

ROCK ART OF THE GUADALUPE MOUNTAINS NATIONAL PARK AREA

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ABSTRACT

Rock art in the Guadalupe Mountains National Park and in the adjacent Delaware Mountains consists of petroglyphs and paintings on stone surfaces, usually located in the interiors of rock shelters or slight overhangs. The paintings apparently fall within the Jornada Style as defined by Schaafsma (1972:101-118) and are dated between A.D. 1050 and 1400 on the basis of ceramic association.

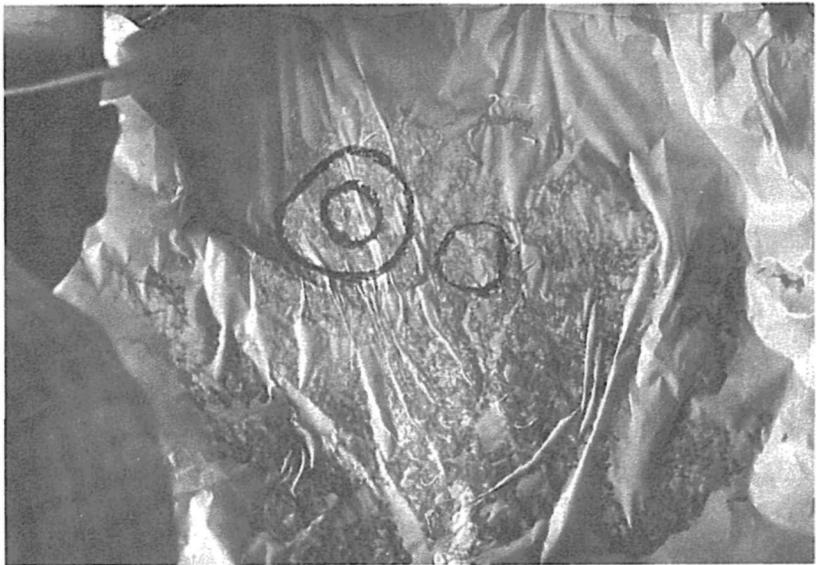
INTRODUCTION

Six rock art sites in the Guadalupe Mountain National Park area are described; four are located within the park boundaries and two are in the nearby Delaware Mountains. The rock art was copied during the Texas Archeological Society's annual field school held in the Guadalupe Mountains during June of 1970. The field school was conducted to instruct the Texas Archeological Society members in the "... purposes and techniques of modern archeological surveys, and to carry out a systematic problem-oriented site survey of a portion of the park" (Shafer 1970:10).

The purpose of the rock art survey was similar. Primarily, the objectives were to introduce the field school participants to the techniques of recording rock art. Several recording techniques were utilized in documenting the rock art in order to maximize the accuracy of the final product. Ultimately, the objective is to integrate the rock art studies into a general understanding of the local prehistoric cultural systems.

RECORDING TECHNIQUES

The method of pictograph recording most frequently used by the survey party was a technique described by Dewdney and Kidd (1962) and Clark (1967). This technique involves the use of water, Japanese rice paper and soft pastels to make direct full size color tracings of the paintings. First, the wall of the shelter must be wet carefully with the water; then, the rice paper is placed over the painting (Fig. 1,a). The paper is then wet to make it nearly transparent, allowing the tracing of the pictograph to be made. The advantages of this method are that one obtains a full size tracing in the natural or near the natural color, the paper is opaque when dry, and wall conditions and configuration may be indicated on the paper. Unfortunately, the paper is not per-



A



B

FIGURE 1: (A.) Tracing pictographs using wet rice paper at Apache Mask Cave (41CU24). (B.) Apache Mask Cave (41CU24). Crew mapping cave prior to recording the rock art.

fectly transparent when wet and one must be sure not to overlook faint portions of a painting.

A second technique employed was direct full size tracing utilizing sheets of clear acetate and ink marking pens. Again, the advantage is an accurate full size tracing of a painting, but one cannot approach the natural color, show lighter or darker areas or satisfactorily note wall features. This technique has been used previously in Texas by Gebhard (1960), Grieder (1965) and Brook and Green (1967).

Scale drawings using colored pencils or water colors were another means used in copying rock art. Bartlett (1854) was among the first to use this technique in recording Texas rock art. The scale drawing approach was also used by Jackson (1938) and Kirkland (1938, 1939 and 1942). The most recent work utilizing this approach has been done by Green (1967a, 1967b), Brook and Green (1967), Green (1966, 1969) and Walters (1968). In all of these instances the primary recording device was the scale sketch.

Another technique utilized by the field school was recording by color and black and white photography. The primary advantage of this method is that one achieves a copy characterized by minimal interpretation by the recorder, assuming the shelter wall is flat and the camera is oriented perpendicularly to the plane of the wall. However, there are often distortions of proportion due to the irregularities of the rock surface and differences in camera angle. Because of the distortions involved, which can sometimes be quite serious, this method is unsatisfactory for final recording.

Petroglyphs were noted at only one site in the park. These were recorded by rubbing a pencil on a piece of paper which had been placed over the engraved lines. Photographs were also taken of the petroglyphs.

In addition to copies of the rock art, field records include written site descriptions, photo record sheets, a catalog of artifacts collected at each site, site maps, a description of the geology and environment and grid plans for the pictograph copies. Each site was plotted on a U.S. Geological Survey topographic map of the area.

THE SITES

In this section of the report the sites are described with data on the geology, topographic position, painting surface, pictograph location at the sites and a brief description of the pictographs. The figures include maps of the sites and the pictograph copies oriented in relation to a grid superimposed on the wall of each shelter.

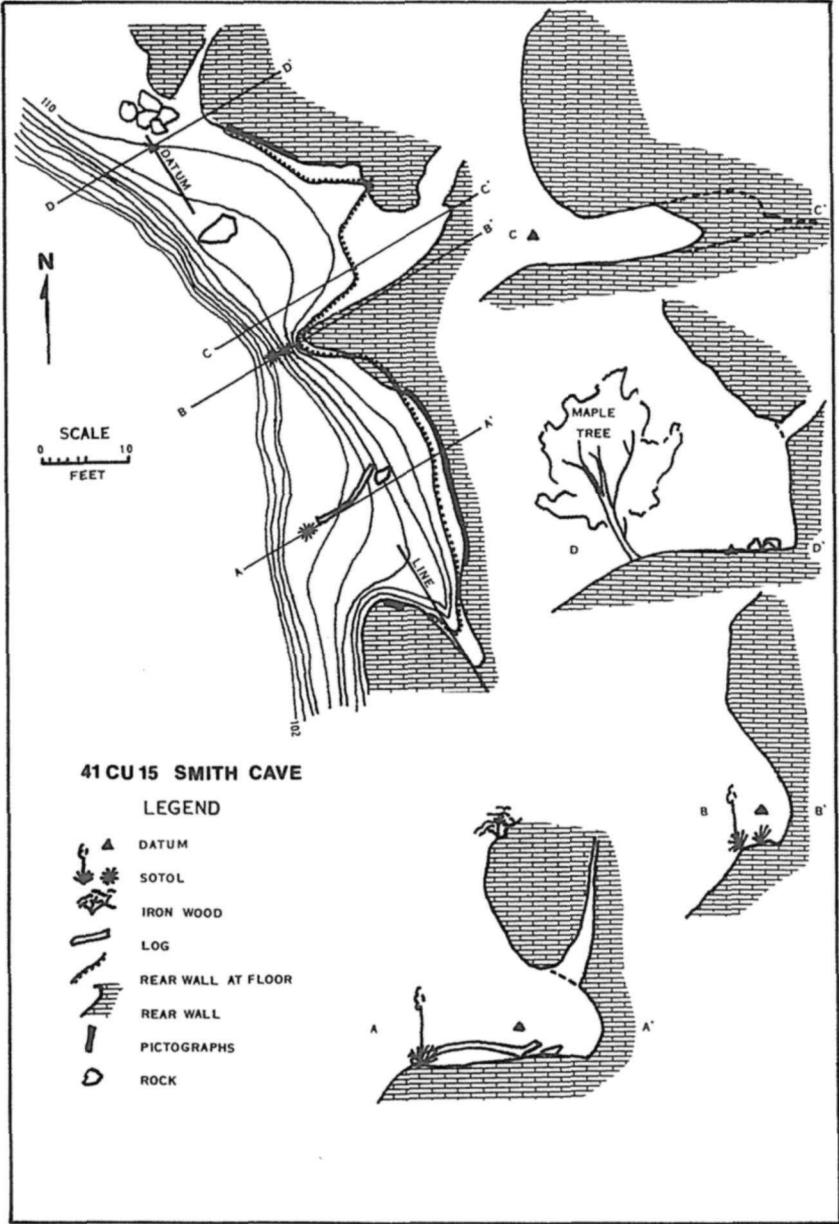


FIGURE 2. Map and profiles of Smith Cave (41CU15).

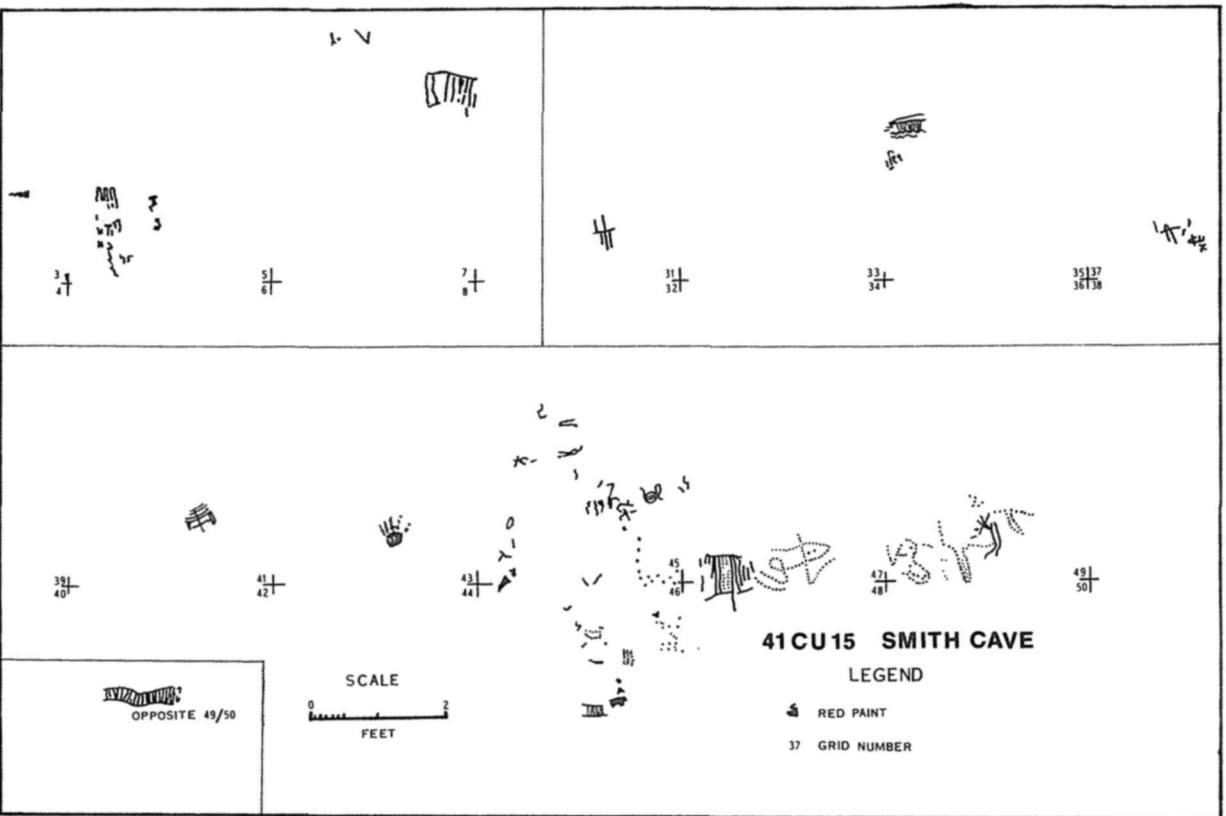


FIGURE 3. The paintings of Smith Cave. All paintings are in red.

Smith Cave (41CU15)

Smith Cave, previously recorded as pictograph site 17 by Jackson (1938:57), is located in the north wall of Smith Canyon, an east-west trending canyon on the east side of the Guadalupe Mountains massif. It is near the head of the canyon and consists of two open chambers, each containing red monochrome pictographs (Fig. 2, 3). The shelter is located at an elevation of approximately 6,500 feet above mean sea level and is a solution cavity formed near the base of a massive formation of light gray, very finely crystalline, fossiliferous limestone. Vertical fractures extend the entire width of the formation, allowing water to percolate through the fractures to wash the dark gray weathered surface to a light gray or almost white color. The stone has many small solution cavities filled with coarsely crystalline calcite. The exposed surfaces are characterized by numerous solution cavities, ripple marks and fossil molds. This massive limestone formation forms a cap over more thinly bedded strata of limestone. A perennial spring flows in the canyon below the shelter.

The ceiling of the north chamber is smoke blackened, and both chambers contain midden deposits and dust exfoliated from the walls and ceiling of the shelter. Pictographs, all done in red paint, are located on the north end of the southwest facing wall of the north chamber and on the west and north facing walls of the south chamber. Archeological materials collected on the surface of the midden are not diagnostic and do not help date the site.

The pictographs in the north chamber are confined to grid squares 3, 5 and 7 over an area about eight feet in length and four feet in height (Fig. 3). They consist of a group of "n"-like figures and a ladder-like design oriented horizontally.

In the south chamber is a more extensive panel of motifs consisting of horizontally oriented ladder-like designs, curvilinear arrangements of dots, a hand print and several fragmentary designs.

Paintings at this site resemble the Desert Abstract Style described by Schaafsma (1972:63). Other sites on the east side of the Guadalupe Mountains massif in New Mexico contain similar motifs. These sites include Last Chance Canyon and Painted Grotto. The principal difference between Smith Cave and the New Mexico sites is that the Smith Cave pictographs are monochrome while the others are polychrome. Schaafsma (1972:63) presumes this style to be earlier than the Jornada Style characterizing the pictograph sites described below.

Apache Mask Cave (41CU24)

Apache Mask Cave is located in the north wall of an unnamed east-west trending canyon on the east side of the massif. Like Smith

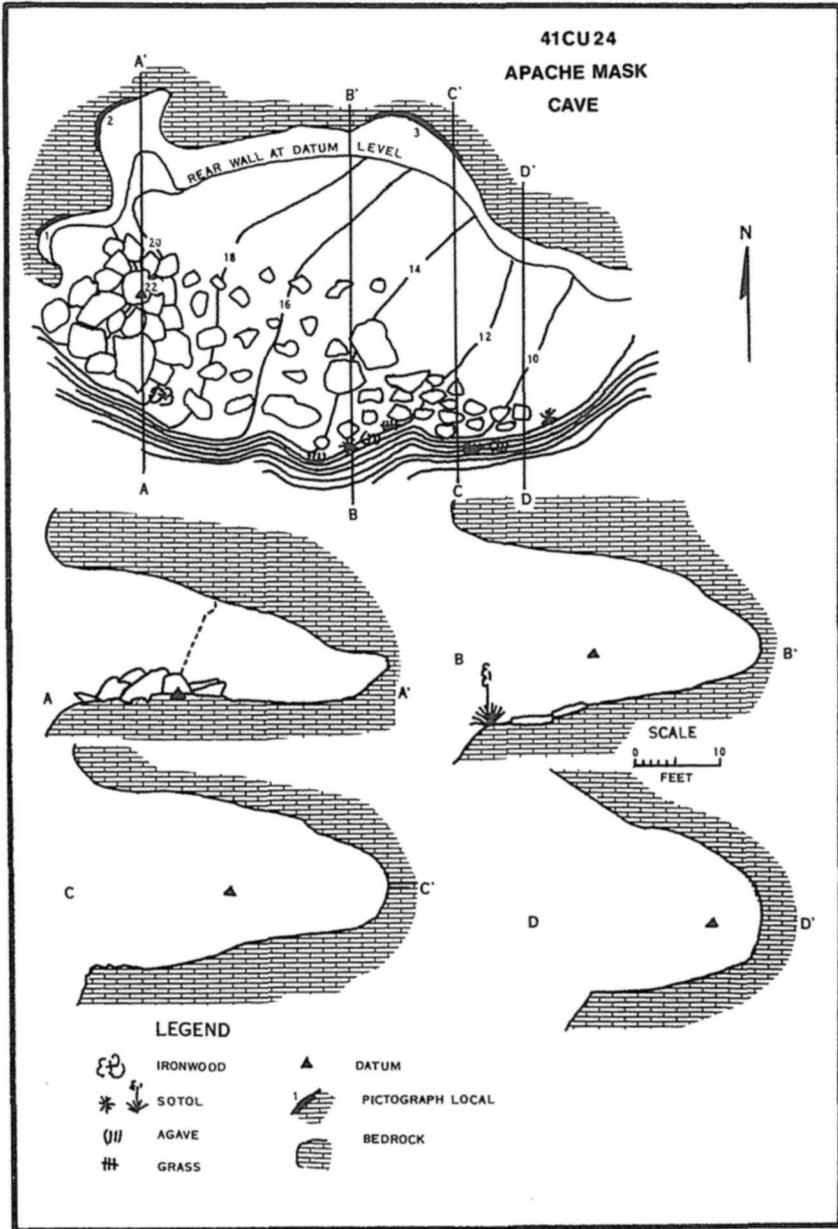


FIGURE 4. The map and profiles of Apache Mask Cave (41CU24). Paintings were recorded in three small alcoves of the shelter as indicated on the map.

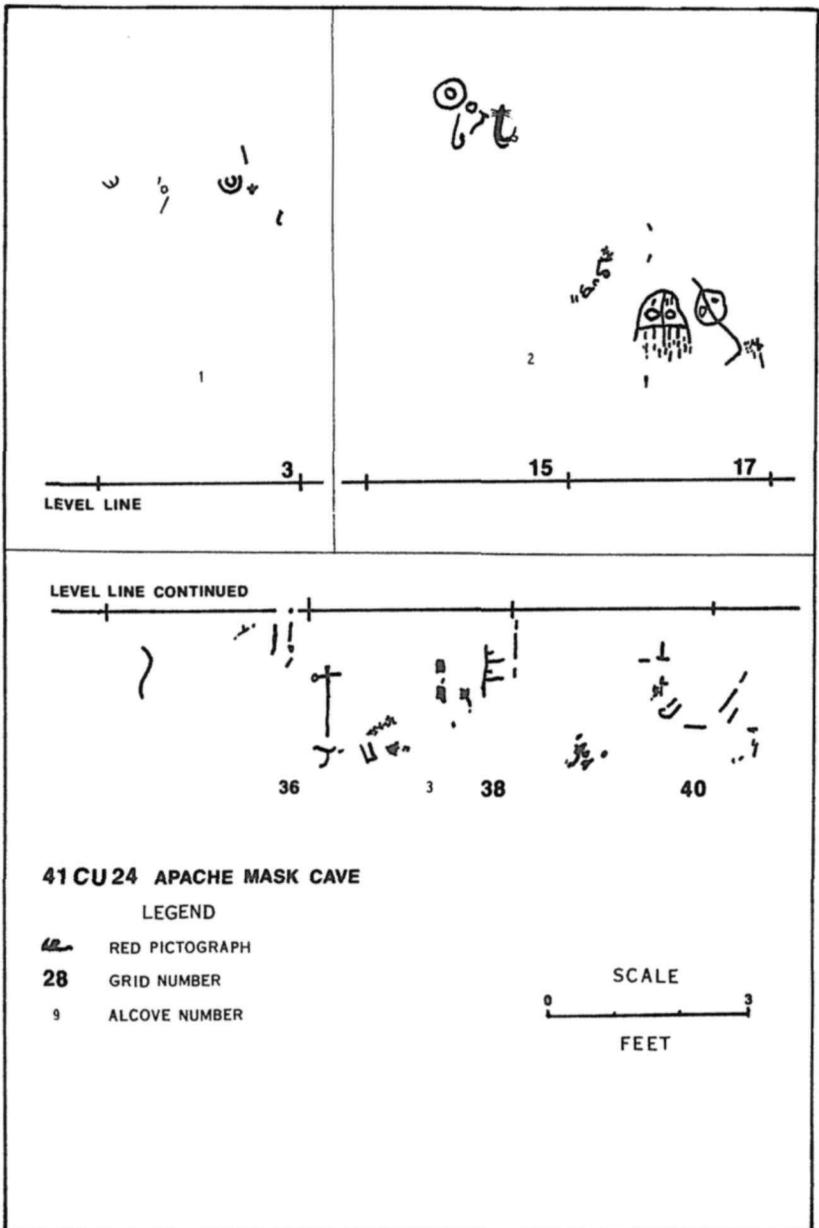


FIGURE 5. Paintings from the three alcoves of Apache Mask Cave. These paintings were painted only in red.

Cave, it is near the head of the canyon and near the upper limits of the massive limestone deposit referred to in the discussion of Smith Cave. The canyon is capped by a resistant massive limestone underlaid by more thinly bedded limestone covered with small loose talus derived from the decomposition of the upper beds. These strata dip to the southeast.

The shelter (Fig. 1,b) is a southward facing solution cavity approximately fifty feet in length and about thirty feet deep. Along the back wall are three small alcoves containing paintings (Fig. 4). The floor of the shelter is composed of thinly bedded southerly dipping beds of limestone. No cultural refuse deposit was present on the shelter floor.

The westernmost alcove contains a small group of curvilinear and circular motifs (Fig. 5, grid 3). The middle alcove contains a slightly more extensive group including concentric circles, several curvilinear motifs, a possible human figure, a mask-like element and a circle enclosing two smaller circles which are separated by a diagonal line (Fig. 5, grids 13-17). In the easternmost alcove are numerous incomplete motifs, mainly straight lines oriented vertically or diagonally (Fig. 5, grids 34-40). Too few motifs occur to allow detailed analysis; for the present, they are merely recorded. The motifs, however, are characteristic of Schaafsma's (1972:102) eastern phase of the Jornada Style.

41CU48

The third rock art site located on the east side of the massif is 41CU48 (Fig. 6). It is in the north wall of an east-west trending canyon locally known as Bear Canyon; the site is near the base of the same massive limestone outcrop in which the other east side pictograph sites are found. This southeastward dipping formation contains numerous rockshelters. The geological formations and topographic conditions are similar to those at the other sites on the east side of the massif. 41CU48 is located near the head of the canyon.

Pictographs at the site are confined to the two ends of the shelter. The paintings consist of a group of four vertical yellow lines on the west end of the shelter and two yellow crosses and a circle with rays on the east end (Fig. 6).

41CU70

The fourth pictograph site within the park is located on the west wall of a north-south trending canyon on the southwest side of the massif. Paintings occur near the mouth of the canyon in proximity to a substantial midden deposit and bedrock mortar holes (Fig. 7). It is at an elevation of about 4,500 feet above mean sea level. The gravelly bed

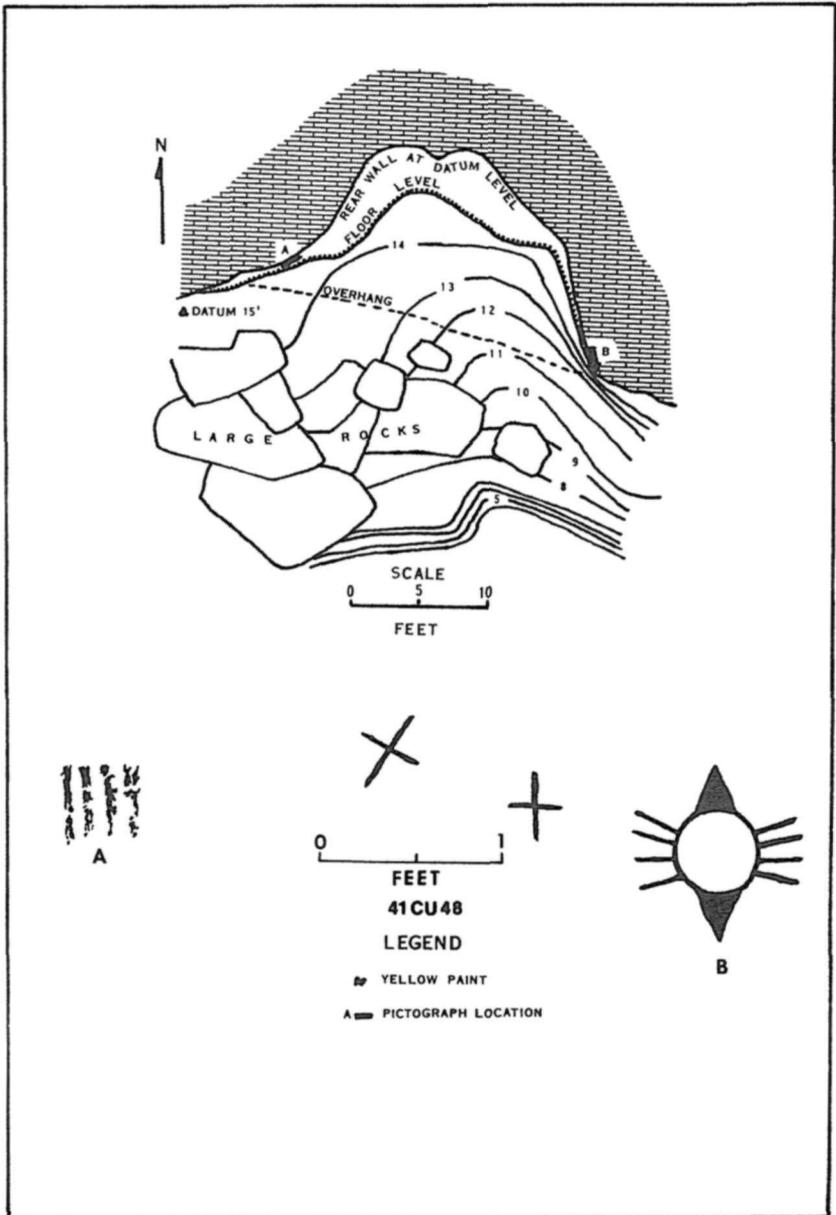


FIGURE 6. The map and paintings of 41CU48. The paintings (in yellow paint) were located near the mouth of the shelter at both sides of the mouth.

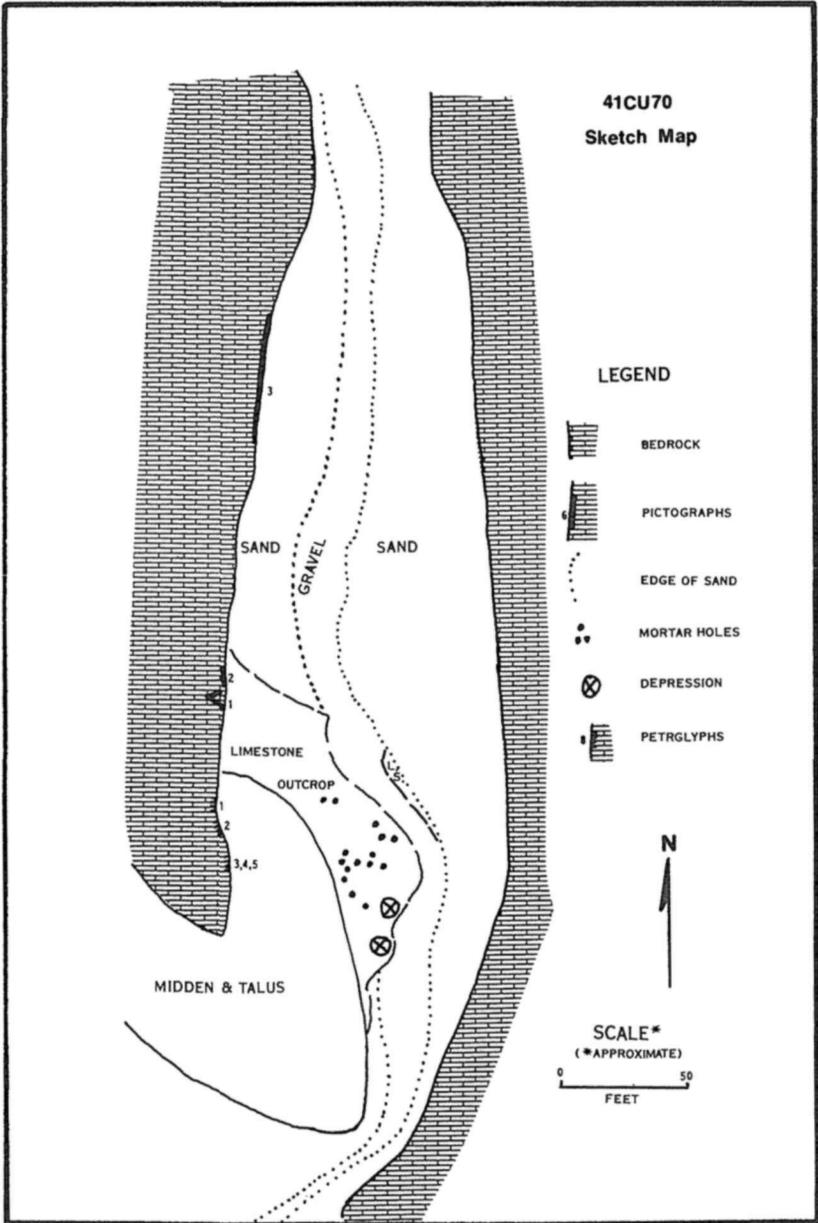


FIGURE 7. A sketch map of 41CU70 indicating the location of five petroglyph locations and three pictograph panels. Also indicated are the bedrock mortar holes and the midden area.

of an arroyo is surrounded by slopes of thinly bedded black limestone on the lower portions of the canyon and lighter colored limestone in the middle and upper portions of the canyon. The limestone is finely crystalline and contains black chert seams and nodules. Quarrying activities of the site inhabitants are evident at several localities around the site. Water erosion and scouring of the limestone floor of the canyon produced several tinajas (potholes) which retain runoff water for short periods.

The site consists of a midden (containing *Pecos Brown* and *Jornada Brown* sherds) overlying a talus bench at the west side of the mouth of the canyon. The vertical face of the west wall of the canyon bears pictographs and petroglyphs. Fifteen bedrock mortar holes occur in the canyon floor northwest of the midden.

Petroglyphs appear as very finely engraved lines high on the west side of the canyon where the midden rises to meet the vertical face. They consist of converging diagonal, vertical, cross-hatched and horizontal lines in five small groups (Fig. 8). Pictographs appear in three groups on the vertical face north of the midden. Group one (Fig. 9) consists of a series of polychrome paintings in a niche formed in a joint plane high on the face. They consist of red and black curvilinear and representational motifs overlying, in part, a patch of yellow paint. Group two motifs (Fig. 9) are adjacent to group one outside the niche. They consist of three vertical red lines, two with vertically oriented zigzag lines and one with diagonal red lines. The third group (Fig. 9) lies near the base of the vertical face, low in the canyon. This group consists of a group of at least fourteen deer, several perforated by fletched projectiles; a human figure; a pair of horizontally oriented zigzag lines; and a motif consisting of a central dot with four triangles forming an open "X." Paintings in group three are badly faded by exposure to rain and sun. A fourth group is thought by some members of the crew to exist between groups two and three, but they may be manganese stains washed down the vertical face.

SITES OUTSIDE THE PARK

Two pictograph sites related stylistically to 41CU40 and the other sites of the *Jornada Style* were discovered outside the park. They are on the northwest side of the Delaware Mountains massif.

Bear Cave (41CU14)

At Bear Cave, paintings occur in red and yellow and all are associated with pecked petroglyphs. The site consists of a very slight overhanging face above a low shallow shelter. A narrow ledge lies at

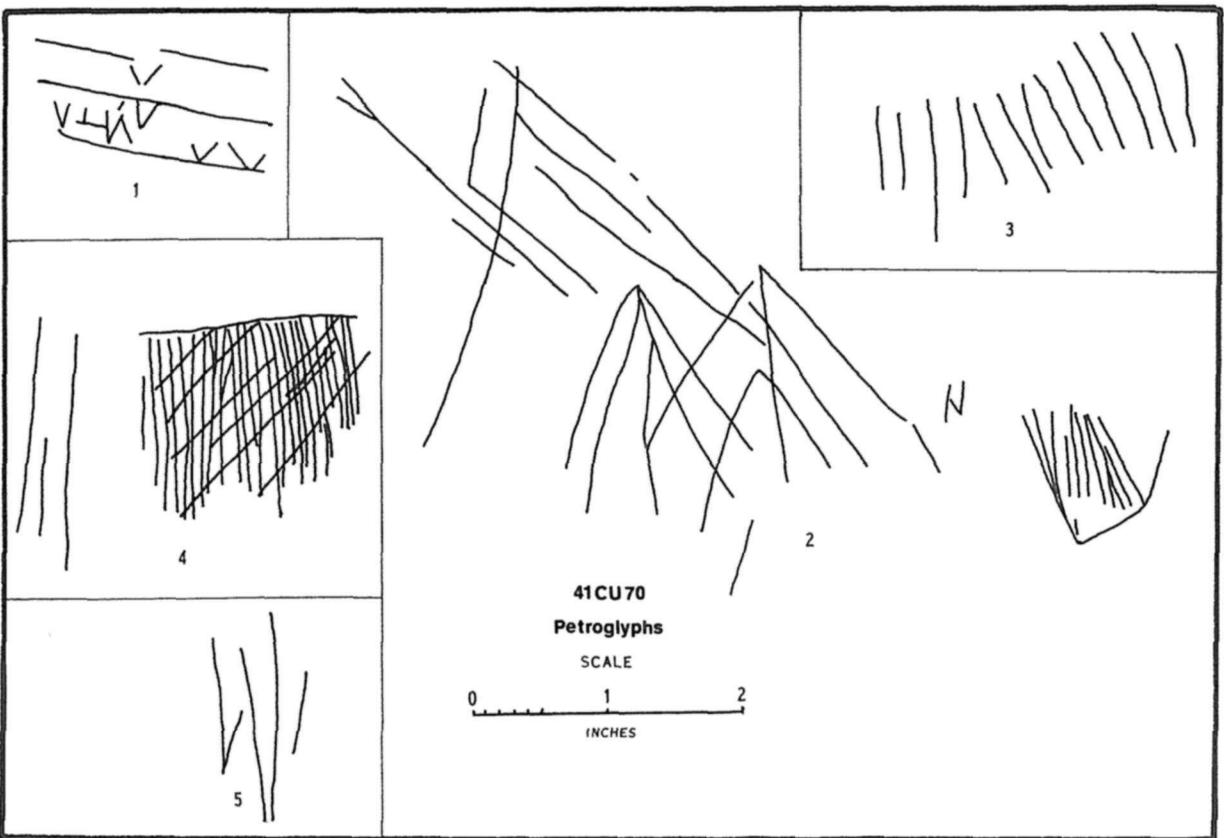


FIGURE 8. Petroglyphs of 41CU70.

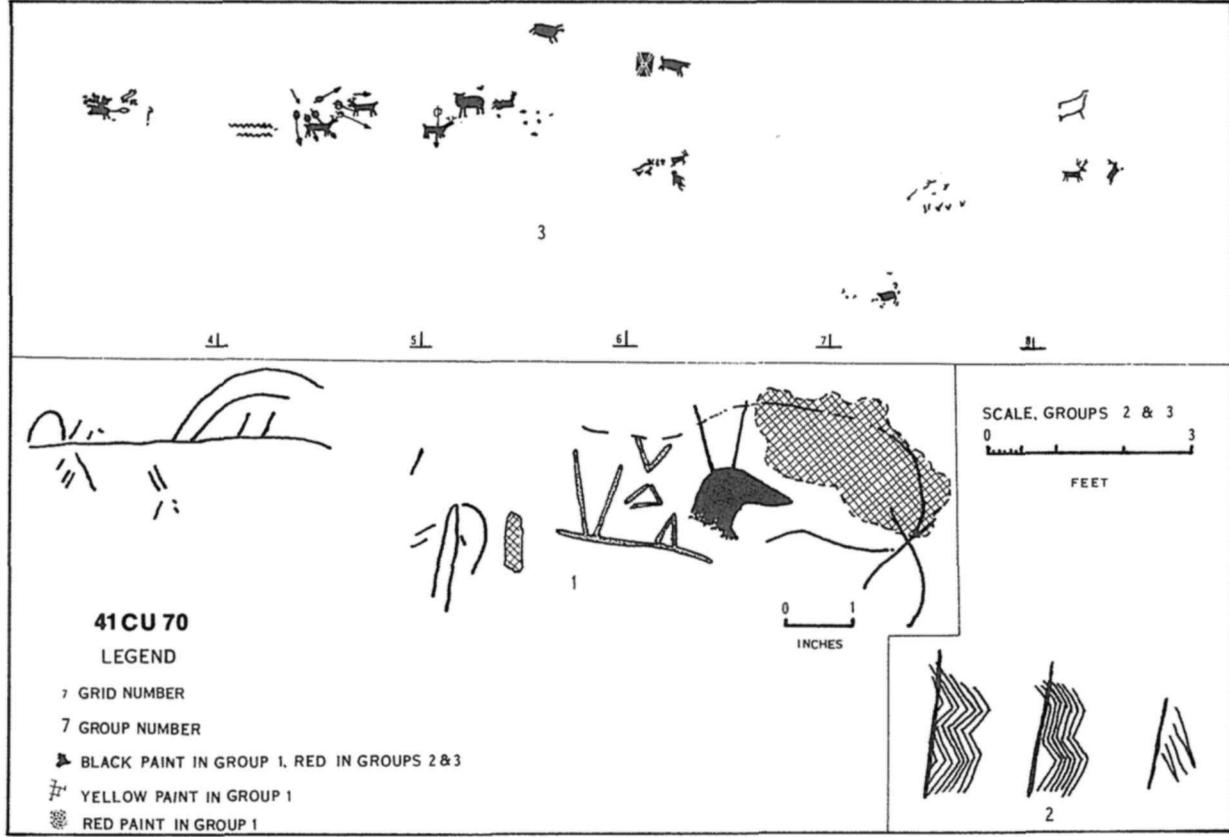


FIGURE 9. The three pictograph panels of CU70, Group 2 and 3 painted in a red monochrome while the paintings of Group 1 are painted in red, yellow and black.

the mouth of the shelter. Petroglyphs, all "projectile point" motifs, are found on the upper portion of the ledge, while polychrome paintings are found on the lower portion (Fig. 10). These paintings conform to the Jornada Style, eastern phase. The projectile point motifs are not unknown in Western United States rock art and have been used, in some instances, as an aid in dating petroglyphs through the identification of projectile point types (Thomas and Thomas 1972; Heizer and Baumhoff 1962). Archeological remains found at the site consist of a single sherd of *El Paso Brown* pottery and an arrow point.

41CU13

Site 41CU13 is a westward facing shelter in a soft fine-grained sandstone. A midden deposit is present in the shelter and considerable quantities of burned rock, ash and artifacts are found on the talus slope in front of the shelter. A ledge containing 11 bedrock mortar holes runs along the rear wall. Lying on the ledge are two large roof spalls which are polished and exhibit numerous petroglyphs, similar to those at 41CU14; a stone lined cist is present in the floor of the shelter. The paintings are located along the rear wall of the shelter and cluster in four groups; only the most southerly group is illustrated (Fig. 11). The paintings are red, black or yellow monochrome motifs, some appearing on smoke blackened roof remnants, thus apparently being older than those on the more recently exfoliated areas. Archeological materials from the site include *Chupadero Black on White*, *El Paso Polychrome*, *El Paso Brown*, *Jornada Brown* and *Pecos Brown* potsherds. These artifacts are comparable to those found at 41CU70.

Clearly, the deer at 41CU13 and 41CU70 are similar in form and style, if not color, while the human figures at 41CU14 and 41CU70 are similar in style. Likewise, the petroglyphs at 41CU13 and 41CU14 are similar. Many of the same sherds appear at these three sites; thus, the sites appear to be related both stylistically and chronologically.

DISCUSSION

The paintings on the east side of the Guadalupe Mountains massif appear to be more formalized or abstract than those at 41CU70, 41CU13 or 41CU14. Furthermore, the paintings at 41CU15 may date to an earlier period than those at the other sites. Archeological materials collected at 41CU15 are not temporally diagnostic, and no materials were found at either 41CU24 or 41CU48.

Some of the paintings at 41CU15 were reported by Jackson (1938:57-59). Unfortunately there are numerous discrepancies between the paintings, his copies and photographs (Jackson 1938: Plate

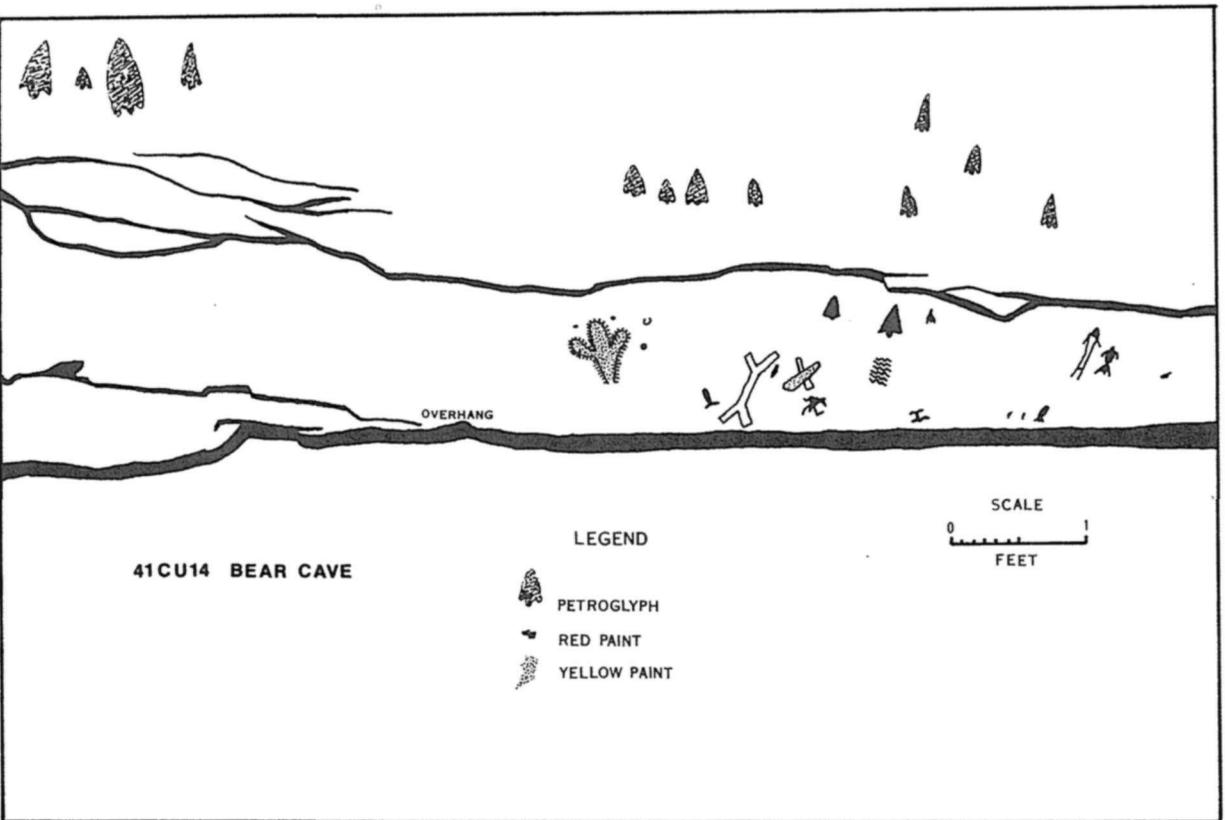


FIGURE 10. Paintings and petroglyphs from Bear Cave (41CU14). The petroglyphs (projectile point motifs) are pecked rather than incised and the paintings are in red and yellow.

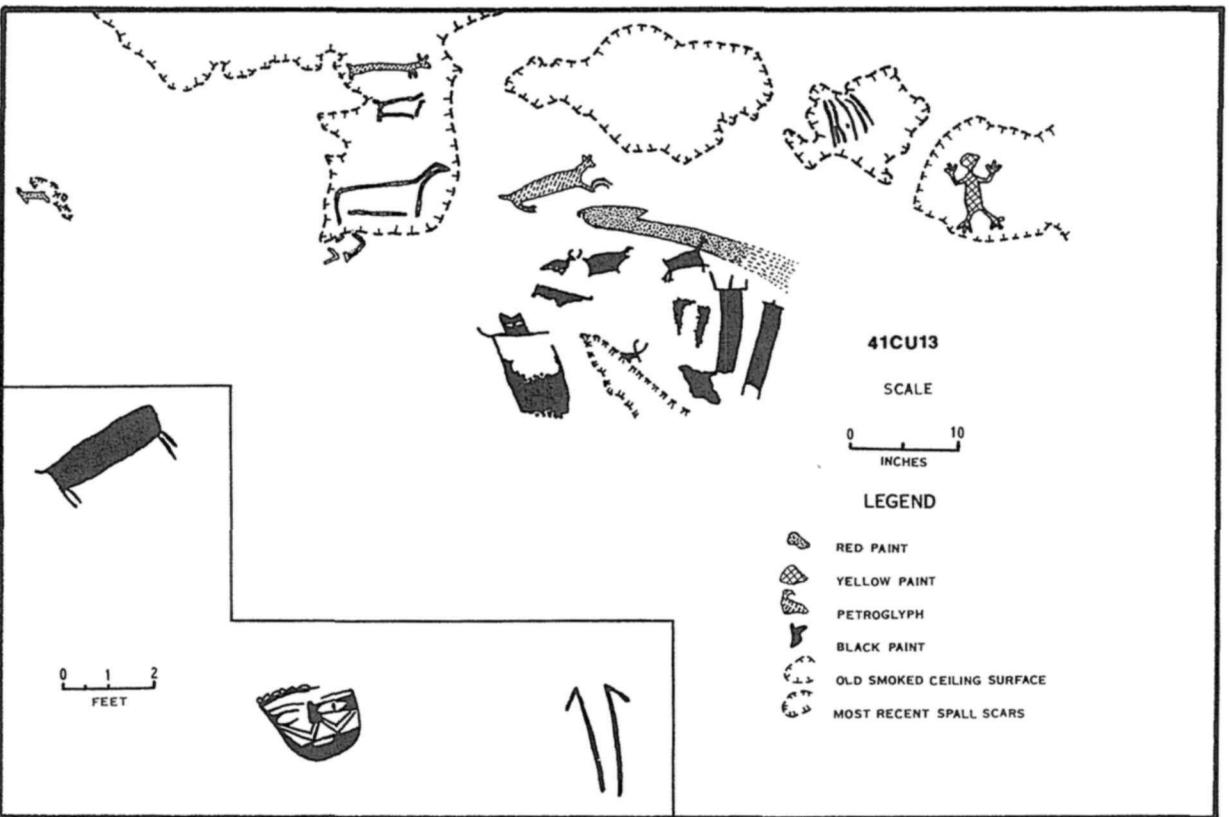


FIGURE 11. Polychrome paintings from 41CU13.

XLI.3, p.56 and Fig. 42.1, p.58). He illustrates several petroglyph sites in the area (Sites 13, 18, 20 and 172) which are clearly different from the petroglyphs at 41CU13, 41CU14 and 41CU70, but one of his sites (Site 20) does have three "projectile point" motifs (Jackson 1938:54, Fig. 35) and engraved converging and crosshatched lines (Jackson 1938:67, Plate L). Other paintings are recorded at Jackson's sites 21 and 178. Those recorded at Site 178 (Jackson 1938:74-78, Plates LV-LIX) are very similar to those at 41CU70. The paintings depict deer perforated by fletched projectiles and human figures. Jackson's Site 178 is approximately 45 miles south of 41CU70 in the Baylor Mountains. Mera (1938) illustrates paintings from the Guadalupe in New Mexico which tend to substantiate the conclusions that the paintings conform to Schaafsma's (1972:101-118) Jornada Style, while those at 41CU15 appear to be of an earlier style (Schaafsma 1972:61-71). Petroglyphs similar to those at 41CU13 and 41CU14 are found in Hudspeth County at Jackson's Site 11 (Jackson 1938:35-38). In general, the style of the Guadalupe Mountains pictographs is similar to the paintings recorded by Jackson in El Paso, Hudspeth and Culberson Counties, Texas and Otero County, New Mexico. Specifically, some of the mask designs at his Site 2 (Jackson 1938:17) and animal motifs (deer) at his Sites 27 and 29 in Jeff Davis County (Jackson 1938:91) are similar to those at 41CU70, while some ladder-like motifs at his Sites 26 and 27 (Jackson 1938:91) are similar to those at 41CU15.

Kirkland recorded pictographs between Mount Livermore in Jeff Davis County and Balmorhea in Reeves County that contain deer motifs similar to those at 41CU70 (Kirkland and Newcomb 1967:132-138, Plates 88-91). More variable motifs occur in that area than at 41CU13, 41CU14 and 41CU70. Balmorhea Shelter (Kirkland and Newcomb 1967:138, Plate 93.3) contains motifs similar to those at 41CU15. Masks and animal motifs at Hueco Tanks in El Paso County (Kirkland 1938, 1939; Kirkland and Newcomb 1967:173-203; Newcomb 1963:118; Crimmins 1931; and Mungo 1970) are certainly stylistically related to the paintings in the Guadalupe Mountains National Park (except for 41CU15). They are also stylistically similar to those reported in Eddy County, New Mexico (Green 1967a), White Rock Cave in El Paso County (Green 1967b: Fig. 10; Brook and Green 1967) and Atlatl Pictograph Site in the Sierra de Kilo, Chihuahua (Green 1966: Figs. 6 and 7).

The paintings in the Guadalupe Mountains National Park conform to the southeastern New Mexico styles of Turner (1963:33-38) and more specifically to the eastern phase of the Jornada Style defined by Schaafsma (1972). This style consists of representational and abstract motifs of stylized animals, naturalistic and formalized human forms

and complex decorative patterns. The eastern division of this style is characterized by the presence of many masks, formalized rectilinear human figures and often by the use of natural rock projections as noses in masks (Schaafsma 1972:114). The Guadalupe Mountains paintings are apparently within the broad tradition of southwestern art as typified by the paintings in Navajo Reservoir, New Mexico (Schaafsma 1963, 1965).

Adjacent areas of western Texas are also characterized by numerous paintings and petroglyphs. In the middle portion of the Pecos River valley of Texas there are paintings that appear to be similar to the paintings of 41CU15, 24 and 48, the paintings on the east side of the mountain massif. They are mostly curvilinear and non-representational. Examples are at 41TE4 and 41TE5 (Clark 1967). Other sites in that area such as 41CX2 (Clark 1967) in Crockett County, sites in eastern Pecos County (Walters 1968) and Meyer's Spring in central Terrell County (Kirkland and Newcomb 1967:112-123; Jackson 1938:p.146, Plates XCIX-CXII) do not specifically resemble any paintings in the Park, but are primarily representational like those on the west side of the Guadalupe Mountain massif.

Rock art on the Llano Estacado (Riggs 1966) in Garza County and farther north in the panhandle of Texas (Jackson 1938; Kirkland 1942; Kirkland and Newcomb 1967:203-216) is stylistically different from the art of the Guadalupe, as is that of central Texas (Kirkland and Newcomb 1967:143-172). A considerable amount of work has been done on the rock art of the Lower Pecos River valley (Jackson 1938:165-238; Kirkland 1937, 1938 and 1939; Newcomb 1963; Kirkland and Newcomb 1967:37-110; Gebhard 1960; Grieder 1965). Again there is little stylistic similarity between the rock art styles of the lower Pecos and those of the eastern Mogollon area as exemplified by the art of the Guadalupe Mountains.

Interpretation of pictographs and other art forms requires an extensive knowledge of the ethnography of either the artists themselves or their recent descendents (Boas 1955). Without knowledge of the iconography involved in a style or a literal representative execution, the interpretation of meaning is difficult, if not impossible (Clark 1967). Interpretation may depend on the intent(s) of the paintings. They may have functioned as mnemonic devices (Mountford 1964:15; Birkett-Smith 1963:32), as magical elements in hunting or other ceremonies, as a record of an historical event, as a means of religious devotion or as a casual scrawl.

The paintings of 41CU13, 41CU14 and 41CU70 are representative and may be interpreted in several ways. The motifs at 41CU70 seem to be primarily associated with hunting. Likewise, hunting motifs at

41CU13 and 41CU14 are prominent, but more human motifs and ritual masks occur. These sites are associated with extensive midden deposits.

The paintings on the east side of the massif are much more difficult to discuss and interpret because of their non-representational nature. Smith Cave is associated with a midden deposit, while 41CU24 and 41CU48 are located in canyons in which no other archeological remains were found. These localities may be ritualistic shrines. Similar sites seem to be present in northeastern Terrell County (Clark 1967). Their meaning is unclear at present because of the limited sample size and non-representational nature of the rock art.

CONCLUSIONS

Two distinctive stylistic traditions of prehistoric rock art in the Guadalupe Mountains National Park area have been described. One tradition, present at sites 41CU13, 41CU14, 41CU24, 41CU48 and 41CU70, is a representational style associated with a general Southwestern tradition and particularly with the Jornada Branch of the Mogollon (Lehmer 1948); the other style present at 41CU15 is principally abstract or non-representational, possibly predating the Jornada Style. Sites of the Jornada style consist of a wide range of motifs. Those on the east side of the Guadalupe Mountains massif consist of the least representational elements of the style and are not associated with archeological deposits. The styles on the west side of the massif and those in the Delaware Mountains consist of representational motifs and are associated with extensive midden deposits. The Jornada style paintings on the east side of the massif may have been ritualistic sites.

The only recognized archeological complex in the area associated with the southwest is the Jornada Branch of the Mogollon (Lehmer 1948). The paintings may have been executed by some other group closely associated with the Mogollon or by Mogollon peripheral units, but there is a sufficient number of known sites with Southwestern style paintings to indicate that their influence was widespread in Texas.

Thus, all the rock art sites recorded in this report, with the exception of 41CU15, are of the Jornada Style. The sites are clearly important to the understanding of the nonmaterial aspects of the cultures which produced them. They should be protected from vandals in order that they, with other sites still to be found and recorded, may enhance our understanding of the people who occupied the southern portion of the Guadalupe Mountains.

ACKNOWLEDGMENTS

Participants in the rock art survey of the Texas Archeological Society field school in the Guadalupe Mountains National Park included people from a wide variety of backgrounds who materially enhanced the project. Eugene Anderson located several of the sites before the field school began. Bransford Eubank identified plants in the environs of the sites, while Jack Klatt described the geology of the sites. John Runyan identified the pottery types collected at some of the sites and John W. Green located and initially recorded 41CU70 during the field school. Other participants were involved in the direct recording of the rock art. These people were: Murray Beadles, Lou Fullen, Marge Fullen, Glen Fredlund, Dick Gingrich, John Hudspeth, Nancy Jircik, Mary Lou Klatt, T. Levy, Jim Schmidt, Evelyn Walters, Joyce Warren, Peggy Wehrli, Norman Wehrli, Dave Wilson and Ricci Wilson.

There were other participants whose names were not recorded in the field notes of the rock art project, but whose participation is acknowledged and appreciated.

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