures, making them very difficult to apply in an evaluation process. Furthermore, very little literature has attempted to develop an objective framework for evaluating rock art in this manner. Future research in examining the concept of "art" in rock art is needed.

Either a conservative or liberal approach could be undertaken when considering rock art sites under criterion C. At a conservative level, examples of petroglyph sites that would be considered eligible under this criterion include rare forms for which there are few known examples, forms using unusual or highly developed techniques, well-preserved panels from a particular time period or style, or a set of otherwise undistinguished petroglyphs that represents an example of a rock art style that is not well preserved in other areas. However, most persons evaluating rock art do so using a more liberal approach where most rock art sites would be eligible because of their artistic content. Perhaps the best approach would be to apply criterion C liberally while calling out and documenting in detail those characteristics that make the rock art unique or unusual. Preparing National Register documentation is a meticulous and time-consuming task. It is likely that only those sites that contain distinctive, unusual, or large sets of images will actually be nominated in the near future.

Criterion D—Has the rock art yielded or does it have the likelihood of yielding information important to prehistory or history?

Identify areas in which a particular petroglyph site can add knowledge on a local, state, or national level. Summarize what is currently known about the petroglyphs found in the area around the particular site and demonstrate how the site can add to this database. Identify other components of the site, such as rockshelter deposits or adjacent pithouse villages, that can provide additional information.

Archaeological studies can be devoted to a number of topics. For example, the activities that took place at a rock art site can be studied by examining both the rock art and the associated archaeological materials that might be found at the location (Loendorf 1994). Relationships between particular elements and the location, elevation, or associated plant communities can be evaluated. Ceremonial/belief systems (including archaeoastronomy and shamanism) will probably be pursued in greater detail in the future. Boundary definition and/or cultural areas are other topics that will be studied, especially as inventories of elements found at rock art sites are published. Distinctive or unusual elements may coincide with certain cultural groups, allowing their territory to be delineated. One problem with such a study is that other groups may have copied elements, making it difficult to resolve where one group began and another ended.

Most petroglyph sites are eligible under this criterion because of our current lack of knowledge about their distribution, dates, and meaning. As well, new techniques may develop, allowing questions once thought unanswerable to be studied.

Summary

The petroglyph site is eligible only if one or more of these four criteria can be met. As noted above, most petroglyph sites would be eligible under criterion D, with many sites also eligible under criterion C. Pictograph and geoglyph sites can be examined using the same sets of questions.

Integrity Issues

Each of the seven areas of integrity should be addressed. Examine the location and setting of the petroglyph site. Identify how these have changed since the site was created, if possible. Examine associations with nearby sites, geographical features, and/or historic people. Are associated sites intact, and do they have the likelihood of yielding significant information? It is possible to identify the people who created the petroglyphs, either as a group (prehistoric or historic culture) or as an individual (historic). Study the materials from which the petroglyphs were made. Are they well preserved? Evaluate the designs of the petroglyphs. They should be legible and have the potential for further study. Lastly, consider the feeling of the site. Do the petroglyphs convey the prehistory of the site? Does the rock art site's current setting reflect what the area was like when the rock art was created?

It is important to remember that integrity will vary. Some isolated sites may have complete integrity, whereas sites located in an urban setting may lack many aspects of integrity. A petroglyph site should not be considered ineligible due to a change in the environment surrounding it; however, the past, present, and future impacts on the local environment should be evaluated in the eligibility decision-making process.

Traditional Cultural Properties

Lastly, it should be determined whether the site is a Traditional Cultural Property. Native American tribes should be contacted and their knowledge and opinions about the site sought out. Anthropologists, archaeologists, folklorists, rock art specialists, and area residents might also be interviewed for knowledge specific to the site or to the region in general. Among the issues that should be addressed is whether the petroglyph site is the location of important ceremonies, traditions, or social activities for both prehistoric and modern Native Americans. Tribal members may wish to interpret the site, explaining how the site relates to their culture. Any traditional cultural significance should be noted.

Some sites which may be ineligible under criteria A through D may represent an important Traditional Cultural Property. As an example, an isolated, solitary petroglyph of a common variety may not be considered eligible under the four criteria but may actually represent an important location for a Native American group. Clearly, when dealing with rock art sites, Native American input is needed before making recommendations concerning the site's eligibility.

Rules for determining which properties are eligible as Traditional Cultural Properties (TCPs) have only recently been developed. Questions regarding access to information on TCPs, methods for determining TCP status, and the processes of consulting with cultural groups are still being worked out. As ethnic and cultural groups continue to research their past, the number of Traditional Cultural Properties is expected to grow.

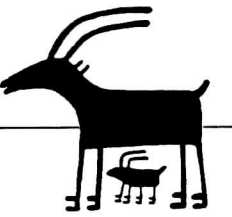
SUMMARY

Nominating a rock art site to the National Register is not an easy task. To date, only a small number of the known sites have been formally nominated. Many other sites are potentially eligible among the over 2,300 sites identified in Arizona as part of this study. It is suggested that rock art researchers become actively involved in nominating rock art sites. The majority of rock art sites currently listed on the National Register are located in National Parks. Several areas are underrepresented, including central-eastern Arizona and central-western Arizona. It is expected that the number of nominated sites will grow as inventories of public land cultural resources take place.

Chapter 4 has already pointed out selected areas of Arizona where additional survey and rock art recording should take place. In addition, Table 5.2 presents a list of potentially eligible rock art sites. Land managers should be encouraged to complete nomination forms for eligible properties found under their jurisdiction. Often, it may be possible to enlist the help of volunteers to complete the paperwork.

CHAPTER 6

CONCLUSIONS



Arizona's rock art sites are an important part of the state's cultural resource heritage. However, unless steps are taken in the near future to protect and document rock art, much of this resource may be destroyed due to the current trends of development and vandalism.

Examination of site records located in various institutions has indicated that more than 2,000 rock art sites have been documented in Arizona. How many additional rock art sites exist is unclear. Recent cultural resource studies have indicated that only a small fraction of the sites have been reported to date. The data presented in Appendix B, along with the complete site data housed at the Phoenix SHPO office, will be important for researchers who need to know whether a particular site has been reported. The data also serve as indicators of how well the site has been recorded. Those sites that have been carefully documented will have more complete individual records.

The last thirty years have seen the rapid transformation of rock art studies from an almost purely avocational pursuit to one where research scientists and avocational archaeologists work together to record and study rock art. As part of this process, recording techniques have become more careful, and more detailed information has been acquired. These data are all the more important as Arizona's population increases, and rock art sites face destruction. Researchers are exploring new ways to determine the age and function of rock art. In addition, new areas of study are developing, such as the exploration of past seismic activity and the study of prehistoric animal distributions.

Arizona has been inhabited by a number of groups both prehistorically and historically. Each has left distinctive sets of rock art. Prior to this overview, the main source of style data was Schaafsma's 1980 study of Southwestern rock art. Since that time, many new rock art sites have been discovered or recorded. Published accounts have allowed for a more precise definition of which elements are found in a style and how they are treated and composed, as well as a more accurate mapping of the boundaries of particular styles. Chapter 3 presents the current state of knowledge about styles found in Arizona. It should be noted that much more work needs to be completed on this topic. For example, Hohokam petroglyphs have been largely lumped together into one style. Because this style encompasses more than a thousand years of rock art production, smaller temporal differences are surely being overlooked. Future work, especially with the refinement of dating techniques, should allow the temporal and spatial boundaries of rock art styles to be better understood. The style names presented in this report will doubtlessly be revised as further study takes place.

One goal of this report was to examine how to protect rock art from continued vandalism and looting. It will probably never be possible to completely halt these actions. However, increased public education on the significance of rock art and stepped-up prosecution of those individuals responsible for the damage may lead to a decrease in vandalism and looting.

One method for protecting sites is to place them on the National Register of Historic Places. Being listed on the Register may stimulate the study of particular sites, offer greater opportunities for funding, and create a permanent record of a site for a particular time period. Many rock art sites are National Register eligible under criteria C and D, as long as they have not been extensively disturbed.

The future of rock art studies in Arizona is one of more complete recording of known sites, the discovery of new sites through survey programs, and the development of new techniques that will glean previously unknown data about the people who created the images. These data will help us better understand these people, who pecked, painted, and scraped their messages in stone.

APPENDIX A

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ARIZONA ROCK ART SITE DATA

compiled by Roberta Serface

As part of the Rock Art in Arizona project, site files and published reports were examined by research assistant Roberta Serface. Information for each site was entered onto computer coding sheets and subsequently placed into a database. Eleven variables are presented in Appendix B. These data were thought to be most useful to rock art researchers and cultural resource managers. Site numbers, site names, the county in which the site is found, the site type, the rock art type, the number of panels, the number of elements, the cultural affiliation of the art, and the source of data are detailed. Specific locational data have been deliberately left out in order to protect the sties. Other data, such as additional cultural affiliations, style names, and comments have also been excluded. These date have been supplied to the State Historic Preservation Office in hard copy and disk format and will be available to researchers upon request.

The first column presents the Arizona State Museum site number for the site. Site numbers assigned by other institutions are presented in the second column. The site name, if one has been given, is provided in the third column. Coded information on the county, site type, rock art type, number of panels, number of elements, and two columns of cultural origin are provided in columns four through ten. A zero in these columns signifies that the data are missing from site records. The last column indicates the site record data source.

All maps in the volume were produced by Geo-Map, Inc. of Tucson. Geo-Map has all rock art site location data on file in digital format. SHPO has all rock art site data on file in hard copy.

Codes used in the appendix are presented below:

County	Site Type	Rock Art Type	Cultural Affiliation (1 or 2)	
1 Pima	1 Rock Art	1 Petroglyphs	1 Archaic	20 Zuni
2 Cochise	2 Habitation	2 Pictographs	2 Hohokam	21 Apache
3 Santa Cruz	3 Res. Exploit. (BRMs, etc.)	3 Both	3 Mogollon	22 Navajo
4 Yuma	4 Rockshelter	4 Intaglio (Geoglyph-brushed or cleared)	4 Fremont	23 Hopi
5 Maricopa	5 Cave	5 Intaglio (Geoglyph-rock alignment)	5 Salado	24 Piman
6 Pinal	6 Artif. Scatter/Quarry	6 Pit and Groove	6 Trincheras	25 Tohono O'odham
7 Graham	7 Trincheras	7 Cupules	7 Patayan	26 Historic
8 Greenlee	8 Stone Circles		8 Yavapai	27Anglo
9 Gila	9 Historic		9 Sinagua	28 Indian
10 La Paz	10 Stone Walls/Alignment		10 Cohonino	29 Yuman
11 Mohave	11 Ceremonial/Shrine		11 Pai	30 Spanish
12 Yavapai	12 Defensive/Fortification		12 Anasazi	31 Modern Graffiti
13 Coconino	13 Granary		13 Havasupai	32 Other
14 Navajo	14 Trail		14 Hakataya	33 Unknown
15 Apache	15 Rock Pile		15 Cochise	34 Paiute
	16 Canals		16 Cocopa	35 Cerbat
	17 Checkdam		17 Basketmaker	36 Kayenta
	18 Ballcourt		18 Pueblo	37 Mojave
	19 Other		19 W. Pueblo	38 Hualapai

Table B.1. Arizona rock art site data.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-01-07-657		14	9	1	1	3	26	0	APACHE-SITGREAVES NF
	AR-03-01-07-658		14	3	1	1	12	3	0	APACHE-SITGREAVES NF
	AR-03-01-07-659		14	3	3	2	24	3	0	APACHE-SITGREAVES NF
	AR-03-01-07-661		14	4	2	1	6	3	0	APACHE-SITGREAVES NF
	AR-03-01-03-99		8	4	2	3	18	3	0	APACHE-SITGREAVES NF
	AR-03-01-03-100		8	4	1	1	17	3	0	APACHE-SITGREAVES NF
	AR-03-01-05-532	CHEVELON CROSSING	13	6	2	1	33	3	0	APACHE-SITGREAVES NF
	AR-03-01-05-533	MORMON CROSSING	13	4	3	23	187	3	21	APACHE-SITGREAVES NF
O:10:2	AR-03-04-01-03; NA 6344	E. VERDE PECKS #6	0	0	1	0	0	9	0	COCONINO NF
	AR-03-04-01-09; NA 4628A,B		0	0	3	0	0	9	0	COCONINO NF
	AR-03-04-01-74; NA 3991	RED TANK DRAW SURVEY 87-176	0	0	1	0	5	9	0	COCONINO NF
	AR-03-04-01-79	BELL TRAIL RECON. 76-20-20	0	0	1	1	1	9	0	COCONINO NF
	AR-03-04-01-87; NA 18,361; NAU O:6:27	GEN. INUMRY 82-1-K	0	0	1	0	0	9	0	COCONINO NF
	AR-03-04-01-92; NAU O:6:11; NA 4627 A & B		0	0	1	2	5	9	0	COCONINO NF
	AR-03-04-01-174; NAU O:6:62	BELL TRAIL RECON. 76-20-20	0	0	1	1	1	9	0	COCONINO NF
	AR-03-04-01-188; NA 11,265		0	0	1	0	0	9	0	COCONINO NF
	AR-03-04-01-239	ED'S POINT JUNIPER PUSH	0	0	1	1	1	9	0	COCONINO NF
	AR-03-04-01-242		0	2	1	1	2	33	0	COCONINO NF
	AR-03-04-01-250	BELL TRAIL RECON.	0	0	3	0	0	9	21	COCONINO NF
	AR-03-04-01-264; NA 19220	77-1-4 RECON. FOSSIL CREEK	0	0	1	0	0	9	0	COCONINO NF
	AR-03-04-01-290	MUD TANK JUNIPER MAINT.	0	6	1	1	1	33	0	COCONINO NF
	AR-03-04-01-451	BALD HILL INVENTORY	0	0	1	1	2	9	0	COCONINO NF
	AR-03-04-01-452	BALD HILL INVENTORY 80-1-5	0	0	1	1	2	9	0	COCONINO NF
	AR-03-04-01-536 TO AR-03-04-01-544; (9 SITES)	RED TAIL DRAW SURVEY	0	0	1	0	0	9	0	COCONINO NF
O:9:1	AR-03-04-01-266; NA 1511	MINDELEFF CAVATE LODGE GROUP	0	2	1	0	0	9	0	COCONINO NF
	AR-03-04-01-588; NA 19673	BALD HILL PROJ.	0	0	1	0	2	9	0	COCONINO NF
	AR-03-04-01-606		0	0	1	0	2	9	0	COCONINO NF
	AR-03-04-01-620		0	15	1	30	0	9	0	COCONINO NF
	AR-03-04-01-663; NA 4638 B	86-261B	0	5	1	0	0	9	0	COCONINO NF
	AR-03-04-01-722 TO AR-03-04-01-733 (12 SITES)	RED TAIL DRAW SURVEY 87-176	0	0	1	0	0	9	0	COCONINO NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-04-01-981	ADOT BORROW PITS 3523, 3524	0	0	1	1	3	9	0	COCONINO NF
	AR-03-04-02-1018	GRINNELL COLLEGE SURVEY	0	0	1	0	5	9	0	COCONINO NF
	AR-03-04-02-1143; NA 19,939	ROAD ROW 87-168	0	6	1	0	3	9	0	COCONINO NF
	AR-03-04-02-1194 (1); AR-03-04-02-1195 (2)	STUMPWOOD BLACK BILL 76-20-27	0	0	1	2	5	9	0	COCONINO NF
	AR-03-04-02-1824; NA 18 813	WINONA 78-18	0	2	1	1	1	9	0	COCONINO NF
	AR-03-04-02-1825; NA 18 814	WINONA 78-18	0	2	1	1	1	9	0	COCONINO NF
	AR-03-04-02-1829; NA 18 818	WINONA 78-18	0	8	1	1	1	9	0	COCONINO NF
	AR-03-04-02-2035	DOVE TANK PIPELINE 77-80	0	3	1	0	0	33	0	COCONINO NF
	AR-03-04-02-2050	DOVE TANK PIPELINE 77-80	0	3	1	0	0	33	0	COCONINO NF
	AR-03-04-02-2108; NA 19006	LENOX TIMBER SALE	0	0	1	0	4	33	0	COCONINO NF
	AR-03-04-02-2178; NA 20195	79-7 O'NEILL SALVAGE SALE	0	0	1	0	7	9	0	COCONINO NF
	AR-03-04-02-2186; NA 20201	79-7 O'NEILL SALVAGE SALE	0	0	1	0	5	9	0	COCONINO NF
	AR-03-04-02-2250; NA 19728	79-52 ABINEAU TIMBER SALE	0	4	1	0	0	10	0	COCONINO NF
	AR-03-04-02-2886	PAT SPRING CLEAN OUT 86-194	0	4	1	0	0	10	23	COCONINO NF
	AR-03-04-02-2965	RIDGE RUIN SURVEY 87-6	0	3	1	0	0	9	0	COCONINO NF
	AR-03-04-02-2966	RIDGE RUIN SURVEY 87-6	0	6	1	1	1	9	0	COCONINO NF
	AR-03-04-03-72; NA 286	VEIT SPRING	0	6	3	3	0	9	0	COCONINO NF
	AR-03-04-03-76; NA 285	SNAKE SPRING	0	0	1	0	0	7	0	COCONINO NF
	AR-03-04-03-706; NA 21382	FRANKSON'S CAVE	0	5	1	0	1	33	0	COCONINO NF
	AR-03-04-03-746; NA 90,5901; NA 18,205	GEMINI PKWY SURVEY 84-117	0	4	1	0	2	9	0	COCONINO NF
	AR-03-04-05-138; ASU O:4:206	ASU CHAVEZ PASS SURVEY 80-1-6	0	6	1	0	0	9	0	COCONINO NF
	AR-03-04-05-141; NA 19035	78-1-23	0	4	2	0	35	9	0	COCONINO NF
	AR-03-04-05-154 & 155;NA I:14: 46 & 47	NAU PUMPHOUSE WASH	0	4	1	0	0	9	0	COCONINO NF
	AR-03-04-06-57; GILA PUEBLO VERDE:1:6; NA 4489; NA 1252		0	2	2	0	0	9	8	COCONINO NF
	AR-03-04-06-54; NA 3209; VERDE:1:1 (GP)	PALATKI	0	2	2	0	0	9	0	COCONINO NF
O:1:8	AR-03-04-06-58;NA 3205 & 3206;NA 1255;VERDE:1:11(GP)	HONANKI	0	2	2	0	0	9	21	COCONINO NF
	AR-03-04-06-131		0	4	2	0	0	9	8	COCONINO NF
	AR-03-04-06-132; NA 11258		0	4	2	0	0	8	9	COCONINO NF
	AR-03-04-06-138	BOYNTON CANYON RECON.	0	4	2	0	0	9	8	COCONINO NF
	AR-03-04-06-184; NA 19963	MARSHALL RANCH 78-1-4	0	4	2	0	0	21	0	COCONINO NF
	AR-03-04-06-208	ZIG ZAG RUIN	0	2	2	0	1	33	0	COCONINO NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-04-06-248; NA 19802		0	0	1	2	3	9	0	COCONINO NF
	AR-03-04-06-279	RAFTER K STABLES RECON 77-1-14	0	4	2	0	0	9	0	COCONINO NF
	AR-03-04-06-280	RAFTER K STABLES RECON 77-1-14	0	4	2	0	2	9	0	COCONINO NF
	AR-03-04-06-284 TO 289;NA 15767;NA 20032 - NA 20037; (6 SITES)	BY PATATKI 77-1-15	0	3	2	0	0	9	8	COCONINO NF
	AR-03-04-06-326; NA 19966	MARSHALL RANCH SURVEY	0	3	2	0	0	21	0	COCONINO NF
	AR-03-04-06-363; NA 19892	WOODS CANYON SITE	0	4	2	0	0	21	0	COCONINO NF
O:1:16	AR-03-04-06-395	RED ROCK STATE PARK	0	0	2	1	1	9	0	COCONINO NF
	AR-03-04-06-401; NA 19858	SOC LMP	0	0	1	1	2	33	0	COCONINO NF
	AR-03-04-06-436; NA 19828		0	14	1	0	0	9	0	COCONINO NF
	AR-03-04-06-474; NA 18884	WU CANYON RANCH	0	0	2	0	0	9	0	COCONINO NF
	AR-03-04-06-477	SEDONA CAMPGROUND	0	5	1	0	0	26	0	COCONINO NF
	AR-03-04-06-556; NA 23332	HOT LOOP TRAIL SEGMENT	0	2	1	0	0	9	0	COCONINO NF
O:1:32	AR-03-04-06-600	RED ROCK STATE PARK	0	0	1	0	0	9	0	COCONINO NF
	AR-03-04-06-604	HORSE MESA CAVE	0	5	1	0	0	9	0	COCONINO NF
	AR-03-04-06-721	HOPI GLYPH	0	0	1	1	0	9	0	COCONINO NF
	AR-03-04-06-757	HONANKI	0	3	3	0	0	9	8	COCONINO NF
	AR-03-04-06-802	COY CANYON SITE	0	0	0	0	0	9	8	COCONINO NF
	AR-03-04-07-5		0	0	3	0	0	33	0	COCONINO NF
	AR-03-04-07-6; NA 9056		0	4	2	1	1	33	0	COCONINO NF
	AR-03-04-07-10	JACKS MEADOW	0	0	2	0	0	33	0	COCONINO NF
	AR-03-04-07-14; NA 10716		0	0	3	0	0	33	0	COCONINO NF
	AR-03-04-07-17; NA 10715		0	4	1	0	0	33	0	COCONINO NF
	AR-03-04-07-79	RAYMOND'S GLYPHS	0	0	1	0	3	33	0	COCONINO NF
	AR-03-04-07-86	LONG CAVE	0	0	2	0	0	33	0	COCONINO NF
	AR-03-04-07-129; NA 20261	ASU CHAVEZ PASS 78-1-15	0	3	1	4	0	9	0	COCONINO NF
	AR-03-04-07-130; NA 20262	ASU CHAVEZ PASS 78-1-15	0	0	1	5	0	9	0	COCONINO NF
	AR-03-04-07-134	ASU CHAVEZ PASS 78-1-15	0	3	1	3	0	9	0	COCONINO NF
	AR-03-04-07-149	ASU CHAVEZ PASS 80-1-6	0	6	1	0	0	9	0	COCONINO NF
	AR-03-04-07-154	ASU CHAVEZ PASS 80-1-6	0	2	1	0	0	9	0	COCONINO NF
	AR-03-04-07-177	ASU CHAVEZ PASS 80-1-6	0	0	1	0	0	9	0	COCONINO NF
	AR-03-04-07-343; ASU O:4:241	ASU CHAVEZ PASS 80-1-6	0	0	1	5	50	9	0	COCONINO NF
	AR-03-04-07-356; ASU O:4:254	ASU CHAVEZ PASS 80-1-6	0	0	1	1	1	9	0	COCONINO NF
	AR-03-05-01-44	HALF MOON VALLEY	2	3	2	3	38	3	0	J. BURTON/ CORONADO NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-05-01-215	STRONGHOLD CANYON WEST	2	3	2	6	37	1	21	J. BURTON/ CORONADO NF
FF:4:9	AR-03-05-01-224	'CLAYTONS CAVE'	2	4	2	20	76	1	21	J. BURTON/ CORONADO NF
	AR-03-05-01-228; CC:16:2(AF)	INDIAN CREEK CAVE	2	5	2	3	23	3	26	J. BURTON/ CORONADO NF
	AR-03-05-01-235	SUNNY FLAT CAVE	2	5	2	2	2	1	3	J. BURTON/ CORONADO NF
	AR-03-05-01-247	'LOUIE'S RANCH' GRANARY CAVE	2	4	2	7	39	21	3	J. BURTON/ CORONADO NF
	AR-03-05-02-09	PENA BLANCA CAVE	3	3	2	4	56	26	33	J. BURTON/ CORONADO NF
	AR-03-05-02-10	PECK CANYON	3	4	2	1	5	33	0	J. BURTON/ CORONADO NF
DD:12:2	AR-03-05-02-32	RAMANOTE CAVE	3	4	3	8	37	2	26	J. BURTON/ CORONADO NF
DD:8:123	AR-03-05-02-107; DD:12:2(AF)	ROCK CORRAL TRINCHERAS	3	3	1	1	7	2	0	J. BURTON/ CORONADO NF
	AR-03-05-02-114	WHIPPLE CAMP	1	6	1	2	8	2	0	J. BURTON/ CORONADO NF
	AR-03-05-02-141	HELL'S GATE	3	3	3	10	24	33	0	J. BURTON/ CORONADO NF
	AR-03-05-02-151	CUMERO MTN	1	26	1	15	126	2	0	J. BURTON/ CORONADO NF
	AR-03-05-03-115	LOWER GATE SPRING	3	0	1	1	2	2	0	J. BURTON/ CORONADO NF
	AR-03-05-03-118	REDROCK CANYON	3	0	1	2	9	2	0	J. BURTON/ CORONADO NF
	AR-03-05-04-02	POWDERHOUSE CYN.	7	4	2	1	6	3	0	J. BURTON/ CORONADO NF
	AR-03-05-04-03	FRESCO CAVE	7	3	2	46	226	6	7	J. BURTON/ CORONADO NF
	AR-03-05-04-41	EAGLES NEST	7	4	2	5	19	3	26	J. BURTON/ CORONADO NF
	AR-03-05-04-112	CIENEGA WASH	7	3	2	5	49	3	0	J. BURTON/ CORONADO NF
	AR-03-05-04-152	UPPER CIENEGA	7	3	2	2	9	21	0	J. BURTON/ CORONADO NF
BB:9:32	AR-03-05-04-145	MARIJILDA	7	9	1	0	0	5	26	J. BURTON/ CORONADO NF
	AR-03-05-05-111	SUTHERLAND WASH 2	1	0	1	6	10	1	2	J. BURTON/ CORONADO NF
	AR-03-05-05-112	SUTHERLAND WASH 3	1	0	1	3	10	1	2	J. BURTON/ CORONADO NF
	AR-03-05-05-117	SUTHERLAND WASH 4 SHEEP TANK	1	0	1	68	300	1	2	J. BURTON/ CORONADO NF
	AR-03-05-05-118	SUTHERLAND WASH 5	1	0	1	1	3	1	2	J. BURTON/ CORONADO NF
	AR-03-05-05-119	SUTHERLAND WASH 6	1	0	1	6	18	1	2	J. BURTON/ CORONADO NF
	AR-03-05-05-120	SUTHERLAND WASH 7	1	0	1	3	3	1	2	J. BURTON/ CORONADO NF
	AR-03-05-05-121	SUTHERLAND WASH 9	1	0	1	1	2	1	2	J. BURTON/ CORONADO NF
	AR-03-05-05-122	SUTHERLAND WASH 10	1	0	1	7	22	1	2	J. BURTON/ CORONADO NF
	AR-03-05-05-123	SUTHERLAND WASH 11	1	0	1	8	36	1	2	J. BURTON/ CORONADO NF
	AR-03-05-05-113	SABINO CANYON	1	3	3	2	2	2	0	J. BURTON/ CORONADO NF
	AR-03-05-05-132	PICTOGRAPH SPRING	1	0	2	1	15	33	21	J. BURTON/ CORONADO NF
	AR-03-05-01-40	RUCKER CANYON	2	5	2	0	0	33	0	CORONADO NF
	AR-03-05-01-270		2	0	1	2	30	33	0	CORONADO NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-05-01-271		2	0	1	0	20	33	0	CORONADO NF
	AR-03-05-01-272		2	0	2	0	20	33	0	CORONADO NF
	AR-03-05-01-273		2	6	2	0	0	33	0	CORONADO NF
	AR-03-05-01-274		2	5	2	0	6	33	0	CORONADO NF
	AR-03-05-01-283		2	6	2	0	0	33	26	CORONADO NF
	AR-03-05-01-284		2	4	2	0	0	21	26	CORONADO NF
	AR-03-05-01-294		2	0	1	0	0	0	0	CORONADO NF
	AR-03-05-01-295		2	0	1	0	0	0	0	CORONADO NF
	AR-03-05-01-310		2	4	2	0	0	0	0	CORONADO NF
	AR-03-05-02-411		3	4	2	0	0	33	0	CORONADO NF
	AR-03-05-02-416		1	3	1	0	0	33	2	CORONADO NF
	AR-03-05-02-418		3	6	1	0	0	2	0	CORONADO NF
	AR-03-05-03-150	BAT CAVE	3	6	2	0	0	33	0	CORONADO NF
	AR-03-05-04-175	MARIJULDA II; ROY'S GLYPH SITE	7	0	1	0	0	33	0	CORONADO NF
	AR-03-05-05-146	CARGODERA CNY	1	0	1	1	1	2	0	CORONADO NF
	AR-03-05-05-147	CARGODERA CNY	1	0	1	0	0	2	0	CORONADO NF
	AR-03-05-05-169	SUTHERLAND WASH	1	0	1	1	2	2	0	CORONADO NF
	AR-03-05-05-184	DANIELS ROCK SHELTER	1	0	2	0	0	2	0	CORONADO NF
	AR-03-05-05-186		1	0	1	0	0	2	0	CORONADO NF
	AR-03-07-01-65		13	6	1	3	4	10	0	KAIBAB NF
	AR-03-07-01-375		13	6	1	0	0	10	26	KAIBAB NF
	AR-03-07-01-401		13	6	1	0	6	10	0	KAIBAB NF
	AR-03-07-01-637		13	3	1	11	50	10	0	KAIBAB NF
	AR-03-07-01-703		13	0	1	2	7	10	0	KAIBAB NF
	AR-03-07-01-840		12	0	1	3	10	33	0	KAIBAB NF
	AR-03-07-01-885		13	0	1	0	0	10	0	KAIBAB NF
	AR-03-07-01-887		13	0	1	0	50	10	0	KAIBAB NF
	AR-03-07-01-890		13	0	1	1	0	10	0	KAIBAB NF
	AR-03-07-01-1042		13	0	1	3	5	10	0	KAIBAB NF
	AR-03-07-01-1100		13	3	1	1	0	10	0	KAIBAB NF
	AR-03-07-01-1155		13	6	1	0	0	10	0	KAIBAB NF
	AR-03-07-01-1205		13	0	1	9	3	10	0	KAIBAB NF
	AR-03-07-01-1287		13	0	1	1	2	10	0	KAIBAB NF
	AR-03-07-01-1298		13	0	1	1	26	10	0	KAIBAB NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-07-01-1365		13	6	1	0	5	10	0	KAIBAB NF
	AR-03-07-01-1415		13	0	1	1	11	10	0	KAIBAB NF
	AR-03-07-01-1419		13	6	1	1	20	1	10	KAIBAB NF
	AR-03-07-01-1420		13	6	1	4	20	1	10	KAIBAB NF
	AR-03-07-01-1421		13	6	1	4	20	1	10	KAIBAB NF
	AR-03-07-01-1428		13	2	1	2	4	10	0	KAIBAB NF
	AR-03-07-01-1500		13	0	1	6	100	10	0	KAIBAB NF
	AR-03-07-01-1509		13	0	1	3	15	10	0	KAIBAB NF
	AR-03-07-01-1514		13	0	1	6	100	10	0	KAIBAB NF
	AR-03-07-01-1571		13	0	1	1	4	10	0	KAIBAB NF
	AR-03-07-01-1572		13	0	1	3	60	10	0	KAIBAB NF
	AR-03-07-01-1573		13	0	1	2	10	10	0	KAIBAB NF
	AR-03-07-01-1574		13	0	1	3	10	10	0	KAIBAB NF
	AR-03-07-01-1575		13	0	1	1	100	10	0	KAIBAB NF
	AR-03-07-01-1582		13	0	1	0	50	10	0	KAIBAB NF
	AR-03-07-01-1583		13	0	1	4	50	10	0	KAIBAB NF
	AR-03-07-01-1612		13	4	1	0	0	10	0	KAIBAB NF
	AR-03-07-01-1608		13	0	1	1	2	10	0	KAIBAB NF
	AR-03-07-01-1610		13	0	1	7	100	1	11	KAIBAB NF
	AR-03-07-01-1611		13	0	1	3	40	11	0	KAIBAB NF
	AR-03-07-02-01	KEYHOLE SINK	13	6	1	2	0	10	0	KAIBAB NF
	AR-03-07-02-52		13	0	1	1	25	10	0	KAIBAB NF
	AR-03-07-02-243		13	0	1	1	2	10	0	KAIBAB NF
	AR-03-07-02-348		13	4	1	2	4	10	0	KAIBAB NF
	AR-03-07-02-363	LAWS SPRING SITE	13	0	1	0	0	10	26	KAIBAB NF
	AR-03-07-02-507		13	0	1	0	0	10	0	KAIBAB NF
	AR-03-07-02-791		13	4	0	0	0	10	23	KAIBAB NF
	AR-03-07-02-794		13	2	1	0	0	10	0	KAIBAB NF
	AR-03-07-02-960		13	4	9	0	0	10	0	KAIBAB NF
	AR-03-07-02-1227		13	0	1	6	0	10	0	KAIBAB NF
	AR-03-07-02-1230	TARANTULA SITE	13	0	1	0	50	10	0	KAIBAB NF
	AR-03-07-02-1261		13	0	1	0	20	10	0	KAIBAB NF
	AR-03-07-02-1263		13	0	1	1	0	1	10	KAIBAB NF
	AR-03-07-02-1270		13	0	1	1	4	10	0	KAIBAB NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-07-02-1277		13	0	1	2	4	10	0	KAIBAB NF
	AR-03-07-02-1304		13	5	1	0	0	10	0	KAIBAB NF
	AR-03-07-02-1449		13	2	1	2	2	10	0	KAIBAB NF
	AR-03-07-02-1455		13	0	1	0	0	10	0	KAIBAB NF
	AR-03-07-02-1472		13	0	1	4	15	10	0	KAIBAB NF
	AR-03-07-02-1473		13	4	1	0	40	10	0	KAIBAB NF
	AR-03-07-02-1478		13	4	1	4	30	10	13	KAIBAB NF
	AR-03-07-02-1481		13	6	1	3	7	10	0	KAIBAB NF
	AR-03-07-02-1484		0	0	1	3	5	10	0	KAIBAB NF
	AR-03-07-02-1490		0	0	1	0	2	10	0	KAIBAB NF
	AR-03-07-03-36		11	0	2	0	2	33	0	KAIBAB NF
	AR-03-07-03-61	COXCOMB'S CAVE	13	0	2	0	0	12	0	KAIBAB NF
	AR-03-07-03-65		13	0	3	0	0	33	0	KAIBAB NF
	AR-03-07-03-236		13	4	2	0	0	17	12	KAIBAB NF
	AR-03-07-03-238		13	0	3	0	0	33	0	KAIBAB NF
	AR-03-07-03-246		13	0	2	0	0	33	0	KAIBAB NF
	AR-03-07-03-380		13	4	3	1	0	33	0	KAIBAB NF
	AR-03-07-03-381		13	4	3	1	40	12	0	KAIBAB NF
	AR-03-07-03-383		13	4	3	1	100	33	0	KAIBAB NF
	AR-03-07-03-444		13	0	1	0	0	33	0	KAIBAB NF
	AR-03-07-03-462	PACK RAT CAVE	13	6	2	1	1	33	0	KAIBAB NF
	AR-03-07-03-506		13	0	0	0	0	33	0	KAIBAB NF
	AR-03-07-03-863		13	0	2	0	2	33	0	KAIBAB NF
	AR-03-07-03-864		13	4	3	0	0	12	17	KAIBAB NF
	AR-03-07-03-865		13	5	1	0	0	12	17	KAIBAB NF
	AR-03-07-03-899	PARA SITE	13	4	1	1	0	12	34	KAIBAB NF
	AR-03-07-03-905, AR-03-07-03-906		13	0	3	0	0	33	0	KAIBAB NF
	AR-03-07-03-910		13	9	2	1	1	33	0	KAIBAB NF
	AR-03-07-03-952	BUFFALO 89	13	4	1	1	0	12	0	KAIBAB NF
	AR-03-07-03-959 TO AR-03-07-03-961 (3 SITES)		13	2	9	0	0	33	0	KAIBAB NF
	AR-03-07-03-963 TO AR-03-07-03-966 (4 SITES)		13	4	0	0	0	33	0	KAIBAB NF
	AR-03-07-03-968 TO AR-03-07-03-970 (3 SITES)		13	0	9	0	0	33	0	KAIBAB NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-07-03-983	PAUITE CAVE	13	0	9	0	0	33	0	KAIBAB NF
	AR-03-07-03-995 TO AR-03-07-03-999 (5 SITES)		13	0	3	0	0	33	0	KAIBAB NF
	AR-03-07-03-1002		13	9	1	0	0	33	0	KAIBAB NF
	AR-03-07-03-1013		13	9	0	0	0	33	0	KAIBAB NF
	AR-03-07-03-1123		13	4	2	0	0	33	0	KAIBAB NF
	AR-03-07-03-1143		13	0	2	1	2	33	0	KAIBAB NF
	AR-03-07-03-1203		13	2	2	0	0	33	0	KAIBAB NF
	AR-03-07-03-1208		13	2	2	0	0	33	0	KAIBAB NF
	AR-03-07-04-7		13	4	2	0	0	33	0	KAIBAB NF
	AR-03-07-04-9		13	5	2	0	0	33	0	KAIBAB NF
	AR-03-07-04-24		13	0	2	0	0	33	0	KAIBAB NF
	AR-03-07-04-46		13	4	2	1	0	33	0	KAIBAB NF
	AR-03-07-04-106		13	0	3	0	9	33	0	KAIBAB NF
	AR-03-07-04-109		13	6	3	0	0	10	0	KAIBAB NF
	AR-03-07-04-281		13	4	3	0	0	11	0	KAIBAB NF
	AR-03-07-04-282		13	4	3	0	0	13	0	KAIBAB NF
	AR-03-07-04-438		13	5	2	0	0	33	0	KAIBAB NF
	AR-03-07-04-464		13	2	3	0	0	10	0	KAIBAB NF
	AR-03-07-04-661; MNA 17338		13	4	3	0	0	36	0	KAIBAB NF
	AR-03-07-04-748	BAT LEDGE CLIFF DWELLING	13	2	9	0	0	12	0	KAIBAB NF
	AR-03-07-04-752		13	4	2	0	0	33	0	KAIBAB NF
	AR-03-07-04-1191		13	0	2	0	0	33	0	KAIBAB NF
	AR-03-07-03-237	WHITE MAN CAVE	13	5	3	1	163	12	18	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1082	THE TWINS	13	0	2	4	50	1	12	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1029	THE WISE MEN	13	13	2	1	7	12	17	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1024	THE ROCKETEERS	13	6	2	12	8	1	12	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-463	ROCK FAMILY	13	6	2	1	0	1	17	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1028	HEAD HUNTERS	13	0	3	9	12	1	12	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1030	CHECKERED MEN	13	6	2	27	200	1	12	NR FORMS SNAKE GULCH IN KAIBAB NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-07-03-924	BULLET HEAD	13	0	2	1	25	12	17	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1048	GOLDIE OR REDHEAD	13	4	3	7	53	12	31	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-891	PIGMENT PALACE	13	13	3	6	42	12	17	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1057	PAPER DOLLS	13	0	3	4	109	12	0	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1089	BELL ROCK	13	0	2	2	27	33	0	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1025	CAVE DOG	13	10	2	1	16	33	0	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1026		13	0	2	2	9	33	0	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-07-03-1027		13	0	2	1	1	33	0	NR FORMS SNAKE GULCH IN KAIBAB NF
	AR-03-09-01-597	UPPER VERDE HELL POINT	12	0	1	5	0	8	0	USFS PRESCOTT NF
	AR-03-09-01-307		13	3	1	0	0	0	0	USFS PRESCOTT NF
	AR-03-09-01-290		12	3	1	2	5	1	0	USFS PRESCOTT NF
	AR-03-09-01-303		13	0	1	0	0	1	31	USFS PRESCOTT NF
	AR-03-09-01-159	TENNY	12	0	1	1	1	0	0	USFS PRESCOTT NF
	AR-03-09-01-110; MNA 14566	RANNE SITE A	12	0	0	0	5	0	0	USFS PRESCOTT NF
	AR-03-09-01-111; MNA 14566	RANNE SITE B	12	9	1	0	7	8	26	USFS PRESCOTT NF
	AR-03-09-01-98	LANEY SITE A	12	3	1	0	2	0	0	USFS PRESCOTT NF
	AR-03-09-01-447		12	10	1	5	5	33	26	USFS PRESCOTT NF
	AR-03-09-01-423		13	6	1	5	10	33	0	USFS PRESCOTT NF
	AR-03-09-03-324		12	0	1	1	5	33	1	USFS PRESCOTT NF
	AR-03-09-03-240		12	0	1	1	8	33	0	USFS PRESCOTT NF
	AR-03-09-06-138	POWERLINE	12	6	1	0	10	33	0	USFS PRESCOTT NF
	AR-03-09-06-28; MNA 5352	INSCRIPTION CANYON	12	0	1	0	0	33	0	USFS PRESCOTT NF
	AR-03-12-01-1322		5	0	1	0	0	0	0	TONTO NF
	AR-03-12-01-1323		5	0	1	0	0	0	0	TONTO NF
	AR-03-12-01-1330		5	0	1	1	0	0	0	TONTO NF
	AR-03-12-01-1331		5	0	1	1	0	0	0	TONTO NF
	AR-03-12-01-1257		12	0	1	0	0	26	0	TONTO NF
	AR-03-12-01-1240		12	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-1188		12	2	1	5	0	2	0	TONTO NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-12-01-1184		9	0	1	1	0	2	0	TONTO NF
	AR-03-12-01-1100		12	0	2	0	0	33	0	TONTO NF
	AR-03-12-01-1098		12	0	1	1	1	2	0	TONTO NF
	AR-03-12-01-1096		12	0	1	1	3	2	0	TONTO NF
	AR-03-12-01-329		5	0	1	4	0	2	0	TONTO NF
	AR-03-12-01-327		5	2	1	1	3	2	0	TONTO NF
	AR-03-12-01-15		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-621		12	11	2	0	0	33	0	TONTO NF
	AR-03-12-01-810; U:2:33(ASU)		5	2	1	0	3	2	0	TONTO NF
	AR-03-12-01-801; U:2:120(ASU)		5	0	1	1	1	2	0	TONTO NF
	AR-03-12-01-745; U:2:39(ASU)		5	0	1	2	3	2	0	TONTO NF
	AR-03-12-01-703		5	2	1	1	1	2	0	TONTO
	AR-03-12-01-693		5	0	1	2	4	2	0	TONTO NF
	AR-03-12-01-609		5	0	1	0	4	2	0	TONTO NF
	AR-03-12-01-602		12	0	1	0	0	2	0	TONTO NF
	AR-03-12-01-599		12	6	1	0	0	2	9	TONTO NF
	AR-03-12-01-501		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-01-454		5	3	1	0	2	1	2	TONTO NF
	AR-03-12-01-452		5	3	1	0	4	1	2	TONTO NF
	AR-03-12-01-451		5	0	1	0	4	1	2	TONTO NF
	AR-03-12-01-434		5	2	1	0	0	1	2	TONTO NF
	AR-03-12-01-414; PRESCOTT COLLEGE # T:4:12		5	2	1	0	0	1	2	TONTO NF
	AR-03-12-01-410		5	3	1	0	4	1	2	TONTO NF
	AR-03-12-01-408		5	3	1	0	0	1	2	TONTO NF
	AR-03-12-01-405		5	6	1	5	6	1	2	TONTO NF
	AR-03-12-01-398		5	0	1	0	0	1	2	TONTO NF
	AR-03-12-01-396; PRESCOTT COLLEGE # T:4:34		5	2	1	0	0	1	2	TONTO NF
	AR-03-12-01-377; PRESCOTT COLLEGE # T:4:42		5	2	1	0	0	1	2	TONTO NF
	AR-03-12-01-376; PRESCOTT COLLEGE # T:4:6		5	2	1	0	0	1	2	TONTO NF
	AR-03-12-01-375; PRESCOTT COLLEGE # T:4:5		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-372		5	0	1	2	1	2	0	TONTO NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-12-01-369; SARG SITE #135		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-01-364		5	3	1	1	1	2	0	TONTO NF
	AR-03-12-01-361		5	2	1	3	2	1	2	TONTO NF
	AR-03-12-01-350		5	3	1	0	0	2	0	TONTO NF
	AR-03-12-01-341		5	3	1	0	1	1	2	TONTO NF
	AR-03-12-01-336		5	3	1	0	0	1	2	TONTO NF
	AR-03-12-01-334		5	2	1	0	2	1	2	TONTO NF
	AR-03-12-01-283		5	0	1	0	0	1	2	TONTO NF
	AR-03-12-01-282		5	2	1	0	0	1	2	TONTO NF
	AR-03-12-01-281		5	6	1	0	0	1	2	TONTO NF
	AR-03-12-01-280		5	6	1	0	0	2	0	TONTO NF
	AR-03-12-01-273		5	0	1	0	0	33	0	TONTO NF
	AR-03-12-01-271		5	2	1	0	0	33	0	TONTO NF
	AR-03-12-01-270		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-269		5	0	1	0	0	33	0	TONTO NF
	AR-03-12-01-268		5	0	1	0	0	33	0	TONTO NF
	AR-03-12-01-267		5	0	1	0	0	33	0	TONTO NF
	AR-03-12-01-264; U:2:147(ASU)		5	2	1	0	0	2	6	TONTO NF
	AR-03-12-01-263		5	0	1	0	0	33	0	TONTO NF
	AR-03-12-01-262		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-01-261		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-01-259; U:7:96(ASU)		5	2	1	0	6	2	0	TONTO NF
	AR-03-12-01-258		5	0	1	0	6	33	0	TONTO NF
	AR-03-12-01-256		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-01-188		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-187		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-208		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-180		5	3	1	0	0	2	0	TONTO NF
	AR-03-12-01-160		5	2	1	0	2	2	0	TONTO NF
	AR-03-12-01-159		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-01-157		5	3	1	0	0	2	0	TONTO NT
	AR-03-12-01-155		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-154		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-152		12	3	0	0	0	33	0	TONTO NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-12-01-143		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-74		5	2	1	0	0	2	26	TONTO NF
	AR-03-12-01-73		5	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-59		12	6	1	0	3	2	26	TONTO NF
	AR-03-12-01-40; O:13:8(NA)		12	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-39; O:13:5(NA)		12	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-37; O:13:20(NA)		12	2	1	0	0	2	0	TONTO NF
	AR-03-12-01-36; O:13:15(NA)		12	12	1	0	0	2	0	TONTO NF
U:1:10	AR-03-12-01-16		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-02-1097		9	4	2	0	0	33	0	TONTO NF
	AR-03-12-02-1095		9	6	2	0	0	33	0	TONTO NF
	AR-03-12-02-236		9	3	1	0	0	2	0	TONTO NF
	AR-03-12-02-112		6	3	2	0	0	33	0	TONTO NF
	AR-03-12-02-76		9	6	1	0	0	2	0	TONTO NF
	AR-03-12-02-75		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-02-74		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-02-72		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-02-71		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-02-70		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-02-69		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-02-68		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-02-67		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-02-66		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-03-441		5	0	1	2	4	33	0	TONTO NF
	AR-03-12-03-526	HIEROGLYPHIC SPRINGS	6	0	1	0	0	1	26	TONTO NF
	AR-03-12-03-519		6	0	1	1	2	33	0	TONTO NF
	AR-03-12-03-509		5	0	1	0	0	33	0	TONTO NF
	AR-03-12-03-508		5	0	1	0	3	33	0	TONTO NF
	AR-03-12-03-2		6	0	1	0	0	33	0	TONTO NF
	AR-03-12-03-432		5	0	1	0	0	33	0	TONTO NF
	AR-03-12-03-429		5	0	1	0	0	33	0	TONTO NF
	AR-03-12-03-356		5	0	1	0	0	33	0	TONTO NF
	AR-03-12-03-206		6	0	1	0	0	33	0	TONTO NF
	AR-03-12-03-203		6	2	0	0	0	26	0	TONTO NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-12-03-408		5	0	1	0	0	26	0	TONTO NF
	AR-03-12-03-136		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-03-407		5	5	0	0	0	33	0	TONTO NF
	AR-03-12-03-135		6	0	1	0	0	2	0	TONTO NF
	AR-03-12-03-101		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-03-100		5	3	1	0	0	2	0	TONTO NF
	AR-03-12-03-89		5	0	1	0	0	26	0	TONTO NF
	AR-03-12-03-86		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-03-85		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-03-64		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-03-63		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-03-53		5	5	0	0	0	2	0	TONTO NF
	AR-03-12-03-51		5	11	0	0	0	2	0	TONTO NF
	AR-03-12-03-41		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-03-37		6	0	1	0	0	2	0	TONTO NF
	AR-03-12-03-26		5	6	1	0	0	2	0	TONTO NF
	AR-03-12-04-788		5	0	1	0	3	2	0	TONTO NF
	AR-03-12-04-401		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-04-741		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-04-111		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-04-554		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-04-538		9	0	1	0	0	33	0	TONTO NF
	AR-03-12-04-460		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-04-450		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-04-698		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-04-442		9	0	1	0	0	0	0	TONTO NF
	AR-03-12-04-441		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-04-429		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-04-428		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-04-413		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-04-326		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-04-224		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-04-185		9	0	1	0	0	1	2	TONTO NF
	AR-03-12-04-29		9	0	1	0	0	2	0	TONTO NF

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AR-03-12-04-27		9	2	2	0	0	2	0	TONTO NF
	AR-03-12-04-24		9	2	2	0	0	32	0	TONTO NF
	AR-03-12-04-20		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-04-8		9	3	1	0	0	1	2	TONTO NF
	AR-03-12-05-537		9	0	1	1	1	26	0	TONTO NF
	AR-03-12-05-144		9	3	2	0	2	3	8	TONTO NF
	AR-03-12-05-25; GILA PUEBLO C:1:16		0	3	2	0	2	33	0	TONTO NF
	AR-03-12-05-648		9	6	1	0	0	3	0	TONTO NF
	AR-03-12-06-1391A	WESTERN SITE	9	6	1	0	0	2	0	TONTO NF
	AR-03-12-06-1391B		9	6	1	0	0	2	0	TONTO NF
	AR-03-12-06-1811		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-06-1837		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-06-730		5	0	1	0	0	2	0	TONTO NF
	AR-03-12-06-1147		12	0	1	0	0	2	0	TONTO NF
U:8:407	AR-03-12-06-981		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-06-1161		9	0	2	0	0	21	0	TONTO NF
U:8:354	AR-03-12-06-952		9	0	1	0	0	2	0	TONTO NF
U:8:352	AR-03-12-06-950		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-06-1160		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-06-862		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-06-719		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-06-631		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-06-609		9	2	1	0	0	2	26	TONTO NF
	AR-03-12-06-558		9	9	1	0	0	33	26	TONTO NF
	AR-03-12-06-540		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-06-378		9	3	1	0	0	2	0	TONTO NF
	AR-03-12-06-360		9	0	1	0	0	2	0	TONTO NF
	AR-03-12-06-290		9	2	1	0	0	2	0	TONTO NF
	AR-03-12-06-215		9	0	1	0	0	33	26	TONTO NF
	AZ 04-002	MIDWAY CAVE	0	3	2	15	133	1	15	BLM - SAFFORD
	AZ 04-69		0	2	0	0	15	3	21	BLM - SAFFORD
	AZ 04-70		0	4	2	4	28	3	15	BLM - SAFFORD
	AZ 04-478		0	3	2	12	89	1	3	BLM - SAFFORD
CC:12:10	AZ 04-143	PECCARY CAVE	2	4	2	2	2	3	0	BLM - SAFFORD

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AZ 04-957		0	6	2	1	4	3	0	BLM - SAFFORD
	AZ 04-918		0	5	2	2	13	3	0	BLM - SAFFORD
	AZ 04-372		0	3	3	4	18	3	0	BLM - SAFFORD
	AZ 04-51	CARPENTERS CAVE	0	2	2	1	5	3	0	BLM - SAFFORD
	AZ 04-958		0	4	2	1	1	3	0	BLM - SAFFORD
	AZ 04-952		0	6	2	1	3	21	0	BLM - SAFFORD
	AZ 04-286		0	0	2	1	6	21	0	BLM - SAFFORD
	AZ 04-155	MALPAIS HILL SITE	0	2	2	0	44	2	21	BLM - SAFFORD
	AZ 04-284		0	3	1	13	0	2	0	BLM - SAFFORD
	AZ 04-306		0	6	1	2	4	2	0	BLM - SAFFORD
	AZ 04-285		0	0	1	2	9	2	0	BLM - SAFFORD
	AZ 04-204		0	19	1	0	0	2	0	BLM - SAFFORD
	AZ 04-283		0	15	1	2	12	2	0	BLM - SAFFORD
	AZ 04-203		0	0	1	1	2	3	0	BLM - SAFFORD
	AZ 04-161		0	2	2	0	0	3	0	BLM - SAFFORD
	AZ 04-60		0	5	3	0	0	1	0	BLM - SAFFORD
	AZ 04-107		0	0	1	0	3	2	0	BLM - SAFFORD
	AZ 04-157		0	3	1	0	0	1	2	BLM - SAFFORD
	BLM SAFFORD	BONITA CREEK CAVE	0	5	2	0	0	3	0	BLM - SAFFORD
CC:2:146			7	0	1	1	10	2	0	DOS POBRES REPORT
CC:2:147			7	4	1	2	2	2	0	DOS POBRES REPORT
CC:2:149			7	0	1	1	12	2	0	DOS POBRES REPORT
CC:2:150			7	0	1	1	11	2	0	DOS POBRES REPORT
CC:2:152			7	0	1	3	21	2	0	DOS POBRES REPORT
CC:2:156			7	0	1	1	9	2	0	DOS POBRES REPORT
CC:2:157			7	0	1	2	12	2	0	DOS POBRES REPORT
CC:2:158			7	0	1	1	0	2	0	DOS POBRES REPORT
CC:2:166			7	10	1	5	0	2	0	DOS POBRES REPORT
			2	3	2	1	10	33	0	JANE KOLBER
			2	4	2	1	5	33	0	JANE KOLBER
			2	3	2	2	15	33	0	JANE KOLBERS
			2	0	1	1	7	2	0	JANE KOLBER
EE:8:186		AMPHITHEATRE SITE	2	3	1	3	5	1	2	JANE KOLBER
EE:8:158		BUNNY EARS SITE	2	3	1	10	31	2	26	JANE KOLBER

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
		PIPETTE SITE	2	0	1	2	5	2	0	JANE KOLBER
		MAGNIFICENT SEVEN	2	0	1	2	136	2	0	JANE KOLBER
EE:8:146		THORN HILL	2	0	1	2	7	2	0	JANE KOLBER
		NEOPHYTE	2	0	1	1	0	2	0	JANE KOLBER
EE:8:187		FACIAL PITS	2	0	1	1	5	2	0	JANE KOLBER
		LONE KNOLL	2	0	1	0	3	2	0	JANE KOLBER
		BOSTON MILL-EMERY CITY	2	0	1	1	0	2	0	JANE KOLBER
		EYE OF THE CAVE	2	3	2	1	7	3	0	JANE KOLBER
	I:14:48; NA 285		13	0	1	1	2	9	0	DIANE D'AMICOS THESIS
	I:10:2; NA 286		13	0	3	0	0	9	0	DIANE D'AMICOS THESIS
	I:10:3; I:10:4; NA 1927		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:14:44; NA 215-218	PICTURE CANYON	13	2	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:15:197; NA 116	TURKEY TANKS	13	2	1	9	0	9	0	DIANE D'AMICOS THESIS
	I:11:12		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:13		13	4	1	1	1	9	0	DIANE D'AMICOS THESIS
	I:11:14		13	6	1	2	2	9	0	DIANE D'AMICOS THESIS
	I:11:15		13	6	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:16		13	2	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:17		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:18		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:19		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:20	GRASS TANKS	13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:21		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:22		13	0	1	1	2	9	0	DIANE D'AMICOS THESIS
	I:11:23		13	5	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:24		13	5	1	3	8	9	0	DIANE D'AMICOS THESIS
	I:11:25		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:26		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:27		13	0	1	1	1	9	0	DIANE D'AMICOS THESIS
	I:11:28		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:29; NA 886	LEBARON SITE	13	2	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:11:30		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:12:1		13	5	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:12:2		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	I:12:3		13	6	2	1	2	9	0	DIANE D'AMICOS THESIS
	I:12:4		13	4	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:12:5		13	3	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:15:170		13	0	1	1	2	9	0	DIANE D'AMICOS THESIS
	I:15:171		13	6	1	0	3	9	0	DIANE D'AMICOS THESIS
	I:15:172		13	0	1	0	0	9	0	DIANE D'AMICOS THESIS
	I:15:173		13	6	1	6	12	9	0	DIANE D'AMICOS THESIS
	I:15:174		13	5	3	0	0	9	0	DIANE D'AMICOS THESIS
	I:15:175		13	0	3	0	0	9	0	DIANE D'AMICOS THESIS
	NA 3990; O:4:3	ANDERSON CANYON FORT	13	2	1	0	0	9	0	DIANE D'AMICOS THESIS
	NA 658; NA 659; (O:4:1 & O:4:2) = (SAME AS ASU O:4:1)	CHAVEZ PASS	13	2	1	0	0	9	0	DIANE D'AMICOS THESIS
	472		0	0	1	0	0	0	0	MNA
	538	KIVA MESA	0	2	1	0	0	0	0	MNA
	550	PICTURE COVE	0	0	1	0	0	0	0	MNA
	612	2ND SINK	0	5	0	0	0	0	0	MNA
	949		0	6	1	0	0	0	0	MNA
	975		0	2	1	0	0	0	0	MNA
	1166		0	6	1	0	0	0	0	MNA
	1168	INSCRIPTION ROCK	0	26	1	0	0	0	0	MNA
	1169	PIVA HONG KIAPI	0	0	1	0	0	0	0	MNA
	1553		0	0	1	0	0	0	0	MNA
	1747	3 TURKEY CAVE	0	5	2	0	3	0	0	MNA
	1816 TO 1818 (3 SITES)		0	0	1	0	0	0	0	MNA
	2103		0	2	1	0	0	0	0	MNA
	2116		0	2	1	0	0	0	0	MNA
	2211; 2212	HUKOVI	0	2	1	0	0	0	0	MNA
	2197		0	0	1	0	0	0	0	MNA
	2336		14	2	1	0	0	0	0	MNA
	2390		0	4	1	0	0	0	0	MNA
	2475		0	2	1	0	0	0	0	MNA
	2516		0	5	2	0	0	0	0	MNA
	2502		0	0	2	0	3	0	0	MNA
	2531	BAT WOMAN HOUSE	0	2	2	0	0	0	0	MNA

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
I:7:7	2562	INSCRIPTION POINT	13	0	1	103	0	12	9	MNA
	2642		0	5	1	0	0	0	0	MNA
	2673		0	0	1	0	0	0	0	MNA
	2689 (SAME AS NA 5371)		0	4	2	0	0	0	0	MNA
	2940		0	0	1	0	0	0	0	MNA
	2948		0	2	1	0	0	0	0	MNA
	3117		0	5	1	0	0	0	0	MNA
	3141		0	13	1	0	0	0	0	MNA
	3218		0	2	1	0	0	0	0	MNA
	3242 - 3244		0	4	3	0	0	0	0	MNA
	3247		0	4	2	0	0	0	0	MNA
	3365	BLACK HILL	0	2	2	0	0	0	0	MNA
	3354	ROCK TANK	0	4	2	0	0	10	0	MNA
	3598		0	0	1	0	0	10	0	MNA
	3709		0	0	1	0	0	0	0	MNA
	3712		0	0	1	0	0	0	0	MNA
	3714		0	4	1	0	0	0	0	MNA
	3717		0	6	1	0	0	0	0	MNA
	3742		0	0	1	0	0	0	0	MNA
	3744		0	0	1	0	0	0	0	MNA
	3782		11	6	1	0	0	0	0	MNA
	3904		0	0	1	0	0	0	0	MNA
	3944		0	0	1	0	0	0	0	MNA
	3991		0	4	1	0	0	0	0	MNA
	5458; NA 8067	PICTOGRAPH CAVE	0	0	1	0	0	17	0	MNA
	4492		0	0	1	0	0	0	0	MNA
	4493		13	0	1	1	9	9	0	MNA
	4627, 4628		0	0	1	0	0	0	0	MNA
	4638		0	2	1	0	0	0	0	MNA
	4752		0	0	1	0	0	0	0	MNA
	4871		0	5	1	0	0	0	0	MNA
	5158		0	0	1	0	0	0	0	MNA
	5352	INSCRIPTION CANYON	0	0	1	0	0	0	0	MNA
	5350; I:15:169	LITTLE WALNUT	0	0	1	0	0	0	0	MNA

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	5342	TOLCHACO ROAD	0	0	1	0	0	0	0	MNA
	5345	DOVE TANK	0	0	1	0	0	0	0	MNA
	5356		0	0	1	0	0	0	0	MNA
	5358	FORGOTTEN CANYON	0	0	1	0	0	0	0	MNA
	5363		0	0	1	0	0	0	0	MNA
	5373		0	0	1	0	0	0	0	MNA
	5603		0	0	1	0	0	22	0	MNA
	5859		12	3	1	0	0	22	0	MNA
	5835		9	4	2	0	0	0	0	MNA
	6340	BALANCED ROCK CAVE	9	4	1	0	0	0	0	MNA
	6341		9	4	1	0	0	0	0	MNA
	6342	KEY HOLE CAVE	9	4	2	0	0	0	0	MNA
	6343		0	2	1	0	0	0	0	MNA
	6344		0	2	1	0	0	0	0	MNA
	6389		0	2	1	0	0	0	0	MNA
	6390		0	4	2	0	0	0	0	MNA
	6391 - 6393		0	0	3	0	0	0	0	MNA
	6410		0	0	1	0	0	0	0	MNA
	6415, 6419, 6420, 6423, 6425		0	0	1	0	0	0	0	MNA
	6457, 6469		0	6	1	0	0	0	0	MNA
	6497		0	0	2	0	0	0	0	MNA
	6514, 6534 - 6536		0	2	1	0	0	12	22	MNA
	6555, 6556		0	0	2	0	0	12	22	MNA
	6558		0	0	2	0	0	0	0	MNA
	6592		0	3	2	0	0	0	0	MNA
	6595	BEAM HOLE SITE	0	0	1	0	0	0	0	MNA
	6650		0	0	3	0	0	0	0	MNA
	6649		0	0	1	0	0	0	0	MNA
	6980		0	0	1	0	0	0	0	MNA
	6996	GOODWATER PETRO SITE	0	0	1	0	0	0	0	MNA
	7028		0	0	1	0	0	0	0	MNA
	7306	OYA KANUTE PAINT CAVE	0	6	2	0	0	26	13	MNA
	7307		0	4	2	0	0	26	13	MNA
	7354 - 7359		0	0	1	0	0	0	0	MNA

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	8054		13	0	3	0	0	2	0	MNA
	8067, 8069	HOUSE OF HANDS	0	0	1	0	0	0	0	MNA
	8159		0	0	1	0	0	0	0	MNA
	8178		0	0	1	0	0	0	0	MNA
	8582, 8583, 8792, 8952 -8954, 8989		0	0	1	0	0	0	0	MNA
	8626		0	2	1	0	0	0	0	MNA
	8662 - 8665		14	6	1	0	0	0	0	MNA
	8681, 8686		14	2	1	0	0	0	0	MNA
	9034		13	4	1	0	0	0	0	MNA
	9214		0	4	1	0	0	10	0	MNA
	9217		0	4	1	0	0	10	0	MNA
	9239, 9240		0	0	1	0	0	36	22	MNA
	9707, 9708		13	0	1	0	0	0	0	MNA
	9729		0	0	1	0	0	0	0	MNA
	9780		0	3	1	0	0	5	21	MNA
	9786		13	6	1	0	0	0	0	MNA
	9792, 9793		13	0	1	0	0	0	0	MNA
	O:5:38, MNA 10052		0	0	1	1	0	2	0	MNA
	P:12:3, MNA 10517		0	0	1	0	0	33	0	MNA
	P:8:1, MNA 10518		0	2	1	0	0	33	0	MNA
	I:7:15, MNA 10526		0	0	1	1	0	33	0	MNA
	J:14:4-7, MNA 10571-10574, NA 926		0	2	1	0	0	23	0	MNA
	C:7:5-6 (BIA)		0	2	1	0	0	22	0	MNA
	D:7:52,58; MNA 10616,10617	FEWKES RUIN	0	2	1	0	0	12	0	MNA
	O:8:6-8; MNA 10715-10717		0	0	3	0	0	9	0	MNA
	D:7:150; MNA 10861		0	6	1	0	0	12	0	MNA
	D:7:159; MNA 10870		0	2	1	0	0	12	0	MNA
	D:7:177,180,191,192,198; MNA 10888,91,902,903,909		0	0	3	0	0	22	27	MNA
	UTAH V:13:271; MNA 10948	REGISTER ROCK (GRCA N.P.)	0	0	1	0	0	26	0	MNA
	NEW MEXICO G:14:2; MNA 11011		0	0	2	0	0	20	0	MNA
	I:2:8; MNA 11273		0	4	2	0	0	33	0	MNA
	N:16:35; MNA 11434		0	2	1	0	0	5	0	MNA
	W:16:2; MNA 11471		0	3	1	0	0	33	0	MNA

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	W:16:3; MNA 11501		0	3	1	0	0	33	0	MNA
	N:16:69; MNA 11596		0	2	1	0	0	5	0	MNA
	N:16:79; MNA 11647		0	4	1	0	0	33	0	MNA
	P:3:6; MNA 11809		0	0	1	0	0	33	0	MNA
	P:3:9-14,16,18; MNA 11812-11817, 11819,11821		0	6	1	0	0	33	0	MNA
	P:6:4,5,7; MNA 11910,11911,11914		0	4	3	0	0	12	0	MNA
	D:7:225-228,237,241-243; MNA 11943-46,55,63-65		14	4	3	0	0	12	22	MNA
	D:7:293,367; MNA 12015,12089		14	6	3	0	0	12	0	MNA
	D:7:496,513,514; MNA 12218,12235,12236		14	2	1	0	0	12	0	MNA
	D:7:522,523; MNA 12244,45,60,65,66		14	2	3	0	0	12	22	MNA
	MNA 12354,12358		14	0	1	0	0	22	26	MNA
	MNA 12390,12391,12394-98,12406,12407		14	2	3	0	0	22	27	MNA
	T:9:3,5-10; MNA 12474,12476-81		14	3	1	0	0	2	0	MNA
	O:6:18; MNA 12534		0	5	1	0	0	9	21	MNA
	N:16:97; MNA 12553		0	2	1	0	0	5	0	MNA
	N:16:98; MNA 12555		0	2	1	0	0	5	0	MNA
	N:16:100		0	2	1	0	0	5	0	MNA
	T:9:53		0	0	0	0	0	0	0	MNA
	V:5:1; MNA 12630		0	0	1	0	0	33	0	MNA
	P:8:61; MNA 12683		0	0	1	0	0	33	0	MNA
	P:8:13,20; MNA 12710,12717		0	2	1	0	0	19	0	MNA
	B:16:31; MNA 12804		0	0	1	0	0	13	0	MNA
	C:2:21,23-25,C:1:317-321; MNA 12842,12844-51	PARIA CANYON SURVEY	0	6	1	0	0	26	33	MNA
	P:4:3; MNA 12857		0	0	1	0	0	33	0	MNA
	MNA 13012,13,15,16,19,20-22,30-32		0	6	1	0	0	19	0	MNA
	MNA 13045,46,48,50,55,57-60		0	2	1	0	0	19	0	MNA
	M:8:8; MNA 13162		0	6	1	0	0	33	0	MNA
	N:16:143,146; MNA 13327,13330		0	2	1	0	0	33	0	MNA
	N:16:154,155; MNA 13338, 13339		0	0	1	0	0	33	0	MNA
	N:9:7		0	0	1	0	0	33	0	MNA
	E:4:?		0	0	2	0	0	26	0	MNA
	N:6:35,36		0	0	1	0	0	33	0	MNA

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	N:7:9	HUDDLESTON PETROGLYPH SITE	0	0	1	0	0	33	0	MNA
	N:8:25	CAMP VOSBURGH	0	0	1	0	0	33	0	MNA
	T:10:6		0	0	1	0	5	2	0	MNA
	N:14:5		0	0	1	0	0	33	0	MNA
	P:3:45		0	0	1	0	0	33	0	MNA
	T:14:4		0	0	1	0	0	33	0	MNA
	N:9:12		0	0	1	1	0	33	0	MNA
	E:15:40		0	0	2	0	0	12	23	MNA
	E:15:48,49,52		0	6	2	2	0	12	23	MNA
	N:5:15,16		0	0	1	0	0	33	0	MNA
	H:13:12		0	0	1	0	0	33	0	MNA
	H:13:24		0	2	1	0	0	33	0	MNA
	H:13:28		0	6	1	0	0	33	0	MNA
	N:16:180		0	0	1	0	0	33	0	MNA
	J:14:27,41-51,58		0	6	1	50	0	12	23	MNA
	H:14:25		0	5	1	0	0	33	0	MNA
	I:14:409		0	4	1	40	0	9	0	MNA
	H:10:9		0	0	0	0	0	0	0	MNA
	MNA 20527,20548		0	4	2	0	0	22	0	MNA
	J:4:16(NAU)		0	6	1	0	0	33	0	NAU
	K:8:13(NAU)		0	9	2	0	0	22	0	NAU
	K:13:2(NAU)		0	0	0	0	0	33	0	NAU
	O:5:18(NAU)		0	0	1	0	0	33	0	NAU
	Q:11:24		15	0	1	0	0	33	0	NAU
	Q:11:42		0	0	0	0	0	33	0	NAU
	MNA 2835; WS-80		13	2	1	3	0	18	0	WUPATKI N.M.
	MNA 2836,2837; WS-81		13	2	1	4	0	18	0	WUPATKI N.M.
	MNA 17070; WS-105		13	0	1	3	11	33	0	WUPATKI N.M.
	MNA 17077; WS-112		13	2	1	7	16	18	0	WUPATKI N.M.
	MNA 17078; WS-113		13	3	1	1	1	18	0	WUPATKI N.M.
	MNA 17084; WS-119		13	3	1	1	15	18	0	WUPATKI N.M.
	MNA 17092; WS-128		13	3	1	1	5	18	0	WUPATKI N.M.
	MNA 17111; WS-153		13	0	1	2	0	18	26	WUPATKI N.M.
	MNA 17113; WS-155		13	3	1	4	8	18	0	WUPATKI N.M.

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	MNA 17114; WS-156		13	3	1	11	0	18	0	WUPATKI N.M.
	MNA 2996; WS-158		13	3	1	2	5	18	0	WUPATKI N.M.
	MNA 17115; WS-159		13	3	1	5	0	18	0	WUPATKI N.M.
	MNA 17116; WS-160		13	3	1	15	25	18	0	WUPATKI N.M.
	MNA 17117; WS-161		13	0	1	11	0	33	0	WUPATKI N.M.
	MNA 17417; WS-300		13	2	1	1	1	18	0	WUPATKI N.M.
	MNA 17418; WS-301		13	3	1	4	31	18	0	WUPATKI N.M.
	MNA 17495; WS-380		13	4	1	1	13	18	0	WUPATKI N.M.
	MNA 17597; WS-493		13	2	1	2	2	18	0	WUPATKI N.M.
	MNA 17637; WS-537		13	2	1	3	0	18	0	WUPATKI N.M.
	MNA 17716; WS-616		13	2	1	5	11	18	0	WUPATKI N.M.
	MNA 17759; WS-660		13	0	1	1	2	33	0	WUPATKI N.M.
	MNA 17853; WS-694		13	4	1	1	0	18	0	WUPATKI N.M.
	MNA 20782; WS-783		13	4	1	1	5	18	0	WUPATKI N.M.
	MNA 20784; WS-785		13	0	1	1	14	33	0	WUPATKI N.M.
	MNA 23580; WS-835		13	0	1	4	26	33	0	WUPATKI N.M.
	MNA 23583; WS-838		13	2	1	9	37	26	33	WUPATKI N.M.
	MNA 790; WS-839		13	2	1	4	25	18	0	WUPATKI N.M.
	MNA 23642; WS-884		13	2	1	3	10	18	0	WUPATKI N.M.
	MNA 23647; WS-889		13	3	1	1	0	18	0	WUPATKI N.M.
	MNA 23654; WS-898		13	4	1	2	2	18	0	WUPATKI N.M.
	MNA 23706; WS-950		13	3	1	1	1	18	0	WUAPTKI N.M.
	MNA 23707; WS-951		13	3	1	9	0	18	0	WUPATKI N.M.
	MNA 23708; WS-952		13	3	1	2	2	18	0	WUPATKI N.M.
	MNA 23802; WS-1042		13	2	1	2	6	18	0	WUPATKI N.M.
	MNA 23830; WS-1071		13	4	1	5	23	18	0	WUPATKI N.M.
	MNA 2767; WS-1107		13	2	1	1	1	18	0	WUPATKI N.M.
	MNA 23935; WS-1162		13	4	1	1	1	18	0	WUPATKI N.M.
	MNA 23950; WS-1177		13	2	1	1	3	18	0	WUPATKI N.M.
	MNA 23957; WS-1184		13	3	1	1	1	33	0	WUPATKI N.M.
	MNA 24023; WS-1243		13	3	1	4	9	18	0	WUPATKI N.M.
	WS-1290		13	3	1	1	6	33	0	WUPATKI N.M.
	WS-1366		13	3	1	1	1	18	0	WUPATKI N.M.
	WS-1383		13	2	1	1	1	18	0	WUPATKI N.M.

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	MNA 407; WS-1395		13	2	1	1	1	18	0	WUPATKI N.M.
	WS-1437		13	2	1	1	8	18	0	WUPATKI N.M.
	MNA 2766; WS-1445		13	4	1	4	9	18	0	WUPATKI N.M.
	WS-1452		13	3	1	1	3	18	0	WUPATKI N.M.
	MNA 2752; WS-1460		13	2	1	1	1	18	0	WUPATKI N.M.
	MNA 656; WS-1556		13	2	1	2	12	18	0	WUPATKI N.M.
	MNA 2968; WS-1562		13	3	1	1	1	33	0	WUPATKI N.M.
	WS-1571		13	3	1	1	0	18	0	WUPATKI N.M.
	WS-1605		13	3	1	1	1	18	0	WUPATKI N.M.
	MNA 363; WS-1624		13	3	1	1	1	18	0	WUPATKI N.M.
	MNA 360; WS-1635		13	2	1	2	2	18	0	WUPATKI N.M.
	MNA 373; WS-1636		13	2	1	5	12	18	0	WUPATKI N.M.
	MNA 370; WS-1639		13	3	1	1	16	18	0	WUPATKI N.M.
	MNA 368; WS-1645		13	2	1	2	11	18	0	WUPATKI N.M.
	WS-1652		13	3	1	2	5	18	0	WUPATKI N.M.
	WS-1654		13	3	1	1	3	18	0	WUPATKI N.M.
	MNA 1188; WS-1678		13	2	1	1	4	33	26	WUPATKI N.M.
	MNA 354A; WS-1688		13	2	1	3	31	18	0	WUPATKI N.M.
	MNA 2865; WS-1718		13	2	1	2	0	18	0	WUPATKI N.M.
	MNA 352; WS-1736		13	2	1	2	0	18	0	WUPATKI N.M.
	WS-1739		13	3	1	3	17	18	0	WUPATKI N.M.
	WS-1741		13	3	1	1	2	18	0	WUPATKI N.M.
	WS-1763		13	0	1	1	1	33	0	WUPATKI N.M.
	WS-1764		13	3	1	1	1	18	0	WUPATKI N.M.
	WS-1803		13	0	1	1	3	33	0	WUPATKI N.M.
	WS-1834		13	2	1	2	7	33	26	WUPATKI N.M.
	WS-1835		13	3	1	1	1	33	26	WUPATKI N.M.
	WS-1929		13	4	1	1	11	18	0	WUPATKI N.M.
	WS-2039		13	0	1	2	29	18	0	WUPATKI N.M.
	WS-2054		13	0	1	2	2	18	0	WUPATKI N.M.
	WS-2056		13	4	3	19	95	33	0	WUPATKI N.M.
	WS-2121		13	0	1	3	17	33	0	WUPATKI N.M.
	WS-2176		13	2	1	2	3	18	0	WUPATKI N.M.
	WS-2178		13	3	1	1	18	18	0	WUPATKI N.M.

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	WS-2179		13	0	1	6	14	33	0	WUPATKI N.M.
	WS-2237		13	4	1	3	0	18	0	WUPATKI N.M.
	WS-2364		13	4	1	2	2	18	0	WUPATKI N.M.
	WS-2434		13	0	1	1	6	33	0	WUPATKI N.M.
	MNA 4670; WS-2478		13	3	1	4	19	18	0	WUPATKI N.M.
	WS-2559		13	3	1	1	3	18	0	WUPATKI N.M.
	MNA 17425; WS-308		13	0	1	2	19	33	26	WUPATKI N.M.
	MNA 20774; WS-775		13	0	1	2	34	33	26	WUPATKI N.M.
	MNA 537; WS-831	CRACK-IN-ROCK	13	2	1	16	155	18	26	WUPATKI N.M.
	MNA 538-545; WS-833	MIDDLE MESA	13	2	1	19	189	18	26	WUPATKI N.M.
	MNA 546-554; WS-834	HORSESHOE MESA	13	2	1	72	436	18	26	WUPATKI N.M.
	WS-1578		13	3	1	5	5	18	0	WUPATKI N.M.
	MNA 361; WS-1634		13	2	1	27	0	18	0	WUPATKI N.M.
	WS-1660		13	3	1	7	14	18	0	WUPATKI N.M.
	WS-1677		13	0	1	1	4	33	0	WUPATKI N.M.
	WS-1747		13	4	1	1	19	33	26	WUPATKI N.M.
	MNA 632; WS-1762		13	2	1	5	47	18	0	WUPATKI N.M.
	WS-1767		13	0	1	2	21	33	0	WUPATKI N.M.
	WS-1802		13	3	1	1	97	18	0	WUPATKI N.M.
	WS-1808		13	2	1	6	33	18	0	WUPATKI N.M.
	WS-1815		13	2	1	4	0	26	0	WUPATKI N.M.
	WS-1845		13	3	1	7	0	33	0	WUPATKI N.M.
	MNA 17411; WS-294		13	3	1	1	1	26	0	WUPATKI N.M.
	MNA 17752; WS-653		13	0	1	5	18	26	0	WUPATKI N.M.
	MNA 20720; WS-720		13	0	1	1	1	26	0	WUPATKI N.M.
	MNA 20732; WS-732		13	0	1	3	11	31	0	WUPATKI N.M.
	MNA 20742; WS-742		13	2	1	2	5	18	0	WUPATKI N.M.
	MNA 20748; WS-748		13	0	1	1	1	26	0	WUPATKI N.M.
	MNA 20771; WS-772		13	0	1	1	2	26	0	WUPATKI N.M.
	MNA 23567; WS-819		13	0	1	2	10	26	0	WUPATKI N.M.
	MNA 23581; WS-836		13	0	1	1	1	33	0	WUPATKI N.M.
	WS-1467		13	0	1	2	2	18	0	WUPATKI N.M.
	WS-1689		13	3	1	1	1	33	0	WUPATKI N.M.
	MNA 379; WS-1692	LOMAKI	13	2	1	2	0	18	0	WUPATKI N.M.

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	WS-1769		13	2	1	1	16	18	26	WUPATKI N.M.
	WS-1770		13	2	1	1	2	18	0	WUPATKI N.M.
	WS-1843		13	2	1	1	5	26	0	WUPATKI N.M.
	WS-1848		13	2	1	1	0	26	0	WUPATKI N.M.
	WS-1858		13	2	1	1	1	26	0	WUPATKI N.M.
	WS-2301		13	0	1	2	2	33	0	WUPATKI N.M.
	WS-2303		13	2	1	4	8	26	0	WUPATKI N.M.
	WS-2305		13	3	1	1	1	26	0	WUPATKI N.M.
	WS-2309		13	0	1	3	13	26	0	WUPATKI N.M.
	WS-2333		13	0	1	1	1	33	0	WUPATKI N.M.
	WS-2341		13	3	1	1	2	26	0	WUPATKI N.M.
	WS-2342		13	0	1	2	2	33	0	WUPATKI N.M.
	WS-2343		13	0	1	2	8	26	0	WUPATKI N.M.
S:16:42	HJ-13		5	0	1	1	0	2	0	PAINTED ROCKS REPORT
S:16:43	HJ-14		5	0	1	1	0	2	0	PAINTED ROCKS REPORT
S:16:44	HJ-18		5	0	1	1	0	1	2	PAINTED ROCKS REPORT
S:16:45	HJ-19		5	4	1	2	0	1	2	PAINTED ROCKS REPORT
S:16:46	HJ-20		5	0	1	18	0	1	2	PAINTED ROCKS REPORT
S:16:47	HJ-21		5	0	1	1	0	2	0	PAINTED ROCKS REPORT
S:16:48	HJ-37		5	0	1	1	0	2	0	PAINTED ROCKS REPORT
S:16:49	HJ-38		5	0	1	4	0	1	0	PAINTED ROCKS REPORT
S:16:50	HJ-39		5	0	1	16	0	1	2	PAINTED ROCKS REPORT
S:16:51	HJ-40		5	0	1	4	0	2	1	PAINTED ROCKS REPORT
S:16:52	HJ-41		5	0	1	1	0	2	0	PAINTED ROCKS REPORT
S:6:53	HJ-42		5	0	1	1	0	2	0	PAINTED ROCKS REPORT
T:13:8	HJ-15		4	7	1	34	0	2	26	PAINTED ROCKS REPORT
T:13:9	HJ-53	ROCK BALL COURT SITE	4	2	1	29	0	2	0	PAINTED ROCKS REPORT
T:3:34	HJ-2		4	0	1	1	0	2	0	PAINTED ROCKS REPORT
T:13:49	HJ-8		4	6	1	0	0	2	0	PAINTED ROCKS REPORT
T:13:52	HJ-1		4	0	1	1	0	2	0	PAINTED ROCKS REPORT
T:13:53	HJ-6		4	6	1	4	0	2	0	PAINTED ROCKS REPORT
T:13:54	HJ-7		4	0	1	19	0	1	2	PAINTED ROCKS REPORT
T:13:56	HJ-11		4	0	1	1	0	2	0	PAINTED ROCKS REPORT
T:13:57	HJ-23		4	6	1	6	0	1	2	PAINTED ROCKS REPORT

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
T:13:58	HJ-24		4	0	1	16	0	1	2	PAINTED ROCKS REPORT
T:13:59	HJ-25		4	0	1	14	0	2	0	PAINTED ROCKS REPORT
T:13:60	HJ-36		4	6	1	6	0	2	7	PAINTED ROCKS REPORT
T:13:66	HJ-3		4	3	1	6	0	2	0	PAINTED ROCKS REPORT
T:13:67	HJ-4,5		4	3	1	3	0	2	0	PAINTED ROCKS REPORT
T:13:69	HJ-16		4	11	1	3	0	2	0	PAINTED ROCKS REPORT
T:13:70	HJ-70		4	14	1	4	0	2	0	PAINTED ROCKS REPORT
T:14:8		COBBLE MTN. SITE	4	2	1	326	0	1	2	PAINTED ROCKS REPORT
T:14:32		GATE SITE	4	6	1	2	4	2	0	PAINTED ROCKS REPORT
T:14:33			4	4	1	196	0	1	2	PAINTED ROCKS REPORT
T:14:37	GB-10		4	6	1	4	4	2	0	PAINTED ROCKS REPORT
T:14:40	HJ-26		4	4	1	2	0	2	7	PAINTED ROCKS REPORT
T:14:41	HJ-27		4	0	1	58	0	1	2	PAINTED ROCKS REPORT
T:14:42	HJ-28		4	4	3	3	0	7	0	PAINTED ROCKS REPORT
T:14:43	HJ-29		4	0	1	6	0	2	7	PAINTED ROCKS REPORT
T:14:44	HJ-30		4	0	1	6	0	2	7	PAINTED ROCKS REPORT
T:14:45	HJ-31		4	3	1	7	0	2	0	PAINTED ROCKS REPORT
T:14:46	HJ-32		4	3	1	73	0	2	0	PAINTED ROCKS REPORT
T:14:47	HJ-33		4	6	1	3	0	2	0	PAINTED ROCKS REPORT
T:14:48	HJ-34		4	6	1	23	0	2	26	PAINTED ROCKS REPORT
T:14:49	HJ-35		4	0	1	67	0	2	0	PAINTED ROCKS REPORT
T:14:54	PI-2		4	0	1	1	5	1	2	PAINTED ROCKS REPORT
T:14:55	PI-3		4	0	1	1	1	2	0	PAINTED ROCKS REPORT
T:14:56	PI-4		4	0	1	1	1	2	0	PAINTED ROCKS REPORT
T:14:57	PI-5		4	14	1	2	2	2	26	PAINTED ROCKS REPORT
Z:1:20	HJ-46		4	3	1	86	0	1	2	PAINTED ROCKS REPORT
T:13:12	HJ-22		4	2	5	0	0	2	7	PAINTED ROCKS REPORT
T:13:65	HJ-52		4	14	5	0	0	7	0	PAINTED ROCKS REPORT
T:13:68	HJ-9		4	0	4	0	0	7	0	PAINTED ROCKS REPORT
AA:7:27			6	3	1	3	3	2	0	PICACHO MTNS. REPORT
	TAP-1		6	0	0	1	1	0	0	PICACHO MTNS. REPORT
AA:7:51			6	2	1	3	13	1	2	PICACHO MTNS. REPORT
AA:3:18		PICACHO POINT	6	6	3	0	1115	2	31	PICACHO MTNS. REPORT
	TAP-25		6	6	1	1	1	2	26	PICACHO MTNS. REPORT

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	TAP-29		6	6	1	2	4	2	0	PICACHO MTNS. REPORT
AA:3:123			6	3	1	2	11	2	0	PICACHO MTNS. REPORT
AA:3:41			6	3	1	21	117	2	0	PICACHO MTNS. REPORT
AA:3:8		NORTH PASS	6	4	1	610	1845	2	0	PICACHO MTNS. REPORT
AA:3:42A		SHELTER GAP	6	6	1	0	145	2	0	PICACHO MTNS. REPORT
AA:3:42B		SHELTER GAP	6	6	1	0	718	2	0	PICACHO MTNS. REPORT
AA:3:42D		SHELTER GAP	6	6	1	10	5	2	0	PICACHO MTNS. REPORT
AA:3:42E		SHELTER GAP	6	6	1	4	5	2	0	PICACHO MTNS. REPORT
AA:3:42F		SHELTER GAP	6	6	1	17	36	2	0	PICACHO MTNS. REPORT
	TAP-3	SHEEP	6	0	0	2	4	0	0	PICACHO MTNS. REPORT
		KISTO MTN.	6	0	0	0	100	1	2	PICACHO MTNS. REPORT
	TAP-26		6	0	0	0	15	2	0	PICACHO MTNS. REPORT
	TAP-28		6	7	0	1	3	0	0	PICACHO MTNS. REPORT
	TAP-31		6	0	0	1	10	0	0	PICACHO MTNS. REPORT
AA:7:44		HALE'S LIZARD HILL	6	3	0	0	150	0	0	PICACHO MTNS. REPORT
AA:3:107			6	6	1	6	20	2	0	PICACHO MTNS. REPORT
	11/6		6	0	0	1	1	0	0	PICACHO MTNS. REPORT
AA:3:124			6	6	0	1	1	2	0	PICACHO MTNS. REPORT
		SOUTH MTN. PARK	5	0	1	0	0	2	0	PUEBLO GRANDE MUSEUM
		SOUTH MTN. PARK	5	0	1	0	0	2	0	PUEBLO GRANDE MUSEUM
		SOUTH MTN. PARK	5	0	1	0	0	2	0	PUEBLO GRANDE MUSEUM
	T:12:41(ASU)	SOUTH MTN. PARK	5	6	1	2	10	2	0	PUEBLO GRANDE MUSEUM
	T:12:46(ASU)	SOUTH MTN. PARK	5	9	1	13	7	2	0	PUEBLO GRANDE MUSEUM
	T:12:47(ASU)	SOUTH MTN. PARK	5	9	1	4	4	2	0	PUEBLO GRANDE MUSEUM
	1187 (SHPO)	SOUTH MTN. PARK	5	0	1	0	0	2	0	PUEBLO GRANDE MUSEUM
		SOUTH MTN. PARK	5	0	1	0	0	2	0	PUEBLO GRANDE MUSEUM
	1188 (SHPO); 26(ASU)	SOUTH MTN. PARK	5	0	1	0	0	2	0	PUEBLO GRANDE MUSEUM
	48,1184,1185,1186(ASU)	SOUTH MTN. PARK	5	0	1	0	0	2	0	PUEBLO GRANDE MUSEUM
	T:12:59(ASU)	SOUTH MTN. PARK	5	0	1	7	21	2	26	PUEBLO GRANDE MUSEUM
	BLM U:9:1 (020-1299)	SOUTH MTN. PARK	5	6	1	0	0	2	0	PUEBLO GRANDE MUSEUM
AA:11:39			1	0	1	0	10	1	2	AZSITE(ASM)
AA:11:40			1	3	1	0	5	1	2	AZSITE(ASM)
AA:12:116			1	0	1	3	30	2	0	AZSITE(ASM)
AA:12:134			1	8	1	0	0	2	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
AA:12:136			1	3	2	0	1	2	0	AZSITE(ASM)
AA:12:152			1	3	1	0	3	2	32	AZSITE(ASM)
AA:12:170			1	2	1	0	0	2	0	AZSITE(ASM)
AA:12:182			1	3	1	0	2	2	0	AZSITE(ASM)
AA:12:239			1	6	1	1	0	2	26	AZSITE(ASM)
AA:12:273			1	6	1	0	1	33	0	AZSITE(ASM)
AA:12:274			1	3	1	0	5	33	0	AZSITE(ASM)
AA:12:309			1	0	1	6	12	33	0	AZSITE(ASM)
AA:12:386			1	0	1	0	0	2	0	AZSITE(ASM)
AA:12:405			1	0	0	0	0	0	0	AZSITE(ASM)
AA:12:413			1	0	0	0	0	0	0	AZSITE(ASM)
AA:12:418			1	0	0	0	0	0	0	AZSITE(ASM)
AA:12:419			1	0	0	0	0	0	0	AZSITE(ASM)
AA:12:421			1	0	0	0	0	0	0	AZSITE(ASM)
AA:12:426			1	0	0	0	0	0	0	AZSITE(ASM)
AA:12:428			1	0	0	0	0	0	0	AZSITE(ASM)
AA:12:431			1	0	0	0	0	0	0	AZSITE(ASM)
AA:12:437			1	0	0	0	0	0	0	AZSITE(ASM)
AA:12:495			1	6	1	0	0	2	0	AZSITE(ASM)
AA:12:498			1	3	1	1	59	1	2	AZSITE(ASM)
AA:12:500			1	3	1	2	0	2	0	AZSITE(ASM)
AA:12:505			1	0	1	2	0	2	0	AZSITE(ASM)
AA:12:57		LOS MORTEROS	1	2	1	0	0	2	0	AZSITE(ASM)
AA:12:60			1	5	2	0	0	2	0	AZSITE(ASM)
AA:12:62		PICTURE ROCKS	1	4	1	0	0	2	0	AZSITE(ASM)
AA:12:63			1	0	1	0	0	2	25	AZSITE(ASM)
AA:12:64			1	3	1	0	0	2	0	AZSITE(ASM)
AA:12:65			1	0	1	0	0	2	0	AZSITE(ASM)
AA:12:66			1	0	1	0	0	2	0	AZSITE(ASM)
AA:12:73		HUNTINGTON SITE	1	2	1	0	0	2	0	AZSITE(ASM)
AA:12:80			1	0	1	0	0	33	0	AZSITE(ASM)
AA:12:81			1	0	1	0	0	33	0	AZSITE(ASM)
AA:12:84			1	4	1	0	0	33	0	AZSITE(ASM)
AA:13:9			1	2	1	2	0	2	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
AA:15:1		BLACKSTONE RUIN	1	2	1	0	0	33	0	AZSITE(ASM)
AA:15:3			1	2	1	0	0	1	2	AZSITE(ASM)
AA:16:12		BLACK MTN. TOP	1	7	2	0	0	1	25	AZSITE(ASM)
AA:16:137			1	6	1	0	0	33	0	AZSITE(ASM)
AA:16:16			1	5	2	0	0	33	0	AZSITE(ASM)
AA:16:168			1	0	1	1	1	33	0	AZSITE(ASM)
AA:16:171			1	6	1	0	0	2	0	AZSITE(ASM)
AA:16:186			1	0	1	2	0	1	2	AZSITE(ASM)
AA:16:318			1	0	0	0	0	0	0	AZSITE(ASM)
AA:16:38			1	0	0	0	0	2	0	AZSITE(ASM)
AA:16:41			1	0	1	0	0	1	2	AZSITE(ASM)
AA:16:6		TUMAMOC HILL	1	0	0	0	0	1	2	AZSITE(ASM)
AA:16:92			1	0	1	0	0	2	0	AZSITE(ASM)
AA:16:93			1	0	1	0	0	2	0	AZSITE(ASM)
AA:3:107			6	0	1	5	27	2	0	AZSITE(ASM)
AA:3:121		KISTO SITE	6	6	1	0	145	1	2	AZSITE(ASM)
AA:3:122			6	0	1	2	10	2	0	AZSITE(ASM)
AA:3:123			6	0	1	2	11	2	0	AZSITE(ASM)
AA:3:124	TAP-29		6	0	1	2	4	2	0	AZSITE(ASM)
AA:3:18			6	0	1	0	0	2	0	AZSITE(ASM)
AA:3:41			6	6	1	0	0	2	0	AZSITE(ASM)
AA:3:42			6	0	1	0	0	2	0	AZSITE(ASM)
AA:3:60			6	0	0	0	0	0	0	AZSITE(ASM)
AA:3:8			6	0	1	0	0	33	0	AZSITE(ASM)
AA:5:52	TGE-20		6	0	1	0	0	2	0	AZSITE(ASM)
AA:6:13		PREGNANT WOMAN	6	0	1	0	0	2	33	AZSITE(ASM)
AA:6:4			6	4	1	0	0	2	0	AZSITE(ASM)
AA:7:11			6	0	0	0	0	33	0	AZSITE(ASM)
AA:7:13			6	0	1	0	0	2	0	AZSITE(ASM)
AA:7:16			6	0	1	1	0	2	0	AZSITE(ASM)
AA:7:43		CERRO PRIETO	6	3	1	0	0	2	0	AZSITE(ASM)
AA:7:44			6	0	1	0	0	2	0	AZSITE(ASM)
AA:7:45			6	3	1	0	0	2	0	AZSITE(ASM)
AA:7:51			6	0	1	1	6	2	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
AA:7:8			6	0	2	0	0	33	0	AZSITE(ASM)
AA:7:81			6	0	0	0	0	0	0	AZSITE(ASM)
AA:7:85			6	6	1	1	1	2	0	AZSITE(ASM)
AA:7:86		LA CUESTA	6	6	1	2	5	2	0	AZSITE(ASM)
AA:7:87			6	6	1	1	1	2	26	AZSITE(ASM)
AA:8:10		BARRILLAS PASS #2	6	0	1	0	4	2	0	AZSITE(ASM)
AA:8:284		BATAMOTE RUIN	6	0	1	0	0	2	5	AZSITE(ASM)
AA:8:4			6	0	1	1	8	2	0	AZSITE(ASM)
BB:10:12			1	0	1	0	0	2	0	AZSITE(ASM)
BB:10:14	CORONADO N.F. #FS 05-103	PRISON SITE GLYPHS OR SOLDIER CANYON	1	3	1	2	7	2	0	AZSITE(ASM)
BB:10:18			1	0	1	1	1	2	0	AZSITE(ASM)
BB:10:34	CORONADO N.F. FS #05-21	LA MILAGROSA FALLS	1	3	1	4	29	2	0	AZSITE(ASM)
BB:10:39	CORONADO N.F. FS #05-19	ITALIAN TRAP	1	10	1	18	77	2	0	AZSITE(ASM)
BB:10:45			1	0	1	0	0	2	0	AZSITE(ASM)
BB:11:4		TAYLOR SITE	7	2	2	0	0	33	0	AZSITE(ASM)
BB:13:121		SENTINEL PEAK/TUMAMOC HILL	1	0	1	0	0	2	0	AZSITE(ASM)
BB:13:135			1	0	1	0	0	2	0	AZSITE(ASM)
BB:13:154			1	0	1	0	2	2	0	AZSITE(ASM)
BB:13:2		MARTINEZ HILL	1	7	1	0	0	2	0	AZSITE(ASM)
BB:14:20	SAGU 84A-243 (NPS)	CONEZ SITE	1	6	1	25	63	2	0	AZSITE(ASM)
BB:14:21			1	3	1	120	500	2	0	AZSITE(ASM)
BB:14:27			1	0	1	0	0	2	0	AZSITE(ASM)
BB:14:28			1	0	1	1	4	2	0	AZSITE(ASM)
BB:14:350			1	2	1	0	2	2	0	AZSITE(ASM)
BB:14:40	SAGU 84A-219	BOX CANYON	1	3	2	1	4	33	0	AZSITE(ASM)
BB:14:9	SAGU 84A-242	4 SAGUAROS ROCKSHELTER OR RINCON CAVE	1	4	2	1	4	33	0	AZSITE(ASM)
BB:16:11		MARBULOS	2	0	1	0	4	33	0	AZSITE(ASM)
BB:16:14			2	3	2	0	0	33	0	AZSITE(ASM)
	BB:16:2(BLM)		2	0	0	0	0	0	0	AZSITE(ASM)
	BB:16:20(AMF)		2	0	0	0	0	0	0	AZSITE(ASM)
	BB:16:22(AMF)		2	0	0	0	0	0	0	AZSITE(ASM)
BB:2:16		MALPAIS HILL	6	4	2	0	30	21	0	AZSITE(ASM)
BB:2:21		PAINTED CAVE RANCH	6	5	2	0	0	27	28	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
BB:2:23			6	4	2	0	0	5	21	AZSITE(ASM)
	BB:2:7(BLM)		6	2	0	0	0	5	0	AZSITE(ASM)
	BB:3:1(BLM)		6	0	0	0	0	33	0	AZSITE(ASM)
	BB:3:13(BLM)		7	0	0	0	0	33	0	AZSITE(ASM)
	BB:3:18(BLM)		6	6	0	0	0	33	0	AZSITE(ASM)
BB:3:26			7	4	3	0	0	33	0	AZSITE(ASM)
BB:5:32		ROCKY POINT	1	0	1	0	1	2	0	AZSITE(ASM)
BB:5:36		LOST YAK	1	2	1	0	0	2	5	AZSITE(ASM)
BB:5:37		SPOT	1	3	1	0	0	2	0	AZSITE(ASM)
BB:5:38		M & M	1	6	1	3	0	2	0	AZSITE(ASM)
BB:7:8		WART NOSE INDIAN GLYPHS	1	6	2	0	15	21	0	AZSITE(ASM)
BB:9:148		HONEYBEE CANYON	1	6	1	0	0	2	0	AZSITE(ASM)
BB:9:159		RANCHO VISTOSO	1	0	1	0	0	2	0	AZSITE(ASM)
BB:9:189		RANCHO VISTOSO	1	0	1	0	0	2	26	AZSITE(ASM)
BB:9:221		DAWSON SITE	1	3	1	0	2	2	0	AZSITE(ASM)
BB:9:225		MOSTLY SNAKES	1	0	1	1	2	2	0	AZSITE(ASM)
	BB:9:3(BLM)	ROONEY RANCH	1	0	0	0	0	2	0	AZSITE(ASM)
BB:9:34			1	4	0	0	0	33	0	AZSITE(ASM)
BB:9:57		MARSHALL	1	0	0	0	0	0	0	AZSITE(ASM)
BB:9:59		LOST & FOUND SITE OR SUTHERLAND WASH #8	1	3	1	198	726	1	2	AZSITE(ASM)
BB:9:66	CORONADO N.F. FS #05-15	SUTHERLAND WASH SITE	1	3	1	77	219	1	2	AZSITE(ASM)
	CC:10:1(BLM)		2	0	0	0	0	0	0	AZSITE(ASM)
	CC:12:1(BLM)	FOSSIL FINDS	2	0	0	0	0	0	0	AZSITE(ASM)
CC:12:11			2	6	2	0	0	33	0	AZSITE(ASM)
CC:12:13	CC:12:6(AMF)		2	4	1	0	0	33	0	AZSITE(ASM)
	CC:12:15(BLM)		2	0	0	0	0	33	0	AZSITE(ASM)
CC:12:8			2	4	2	0	0	1	0	AZSITE(ASM)
CC:1:20			7	0	1	0	0	33	0	AZSITE(ASM)
CC:1:23		LITTLE SPRING GLYPHS	7	0	1	0	0	33	0	AZSITE(ASM)
	CC:1:5(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
CC:2:25		NO NAME WASH GLYPHS	7	0	1	1	1	33	0	AZSITE(ASM)
	CC:2:3(BLM)	CURTIS SITE	7	2	1	0	0	2	0	AZSITE(ASM)
CC:2:63			7	6	1	13	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	CC:3:1(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
	CC:3:14(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
	CC:3:2(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
	CC:4:8(BLM)		8	0	0	0	0	0	0	AZSITE(ASM)
CC:6:1			7	4	0	0	0	33	0	AZSITE(ASM)
	CC:6:12(BLM)		7	0	0	0	0	3	0	AZSITE(ASM)
	CC:6:17(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
	CC:7:5(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
DD:11:2		BORDER MTN. CAVE	3	4	2	0	0	33	0	AZSITE(ASM)
DD:12:34	CORONADO N.F. FS #02-06		3	4	2	20	0	2	26	AZSITE(ASM)
DD:2:17		HAYHOOK RANCH	1	2	3	0	0	2	0	AZSITE(ASM)
DD:2:23		MENDOZA CANYON PAINTED CAVE	1	3	2	0	0	33	0	AZSITE(ASM)
DD:2:31			1	0	0	0	0	0	0	AZSITE(ASM)
DD:2:36			1	0	1	0	0	2	0	AZSITE(ASM)
DD:2:39			1	0	1	0	0	2	25	AZSITE(ASM)
DD:2:4			1	0	2	0	0	33	0	AZSITE(ASM)
DD:3:4			1	0	2	0	0	33	0	AZSITE(ASM)
DD:4:37			1	0	1	0	2	2	0	AZSITE(ASM)
DD:4:78			1	0	1	0	0	26	0	AZSITE(ASM)
DD:6:14			1	0	1	0	0	2	0	AZSITE(ASM)
EE:11:15		GARDEN CANYON PICTOGRAPHS	2	4	2	12	38	2	21	AZSITE(ASM)
EE:11:19	CORONADO N.F. FS #03-26	SUNNYSIDE	2	3	1	4	6	2	0	AZSITE(ASM)
EE:11:30		RAPPEL CLIFFS	2	6	2	10	22	2	3	AZSITE(ASM)
EE:11:7	CORONADO N.F. FS #03-82	BLIND CANYON	2	5	2	3	3	21	26	AZSITE(ASM)
EE:1:84	CORONADO N.F. FS #02-25	HUERFANO BUTTE CACHE	1	3	3	4	37	2	0	AZSITE(ASM)
EE:2:158		THE LONE RANGER	1	8	1	1	1	2	0	AZSITE(ASM)
EE:4:12	CORONADO N.F. FS #01-113,212,213,214,229	COUNCIL ROCKS	2	3	2	12	82	1	3	AZSITE(ASM)
EE:5:12	CORONADO N.F. FS #02-12	MONTOSA CAVERN	3	5	3	4	6	2	21	AZSITE(ASM)
EE:6:14			3	2	2	0	0	21	0	AZSITE(ASM)
EE:6:30	CORONADO N.F. FS #03-21	KUNDE GLYPHS OR GATE SPRINGS	3	0	1	44	91	2	0	AZSITE(ASM)
EE:8:34		APACHE ANNIE HILL	2	3	1	0	0	2	0	AZSITE(ASM)
EE:8:35		SAN PEDRO LONE KNOLL	2	6	1	0	0	2	0	AZSITE(ASM)
EE:8:36			2	0	1	1	2	26	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
EE:9:28			1	3	1	1	5	2	6	AZSITE(ASM)
EE:9:95			3	4	2	1	9	2	0	AZSITE(ASM)
FF:11:57		HOG CANYON	2	4	2	0	21	33	0	AZSITE(ASM)
FF:1:4	CORONADO N.F. FS #01-248	COCHISE STRONGHOLD EAST	2	4	2	6	36	1	3	AZSITE(ASM)
FF:6:12		MUD SPRINGS DRAW	2	4	3	29	134	3	21	AZSITE(ASM)
FF:7:3	CORONADO N.F. FS #01-12	TOM KETCHUM CAVE	2	5	2	28	218	2	0	AZSITE(ASM)
FF:7:6			2	5	1	0	0	33	0	AZSITE(ASM)
FF:8:6		LONE TREE SITE	2	6	1	0	0	33	0	AZSITE(ASM)
R:10:1		RIPLEY'S INTAGLIOS	4	11	4	0	0	33	0	AZSITE(ASM)
	R:11:52(BLM)		10	0	1	0	0	33	0	AZSITE(ASM)
R:14:1	R:14:2(LAKE MEAD?)		4	3	1	0	0	29	0	AZSITE(ASM)
	R:14:20(BLM)		10	0	0	0	0	33	0	AZSITE(ASM)
	R:14:23(BLM)	LIGHTHOUSE ROCK	10	0	1	6	20	33	0	AZSITE(ASM)
R:14:4	R:14:2(BLM)		10	0	1	0	0	33	0	AZSITE(ASM)
	R:4:8(BLM)		10	0	0	0	0	33	0	AZSITE(ASM)
	R:7:1(BLM)		10	0	0	0	0	33	0	AZSITE(ASM)
R:7:32			4	0	0	0	0	33	0	AZSITE(ASM)
	R:7:34(BLM)		10	0	0	0	0	33	0	AZSITE(ASM)
R:7:55	AC-5		4	6	4	0	1	29	0	AZSITE(ASM)
	R:8:1(BLM)	TYSON WASH GLYPHS	10	0	0	0	0	33	0	AZSITE(ASM)
R:8:16			4	0	0	0	0	33	0	AZSITE(ASM)
	R:8:2(BLM)		4	0	0	0	0	33	0	AZSITE(ASM)
S:11:1			4	0	1	0	0	2	0	AZSITE(ASM)
	S:11:1(BLM)		4	0	0	0	0	33	0	AZSITE(ASM)
S:12:1			5	0	1	15	3	1	2	AZSITE(ASM)
S:13:2			4	6	2	1	0	33	0	AZSITE(ASM)
	S:14:14(BLM)		4	0	0	0	0	33	0	AZSITE(ASM)
	S:14:26(BLM)		4	0	0	0	0	33	0	AZSITE(ASM)
	S:14:28(BLM)		4	0	0	0	0	33	0	AZSITE(ASM)
	S:14:29(BLM)		4	0	0	0	0	33	0	AZSITE(ASM)
S:16:1		PAINTED ROCKS	5	15	2	0	0	2	27	AZSITE(ASM)
S:16:36			5	6	1	0	0	1	33	AZSITE(ASM)
S:16:6			5	0	0	0	0	33	0	AZSITE(ASM)
	S:1:10(BLM)		10	0	0	0	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	S:1:3(BLM)		10	0	0	0	0	33	0	AZSITE(ASM)
	S:2:6(BLM)		4	0	0	0	0	33	0	AZSITE(ASM)
	S:3:2(BLM)		4	0	0	0	0	33	0	AZSITE(ASM)
	S:6:2(BLM)		10	0	0	0	0	33	0	AZSITE(ASM)
	S:6:3(BLM)		4	0	0	0	0	33	0	AZSITE(ASM)
T:10:2			5	6	1	0	0	2	0	AZSITE(ASM)
T:10:34	T:10:35(ASU)		5	3	1	0	0	2	0	AZSITE(ASM)
T:10:35	T:10:36(ASU)		5	6	1	0	0	2	0	AZSITE(ASM)
T:10:37	T:10:38(ASU)		5	6	1	0	0	2	0	AZSITE(ASM)
T:10:45	T:10:34(ASU)		5	11	1	0	0	2	0	AZSITE(ASM)
T:10:53	MNA 12486, T:10:14(NA)		5	11	1	1	1	2	0	AZSITE(ASM)
T:10:57	MNA 13602, T:10:4(NA)		5	11	1	0	3	2	0	AZSITE(ASM)
T:10:6	A:10:1-4(GP)	ROBBINS BUTTE	5	6	1	0	0	2	0	AZSITE(ASM)
T:11:13			5	6	1	0	2	2	0	AZSITE(ASM)
T:11:25			5	6	1	0	5	2	0	AZSITE(ASM)
T:11:29			5	6	1	0	0	2	0	AZSITE(ASM)
T:11:31			5	6	1	0	0	2	0	AZSITE(ASM)
T:12:11	GR NO.5		5	0	1	0	0	2	0	AZSITE(ASM)
T:12:12	GR NO.7		5	0	1	0	0	2	0	AZSITE(ASM)
T:12:7		SOUTH MOUNTAIN PARK	5	0	1	0	5	2	26	AZSITE(ASM)
T:12:8		SOUTH MOUNTAIN PARK	5	0	1	0	6	2	0	AZSITE(ASM)
T:13:17			5	0	1	0	0	33	0	AZSITE(ASM)
T:13:23			5	6	1	0	0	2	0	AZSITE(ASM)
T:13:30			5	6	1	0	0	2	0	AZSITE(ASM)
T:13:32			5	0	1	0	0	2	26	AZSITE(ASM)
	T:13:5(BLM)		5	0	0	0	0	33	0	AZSITE(ASM)
T:13:8		FORTIFIED HILL SITE	5	6	2	0	0	33	0	AZSITE(ASM)
T:14:17		ENTERPRISE SITE	5	2	1	0	0	2	0	AZSITE(ASM)
T:14:23			5	0	0	0	0	33	0	AZSITE(ASM)
T:14:30		ALL AMERICAN PIPELINE	6	0	1	1	5	33	0	AZSITE(ASM)
T:14:8			5	3	1	0	0	2	0	AZSITE(ASM)
T:15:2			5	0	1	0	2	1	0	AZSITE(ASM)
T:16:11	T:16:21(ASU)		6	0	1	0	0	33	0	AZSITE(ASM)
T:16:15			6	0	1	0	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
T:16:40	GR #1529		6	0	1	0	30	2	0	AZSITE(ASM)
T:16:45			5	11	1	1	1	2	0	AZSITE(ASM)
	T:2:14(BLM)		5	0	0	0	0	33	0	AZSITE(ASM)
T:4:12		NEW RIVER AUTH. DAM SITE	5	2	1	1	1	2	0	AZSITE(ASM)
T:4:16			5	2	1	12	0	1	2	AZSITE(ASM)
T:4:32			5	2	1	0	20	2	0	AZSITE(ASM)
T:4:33			5	0	1	1	1	33	0	AZSITE(ASM)
	T:4:34(PC)		5	12	1	0	0	33	0	AZSITE(ASM)
U:13:215	GR #2438		6	0	1	1	1	2	0	AZSITE(ASM)
U:13:220		RATTLESNAKE HILL	6	3	1	0	0	2	0	AZSITE(ASM)
U:14:11	GR #1065,1072		6	17	1	0	0	2	0	AZSITE(ASM)
U:14:12	GR #1073-1075,1077-1079,1089		6	14	1	0	0	2	0	AZSITE(ASM)
U:14:13	GR #1092-1093		6	6	1	0	0	2	0	AZSITE(ASM)
U:14:14	GR #1090-1091		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:16	GR #1197,1219		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:17	GR #1221		6	17	1	0	0	2	0	AZSITE(ASM)
U:14:21	GR #1207		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:22	GR #1205		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:23	GR #1172		6	6	1	0	0	2	0	AZSITE(ASM)
U:14:24	GR #1180		6	17	1	0	0	2	0	AZSITE(ASM)
U:14:26	GR #1165-1167		6	14	1	0	0	2	0	AZSITE(ASM)
U:14:27	GR #1164		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:28	GR #1160		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:29	GR #1159		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:30	GR #1163		6	14	1	0	0	2	0	AZSITE(ASM)
U:14:31	GR #1132,1136,1155		6	17	1	0	0	2	0	AZSITE(ASM)
U:14:32	GR #1130		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:33	GR #1138		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:34	GR #1129,1130		6	0	1	0	0	2	0	AZSITE(ASM)
U:14:38	GR #1284-1285		6	6	1	0	0	2	0	AZSITE(ASM)
U:14:4		HA-AK-VA-AK	6	17	4	0	0	33	0	AZSITE(ASM)
U:14:41	GR #1263,1275,1281,1283		6	17	1	0	0	2	24	AZSITE(ASM)
U:14:5			6	1	1	0	3	2	0	AZSITE(ASM)
U:14:52			6	0	1	0	0	2	24	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
U:14:53			6	6	1	0	0	2	0	AZSITE(ASM)
U:15:101			6	0	1	2	2	2	0	AZSITE(ASM)
U:15:106			6	2	2	0	0	2	0	AZSITE(ASM)
U:15:75			6	2	1	0	0	2	0	AZSITE(ASM)
U:1:10			5	0	1	0	0	2	0	AZSITE(ASM)
	U:2:120(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
	U:2:121(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
	U:2:133(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
	U:2:147(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
	U:2:188(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
U:2:20			5	0	1	0	0	2	0	AZSITE(ASM)
	U:2:249(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
	U:2:27(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
U:2:28		HORSESHOE RESERVOIR	5	10	2	0	0	33	0	AZSITE(ASM)
	U:2:28(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
	U:2:39(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
	U:5:1(BLM)		5	0	1	0	0	2	0	AZSITE(ASM)
U:5:11			5	0	1	0	0	2	0	AZSITE(ASM)
	U:5:2(BLM)		5	0	1	0	0	2	0	AZSITE(ASM)
	U:5:6(BLM)		5	0	1	0	0	2	0	AZSITE(ASM)
U:5:8			5	0	1	0	2	2	0	AZSITE(ASM)
U:6:102		GRAMMA GRASS SITE	5	3	1	0	0	2	0	AZSITE(ASM)
U:6:107			5	0	1	0	0	2	26	AZSITE(ASM)
U:6:108			5	0	1	0	0	2	26	AZSITE(ASM)
U:6:109			5	15	1	0	0	2	26	AZSITE(ASM)
U:6:111			5	6	1	0	0	2	0	AZSITE(ASM)
U:6:112			5	0	1	0	0	2	26	AZSITE(ASM)
U:6:115			5	0	1	1	1	2	0	AZSITE(ASM)
U:6:117			5	6	1	0	0	2	0	AZSITE(ASM)
U:6:118			5	6	1	0	0	2	0	AZSITE(ASM)
U:6:121			5	6	1	0	0	2	0	AZSITE(ASM)
U:6:122			5	3	1	0	0	2	0	AZSITE(ASM)
U:6:127			5	0	1	0	0	2	0	AZSITE(ASM)
U:6:130			5	0	1	0	0	2	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
U:6:134			5	0	1	0	0	2	0	AZSITE(ASM)
U:6:143			5	0	1	0	0	2	0	AZSITE(ASM)
U:6:144			5	0	1	0	0	2	0	AZSITE(ASM)
U:6:146			5	0	1	0	0	33	0	AZSITE(ASM)
U:6:148			5	0	1	0	0	26	0	AZSITE(ASM)
U:6:150			5	0	0	0	0	33	0	AZSITE(ASM)
U:6:152			5	0	1	0	0	33	0	AZSITE(ASM)
U:6:153			5	0	0	0	0	33	0	AZSITE(ASM)
U:6:156			5	0	1	0	0	2	0	AZSITE(ASM)
U:6:158			5	0	1	0	0	2	0	AZSITE(ASM)
U:6:167			5	0	1	1	1	33	0	AZSITE(ASM)
U:6:20		ORME RESERVOIR	5	0	1	1	1	2	0	AZSITE(ASM)
U:6:21			5	6	1	1	0	2	0	AZSITE(ASM)
	U:6:36(ASU)		5	0	1	0	0	2	0	AZSITE(ASM)
U:6:49			5	0	1	1	1	2	0	AZSITE(ASM)
U:6:50			5	0	1	1	1	2	0	AZSITE(ASM)
U:6:54			5	0	1	1	1	26	0	AZSITE(ASM)
U:6:66			5	3	0	0	3	2	0	AZSITE(ASM)
U:6:67			5	0	1	0	2	2	0	AZSITE(ASM)
	U:8:160(ASU)		9	0	0	0	0	0	0	AZSITE(ASM)
	U:8:162(ASU)		9	0	0	0	0	0	0	AZSITE(ASM)
	U:8:204(ASU)		9	0	0	0	0	0	0	AZSITE(ASM)
	U:8:222(ASU)		9	0	0	0	0	0	0	AZSITE(ASM)
	U:9:1(BLM)		5	0	0	0	0	0	0	AZSITE(ASM)
U:9:19			5	6	1	0	4	2	0	AZSITE(ASM)
U:9:63		PARRISH HILL GLYPHS	5	0	1	0	0	2	0	AZSITE(ASM)
V:1:131			9	2	2	0	0	3	5	AZSITE(ASM)
V:1:132			9	2	2	0	0	3	5	AZSITE(ASM)
V:2:63			9	2	0	0	0	3	0	AZSITE(ASM)
V:2:69			9	4	2	0	0	3	0	AZSITE(ASM)
V:2:72			9	4	2	0	0	3	0	AZSITE(ASM)
V:4:3			9	2	2	0	0	33	0	AZSITE(ASM)
V:4:8			9	0	1	0	0	1	21	AZSITE(ASM)
V:5:56			9	0	1	3	5	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
V:9:172		LOPEZ SITE	9	0	1	0	0	9	21	AZSITE(ASM)
W:11:19			8	0	1	0	2	3	0	AZSITE(ASM)
	W:13:1(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
	SAFFORD BLM NO #		7	10	1	5	2	33	0	AZSITE(ASM)
	W:13:14(BLM)		0	0	0	0	0	0	0	AZSITE(ASM)
	W:13:2(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
	W:14:1(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
	W:14:2		7	0	0	0	0	0	0	AZSITE(ASM)
	W:14:6(BLM)		7	0	0	0	0	0	0	AZSITE(ASM)
W:1:5			14	0	1	0	0	21	0	AZSITE(ASM)
W:8:13			8	2	2	0	0	1	0	AZSITE(ASM)
W:9:62			7	5	2	0	0	33	0	AZSITE(ASM)
W:9:63		ARSENIC CAVE	7	5	1	0	0	33	0	AZSITE(ASM)
W:9:70			7	2	2	0	0	33	0	AZSITE(ASM)
X:12:1		RAVEN BUTTE TANK	4	3	2	0	0	33	0	AZSITE(ASM)
X:3:14			4	6	1	0	0	29	0	AZSITE(ASM)
X:3:15			4	3	1	0	0	29	0	AZSITE(ASM)
X:3:17			4	11	1	0	0	29	0	AZSITE(ASM)
X:3:18	X:3:1(BLM)		4	11	1	0	0	29	0	AZSITE(ASM)
X:3:19			4	11	1	1	1	29	0	AZSITE(ASM)
	X:3:4(BLM)	CASTLE DOME WASH	4	0	0	0	0	0	0	AZSITE(ASM)
	X:3:5(BLM)		4	0	0	0	0	0	0	AZSITE(ASM)
X:3:52	X:3:57(BLM)	N. GILA MTN. INTAGLIO	4	0	0	0	0	0	0	AZSITE(ASM)
	X:3:59(BLM)	MITTERY LAKE	4	0	0	0	0	0	0	AZSITE(ASM)
X:3:15	X:3:7(BLM)	ADAIR PARK	4	0	0	0	0	0	0	AZSITE(ASM)
	X:3:9(BLM)		4	0	0	0	0	0	0	AZSITE(ASM)
	X:7:15	DAN GRAY SITE	4	0	0	0	0	0	0	AZSITE(ASM)
	X:8:1(BLM)	MUGGINS SITE	4	0	0	0	0	0	0	AZSITE(ASM)
X:8:12			4	11	1	0	0	29	0	AZSITE(ASM)
X:8:2			4	0	1	0	5	29	0	AZSITE(ASM)
X:8:3			4	6	1	0	3	29	0	AZSITE(ASM)
	X:8:3(BLM)		4	0	0	0	0	0	0	AZSITE(ASM)
X:8:4		RADIUM HOT SPRINGS	4	14	1	0	7	29	0	AZSITE(ASM)
	X:8:4(BLM)		4	0	0	0	0	0	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	X:8:2(BLM)	ANTELOPE HILLS	4	0	0	0	0	0	0	AZSITE(ASM)
X:8:6			4	3	1	0	0	16	29	AZSITE(ASM)
Y:12:2		CHARLIE BELL WELL	1	3	2	0	0	33	0	AZSITE(ASM)
Y:12:4			1	6	1	0	0	2	0	AZSITE(ASM)
Y:12:8		THUNDERBIRD SITE	1	6	1	0	50	2	0	AZSITE(ASM)
Y:14:12			4	4	3	0	0	2	29	AZSITE(ASM)
Y:2:2			4	2	1	0	0	33	0	AZSITE(ASM)
Y:2:3			6	14	1	0	6	33	0	AZSITE(ASM)
	Y:3:3(BLM)		5	0	0	0	0	0	0	AZSITE(ASM)
Y:3:6	GP H:3:1	SEARS POINT	4	0	1	0	0	33	0	AZSITE(ASM)
Y:4:2			5	0	1	0	0	33	0	AZSITE(ASM)
Y:9:1		CABEZA PRIETA TANKS	4	3	1	0	0	33	0	AZSITE(ASM)
T:9:31			5	15	1	0	10	2	0	SHARON URBAN LIST
T:13:41			0	0	0	0	0	0	0	SHARON URBAN LIST
T:14:20			5	0	1	0	0	2	0	SHARON URBAN LIST
T:14:31			1	6	1	0	0	33	0	SHARON URBAN LIST
T:14:37			5	6	1	0	0	2	7	SHARON URBAN LIST
T:14:54			0	0	0	0	0	0	0	SHARON URBAN LIST
T:14:55			0	0	0	0	0	0	0	SHARON URBAN LIST
T:14:56			0	0	0	0	0	0	0	SHARON URBAN LIST
T:14:57			0	0	0	0	0	0	0	SHARON URBAN LIST
T:16:16		AK-CHIN	6	2	2	0	0	2	25	SHARON URBAN LIST
A:1:3			11	0	1	0	0	12	0	AZSITE(ASM)
	A:2:8(BLM)	TOMBSTONE KNOLL	11	6	1	0	0	33	1	AZSITE(ASM)
	A:2:51(BLM)	LITTLE BLACK MOUNTAIN	11	0	1	44	557	1	12	AZSITE(ASM)
	A:3:14(BLM)	BIGHORN SHEEP GLYPHS	11	6	1	2	7	12	0	AZSITE(ASM)
	A:3:43(BLM)	CSP-1	11	6	1	2	12	33	0	AZSITE(ASM)
	A:3:44(BLM)	CSP-2	11	0	1	3	15	33	0	AZSITE(ASM)
	A:4:5(BLM)		11	4	1	0	0	12	0	AZSITE(ASM)
	A:4:26(BLM)		11	0	1	0	0	33	0	AZSITE(ASM)
	A:4:27(BLM)		11	0	2	0	0	33	0	AZSITE(ASM)
	A:4:31(BLM)		11	0	2	0	0	33	0	AZSITE(ASM)
	A:4:32(BLM)		11	4	3	0	0	12	0	AZSITE(ASM)
	A:4:33(BLM)		11	0	2	0	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	A:4:34(BLM)		11	0	1	0	0	33	0	AZSITE(ASM)
	A:4:35(BLM)		11	0	1	0	0	33	0	AZSITE(ASM)
	A:4:36(BLM)		11	6	1	1	2	12	0	AZSITE(ASM)
	A:4:77(BLM)		11	0	1	1	2	33	0	AZSITE(ASM)
	A:4:88(BLM)		11	0	1	2	0	33	0	AZSITE(ASM)
	A:8:29(BLM)		11	5	2	1	0	33	0	AZSITE(ASM)
	A:8:34(BLM)		11	6	1	1	1	27	33	AZSITE(ASM)
	A:9:2(BLM)	BUCKHORN SPRING	11	2	1	6	15	33	0	AZSITE(ASM)
	A:9:3(BLM)	GRAPEVINE SPRING	11	6	1	0	0	33	0	AZSITE(ASM)
	A:10:6(BLM)		11	0	1	1	11	33	0	AZSITE(ASM)
	A:10:7(BLM)		11	0	1	1	3	33	0	AZSITE(ASM)
	A:12:50(BLM)	ESCALANTE'S CROSS	11	0	1	1	1	26	0	AZSITE(ASM)
A:13:3			11	6	1	0	0	33	0	AZSITE(ASM)
A:13:11			11	3	1	0	0	33	0	AZSITE(ASM)
A:13:14			11	3	2	0	0	33	0	AZSITE(ASM)
A:13:23			11	0	0	0	0	33	0	AZSITE(ASM)
A:13:25		BAT CAVE	11	0	1	0	0	33	0	AZSITE(ASM)
A:14:22			11	0	1	0	0	26	27	AZSITE(ASM)
A:15:26			11	2	2	0	0	12	0	AZSITE(ASM)
A:15:27			11	0	0	0	0	33	0	AZSITE(ASM)
A:16:16			11	4	2	0	0	12	0	AZSITE(ASM)
A:16:24			11	19	1	0	0	12	33	AZSITE(ASM)
	B:1:6(BLM)		11	0	1	0	0	33	0	AZSITE(ASM)
	B:1:7(BLM)		11	0	1	0	0	33	0	AZSITE(ASM)
	B:1:8(BLM)		11	0	1	1	0	33	0	AZSITE(ASM)
	B:1:16(BLM)	OH SHOOT	11	2	3	0	0	12	0	AZSITE(ASM)
	B:1:32(BLM)		11	0	1	2	0	33	0	AZSITE(ASM)
	B:1:122(BLM)		11	0	1	1	0	33	0	AZSITE(ASM)
	B:1:123(BLM)	BULLRUSH SHELTER	11	4	1	0	0	12	0	AZSITE(ASM)
	B:4:152(NA)		13	0	1	1	3	33	0	AZSITE(ASM)
	B:4:153(NA)		13	0	1	1	8	33	0	AZSITE(ASM)
	B:5:91(BLM)		11	4	2	0	0	33	0	AZSITE(ASM)
B:6:6			13	4	2	0	0	33	0	AZSITE(ASM)
B:6:8			13	0	1	0	0	27	33	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
B:6:29			13	4	2	0	0	33	0	AZSITE(ASM)
	B:6:55(BLM)		13	4	2	2	0	33	0	AZSITE(ASM)
	B:6:61(BLM)		11	4	3	0	0	12	0	AZSITE(ASM)
	B:6:63(BLM)		11	4	3	0	0	12	0	AZSITE(ASM)
	B:6:64(BLM)	LITTLE RED MAN OR GRAMA ARCH	11	4	2	0	0	33	0	AZSITE(ASM)
B:7:4			13	0	1	0	0	33	0	AZSITE(ASM)
B:7:5			13	10	1	0	0	26	33	AZSITE(ASM)
B:10:4			13	2	1	0	0	12	0	AZSITE(ASM)
	B:10:14(BLM)	ZAKEL PANEL	11	0	2	0	0	33	0	AZSOTE(ASM)
B:14:1		TOPOCOBA HILLTOP ROCKSHELTER	13	4	2	0	0	11	14	AZSITE(ASM)
	C:1:6(NA)		13	6	1	1	0	12	0	AZSITE(ASM)
	C:1:7(NA)		13	4	1	1	0	12	33	AZSITE(ASM)
	C:1:317(NA)		13	0	1	1	0	33	0	AZSITE(ASM)
	C:1:318(NA)		13	0	1	1	100	33	0	AZSITE(ASM)
	C:1:319(NA)		13	0	1	1	1	33	0	AZSITE(ASM)
	C:1:320(NA)		13	0	1	3	82	33	0	AZSITE(ASM)
	C:1:321(NA)		13	0	1	3	0	33	0	AZSITE(ASM)
	C:2:2(NA)		13	0	1	0	0	33	0	AZSITE(ASM)
	C:2:3(NA)		13	0	1	0	0	33	0	AZSITE(ASM)
	C:2:15(BLM)		13	0	1	1	2	33	0	AZSITE(ASM)
	C:2:16(BLM)		13	0	1	0	0	33	0	AZSITE(ASM)
	C:2:17(BLM)		13	19	1	0	0	27	0	AZSITE(ASM)
	C:2:20(NA)		13	0	1	0	0	27	0	AZSITE(ASM)
	C:2:21(NA)		13	0	1	1	8	12	27	AZSITE(ASM)
	C:2:23(NA)		13	6	1	0	0	12	27	AZSITE(ASM)
	C:2:24(NA)		13	0	1	12	0	12	0	AZSITE(ASM)
	C:2:25(NA)		13	6	1	0	0	33	0	AZSITE(ASM)
C:3:3			13	6	1	0	0	33	0	AZSITE(ASM)
	C:5:6(BLM)		13	4	1	0	0	12	0	AZSITE(ASM)
	C:5:16(NA)		13	2	2	0	0	12	0	AZSITE(ASM)
C:6:6		HONEYMOON TRAIL	13	6	1	0	0	27	33	AZSITE(ASM)
D:3:5		NAGASHI BIKIW	14	2	2	0	0	12	0	AZSITE(ASM)
D:5:10		INSCRIPTION HOUSE RUIN	14	2	2	0	0	12	22	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
D:6:3		BETATAKIN RUIN	14	2	2	0	0	12	0	AZSITE(ASM)
D:16:10			14	10	0	0	0	22	0	AZSITE(ASM)
D:16:28			14	2	0	0	0	22	0	AZSITE(ASM)
D:16:72			14	6	1	0	0	22	12	AZSITE(ASM)
D:16:83			14	2	1	0	0	12	22	AZSITE(ASM)
D:16:89			14	2	0	0	0	12	0	AZSITE(ASM)
E:8:3		RAMS HORN CAVE	15	2	2	0	0	12	22	AZSITE(ASM)
E:15:12			15	2	1	0	0	12	0	AZSITE(ASM)
	F:3:2(BLM)		11	6	1	0	0	1	0	AZSITE(ASM)
F:4:11			11	6	1	2	0	33	0	AZSITE(ASM)
F:6:54			11	6	1	0	0	14	0	AZSITE(ASM)
F:6:55			11	10	1	0	0	33	0	AZSITE(ASM)
	F:7:3(NA)		5	6	1	0	0	27	33	AZSITE(ASM)
	F:8:16(BLM)		11	3	1	0	0	33	0	AZSITE(ASM)
	F:8:17(BLM)		11	0	1	0	0	33	0	AZSITE(ASM)
F:10:24			11	0	1	0	0	33	0	AZSITE(ASM)
	F:12:2(BLM)	HUALAPAI VALLEY GLYPHS	11	0	1	0	100	33	0	AZSITE(ASM)
	F:12:9(BLM)		11	10	1	2	0	33	0	AZSITE(ASM)
	F:12:14(BLM)	BULL MTN. CAMP	11	6	1	1	2	14	27	AZSITE(ASM)
	F:12:17(BLM)		11	3	1	0	0	14	27	AZSITE(ASM)
F:14:3			11	14	1	0	0	33	0	AZSITE(ASM)
F:14:12		INSCRIPTION ROCK	11	3	1	0	0	33	0	AZSITE(ASM)
	F:14:46(BLM)		11	6	1	0	0	1	0	AZSITE(ASM)
	B:14:47(BLM)	BEALES ROAD GLYPHS	11	6	1	0	0	26	33	AZSITE(ASM)
F:14:48			11	6	1	0	0	33	0	AZSITE(ASM)
F:14:51			11	19	1	0	0	26	27	AZSITE(ASM)
	F:14:51(BLM)	BEALES ROAD GLYPHS NORTH	11	0	1	1	1	33	0	AZSITE(ASM)
F:14:52			11	6	1	0	0	33	0	AZSITE(ASM)
	F:14:52(BLM)		11	6	1	0	0	33	0	AZSITE(ASM)
F:14:53			11	6	1	0	0	33	0	AZSITE(ASM)
F:14:57			11	6	1	0	0	33	0	AZSITE(ASM)
F:14:78			11	6	1	0	0	33	0	AZSITE(ASM)
F:14:110		INSCRIPTION ROCK	11	0	1	0	0	26	27	AZSITE(ASM)
F:15:1			11	0	1	0	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	F:15:2(BLM)		11	4	2	0	0	33	0	AZSITE(ASM)
	F:15:5(NA)		11	4	2	0	0	33	0	AZSITE(ASM)
	F:15:12(BLM)	UNION PASS POWERLINE GLYPHS	11	0	1	0	0	33	0	AZSITE(ASM)
	F:15:13(BLM)	UNION PASS POWERLINE PICTO CAVE	11	4	2	0	0	33	0	AZSITE(ASM)
	F:15:14(BLM)	UNION PASS POWERLINE CAVE NORTH	11	4	2	0	0	33	0	AZSITE(ASM)
	F:15:36(BLM)		11	3	1	0	0	33	0	AZSITE(ASM)
	F:16:1(BLM)		11	0	1	0	0	33	0	AZSITE(ASM)
	G:6:6(BLM)		11	6	1	0	0	14	0	AZSITE(ASM)
	G:10:27(BLM)	RUDY CLIFF CAMP	11	6	1	0	0	14	0	AZSITE(ASM)
	G:13:2(BLM)		11	0	1	8	0	33	0	AZSITE(ASM)
	G:13:3(BLM)		11	0	1	3	0	33	0	AZSITE(ASM)
H:10:39			13	0	1	4	0	33	0	AZSITE(ASM)
H:10:42			13	0	1	1	1	26	0	AZSITE(ASM)
H:14:1		MCINTYRE CANYON SITE	8	6	1	0	0	33	0	AZSITE(ASM)
	H:14:5(NA)		8	0	0	0	0	0	0	AZSITE(ASM)
I:12:1		STAGE STOP ROCK INSCRIPTIONS	13	0	1	0	0	33	0	AZSITE(ASM)
I:14:150	I:14:03(ASC)		13	4	2	0	0	14	0	AZSITE(ASM)
I:14:188	NA 302		13	2	2	0	0	14	0	AZSITE(ASM)
I:14:211			13	0	1	3	0	14	0	AZSITE(ASM)
I:14:233			13	0	1	3	0	33	0	AZSITE(ASM)
I:15:118			13	3	1	0	0	14	0	AZSITE(ASM)
J:4:11		INSCRIPTION ROCK	14	0	1	0	0	26	0	AZSITE(ASM)
J:14:16			14	6	1	0	0	12	0	AZSITE(ASM)
J:8:10			14	2	1	0	0	12	22	AZSITE(ASM)
J:8:11			14	6	1	0	0	12	0	AZSITE(ASM)
	J:14:6(NA)		14	6	1	0	0	12	0	AZSITE(ASM)
	J:14:7(NA)		14	6	1	0	0	12	0	AZSITE(ASM)
	J:14:11(NA)		14	6	1	0	0	12	0	AZSITE(ASM)
J:14:13		HOMOLOVI IVHUKOVITUWIUA	14	2	1	0	0	12	0	AZSITE(ASM)
J:14:15		HOMOLOVI II	14	2	1	0	0	23	0	AZSITE(ASM)
J:14:30			14	6	1	5	0	12	0	AZSITE(ASM)
J:14:31			14	6	1	0	0	12	0	AZSITE(ASM)
J:14:32			14	6	1	0	0	12	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	J:14:41(NA)		14	0	1	0	0	12	0	AZSITE(ASM)
	J:14:42(NA)		14	3	1	0	0	12	0	AZSITE(ASM)
K:3:30			15	2	2	0	0	12	0	AZSITE(ASM)
K:3:33			15	2	2	0	0	12	0	AZSITE(ASM)
K:3:39			15	2	2	0	0	12	0	AZSITE(ASM)
K:5:1			15	2	0	0	0	33	0	AZSITE(ASM)
K:5:2		STEAMBOAT CANYON	15	0	1	0	0	26	0	AZSITE(ASM)
K:8:69			15	2	2	0	0	12	0	AZSITE(ASM)
K:8:79			15	2	2	0	0	33	0	AZSITE(ASM)
K:8:80			15	4	2	0	0	33	0	AZSITE(ASM)
K:8:188			15	4	2	0	0	33	0	AZSITE(ASM)
K:12:24			15	2	2	0	0	12	22	AZSITE(ASM)
K:12:27			15	2	2	0	0	12	0	AZSITE(ASM)
K:12:28			15	2	2	0	0	12	0	AZSITE(ASM)
K:12:29			15	2	2	0	0	12	22	AZSITE(ASM)
K:13:5		PAINTED DESERT GLYPHS AND RUINS	14	2	2	0	0	12	0	AZSITE(ASM)
K:13:38			15	6	1	0	0	12	0	AZSITE(ASM)
K:13:52			15	6	1	0	0	12	0	AZSITE(ASM)
K:13:74			14	2	1	0	0	12	0	AZSITE(ASM)
K:13:75			14	10	1	7	0	12	0	AZSITE(ASM)
K:13:82			15	14	1	14	0	12	0	AZSITE(ASM)
K:13:89			14	6	1	0	3	12	33	AZSITE(ASM)
	K:14:3(BLM)	HE-MAN GLYPH SITE	15	0	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-01-59 (PRESCOTT N.F.)		12	2	1	0	0	14	0	AZSITE(ASM)
	FS 03-09-06-232 (PRESCOTT N.F.)	COWDEN	12	2	1	0	10	33	0	AZSITE(ASM)
	FS 03-09-06-238 (PRESCOTT N.F.)	GUMERMAN A-R	12	6	1	0	7	33	0	AZSITE(ASM)
L:3:1			11	6	1	0	0	33	0	AZSITE(ASM)
	L:3:1(BLM)	WARM SPRINGS I	11	6	1	0	0	14	0	AZSITE(ASM)
	L:3:3(BLM)	WARM SPRINGS III	11	14	1	0	0	33	0	AZSITE(ASM)
	L:7:9(BLM)	PICTURE ROCK	11	0	1	0	0	33	0	AZSITE(ASM)
L:7:11		PICTURE ROCK	11	0	1	4	300	33	0	AZSITE(ASM)
	L:8:1(BLM)	ARASTRA CANYON	11	0	1	5	0	31	33	AZSITE(ASM)
	L:8:2(BLM)	BURRO CANYON	11	0	1	0	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	L:12:1(BLM)	GOAT SPRINGS GLYPHS	10	0	1	0	0	33	0	AZSITE(ASM)
	L:12:2(BLM)	PLANET RANCH RD.	10	0	1	1	1	33	0	AZSITE(ASM)
	L:12:11(BLM)	GIERS WASH	10	0	1	1	1	33	0	AZSITE(ASM)
	L:12:13(BLM)	MIDWAY TANK	11	0	1	0	0	27	33	AZSITE(ASM)
	L:16:1(BLM)	PARKER RATTLESNAKE INTAGLIO	10	10	4	0	0	27	33	AZSITE(ASM)
	L:16:39(BLM)	AH VILLA PARK GLYPHS	10	3	1	0	0	33	0	AZSITE(ASM)
	M:3:8(BLM)	SWALE TANK GLYPHS	11	0	1	0	0	33	0	AZSITE(ASM)
M:8:7			12	0	1	0	0	33	0	AZSITE(ASM)
	M:10:3(BLM)		11	0	2	0	0	33	0	AZSITE(ASM)
	M:11:11(BLM)		11	4	2	0	0	33	0	AZSITE(ASM)
	M:15:10(BLM)		4	0	2	0	0	33	0	AZSITE(ASM)
	N:2:22(NA)		12	0	1	0	0	14	0	AZSITE(ASM)
N:3:10			12	2	1	0	0	14	0	AZSITE(ASM)
	N:3:68(NA)		12	0	1	0	0	33	0	AZSITE(ASM)
	N:6:35(NA)		12	0	1	0	0	14	0	AZSITE(ASM)
	N:6:36(NA)		12	0	1	0	0	14	0	AZSITE(ASM)
	N:7:9(NA)		12	0	1	0	0	33	0	AZSITE(ASM)
	N:8:24(NA)		12	0	1	0	50	33	0	AZSITE(ASM)
N:9:3			12	0	1	0	0	33	0	AZSITE(ASM)
	N:9:4(PC)		12	3	1	0	0	33	0	AZSITE(ASM)
	N:9:12(NA)		12	0	1	0	0	33	0	AZSITE(ASM)
N:11:6			12	0	1	0	0	33	0	AZSITE(ASM)
	N:12:1(BLM)		12	0	1	0	0	33	0	AZSITE(ASM)
N:12:3			12	2	1	0	0	14	0	AZSITE(ASM)
N:14:7			12	6	1	0	0	33	0	AZSITE(ASM)
	N:14:8(BLM)	COOPER #3	12	0	1	0	0	33	0	AZSITE(ASM)
	N:14:8(NA)	BROKAW	12	6	1	7	0	33	0	AZSITE(ASM)
N:15:14			12	4	2	0	0	21	0	AZSITE(ASM)
	N:16:1(BLM)	RATTLESNAKE PUEBLO	12	2	1	0	0	5	0	AZSITE(ASM)
N:16:5			12	0	1	0	0	33	0	AZSITE(ASM)
	N:16:5(BLM)		5	9	1	0	0	26	0	AZSITE(ASM)
	N:16:6(BLM)		5	6	1	0	0	33	0	AZSITE(ASM)
	N:16:10(BLM)		12	2	1	0	0	14	0	AZSITE(ASM)
N:16:11			12	2	1	0	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
N:16:13			12	2	1	0	0	33	0	AZSITE(ASM)
N:16:29			12	3	1	0	0	33	0	AZSITE(ASM)
N:16:42			12	6	1	0	0	12	0	AZSITE(ASM)
N:16:43			12	10	1	0	0	33	0	AZSITE(ASM)
N:16:52			12	0	1	0	0	33	0	AZSITE(ASM)
N:16:59			12	2	1	0	0	1	0	AZSITE(ASM)
O:1:8		LOY BUTTE PUEBLO	12	2	1	0	0	14	0	AZSITE(ASM)
O:1:16			13	0	1	0	0	33	0	AZSITE(ASM)
O:10:2			12	0	1	0	0	33	0	AZSITE(ASM)
O:10:14			12	2	1	0	0	14	0	AZSITE(ASM)
O:11:2			9	4	2	0	0	33	0	AZSITE(ASM)
O:11:3			9	0	1	0	0	33	0	AZSITE(ASM)
O:11:4			9	4	2	0	0	21	0	AZSITE(ASM)
O:11:29			9	3	1	0	0	14	0	AZSITE(ASM)
O:14:11			12	2	1	0	0	14	0	AZSITE(ASM)
	O:14:13(ASU)		12	6	1	0	0	33	0	AZSITE(ASM)
O:15:66		GENESIS SITE	9	6	1	0	0	5	0	AZSITE(ASM)
P:2:3			14	6	1	0	0	12	27	AZSITE(ASM)
P:2:4			14	4	1	0	0	12	0	AZSITE(ASM)
	P:3:6(BLM)		14	0	1	1	0	12	0	AZSITE(ASM)
	P:3:10(NA)		14	0	1	1	1	33	0	AZSITE(ASM)
	P:3:11(NA)		14	6	1	0	0	12	0	AZSITE(ASM)
	P:3:12(NA)		14	6	1	0	0	12	0	AZSITE(ASM)
	P:3:13(NA)		14	6	1	0	0	12	0	AZSITE(ASM)
	P:3:14(NA)		14	6	1	0	0	12	23	AZSITE(ASM)
	P:3:38(NA)		14	0	1	1	1	12	0	AZSITE(ASM)
	P:3:39(NA)		14	0	1	0	0	33	0	AZSITE(ASM)
	P:3:45(NA)		14	6	1	1	1	12	0	AZSITE(ASM)
	P:3:63(NA)		14	6	1	0	0	12	26	AZSITE(ASM)
P:4:15			14	6	1	0	0	33	0	AZSITE(ASM)
P:4:17			14	0	1	0	0	12	0	AZSITE(ASM)
	P:6:4(NA)		14	4	1	0	0	12	0	AZSITE(ASM)
	P:6:7(NA)		14	4	2	0	0	12	0	AZSITE(ASM)
P:8:1			14	0	1	0	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	P:8:1(NA)		14	2	1	0	0	12	0	AZSITE(ASM)
P:8:13			14	6	1	0	0	12	0	AZSITE(ASM)
	P:8:13(NA)		14	2	1	0	0	3	12	AZSITE(ASM)
P:8:15			14	0	1	11	0	33	0	AZSITE(ASM)
P:8:41			14	0	1	0	0	33	0	AZSITE(ASM)
	P:8:44(NA)		14	6	1	0	0	33	0	AZSITE(ASM)
	P:8:45(NA)		14	6	1	0	0	33	0	AZSITE(ASM)
	P:8:46(NA)		14	0	1	0	0	33	0	AZSITE(ASM)
	P:8:48(NA)		14	6	1	0	0	33	0	AZSITE(ASM)
	P:8:50(NA)		14	0	1	0	2	33	0	AZSITE(ASM)
	P:8:54(NA)		14	0	1	0	4	33	0	AZSITE(ASM)
	P:8:56(NA)		14	0	1	0	7	33	0	AZSITE(ASM)
	P:8:57(NA)		14	0	1	1	8	33	0	AZSITE(ASM)
	P:8:58(NA)		14	0	1	1	2	33	0	AZSITE(ASM)
	P:8:59(NA)		14	0	1	1	1	33	0	AZSITE(ASM)
	P:8:61(NA)		14	0	1	1	0	12	0	AZSITE(ASM)
P:10:10			14	6	1	1	0	12	0	AZSITE(ASM)
P:12:22			14	2	1	1	0	3	0	AZSITE(ASM)
P:16:76			14	0	1	0	0	3	0	AZSITE(ASM)
Q:1:21		NEWSPAPER ROCK	15	0	1	0	0	12	0	AZSITE(ASM)
Q:1:22		PUERCO RUIN	15	6	1	0	0	12	0	AZSITE(ASM)
Q:1:67			15	0	1	0	0	17	0	AZSITE(ASM)
Q:1:68			14	6	1	0	0	12	0	AZSITE(ASM)
Q:1:69			15	6	1	0	0	33	0	AZSITE(ASM)
Q:1:70		CAVE OF HANDS	15	4	3	0	0	33	0	AZSITE(ASM)
Q:1:71			15	2	1	9	21	12	0	AZSITE(ASM)
Q:1:72			15	0	1	0	0	33	0	AZSITE(ASM)
Q:1:73			15	0	1	0	0	33	0	AZSITE(ASM)
Q:1:74			15	0	1	0	0	33	0	AZSITE(ASM)
Q:1:77			15	6	1	0	0	12	0	AZSITE(ASM)
Q:1:78			15	4	2	0	0	12	0	AZSITE(ASM)
Q:1:99			14	6	1	0	0	12	0	AZSITE(ASM)
Q:1:151			14	6	1	0	0	12	26	AZSITE(ASM)
Q:1:152			14	6	1	1	20	12	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
Q:1:153			15	6	1	0	0	12	0	AZSITE(ASM)
Q:1:161			15	2	1	0	0	12	0	AZSITE(ASM)
Q:1:162			15	2	1	3	0	12	0	AZSITE(ASM)
Q:1:164			15	0	1	4	0	12	0	AZSITE(ASM)
Q:1:166			15	2	1	0	0	12	0	AZSITE(ASM)
Q:1:172			15	0	1	30	0	12	0	AZSITE(ASM)
Q:1:183			15	6	1	10	0	12	0	AZSITE(ASM)
Q:1:192			15	2	1	0	0	12	0	AZSITE(ASM)
Q:1:198			15	10	1	10	0	12	0	AZSITE(ASM)
Q:2:31			15	6	1	4	0	12	0	AZSITE(ASM)
Q:3:56		MANTLIPINKIA	15	11	2	0	0	33	0	AZSITE(ASM)
Q:3:96		HANTLIPINKIA	15	6	2	0	0	12	20	AZSITE(ASM)
Q:4:67			15	6	1	0	0	33	0	AZSITE(ASM)
Q:4:69			15	4	2	0	0	12	0	AZSITE(ASM)
Q:4:70			15	4	2	0	0	12	0	AZSITE(ASM)
Q:4:82			15	0	1	0	0	33	0	AZSITE(ASM)
Q:4:86			15	6	1	0	0	33	0	AZSITE(ASM)
Q:4:92			15	0	1	0	0	12	0	AZSITE(ASM)
Q:4:104			15	9	1	0	0	12	27	AZSITE(ASM)
Q:4:105			15	4	1	0	0	12	26	AZSITE(ASM)
Q:4:112			15	2	1	0	0	12	0	AZSITE(ASM)
Q:4:113			15	4	3	0	0	12	33	AZSITE(ASM)
Q:4:121			15	0	1	0	0	33	0	AZSITE(ASM)
Q:4:128			15	4	1	0	0	12	0	AZSITE(ASM)
Q:4:142			15	0	1	0	0	33	0	AZSITE(ASM)
Q:4:145			15	0	1	0	0	33	0	AZSITE(ASM)
	Q:6:6(NA)		15	2	1	0	0	19	0	AZSITE(ASM)
	Q:6:22(NA)		15	0	1	1	0	33	0	AZSITE(ASM)
	Q:6:23(NA)		15	0	1	1	0	33	0	AZSITE(ASM)
	Q:6:25(NA)		15	0	1	1	2	33	0	AZSITE(ASM)
	Q:6:26(NA)		15	0	1	2	0	33	0	AZSITE(ASM)
	Q:6:29(NA)		15	0	1	2	0	33	0	AZSITE(ASM)
	Q:6:30(NA)		15	0	1	3	0	33	0	AZSITE(ASM)
	Q:6:31(NA)		15	0	1	3	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	Q:6:32(NA)		15	0	1	1	0	33	0	AZSITE(ASM)
	Q:6:40(NA)		15	6	1	1	0	19	0	AZSITE(ASM)
	Q:6:41		15	0	1	2	50	33	0	AZSITE(ASM)
	Q:7:25(NA)		15	4	1	1	1	19	0	AZSITE(ASM)
	Q:11:15(BLM)		15	3	1	0	0	33	0	AZSITE(ASM)
Q:12:47			15	10	2	0	0	3	12	AZSITE(ASM)
Q:15:24			15	2	1	0	6	3	0	AZSITE(ASM)
Q:16:10			15	0	1	0	0	33	0	AZSITE(ASM)
Q:16:15			15	2	1	0	0	12	0	AZSITE(ASM)
	T:9:10(BLM)		5	8	1	0	0	2	0	AZSITE(ASM)
	FS 03-09-06-04 (PRESCOTT N.F.)		12	2	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-01-07 (PRESCOTT N.F.)		12	2	1	0	0	14	0	AZSITE(ASM)
	FS 03-09-01-154 (PRESCOTT N.F.)		12	2	1	0	3	1	14	AZSITE(ASM)
	FS 03-09-01-157 (PRESCOTT N.F.)	POKRANT	12	0	1	1	3	14	0	AZSITE(ASM)
	FS 03-09-01-33 (PRESCOTT N.F.)		12	6	1	0	5	8	33	AZSITE(ASM)
	FS 03-09-01-55 (PRESCOTT N.F.)		12	2	1	0	0	27	0	AZSITE(ASM)
	FS 03-09-01-99 (PRESCOTT N.F.); MNA 14538	LANEY SITE B	12	0	1	0	5	33	0	AZSITE(ASM)
	FS 03-09-02-05 (PRESCOTT N.F.)	MULE CREEK	12	0	1	0	15	33	0	AZSITE(ASM)
	FS 03-09-02-07 (PRESCOTT N.F.)	CAMPBELL FLAT SPRINGS	12	3	1	0	3	33	0	AZSITE(ASM)
	FS 03-09-02-08 (PRESCOTT N.F.)	MONUMENT HILL LINE	12	3	1	0	20	33	0	AZSITE(ASM)
	FS 03-09-02-10 (PRESCOTT N.F.)	PARKER FLAT LINE	12	2	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-02-12 (PRESCOTT N.F.)		12	2	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-02-15 (PRESCOTT N.F.);MNA 2476,2477	TURKEY CREEK	12	2	1	0	10	33	0	AZSITE(ASM)
	FS 03-09-02-16 (PRESCOTT N.F.)	CEDAR CANYON	12	0	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-02-17 (PRESCOTT N.F.)	CATCLAW SITE	12	3	1	1	4	33	0	AZSITE(ASM)
	FS 03-09-03-05 (PRESCOTT N.F.)		12	2	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-03-153 (PRESCOTT N.F.)	HOLMES BUTTE	12	10	1	0	0	14	33	AZSITE(ASM)
	FS 03-09-03-25 (PRESCOTT N.F.)		12	6	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-03-58 (PRESCOTT N.F.); MNA 13569	CAMP DALKE	12	2	1	0	0	7	14	AZSITE(ASM)
	FS 03-09-03-72 (PRESCOTT N.F.); MNA 13573	PIKE	12	3	1	0	0	7	14	AZSITE(ASM)
	FS 03-09-03-78 (PRESCOTT N.F.)		12	2	1	0	0	14	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	FS 03-09-03-96 (PRESCOTT N.F.)	POKRANT	12	0	1	1	10	14	0	AZSITE(ASM)
	FS 03-09-05-105 (PRESCOTT N.F.); O:9:19(ASU)		12	3	1	0	50	2	33	AZSITE(ASM)
	FS 03-09-05-111 (PRESCOTT N.F.); O:9:23(ASU)		12	2	1	0	20	26	33	AZSITE(ASM)
	FS 03-09-05-116 (PRESCOTT N.F.); O:9:24(ASU)		12	0	1	0	20	33	0	AZSITE(ASM)
	FS 03-09-05-120 (PRESCOTT N.F.); O:9:21(ASU)		12	0	1	0	15	33	0	AZSITE(ASM)
	FS 03-09-05-122 (PRESCOTT N.F.); O:9:27(ASU)		12	0	1	1	4	33	0	AZSITE(ASM)
	FS 03-09-05-124 (PRESCOTT N.F.); N:12:15(ASU)		12	0	1	0	85	33	0	AZSITE(ASM)
	FS 03-09-05-125 (PRESCOTT N.F.)	ESTLER PEAK RUIN	12	2	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-05-126 (PRESCOTT N.F.); O:9:22(ASU)		12	0	1	0	10	33	0	AZSITE(ASM)
	FS 03-09-05-15 (PRESCOTT N.F.); O:5:7(ASU); NA 10052		12	2	1	0	20	33	0	AZSITE(ASM)
	FS 03-09-05-28 (PRESCOTT N.F.); O:9:11(ASU)		12	3	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-05-53 (PRESCOTT N.F.); O:9:12(ASU)		12	0	1	0	6	33	0	AZSITE(ASM)
	FS 03-09-05-60 (PRESCOTT N.F.); O:9:15(ASU)		12	2	1	10	10	33	0	AZSITE(ASM)
	FS 03-09-05-72 (PRESCOTT N.F.); O:9:16(ASU)		12	6	1	1	7	33	0	AZSIOTE(ASM)
	FS 03-09-06-225 (PRESCOTT N.F.)	TILTON	12	0	1	0	0	33	0	AZSITE(ASM)
	FS 03-09-06-227 (PRESCOTT N.F.)	CICELY	12	0	1	0	6	33	0	AZSITE(ASM)
	FS 03-09-06-271 (PRESCOTT N.F.)		12	2	1	0	6	1	14	AZSITE(ASM)
	FS 03-09-06-298 (PRESCOTT N.F.)	SCHULTZ B	12	0	1	2	2	14	0	AZSITE(ASM)
	FS 03-09-05-104 (PRESCOTT N.F.); O:9:18(ASU)		12	0	1	0	0	1	14	AZSITE(ASM)
AA:7:108			6	3	1	0	80	2	0	AZSITE(ASM)
AA:7:139			6	0	1	1	2	2	0	AZSITE(ASM)
AA:7:140			6	6	1	0	2	2	0	AZSITE(ASM)
AA:7:181			6	6	1	4	0	2	0	AZSITE(ASM)
AA:8:206			6	2	1	2	0	1	2	AZSITE(ASM)
AA:8:302			6	6	1	1	1	1	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
AA:11:17			1	0	1	0	100	2	0	AZSITE(ASM)
AA:11:81			1	0	1	0	50	2	0	AZSITE(ASM)
AA:11:106			1	0	2	2	0	2	0	AZSITE(ASM)
AA:13:25			1	0	1	8	0	33	0	AZSITE(ASM)
BB:5:64			6	0	1	3	4	26	0	AZSITE(ASM)
BB:5:65			6	0	1	6	20	33	0	AZSITE(ASM)
BB:12:38		RAINBOW SHELTER	2	3	2	1	10	33	0	AZSITE(ASM)
BB:14:461			1	6	1	3	9	2	0	AZSITE(ASM)
BB:16:19		DRAGOON RESTLESS SPIRIT	2	0	2	1	19	33	0	AZSITE(ASM)
CC:1:19		OWENS SITE	7	2	1	0	4	2	3	AZSITE(ASM)
CC:1:29			7	0	1	2	0	33	0	AZSITE(ASM)
CC:5:14			7	0	1	0	19	5	0	AZSITE(ASM)
CC:6:16			7	0	1	4	0	2	0	AZSITE(ASM)
CC:14:18		CENTIPEDE HEIGHTS	2	3	3	0	0	33	0	AZSITE(ASM)
CC:14:21		BIG MAMA	2	6	3	0	0	33	0	AZSITE(ASM)
CC:15:45		DIANA'S PARADISE	2	4	2	0	0	33	0	AZSITE(ASM)
CC:15:48		DOS CABEZAS BLACK ART	2	4	2	0	0	33	0	AZSITE(ASM)
DD:2:42		WHITE RINCON RUIN	1	2	1	0	0	2	0	AZSITE(ASM)
DD:2:49			1	2	1	0	0	2	0	AZSITE(ASM)
DD:3:94			1	0	1	1	1	2	0	AZSITE(ASM)
DD:3:97			1	2	1	0	0	2	0	AZSITE(ASM)
DD:3:98			1	2	1	0	0	2	0	AZSITE(ASM)
DD:4:105			1	6	1	0	0	2	31	AZSITE(ASM)
DD:4:106			1	3	1	0	0	2	31	AZSITE(ASM)
DD:4:107			1	0	1	1	3	2	0	AZSITE(ASM)
DD:4:109			1	8	1	0	0	2	31	AZSITE(ASM)
EE:8:14		SAN PEDRO EYE OF THE CAT	2	5	3	0	0	33	0	AZSITE(ASM)
EE:8:22		WALNUT GULCH	2	10	1	4	90	26	33	AZSITE(ASM)
EE:8:183		SAN PEDRO NEOPHYTE	2	6	1	0	0	26	33	AZSITE(ASM)
EE:8:188		CAT CLAW KNOLL	2	6	1	26	47	33	0	AZSITE(ASM)
EE:8:218		JAVALINA HAVEN	2	6	1	10	0	33	0	AZSITE(ASM)
EE:8:219		MONTE'S GALLERY	2	0	1	0	0	33	0	AZSITE(ASM)
EE:9:151		BUENA VISTA SITE	3	2	1	1	2	2	0	AZSITE(ASM)
FF:4:11		LIGHTNING FORKS	2	0	2	0	25	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
FF:4:12		LIGHTNING FALLS	2	4	2	0	20	33	0	AZSITE(ASM)
FF:4:13		LYNN'S LEAN TO	2	3	2	0	10	33	0	AZSITE(ASM)
FF:6:18		THE BOULDERS	2	3	2	0	0	33	0	AZSITE(ASM)
FF:7:12		MUD SPRINGS #1	2	3	2	0	0	33	0	AZSITE(ASM)
FF:8:7			2	0	1	0	0	33	0	AZSITE(ASM)
FF:8:8		BLACK DRAW DISCOVERY	2	3	1	0	560	3	0	AZSITE(ASM)
FF:8:10		RATTLESNAKE HILL	2	0	1	0	0	33	0	AZSITE(ASM)
FF:8:14		SNURE GLYPH	2	0	1	1	0	33	0	AZSITE(ASM)
FF:9:9		CHARLIE'S WATER TANK	2	3	1	20	0	33	0	AZSITE(ASM)
FF:11:64		SWAGGART #1	2	3	2	0	0	3	0	AZSITE(ASM)
FF:12:28		BLACK DRAW CRESCENT	2	0	1	0	13	33	0	AZSITE(ASM)
FF:12:29		BLACK DRAW HAPPY BULL	2	0	1	0	86	33	0	AZSITE(ASM)
G:3:17		DINNER POCKET	11	4	1	0	0	12	0	AZSITE(ASM)
H:10:111			13	6	1	18	0	33	0	AZSITE(ASM)
I:14:317			13	2	1	0	0	9	0	AZSITE(ASM)
J:14:57			14	0	1	1	5	12	0	AZSITE(ASM)
J:14:83			14	6	1	0	0	12	0	AZSITE(ASM)
J:14:178			14	0	1	2	0	12	0	AZSITE(ASM)
J:14:183			14	0	1	35	0	12	0	AZSITE(ASM)
J:14:184			14	6	1	1	1	12	0	AZSITE(ASM)
J:14:186			14	3	1	0	0	12	26	AZSITE(ASM)
J:14:187			14	6	1	0	0	12	26	AZSITE(ASM)
J:14:200			14	10	1	1	2	12	26	AZSITE(ASM)
J:14:203			14	6	1	1	1	12	0	AZSITE(ASM)
J:14:265			14	2	1	13	0	12	0	AZSITE(ASM)
J:14:267			14	6	1	0	0	12	0	AZSITE(ASM)
J:14:268			14	6	1	10	0	12	0	AZSITE(ASM)
J:14:269			14	6	1	0	0	12	0	AZSITE(ASM)
J:14:277			14	3	1	1	0	12	0	AZSITE(ASM)
J:14:291			14	0	1	7	0	12	0	AZSITE(ASM)
J:14:292			14	0	1	23	0	12	0	AZSITE(ASM)
J:14:293			14	0	1	18	0	12	0	AZSITE(ASM)
J:14:294			14	0	1	4	0	12	0	AZSITE(ASM)
J:14:295			14	0	1	4	0	12	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
J:14:266			14	2	1	0	0	12	0	AZSITE(ASM)
J:14:331			14	0	1	0	0	12	0	AZSITE(ASM)
J:14:335			14	0	1	0	0	12	0	AZSITE(ASM)
J:14:336			14	0	1	0	0	12	0	AZSITE(ASM)
J:14:337			14	0	1	0	0	12	0	AZSITE(ASM)
J:14:338			14	0	1	0	0	12	0	AZSITE(ASM)
J:14:279			14	0	1	1	20	12	0	AZSITE(ASM)
J:14:289			14	6	1	0	0	12	0	AZSITE(ASM)
J:1:7			13	0	1	0	0	12	0	AZSITE(ASM)
J:14:303			14	0	1	2	0	12	0	AZSITE(ASM)
J:14:304			14	6	1	1	0	12	0	AZSITE(ASM)
J:14:305			14	0	1	1	0	12	0	AZSITE(ASM)
L:2:32			11	6	1	1	2	33	0	AZSITE(ASM)
L:7:18			11	6	1	6	0	33	0	AZSITE(ASM)
M:6:2			11	0	1	35	0	37	0	AZSITE(ASM)
M:6:8			11	0	1	0	5	33	0	AZSITE(ASM)
N:4:43			12	6	1	0	0	14	0	AZSITE(ASM)
N:7:45			12	0	1	0	0	33	0	AZSITE(ASM)
N:7:46			12	0	1	0	0	33	0	AZSITE(ASM)
N:7:47			12	0	1	17	0	33	0	AZSITE(ASM)
N:7:48			12	0	1	7	20	33	0	AZSITE(ASM)
N:9:26			12	0	1	0	0	33	0	AZSITE(ASM)
N:13:6			12	6	1	0	0	8	0	AZSITE(ASM)
N:16:62			12	2	1	0	0	8	12	AZSITE(ASM)
O:10:16			12	6	1	1	3	9	26	AZSITE(ASM)
O:10:17			12	6	1	1	4	9	0	AZSITE(ASM)
Q:1:112	85 B-21		14	2	1	3	0	12	0	AZSITE(ASM)
Q:4:162			15	0	1	6	0	12	0	AZSITE(ASM)
Q:4:167			15	0	1	0	0	12	0	AZSITE(ASM)
Q:4:168			15	0	1	2	0	12	0	AZSITE(ASM)
Q:4:171			15	2	1	0	0	12	26	AZSITE(ASM)
Q:4:172			15	0	1	0	0	26	0	AZSITE(ASM)
Q:5:7			15	6	1	0	0	3	26	AZSITE(ASM)
Q:6:26			15	11	1	2	27	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
R:7:91			10	8	1	2	0	33	0	AZSITE(ASM)
R:11:27			10	6	5	0	0	33	0	AZSITE(ASM)
S:14:36			4	3	1	0	0	33	0	AZSITE(ASM)
S:14:54			4	3	1	0	0	33	0	AZSITE(ASM)
S:16:55		ROCKY POINT	4	8	1	210	0	1	2	AZSITE(ASM)
S:16:57		PAINTED ROCKS	4	6	1	0	10	33	0	AZSITE(ASM)
T:4:97		GAVILAN SITE	4	2	1	0	0	2	0	AZSITE(ASM)
T:13:41		PAINTED ROCKS	4	8	1	1	1	33	0	AZSITE(ASM)
T:13:71		PAINTED ROCKS	4	8	1	5	15	2	0	AZSITE(ASM)
T:13:76		PAINTED ROCKS	4	0	1	0	0	26	33	AZSITE(ASM)
T:1:77		PAINTED ROCKS	4	0	1	1	1	33	0	AZSITE(ASM)
T:13:78		PAINTED ROCKS	4	0	5	0	0	33	0	AZSITE(ASM)
T:13:79		PAINTED ROCKS	4	0	1	2	2	33	0	AZSITE(ASM)
T:13:80		PAINTED ROCKS	4	0	1	2	4	33	0	AZSITE(ASM)
T:13:81		PAINTED ROCKS	4	0	1	1	3	33	0	AZSITE(ASM)
T:13:83		PAINTED ROCKS	4	0	1	1	0	33	0	AZSITE(ASM)
T:13:85		PAINTED ROCKS	4	0	1	2	4	33	0	AZSITE(ASM)
T:13:86		PAINTED ROCKS	4	0	1	5	0	33	0	AZSITE(ASM)
T:13:87		PAINTED ROCKS	4	0	1	3	4	33	0	AZSITE(ASM)
T:13:88		PAINTED ROCKS	4	0	1	1	1	33	0	AZSITE(ASM)
T:13:100		PAINTED ROCKS	4	14	5	0	0	33	0	AZSITE(ASM)
T:13:99		PAINTED ROCKS	4	0	1	1	1	33	0	AZSITE(ASM)
T:13:96		PAINTED ROCKS	4	0	5	0	0	33	0	AZSITE(ASM)
T:13:97		PAINTED ROCKS	4	0	5	0	0	33	0	AZSITE(ASM)
T:13:98		PAINTED ROCKS	4	0	5	0	0	33	0	AZSITE(ASM)
T:13:89		PAINTED ROCKS	4	0	5	0	0	33	0	AZSITE(ASM)
T:13:91		PAINTED ROCKS	4	0	1	1	1	33	0	AZSITE(ASM)
T:13:101		PAINTED ROCKS	4	15	5	0	0	33	0	AZSITE(ASM)
T:13:104		PAINTED ROCKS	4	15	5	0	0	33	0	AZSITE(ASM)
T:13:105		PAINTED ROCKS	4	0	5	0	0	33	0	AZSITE(ASM)
T:13:106		PAINTED ROCKS	4	0	5	0	0	33	0	AZSITE(ASM)
T:13:107		PAINTED ROCKS	4	0	5	0	0	33	0	AZSITE(ASM)
T:13:109		PAINTED ROCKS	4	0	5	0	0	33	0	AZSITE(ASM)
T:13:110		PAINTED ROCKS	4	0	1	1	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
T:13:112		PAINTED ROCKS	4	0	1	1	0	33	0	AZSITE(ASM)
T:13:115		PAINTED ROCKS	4	15	1	0	0	2	0	AZSITE(ASM)
T:13:120			4	0	1	20	100	33	0	AZSITE(ASM)
T:13:121			4	0	1	10	0	33	0	AZSITE(ASM)
T:14:23			4	0	1	1	0	2	0	AZSITE(ASM)
T:14:39			4	6	1	3	3	2	0	AZSITE(ASM)
U:147			4	0	1	0	0	2	0	AZSITE(ASM)
U:1:67			4	0	1	0	0	2	0	AZSITE(ASM)
U:1:68			4	0	1	1	1	2	0	AZSITE(ASM)
U:1:73			4	0	0	0	0	2	0	AZSITE(ASM)
U:1:75			4	0	0	0	0	2	0	AZSITE(ASM)
U:2:44			4	0	1	4	0	2	33	AZSITE(ASM)
U:11:36			6	6	0	0	0	1	2	AZSITE(ASM)
U:14:91			6	0	1	1	0	1	0	AZSITE(ASM)
U:14:93			6	0	1	1	3	2	0	AZSITE(ASM)
U:16:239			6	0	1	0	0	33	0	AZSITE(ASM)
Z:5:9			4	3	1	0	0	2	0	AZSITE(ASM)
Z:5:50			4	6	1	17	0	33	0	AZSITE(ASM)
Z:10:6			1	6	1	0	0	2	25	AZSITE(ASM)
Z:14:8			4	6	1	0	0	2	33	AZSITE(ASM)
Z:14:8		WILD HORSE TANK	1	4	2	0	0	33	0	AZSITE(ASM)
Z:14:52			1	0	1	0	0	33	0	AZSITE(ASM)
AA:1:83			0	0	0	0	0	0	0	AZSITE(ASM)
AA:7:446			0	0	0	0	0	0	0	AZSITE(ASM)
AA:8:16		PAINT PALETTE PLACE	1	3	2	0	0	2	0	AZSITE(ASM)
AA:12:70			1	3	1	0	0	2	0	AZSITE(ASM)
AA:12:72			1	3	1	0	0	2	0	AZSITE(ASM)
BB:3:6			7	2	2	0	0	33	0	AZSITE(ASM)
BB:14:38			1	4	2	0	0	2	0	AZSITE(ASM)
CC:14:8	CC:14:26(AMF)		2	6	1	0	0	33	0	AZSITE(ASM)
CC:16:187			0	0	0	0	0	0	0	AZSITE(ASM)
DD:2:41			1	2	1	0	0	2	0	AZSITE(ASM)
DD:4:10			1	6	1	0	0	2	0	AZSITE(ASM)
DD:7:20		TRES HOMBRES	1	0	1	0	0	2	26	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
EE:8:22			2	8	1	0	0	33	0	AZSITE(ASM)
EE:8:186			0	0	0	0	0	0	0	AZSITE(ASM)
EE:8:187			0	0	0	0	0	0	0	AZSITE(ASM)
EE:9:49			2	2	2	0	0	21	0	AZSITE(ASM)
EE:9:94		CIELO NEGRO	3	4	2	0	100	2	0	AZSITE(ASM)
FF:4:5			2	4	2	0	0	33	0	AZSITE(ASM)
FF:4:11			2	0	0	0	0	0	0	AZSITE(ASM)
FF:5:12		N.I. SITE	2	3	2	0	0	33	0	AZSITE(ASM)
FF:7:4			2	2	2	0	0	3	0	AZSITE(ASM)
FF:7:6			2	5	2	0	0	33	0	AZSITE(ASM)
FF:8:6		LONE TREE SITE	2	3	1	0	0	3	33	AZSITE(ASM)
FF:8:7			2	0	0	0	0	0	0	AZSITE(ASM)
FF:8:8			2	0	0	0	0	0	0	AZSITE(ASM)
FF:9:9			2	0	0	0	0	0	0	AZSITE(ASM)
U:1:101			4	6	1	1	1	2	0	AZSITE(ASM)
U:5:36			0	0	0	0	0	0	0	AZSITE(ASM)
U:14:25	GR 1180-1181		6	14	1	0	0	2	0	AZSITE(ASM)
W:1:12			14	6	1	40	100	33	0	AZSITE(ASM)
W:13:10	SAFFORD BLM 02-04-283		7	6	1	5	13	33	0	AZSITE(ASM)
X:3:5	X:3:3(BLM)	CASTLE DOME	4	0	0	0	0	0	0	AZSITE(ASM)
X:3:7	X:3:75(BLM)	ADAIR PARK	4	4	4	0	0	33	0	AZSITE(ASM)
Y:12:1		SHUNI TEMPORAL	1	9	1	0	0	25	0	AZSITE(ASM)
Y:12:12			0	0	0	0	0	0	0	AZSITE(ASM)
Z:4:1			6	3	1	0	0	2	0	AZSITE(ASM)
Z:4:7			1	6	1	1	1	2	0	AZSITE(ASM)
Z:12:4		OLD SANTA ROSA	1	6	1	0	0	25	0	AZSITE(ASM)
Z:13:5		PICTOGRAPH CANYON	1	3	3	0	0	33	0	AZSITE(ASM) AND WACC
Z:13:49		GROWLER CANYON GLYPHS	1	0	1	0	0	2	0	AZSITE(ASM) AND WACC
Z:13:23			1	0	5	0	0	33	0	AZSITE(ASM)
Z:4:9			6	3	1	0	0	2	0	AZSITE(ASM)
Z:4:22			6	2	1	0	8	2	0	AZSITE(ASM)
Z:1:20		PAINTED ROCKS RESERVOIR	5	3	1	46	0	1	2	AZSITE(ASM)
Z:7:3			1	0	1	0	0	33	0	AZSITE(ASM)
Z:7:4			1	4	2	0	0	33	0	AZSITE(ASM)

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
Z:8:73			6	3	1	6	14	2	0	AZSITE(ASM)
Z:12:5		VENTANA CAVE	1	5	3	0	0	33	0	AZSITE(ASM)
Z:14:52	ORPI 79A-4		1	0	1	0	0	33	0	AZSITE(ASM)
U:1:108			5	0	1	1	0	2	0	AZSITE(ASM)
U:5:77	U:5:77(ASU)	TREE SNAKE SITE	5	0	1	1	1	2	0	AZSITE(ASM)
U:9:114	U:9:30(ASU)	TEMPE GLYPH SITE	5	0	1	0	58	2	0	AZSITE(ASM)
U:9:125		DESERT BOTANICAL GARDEN	5	0	1	2	5	2	0	AZSITE(ASM)
U:11:42			6	0	1	1	8	2	0	AZSITE(ASM)
U:15:225			6	6	1	100	0	1	2	AZSITE(ASM)
U:15:230			6	0	1	65	130	1	0	AZSITE(ASM)
Q:4:163	LZ 0093	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
Q:4:174	LZ 0104	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0193	OJO BONITO	15	6	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0194	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0222	OJO BONITO	15	0	1	0	2	26	0	K. KINTIGH-ASU
	LZ 0224	OJO BONITO	15	4	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0287	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0299	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0327	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0329	OJO BONITO	15	3	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0340	OJO BONITO	15	8	1	0	25	33	0	K. KINTIGH-ASU
	LZ 0343	OJO BONITO	15	2	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0356	OJO BONITO	15	0	3	0	100	33	0	K. KINTIGH-ASU
	LZ 0357	OJO BONITO	15	6	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0404	OJO BONITO	15	4	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0405	OJO BONITO	15	4	2	1	3	33	0	K. KINTIGH-ASU
	LZ 0406	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0407	OJO BONITO	15	4	1	0	2	33	0	K. KINTIGH-ASU
	LZ 0409	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0412	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0416	OJO BONITO	15	4	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0418	OJO BONITO	15	4	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0429	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0431	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	LZ 0432	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0440	OJO BONITO	15	0	1	0	2	33	0	K. KINTIGH-ASU
	LZ 0442	OJO BONITO	15	4	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0443	OJO BONITO	15	4	1	0	2	33	0	K. KINTIGH-ASU
	LZ 0445	OJO BONITO	15	4	1	0	6	33	0	K. KINTIGH-ASU
	LZ 0448	OJO BONITO	15	0	1	0	2	33	0	K. KINTIGH-ASU
	LZ 0452	OJO BONITO	15	0	1	0	7	33	0	K. KINTIGH-ASU
	LZ 0453	OJO BONITO	15	0	1	0	2	33	0	K. KINTIGH-ASU
	LZ 0463	OJO BONITO	15	0	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0464	OJO BONITO	15	0	1	0	2	33	0	K. KINTIGH-ASU
	LZ 0467	OJO BONITO	15	0	1	0	99	33	0	K. KINTIGH-ASU
	LZ 0470	OJO BONITO	15	0	1	0	10	33	0	K. KINTIGH-ASU
	LZ 0479	OJO BONITO	15	0	2	0	2	33	0	K. KINTIGH-ASU
	LZ 0480	OJO BONITO	15	0	3	0	4	33	0	K. KINTIGH-ASU
	LZ 0901	OJO BONITO	15	2	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0902	OJO BONITO	15	0	1	0	99	33	0	K. KINTIGH-ASU
	LZ 0903	OJO BONITO	15	0	1	0	2	33	0	K. KINTIGH-ASU
	LZ 0904	OJO BONITO	15	6	1	0	9	33	0	K. KINTIGH-ASU
	LZ 0906	OJO BONITO	15	0	1	0	99	33	0	K. KINTIGH-ASU
	LZ 0910	OJO BONITO	15	6	3	0	99	33	0	K. KINTIGH-ASU
	LZ 0911	OJO BONITO	15	4	3	0	10	33	0	K. KINTIGH-ASU
	LZ 0914	OJO BONITO	15	0	1	0	99	33	0	K. KINTIGH-ASU
	LZ 0915	OJO BONIOT	15	0	1	0	99	33	0	K. KINTIGH-ASU
	LZ 0917	OJO BONITO	15	0	3	0	99	33	0	K. KINTIGH-ASU
	LZ 0918	OJO BONITO	15	6	1	1	1	33	0	K. KINTIGH-ASU
	LZ 0919	OJO BONITO	15	0	3	0	100	33	0	K. KINTIGH-ASU
	LZ 0921	OJO BONITO	15	0	3	0	11	33	0	K. KINTIGH-ASU
	LZ 0953	OJO BONITO	15	0	1	0	13	33	0	K. KINTIGH-ASU
	LZ 0957	OJO BONITO	15	0	3	0	99	33	0	K. KINTIGH-ASU
	LZ 0962	OJO BONITO	15	0	3	0	35	33	0	K. KINTIGH-ASU
Q:11:98	LZ 2014	LYMAN LAKE	15	0	1	0	44	33	0	K. KINTIGH-ASU
Q:11:99	LZ 2015	LYMAN LAKE	15	6	1	0	99	33	0	K. KINTIGH-ASU
Q:11:121	LZ 2038	LYMAN LAKE	15	2	1	0	4	33	0	K. KINTIGH-ASU
Q:11:97	LZ 2043	LYMAN LAKE	15	0	1	0	200	33	0	K. KINTIGH-ASU

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	AA:1:6(ASU)		6	0	0	0	0	2	0	ASU
	AA:5:6(ASU)		6	0	0	0	0	25	0	ASU
	AA:5:8(ASU)		6	0	0	0	30	33	0	ASU
	AA:5:10(ASU)		6	0	0	0	1	33	0	ASU
	E:2:5(ASU)	BIG TALKING ROCK	15	2	0	0	0	18	0	ASU
	E:2:6(ASU)	LITTLE NEWSPAPER ROCK	15	2	0	0	0	17	18	ASU
	E:2:11(ASU)	ROCK POINT	15	2	0	0	0	18	0	ASU
	E:6:25		15	2	0	0	1	17	18	ASU
	FF:9:1(ASU)		2	0	0	0	0	33	0	ASU
	N:3:16(ASU)		12	0	0	0	2	33	0	ASU
	N:6:26(ASU)	CAMP DALBE	12	2	0	0	0	33	0	ASU
	N:6:39(ASU)	PIKE SITE	12	0	0	0	0	33	0	ASU
	N:11:2(ASU)		12	0	0	0	0	33	0	ASU
	N:11:4(ASU)	MONUMENT HILL	12	2	0	0	0	33	0	ASU
	N:12:8		12	2	0	0	0	33	0	ASU
	N:14:1(ASU)	CAMPBELL FLAT SPRING	12	2	0	0	0	33	0	ASU
	N:16:1(ASU)		12	0	0	0	1	9	0	ASU
	N:16:4(ASU)	BARREL SPRING	12	2	0	0	0	33	0	ASU
	N:16:8(ASU)		12	0	0	0	0	33	0	ASU
	N:16:9		12	0	0	0	0	33	0	ASU
	O:4:39(ASU)		13	0	0	0	15	33	0	ASU
	O:4:182(ASU)		13	2	0	0	15	33	0	ASU
	O:4:206		13	0	0	0	15	33	0	ASU
	O:4:218(ASU)		13	2	0	0	2	33	0	ASU
	O:4:241(ASU)		13	0	0	0	50	33	0	ASU
	P:12:1(ASU)	PINEDALE RUIN	14	2	0	0	0	33	0	ASU
	P:12:122(ASU)		14	2	0	0	1	33	0	ASU
	Q:16:22(ASU)		8	0	0	0	2	31	0	ASU
	T:4:77(ASU)		5	2	0	0	0	31	0	ASU
	T:8:101(ASU)		5	0	1	0	0	2	0	ASU
	T:8:102(ASU)		5	0	1	0	0	2	0	ASU
	T:10:34(ASU)		5	0	0	0	0	33	0	ASU
	T:12:59(ASU)	BOX CANYON OR AMPHITHEATRE	5	0	0	0	0	33	0	ASU
	U:1:64(ASU)		5	2	1	0	6	2	0	ASU

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	U:1:72(ASU)		5	2	1	0	0	2	0	ASU
	U:1:75(ASU)		5	0	1	0	2	2	0	ASU
	U:1:76(ASU)		5	0	1	0	1	2	0	ASU
	U:1:78(ASU)		5	2	1	0	1	2	0	ASU
	U:1:80(ASU)		5	2	1	0	1	2	0	ASU
	U:1:81(ASU)		5	0	1	0	4	2	0	ASU
	U:1:82(ASU)		5	2	1	0	0	2	0	ASU
	U:1:83(ASU)		5	0	1	0	0	2	0	ASU
	U:1:93(ASU)		5	2	0	0	0	33	0	ASU
	U:9:93(ASU)	LOS RICHNICK	5	0	0	0	0	33	0	ASU
	V:10:1(ASU)		9	2	0	0	0	33	0	ASU
	Z:99:23(ASU)	SIERRA ESTRELLA #2	5	2	0	0	0	33	0	ASU
A:1:11	MNA 9058	LITTLEFIELD	11	2	1	1	2	33	0	AZ STRIP-BLM
	MNA 9062		11	0	1	2	45	31	33	AZ STRIP-BLM
	A:9:9(BLM)	PAKOON SPRINGS I	11	6	1	1	1	33	0	AZ STRIP-BLM
	A:9:10(BLM)	PAKOON SPRINGS II	11	2	1	32	86	1	33	AZ STRIP-BLM
	A:2:86(BLM)	DEADMANS CAVE	11	5	1	2	6	33	0	AZ STRIP-BLM
	A:5:14(BLM)	BILLINGSLEY SHELTER	11	4	3	0	0	1	31	AZ STRIP-BLM
	A:5:15(BLM)	BOQUILLA SHELTER	11	4	3	0	5	31	33	AZ STRIP-BLM
	A:5:16(BLM)	APPEL	11	0	2	0	0	31	33	AZ STRIP-BLM
	A:13:2(BLM)		11	4	2	0	0	1	0	AZ STRIP-BLM
	MNA 15,909	HEDGEPTH HILLS	5	0	0	0	0	0	0	HEDGPETH HILLS REPORT
	MNA 16,378	HEDGEPTH HILLS	5	0	0	0	0	0	0	HEDGPETH HILLS REPORT
	MNA 15,912	HEDGEPTH HILLS	5	0	0	0	0	0	0	HEDGPETH HILLS REPORT
	MNA 15,910	HEDGEPTH HILLS	5	0	0	0	0	0	0	HEDGPETH HILLS REPORT
	MNA 15,911	HEDGEPTH HILLS	5	0	0	0	0	0	0	HEDGPETH HILLS REPORT
	A:13:3(GRCA)		13	2	2	0	0	33	0	GRCA NP
	A:13:4(GRCA)		13	2	1	0	5	12	34	GRCA NP
	A:15:5(GRCA)		13	2	2	2	8	12	34	GRCA NP
	A:15:8(GRCA)		13	0	2	4	20	33	0	GRCA NP
	A:15:9(GRCA)		11	4	3	0	0	12	26	GRCA NP
	A:15:11(GRCA)		11	4	2	0	0	34	0	GRCA NP
	A:15:15(GRCA)		13	4	2	0	0	4	17	GRCA NP
	A:16:1(GRCA)		13	2	2	5	82	12	0	GRCA NP

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	B:9:17(GRCA)		11	3	2	0	3	10	35	GRCA NP
	B:9:23(GRCA)		11	2	2	0	0	35	0	GRCA NP
	B:9:53(GRCA)		11	0	1	1	0	33	0	GRCA NP
	B:9:54(GRCA)		11	4	3	0	0	33	0	GRCA NP
	B:9:55(GRCA)		11	4	3	0	0	33	0	GRCA NP
	B:9:83(GRCA)		11	4	2	0	4	33	0	GRCA NP
	B:9:85(GRCA)		11	2	2	0	0	36	0	GRCA NP
	B:9:86(GRCA)		11	4	2	0	0	33	0	GRCA NP
	B:9:90(GRCA)		11	4	2	1	21	36	0	GRCA NP
	B:9:108(GRCA)		11	4	1	0	0	36	0	GRCA NP
	B:9:109(GRCA)		11	4	2	0	0	34	36	GRCA NP
	B:9:127(GRCA)		11	5	1	0	0	26	0	GRCA NP
	B:9:201	SHAMAN'S GALLERY	11	4	2	0	0	1	4	GRCA NP
	B:9:310(GRCA)		11	4	3	0	0	12	0	GRCA NP
	B:10:33(GRCA)		11	3	2	0	0	10	0	GRCA NP
	B:10:83(GRCA)		11	2	1	0	0	33	0	GRCA NP
	B:10:88(GRCA)		11	3	2	0	0	10	35	GRCA NP
	B:10:112(GRCA)		11	3	2	0	0	10	35	GRCA NP
	B:10:232	BATTION SHELTER	11	4	2	0	0	1	17	GRCA NP
	B:10:233	JACKPOT CAVE	11	4	2	0	0	1	0	GRCA NP
	B:10:235(GRCA)		11	0	2	3	0	33	0	GRCA NP
	B:10:239(GRCA)		11	0	2	3	0	33	0	GRCA NP
	B:11:62(GRCA)		13	4	2	0	0	12	0	GRCA NP
	B:11:243(GRCA)		13	3	2	0	0	12	34	GRCA NP
	B:11:244(GRCA)		13	0	2	0	0	33	0	GRCA NP
	B:11:245		13	2	2	0	0	12	0	GRCA NP
	B:11:246(GRCA)		13	0	2	0	0	33	0	GRCA NP
	B:11:286(GRCA)		12	6	2	0	0	34	0	GRCA NP
	B:14:33(GRCA)		13	4	2	0	0	10	13	GRCA NP
	B:14:37(GRCA)		13	3	1	0	0	33	0	GRCA NP
	B:14:42(GRCA)		13	0	2	1	1	33	0	GRCA NP
	B:14:46(GRCA)		13	4	2	0	0	26	0	GRCA NP
	B:14:48(GRCA)		13	4	2	0	0	10	26	GRCA NP
	B:14:49(GRCA)		13	0	3	0	0	10	33	GRCA NP

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	B:14:51(GRCA)		13	3	1	0	0	13	0	GRCA NP
	B:14:53(GRCA)		13	3	2	0	0	13	0	GRCA NP
	B:14:54(GRCA)		13	3	2	0	0	13	35	GRCA NP
	B:14:56(GRCA)		13	4	1	0	0	26	0	GRCA NP
	B:14:65(GRCA)		13	0	2	0	0	13	0	GRCA NP
	B:14:67(GRCA)		13	2	1	0	0	13	0	GRCA NP
	B:14:69(GRCA)		13	0	2	0	0	10	0	GRCA NP
	B:14:70(GRCA)		13	0	2	0	2	10	0	GRCA NP
	B:14:71(GRCA)		13	0	1	0	0	13	0	GRCA NP
	B:14:74(GRCA)		13	0	2	0	0	10	0	GRCA NP
	B:14:77(GRCA)		13	2	2	0	0	13	0	GRCA NP
	B:15:110(GRCA)		13	2	3	0	0	10	13	GRCA NP
	B:16:89(GRCA)		13	4	2	1	2	12	0	GRCA NP
	B:16:92(GRCA)		13	0	2	0	0	13	0	GRCA NP
	B:16:94(GRCA)		13	5	3	0	0	12	0	GRCA NP
	B:16:115(GRCA)		13	4	2	0	0	13	0	GRCA NP
	B:16:239(GRCA)	BIG JIM'S SHELTER	13	4	2	0	0	26	0	GRCA NP
	B:16:308(GRCA)		13	2	1	0	0	33	0	GRCA NP
	C:5:1(GRCA)		13	2	1	0	0	12	0	GRCA NP
	C:6:4(GRCA)	GEOLOGIST'S HAMMER GLYPH	13	0	1	0	0	26	0	GRCA NP
	C:6:5(GRCA)		13	0	1	0	0	12	0	GRCA NP
	C:9:151(GRCA)		23	0	1	0	50	36	0	GRCA NP
	C:9:153(GRCA)		13	0	1	0	0	33	0	GRCA NP
	C:13:82(GRCA)	CAVE OF THE DOMES	13	5	1	0	0	26	0	GRCA NP
	C:13:132B(GRCA)		13	0	1	0	0	36	0	GRCA NP
	C:13:322(GRCA)		13	0	1	0	0	12	0	GRCA NP
	C:13:459(GRCA)		13	0	1	0	0	26	0	GRCA NP
	G:2:10(GRCA)		13	3	3	0	0	12	35	GRCA NP
	L:12:8(BLM)	MOHAVE SPRINGS	11	0	0	0	0	33	0	YUMA-BLM
	R:7:122(BLM)	OLD MAN TANQUE	4	0	0	0	0	33	0	YUMA-BLM
	X:7:27(BLM)	DOME WASH	4	0	0	0	0	33	0	YUMA-BLM
	X:3:12(BLM)	DOME	4	0	0	0	0	33	0	YUMA-BLM
	X:8:8(BLM)		4	0	0	0	0	33	0	YUMA-BLM
	X:8:9(BLM)		4	0	0	0	0	33	0	YUMA-BLM

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	-1287 (YUMA BLM)	TLALOC'S EYES	0	0	0	0	0	33	0	YUMA-BLM
	-013 (YUMA BLM)	MCPHAUL'S BRIDGE	0	0	0	0	0	33	0	YUMA-BLM
	050-2405 (YUMA BLM)	TRUE BLUE MINE NORTH	0	0	0	0	0	33	0	YUMA-BLM
	-2306 (YUMA BLM)	KEGLEY/LYNCH #1	0	0	0	0	0	33	0	YUMA-BLM
	-2446 (YUMA BLM)	HOPE PASS	0	0	0	0	0	33	0	YUMA-BLM
	-0481 (YUMA BLM)	PETROGLYPH PASS	4	0	1	0	0	33	0	YUMA-BLM
	-1321 (YUMA BLM)	TINAJAS ALTAS	0	0	0	0	0	33	0	YUMA-BLM
	-1662 (YUMA BLM)	ROCKSHELTER PICTOS	0	0	0	0	0	33	0	YUMA-BLM
	-2281 (YUMA BLM)	SIEVERS TANK	0	0	0	0	0	33	0	YUMA-BLM
	-1959 (YUMA BLM)		11	0	0	0	0	33	0	YUMA-BLM
	-1902 (YUMA BLM)		4	0	0	0	0	33	0	YUMA-BLM
	-2282 (YUMA BLM)		4	0	0	0	0	33	0	YUMA-BLM
	-1645 (YUMA BLM)	NORTH KOFA	0	0	0	0	0	33	0	YUMA-BLM
	-2020 (YUMA BLM)		14	0	0	0	0	33	0	YUMA-BLM
	-2031 (YUMA BLM)	TOWNSEND #2	0	0	0	0	0	33	0	YUMA-BLM
	-2043 (YUMA BLM)	SHAMROCK MINE	0	0	0	0	0	33	0	YUMA-BLM
	-2044 (YUMA BLM)	BEAR HILLS	0	0	0	0	0	33	0	YUMA-BLM
	-1445 (YUMA BLM)	INDIAN WELLS	0	0	0	0	0	33	0	YUMA-BLM
	-2403(YUMA BLM)	BLACK MESA	0	0	0	0	0	33	0	YUMA-BLM
	-777 (YUMA BLM)	CHAMBERS WELL	0	0	0	0	0	33	0	YUMA-BLM
	-1994 (YUMA BLM)	BLACK BEAUTY MINE	0	0	0	0	0	33	0	YUMA-BLM
	-2017 (YUMA BLM)		4	0	0	0	0	33	0	YUMA-BLM
	-2402 (YUMA BLM)		4	0	0	0	0	33	0	YUMA-BLM
	R:7:97(BLM)		10	14	4	0	0	33	0	YUMA-BLM
	R:7:94(BLM)		10	14	4	0	0	33	0	YUMA-BLM
	X:3:109(BLM)		4	6	1	0	3	26	33	YUMA-BLM
	X:8:7(BLM)	HALLOCK SITE	4	6	1	0	0	33	0	YUMA-BLM
	R:8:80(BLM)		10	0	4	0	0	33	0	YUMA-BLM
	Y:2:1(BLM)	TEXAS HILL GLYPHS	4	0	1	0	0	33	0	YUMA-BLM
	X:8:14(BLM)	RADAR HILL GLYPHS NORTH	4	0	1	0	0	33	0	YUMA-BLM
	R:8:229(BLM)		4	0	2	0	0	7	0	YUMA-BLM
	R:8:402(BLM)		4	0	4	0	0	33	0	YUMA-BLM
	050-1645 (BLM)		4	0	1	0	0	33	0	YUMA-BLM
	R:14:48(BLM)		4	0	1	0	0	33	0	YUMA-BLM

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	R:8:518(BLM)		10	0	4	0	0	33	0	YUMA-BLM
	X:7:29(BLM)	GUNNERY RANGE PICTOS	4	3	2	0	0	33	0	YUMA-BLM
	X:3:122(BLM)		4	0	4	0	0	33	0	YUMA-BLM
	X:2:58(BLM)		4	0	4	0	0	33	0	YUMA-BLM
	Y:5:3(BLM)		4	0	4	0	0	33	0	YUMA-BLM
X:3:8	X:3:8(BLM)	SUGARLOAF WASH	4	0	1	8	0	33	0	YUMA-BLM
	R:8:45(BLM)	QUARTZITE INTAGLIO	10	0	4	0	0	33	0	YUMA-BLM
	R:10:13(BLM)	CRAZY WOMAN	10	6	4	0	0	33	0	YUMA-BLM
	X:2:14(BLM)	WINTERHAVEN INTAGLIO	0	0	4	0	0	33	0	YUMA-BLM
	R:7:10(BLM)		10	0	4	0	0	33	0	YUMA-BLM
	X:3:66(BLM)		4	19	4	0	0	33	0	YUMA-BLM
	R:7:13(BLM)	LIMEKILN WASH	10	6	4	0	0	33	0	YUMA-BLM
	R:10:51(BLM)		4	6	4	0	0	33	0	YUMA-BLM
	R:8:125(BLM)		4	0	4	0	0	26	0	YUMA-BLM
	R:7:45(BLM)		4	6	4	0	0	33	0	YUMA-BLM
	S:5:11(BLM)	JONESY'S BRENDA BUNCH #1	10	4	1	0	0	33	0	YUMA-BLM
	S:5:10(BLM)	JONESY'S BRENDA BUNCH #2	10	3	1	0	0	33	0	YUMA-BLM
	R:4:53(BLM	RAY TOWNSEND #1	10	15	1	0	0	33	0	YUMA-BLM
	R:8:230(BLM)		4	6	1	0	0	33	0	YUMA-BLM
	R:7:11(BLM)	CIBOLA ROAD GLYPHS	4	0	1	0	0	33	0	YUMA-BLM
	R:14:15(BLM)	PETROGLYPH ROCK	4	0	1	0	0	33	0	YUMA-BLM
	R:10:128(BLM)	LOU & ILA BISHOP #2	10	2	4	0	0	1	33	YUMA-BLM
	X:7:37(BLM)		4	0	4	0	0	0	0	YUMA-BLM
	R:10:142(BLM)		10	0	4	0	0	0	0	YUMA-BLM
R:14:125		RAY TOWNSEND #6	10	0	4	0	0	1	0	YUMA-BLM
	M:10:1(BLM)	MISSISSIPPI WASH	10	0	2	0	0	33	0	YUMA-BLM
	X:12:14(BLM)	RAVEN TANKS	0	4	3	0	0	33	0	YUMA-BLM
	X:7:38(BLM)	DRIPPING SPRINGS	4	0	1	0	0	33	0	YUMA-BLM
	S:10:10(BLM)		10	0	1	0	0	33	0	YUMA-BLM
	Y:3:2(BLM)		4	0	1	0	0	33	0	YUMA-BLM
	X:8:27(BLM)	GLANTON GLYPH	4	0	1	0	0	26	33	YUMA-BLM
	X:7:22(BLM)		4	3	4	0	0	1	26	YUMA-BLM
	R:10:92(BLM)	HYDER GEOGLYPH	4	6	4	0	0	33	0	YUMA-BLM
	050-0936(BLM)	KOFA GEOGLYPH	4	0	4	0	0	33	0	YUMA-BLM

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	R:4:52(BLM)	BOUSE FISHERMAN	10	0	4	0	0	14	29	YUMA-BLM
	Y:1:14(BLM)		4	19	4	0	0	33	0	YUMA-BLM
	050-1227(BLM)	SHY DUCK TANK	4	3	1	0	0	33	0	YUMA-BLM
	050-1161(BLM)	OBSIDIAN BASIN	4	6	1	0	0	33	0	YUMA-BLM
	050-1160(BLM)	WHITE TANKS	4	6	3	0	0	1	26	YUMA-BLM
	050-1159(BLM)	OBSIDIAN CANYON	4	4	1	0	0	33	0	YUMA-BLM
	R:8:403(BLM)	CRYSTAL HILL	4	0	1	0	0	33	0	YUMA-BLM
	R:12:5(BLM)	GERRYS SITE	4	3	2	0	0	33	0	YUMA-BLM
	R:10:118(BLM)	BIG NEEDLE GEOGLYPH	10	6	4	0	0	33	0	YUMA-BLM
	R:7:106(BLM)	OLD MAN TANQUE AND TRAIL	10	14	1	1	1	14	0	YUMA-BLM
	050-1419	DRIPPING SPRINGS	4	4	1	0	0	2	29	YUMA-BLM
	R:16:1(BLM)	HORSE TANKS OR MCCAIN VALLEY CAVE	10	0	3	0	0	1	4	YUMA-BLM
	Y:3:31(BLM)	SENTINEL CEREMONIAL FIGURE	5	14	4	0	0	1	0	YUMA-BLM
	S:11:4(BLM)		4	4	3	0	0	26	33	YUMA-BLM
	X:12:16(BLM)		4	3	3	0	0	33	0	YUMA-BLM
	S:6:17(BLM)		4	0	1	0	0	33	0	YUMA-BLM
	Y:4:1(BLM)		0	0	1	0	0	0	0	YUMA-BLM
	S:5:1(BLM)	ALAMO WASH GLYPHS	10	0	1	0	0	33	0	YUMA-BLM
I:14:152	MNA 326; WACA 85A-146	WALNUT CANYON N.M.	13	2	1	0	3	26	0	WACC
I:14:157	MNA 317; WACA 85A-151	WALNUT CANYON N.M.	13	2	1	0	1	12	26	WACC
I:14:158	MNA 319; WACA 85A-152	WALNUT CANYON N.M.	13	2	1	0	1	12	26	WACC
I:14:160	MNA 321; WACA 85A-154	WALNUT CANYON N.M.	13	2	1	0	4	12	26	WACC
I:14:161	MNA 322; WACA 85A-155	WALNUT CANYON N.M.	13	2	1	0	1	12	26	WACC
I:14:163	MNA 324; WACA 85A-157	WALNUT CANYON N.M.	13	2	1	0	3	12	26	WACC
I:14:170	MNA 741; WACA 85A-164	WALNUT CANYON N.M.	13	2	1	0	1	12	26	WACC
I:15:112	MNA 389; WACA 85A-168	WALNUT CANYON N.M.	13	2	1	0	1	12	26	WACC
I:14:177	MNA 312; WACA 85A-175	WALNUT CANYON N.M.	13	2	1	0	1	12	31	WACC
I:14:178	MNA 313; WACA 85A-176	WALNUT CANYON N.M.	13	2	1	0	3	12	26	WACC
I:14:183	MNA 306,307; WACA 95A-181	WALNUT CANYON N.M.	13	2	1	0	1	12	26	WACC
I:14:195	MNA 400A; WACA 85A-193	WALNUT CANYON N.M.	13	2	1	0	1	12	26	WACC
I:14:196	MNA 400; WACA 85A-194	WALNUT CANYON N.M.	13	2	1	0	2	12	26	WACC
I:14:197	MNA 398; WACA 85A-195	WALNUT CANYON N.M.	13	2	1	0	3	12	26	WACC
I:14:212	MNA 333; WACA 85A-210	WALNUT CANYON N.M.	13	2	1	0	1	12	26	WACC

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
K:13:92			15	2	1	36	156	12	26	WACC
K:13:96			15	0	1	3	36	12	0	WACC
K:13:102			15	0	1	7	30	18	0	WACC
K:13:104			15	6	1	3	8	18	0	WACC
K:13:105			15	2	1	1	15	18	0	WACC
K:13:107		LACEY POINT	15	2	1	23	79	18	0	WACC
K:13:108			15	2	1	0	0	18	0	WACC
K:13:109			15	2	1	8	43	18	0	WACC
K:13:120			15	0	1	3	14	18	0	WACC
K:13:124			15	0	1	1	5	18	0	WACC
K:13:122			15	0	1	1	2	18	0	WACC
K:13:124			15	0	1	2	15	18	26	WACC
K:13:125			15	0	1	1	1	26	0	WACC
K:13:126			15	0	1	2	2	18	0	WACC
K:13:127			15	0	1	4	43	18	0	WACC
K:13:128			15	0	1	1	3	18	0	WACC
K:13:129			15	0	1	1	4	18	0	WACC
K:13:130			15	0	1	2	16	18	0	WACC
K:13:131			15	0	1	3	9	18	0	WACC
K:13:132			15	0	1	1	4	18	0	WACC
K:13:133			15	0	1	6	88	18	0	WACC
K:13:134			15	0	1	1	2	18	0	WACC
Q:1:211			15	0	1	8	86	18	0	WACC
Q:1:212			15	0	1	0	0	18	0	WACC
Q:1:213			15	0	1	0	0	18	0	WACC
Q:1:215			15	2	1	1	5	18	26	WACC
Q:1:228			15	0	1	15	66	18	0	WACC
Q:1:235			15	0	1	5	26	18	0	WACC
Q:1:260			15	9	1	0	116	18	26	WACC
Q:1:262			15	0	1	0	5	18	26	WACC
Q:1:263			15	9	1	0	41	18	26	WACC
Q:1:264			15	0	1	0	15	18	26	WACC
Q:1:266			15	0	1	2	7	18	0	WACC
Q:1:302			15	4	3	1	9	26	33	WACC

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
Q:1:270	MNA 4805		15	2	1	18	86	18	0	WACC
Q:1:277			15	6	1	11	35	18	0	WACC
Q:1:278			15	3	1	25	83	18	0	WACC
Q:1:280			15	6	1	3	9	18	0	WACC
Q:1:288	MNA 4807		15	2	1	8	30	18	0	WACC
Q:1:290	MNA 4809		15	2	1	4	16	17	18	WACC
Q:1:297	MNA 4812		15	2	1	5	39	18	0	WACC
Q:1:273			15	0	1	15	76	18	26	WACC
Q:1:272			15	9	1	20	48	18	26	WACC
Q:1:230			15	6	1	132	522	18	26	WACC
Q:1:233			15	0	1	3	35	12	0	WACC
Q:1:281	MNA 4726		15	2	1	14	59	12	0	WACC
Q:1:234			15	6	1	5	21	12	0	WACC
Q:1:202			15	6	1	33	191	12	0	WACC
Q:1:203			15	6	1	9	39	12	0	WACC
Q:1:204			15	6	1	20	97	12	0	WACC
Q:1:205			15	6	1	44	128	12	0	WACC
Q:1:206			15	0	1	10	24	12	0	WACC
Q:1:207			15	6	1	118	452	12	0	WACC
Q:1:200			15	0	1	6	0	12	0	WACC
	C:13:4(GRCA)	BEAMER'S CABIN	13	9	2	1	2	26	33	WACC
	SAGU 84A-250 (NPS)		1	0	1	1	2	2	0	WACC
F:2:71			11	8	1	1	1	0	0	WACC
F:2:77			11	0	1	1	1	0	0	WACC
F:2:78			11	0	1	0	12	0	0	WACC
Z:13:123			1	6	1	0	0	1	2	WACC
Z:13:124			1	0	1	0	20	1	2	WACC
SON C:1:43			1	6	1	0	0	1	0	WACC
	BLUE RIDGE DISTRICT (07) COCONINO N.F.	CHAVEZ PASS SITES	0	0	0	0	0	9	0	COCONINO N.F.
	ELDON DISTRICT (02) COCONINO N.F.		0	0	0	0	0	9	10	COCONINO N.F.
	03-05-02-403 (CORONADO N.F.)		3	0	0	0	0	0	0	CORONADO N.F.
	03-05-02-408 (CORONADO N.F.)		3	0	0	0	0	0	0	CORONADO N.F.
	03-05-02-410 (CORONADO N.F.)		3	0	0	0	0	0	0	CORONADO N.F.

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	03-05-02-169 (CORONADO N.F.)		0	0	0	0	0	0	0	CORONADO N.F.
	03-05-02-186 (CORONADO N.F.)		0	0	0	0	0	0	0	CORONADO N.F.
	03-07-03-872-882 (NOT 877,878) (8 SITES)		13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-03-914 (KAIBAB N.F.)		13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-03-917 TO 926 (NOT 924) (9 SITES IN KAIBAB N.F.)		13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-03-1044 TO 1049 (NOT 1048) (5 SITES IN KAIBAB N.F.)		13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-03-1053,1055-1058 (5 SITES IN KAIBAB N.F.)		13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-03-1085 TO 1088 (5 SITES IN KAIBAB N.F.)		13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-03-1156 TO 1158 (3 SITES IN KAIBAB N.F.)		13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-03-1163 (KAIBAB N.F.)		13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-04-413 (KAIBAB N.F.); MNA 9528	HARBISON CAVE	13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-04-1192 (KAIBAB N.F.)		13	0	0	0	0	0	0	KAIBAB N.F.
	03-07-03-KANAB CREEK WILDERNESS		13	0	0	0	0	0	0	KAIBAB N.F.
	AR-3-09-03-182		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-03-247		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-05-106		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-05-108		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-05-109		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-05-110		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-05-112		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-05-113		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-05-114		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-05-90		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-05-69		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-09-06-206		0	0	0	0	0	0	0	PRESCOTT N.F.
	AR-03-12-06-19,30,32,34,36,55-58		0	0	1	0	0	0	0	TONTO N.F.
	AR-03-12-06-11,46		0	0	2	0	0	0	0	TONTO N.F.
	MNA 4166		0	0	0	0	0	0	0	MNA
	MNA 5343	TOLCHACO ROAD	0	0	0	0	0	0	0	MNA
	MNA 5368		0	0	0	0	0	0	0	MNA

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	MNA 5500		0	0	0	0	0	0	0	MNA
	MNA 5505	SECOND MESA-ORAIBI	0	0	0	0	0	0	0	MNA
	MNA 6395		0	0	0	0	0	0	0	MNA
AA:12:499			1	0	1	2	21	2	0	AZSITE(ASM)
	T:4:5(PC)		5	0	0	0	0	33	0	AZSITE(ASM)
	T:4:54(ASU)		12	0	0	0	0	33	0	AZSITE(ASM)
	T:4:55(ASU)		12	0	0	0	0	33	0	AZSITE(ASM)
	T:4:56(ASU)		12	0	0	0	0	33	0	AZSITE(ASM)
	T:4:58(ASU)		12	0	0	0	0	33	0	AZSITE(ASM)
T:4:7	T:4:2(PG)		5	2	1	0	0	2	0	AZSITE(ASM)
	T:4:76(PC)		5	0	0	0	0	33	0	AZSITE(ASM)
T:6:1			5	2	1	0	0	2	0	AZSITE(ASM)
T:6:3			5	2	1	0	0	2	0	AZSITE(ASM)
	T:7:35(ASU)		5	0	0	0	0	33	0	AZSITE(ASM)
	T:7:37(ASU)		5	0	0	0	0	33	0	AZSITE(ASM)
T:8:19			5	2	1	0	0	2	0	AZSITE(ASM)
T:8:3			5	0	1	0	0	2	0	AZSITE(ASM)
T:8:4,5			5	6	1	0	0	2	0	AZSITE(ASM)
U:12:37			6	2	1	0	0	5	26	AZSITE(ASM)
U:13:115	GR #1418-1420		6	6	1	0	0	2	0	AZSITE(ASM)
	AR-03-09-05-119; N:12:14(ASU)		12	0	1	0	40	33	0	AZSITE(ASM)
	SAGU 84A-211		1	4	2	1	2	33	0	NPS-WACC
	C:13:132 A(GRCA)		13	0	1	0	0	12	0	GRAND CANYON N.P.
	A:16:172(GRCA)		11	0	1	0	0	33	0	GRAND CANYON N.P.
	C:2:37(GRCA)		13	0	1	0	0	26	33	GRAND CANYON N.P.
	C:2:38(GRCA)		13	0	1	0	0	33	0	GRAND CANYON N.P.
	C:2:73(GRCA)		13	0	1	0	0	12	26	GRAND CANYON N.P.
	C:3:6(GRCA)		13	0	1	0	0	1	0	GRAND CANYON N.P.
	C:3:4(GRCA)		13	0	2	0	0	1	0	GRAND CANYON N.P.
	A:16:179(GRCA)		13	0	2	0	0	33	0	GRAND CANYON N.P.
	G:3:77(GRCA)		13	0	2	0	0	11	0	GRAND CANYON N.P.
	C:2:56(GRCA)		13	0	1	0	0	22	0	GRAND CANYON N.P.
	G:3:4(GRCA)		13	3	2	0	0	11	34	GRAND CANYON N.P.
	C:2:13(GRCA)		13	2	1	0	0	12	0	GRAND CANYON N.P.

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
	C:2:41(GRCA)		13	2	1	0	0	12	23	GRAND CANYON N.P.
	C:2:94(GRCA)		13	0	2	0	0	26	27	GRAND CANYON N.P.
	C:2:90(GRCA)		13	2	1	0	0	12	0	GRAND CANYON N.P.
	C:6:7(GRCA)		13	0	1	0	0	26	0	GRAND CANYON N.P.
	B:15:124(GRCA)		13	0	1	0	0	26	27	GRAND CANYON N.P.
	A:16:159(GRCA)		13	6	2	0	0	11	0	GRAND CANYON N.P.
	C:13:3(GRCA)		13	0	2	0	0	23	0	GRAND CANYON N.P.
	C:2:104(GRCA)		13	0	1	0	0	33	0	GRAND CANYON N.P.
	G:2:10 GRCA		11	0	3	0	0	12	35	GRCA
	G:2:11 GRCA		11	0	2	0	0	34	0	GRCA
	G:2:20 GRCA		11	0	2	0	0	33	0	GRCA
	G:2:13 GRCA		11	0	2	0	0	33	0	GRCA
	G:2:26 GRCA		11	0	2	0	0	33	0	GRCA
	G:2:27 GRCA		11	0	2	0	0	33	0	GRCA
	G:2:31 GRCA		11	0	2	0	0	33	0	GRCA
	G:2:36 GRCA		11	0	2	0	0	33	0	GRCA
	G:2:37 GRCA		11	0	2	0	0	33	0	GRCA
	G:2:46 GRCA		11	0	0	0	0	33	0	GRCA
	G:2:52 GRCA		11	0	0	0	0	33	0	GRCA
	G:2:53 GRCA		11	0	0	0	0	33	0	GRCA
	G:3:5 GRCA		11	0	2	0	0	33	0	GRCA
	H:2:1 GRCA		13	0	1	0	0	10	0	GRCA
	H:2:2 GRCA		13	0	1	0	0	10	0	GRCA
	H:4:2 GRCA		13	0	3	0	0	36	0	GRCA
	I:1:11 GRCA		13	0	1	0	0	36	0	GRCA
	AZ U:1:23(ASU)		5	1	1	0	0	2	0	SHPO
	AR-03-09-05-264		12	1	1	7	13	33	0	SHPO
AZ U:14:102			6	1	1	1	16	2	0	SHPO
		STEPS PETTROGLYH SITE	14	1	1	0	0	33	0	SHPO
		LOY BUTTE PUEBLO	12	2	3	0	0	9	0	SHPO
AZ P:8:64	AZ P:8:10 PMDR		14	1	1	4	0	33	0	SHPO
AZ P:8:60	AZ P:8:6 PMDR		14	1	1	8	0	3	0	SHPO
AZ P:8:58	AZ P:8:4 PMDR		14	1	1	1	0	33	0	SHPO
AZ U:16:246			6	4	2	0	0	2	0	SHPO

Table B.1. Continued.

ASM Site	Other No.	Site Name	Co.	Site Type	Rock Art	Panels	Elements	Cult1	Cult2	Source
AZ M:6:11			11	6	1	1	1	33	0	SHPO
AS F:2:78			11	1	1	12	0	33	0	SHPO
AS F:2:77			11	1	1	1	0	33	0	SHPO
AZ F:2:71			11	1	1	1	0	33	0	SHPO

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