

PART I

ROCK PICTURES ON BLUFFS, CAVE WALLS AND BOULDERS

DATA BY SITES

A study of the picture-writing in a given area necessarily begins with the individual sites. A grouping of the sites by counties and an adherence to the geographical arrangement of the latter will be followed.

This section will deal with the bluff, cave and boulder pictures at the various locations. Site numbers have been assigned, beginning with the extreme western part of the State and proceeding east and north. A few of the later numbers do not follow this arrangement, due to data for certain widely separated sites having been obtained after the manuscript was partly completed. The sites are referred to by numbers and not by names. Their geographical locations may be ascertained from the accompanying maps.

EL PASO COUNTY

SITE No. 1

This pictograph site is in the mountainous region in the northeast part of the county. The paintings are on the walls and ceilings of small shelters formed by slightly overhanging boulders. These are of syenite, a granitoid rock.

The pictures are in red, black and white. The elements include the cloud and rain symbol, ladder, connected circles, zigzags, scrolls and a few conventionalized human figures. The paintings are comparatively small, the dimensions ranging from eight inches high and three inches wide to $28\frac{1}{2} \times 21$ inches. A number of them have been ruined by weathering, due to their location in spots not well protected from the periodical rains.

Evidence of habitation is to be found in the immediate vicinity of the pictographs. Round mortar holes are present in the rock floor of one of the small shelters.

FIG. 1. A LARGE BOULDER WITH A PROTECTED NOOK THAT SHELTERS A FEW PICTOGRAPHS

Site No. 1, El Paso County, Texas.

FIG. 2. A PICTOGRAPH OUTLINED IN RED WITH BLACK INTERIOR

Site No. 2, El Paso County, Texas.

Dimensions, $28\frac{1}{2} \times 21$ inches.



FIG. 2.



FIG. 1.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 1

	Number	Per Cent
<i>Human Representations:</i>		
Phallic	1	
Running figure	1	
Upraised arms	2	
One-legged	1	5
<i>Human Workmanship:</i>		
Projectile point.....	1	3
<i>Lower Life:</i>		
Plumed serpent	1	
Turkey track (?).....	1	2
<i>Geometric and Symbolic:</i>		
Rectangle	1	
Lozenge	1	
Connected circles or maze.....	1	
Zigzag lines	7	
Scrolls and meanders	3	
Series of dots	1	
Ladder-like element	1	
Rug-like design	1	
Cloud and rain symbols.....	4	
Problematical	3	23
Total	31	100

COLORS EMPLOYED

Color	Number	Per Cent
Red	28	90
Red and black.....	2	7
White	1	3
Total	31	100

SITE NO. 2

This is one of the best known pictograph sites in Texas. Located at a famed watering place, in a desert region where water is scarce, it has been a favored campsite from early prehistoric times. Huge overhanging boulders, located adjacent to natural reservoirs or "tanks," furnished shelter to wandering tribes who came there for water.

The place has long been famous for its "sweet" water reservoirs in a land of salt and gypsum. The water in most of the so-called "tanks" is supplied by occasional heavy rains. Sometimes in periods of prolonged drouths the water is exhausted in certain of the pools. One, however, is said never to go dry. Bartlett described it as follows:

"... Near this overhanging rock is the largest and finest tank or pool of water to be found about here. It is only reached by clambering on the hands and knees 15 or 20 feet up a steep rock. Over it projects a gigantic boulder, which, resting on or wedged between other rocks, leaves a space of about four feet above the surface of the water. On the under side of this boulder are fantastic designs in red paint, which could only have been made by persons lying on their backs in this cool, sheltered spot."

A number of deep mortar holes in the hard rock show long use. Potsherds and flint artifacts are found on the surface.

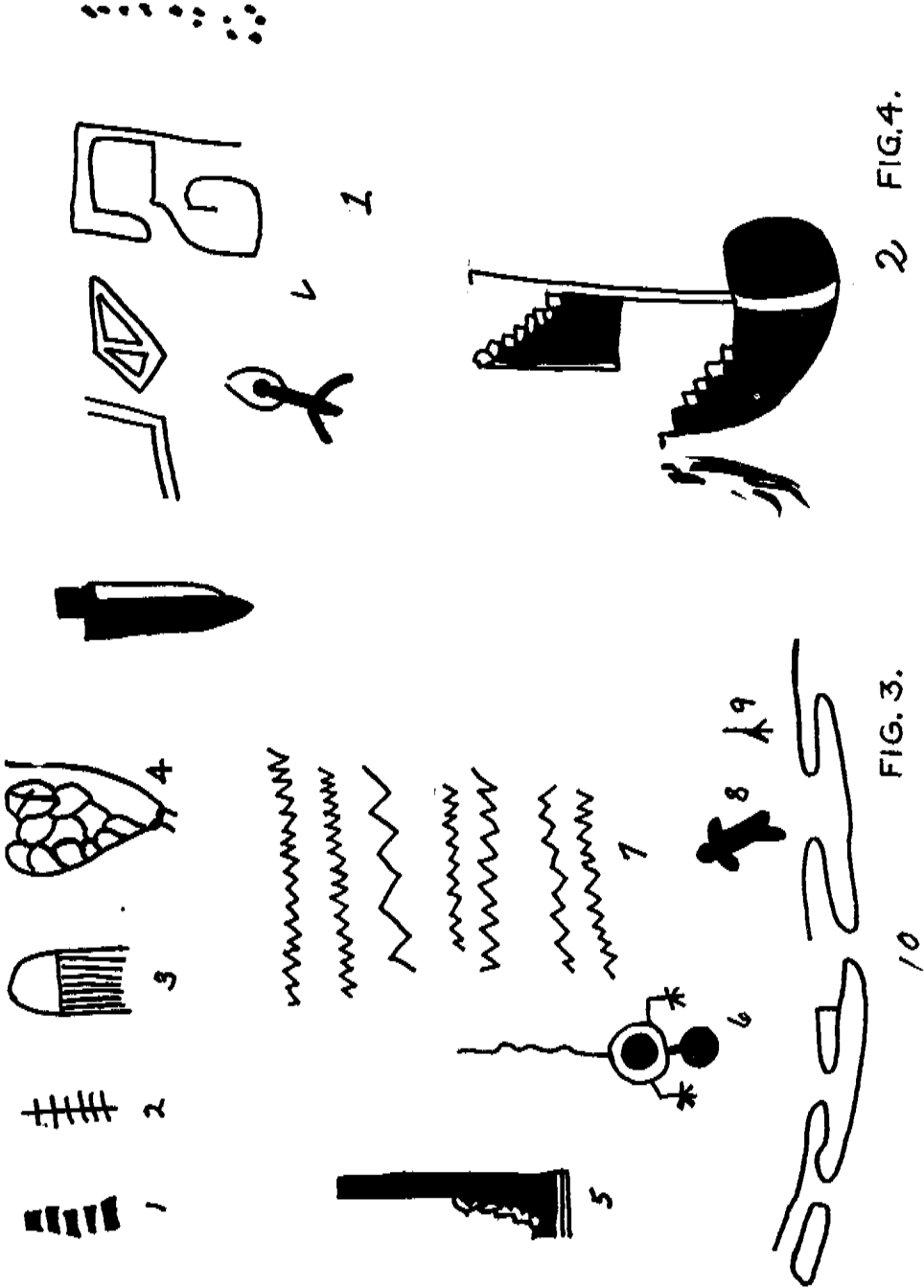


FIG. 3. PICTOGRAPHS AT SITE NO. 1, EL PASO COUNTY

Numbers 1, 2, red, 9x3 inches, 8x3½ inches; 3, alternate red and black, 10x4 inches; 4, white, 22x14 inches; 5-10, red, dimensions 52x53 inches.

FIG. 4. ADDITIONAL PICTOGRAPHS AT SITE NO. 1, EL PASO COUNTY

Group 1, dimensions over all, 42x22 inches; 2, 19x4 inches. Red paint.

2 FIG.4.

FIG. 3.

10

Thus it is not surprising that the walls and low roofs of the numerous small shelters, scattered over an area of some 500 acres, are decorated with many pictographs. The paintings are on syenite, a granitoid rock of about the same durability as granite. This fact has favored the preservation of the paintings. But the blowing sand has done some damage; and far greater destruction has been wrought by mutilations of visitors during the past 90 years. The place first came into prominence at the time of the California gold rush in 1849. Destruction has been going on since that time. Most of the paintings within half a mile of the road and picnic grounds are badly damaged. As one goes farther from the road, the vandalism diminishes.

There have been several brief reports on this site. Pope⁵ mentioned Marcy's account of it in 1849, and Bartlett⁶ wrote of it in 1854. Mallery,⁷ in his voluminous report of 1889, devoted one page to it. A few popular newspaper accounts of the site have appeared from time to time. But the most complete report is that of Colonel Crimmins.⁸

Since the value of any archaeological report, particularly one of this type, is enhanced by numerous illustrations, it seems desirable to present a greater number of the pictographs from this site than has yet been published elsewhere.

⁵Pope, John, Report of Exploration of a Route for the Pacific Railroad from the Red River to the Rio Grande, 33d Congress, 2d Session, House Executive Document No. 91, Washington, 1855, pp. 53-54; in which reference is made to Randolph Marcy's Report on Proposed Route from El Paso to Fort Smith, Arkansas.

⁶Bartlett, J. R., Personal Narratives of Explorations and Incidents in Texas, New Mexico, California, Sonora and Chihuahua; United States-Mexican Boundary Commission, 1850-1853, New York, 1854, Vol. II, pp. 170-173.

⁷Mallery, Garrick, Picture-Writing of the American Indians, Tenth Annual Report, Bureau of American Ethnology, 1888-1889, Washington, 1893, p. 116.

⁸Crimmins, M. L., The Pictographs at the Hueco Tanks, Texas Archaeological and Paleontological Society, Vol. 3, Abilene, September, 1931, pp. 24-30.

PLATE I

SCENES AT SITE NO. 2, EL PASO COUNTY

1. One of the water holes or "tanks." It looks like a water hole in a stream bed, but there is no stream.
2. Mortar holes adjacent to the pictographs.

PLATE II

A CONVENTIONALIZED HUMAN FIGURE WEARING A HEADDRESS

SITE NO. 2

Known locally as a vinegaroon, or whip scorpion. Height, 33¼ inches; maximum width, 17½ inches. White paint.

PLATE III

ACTION PICTURES IN WHITE PAINT

SITE NO. 2

1. Dancing figures, possibly symbolizing the rabbit dance.
2. Dancers, a man on horse, and three right handprints.

PLATE IV

OTHER PICTOGRAPHS IN WHITE AT SITE NO. 2

1. A headless figure, probably a woman, with snake-like object beneath the hand.
2. A phallic representation. Note the four-fingered hand.



PLATE I

PLATE IV

PLATE III

PLATE II

FIG. 6. PAINTINGS OF MASKED HUMAN HEADS
SITE NO. 2, EL PASO COUNTY

Nos. 1, 2, and 3 entirely in black; 4, all black except lower horizontal band (above mouth) in red. Dimensions: 1, 9x7 inches; 2, 8x5½ inches; 3, 6x6 inches; 4, 20½x12 inches; 5, 6x4 inches.

FIG. 7. UNUSUAL PICTOGRAPHS AT SITE NO. 2

Representations of masked human heads. Red paint. Dimensions: 1, 9¾x7 inches; 2, 22½x11 inches.

FIG. 8. MASKED AND CONVENTIONALIZED HUMAN HEADS
SITE NO. 2

1. Outer dark portion, black; inner stippled part, red; 14x7½ inches.
2. Background painted white; dark part, black; stippled portion represents red; 7x9 inches.

FIG. 9. CONVENTIONALIZED HUMAN REPRESENTATIONS
SITE NO. 2

Colors: 1, yellow; 2, 3, white; 4, red; 5, black.

Heights: 1, 9 inches; 2, 18 inches; 3, 24 inches; 4, 6 inches; 5, 16 inches.

No. 5 sometimes is classified as an animal pelt.

(Groupings by the author in Figs. 6 and 9)

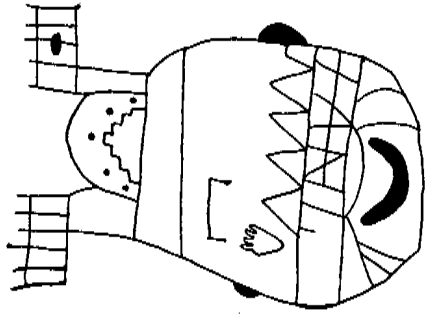
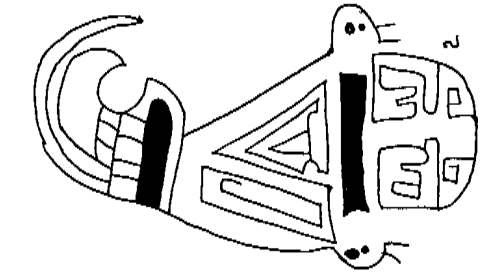


FIG. 7.

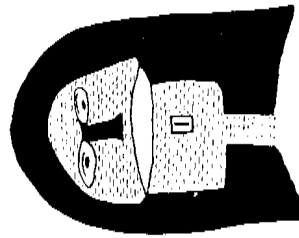
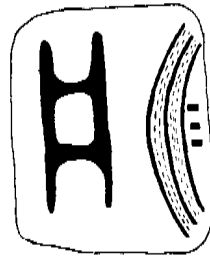


FIG. 8.

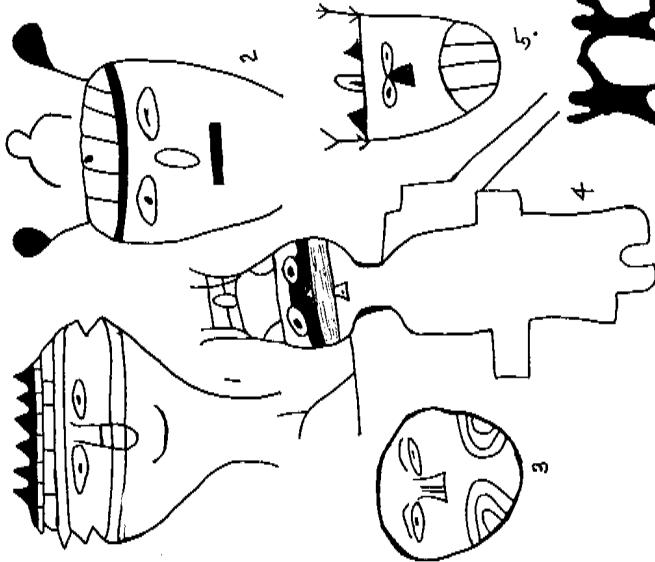


FIG. 6.

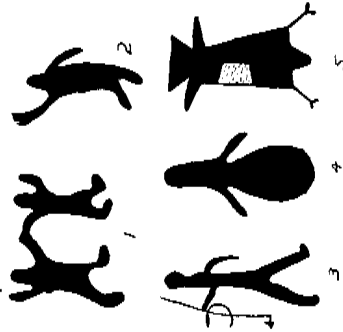


FIG. 9.

FIG. 5. REPRESENTATION OF A MASKED HUMAN HEAD
SITE NO. 2, EL PASO COUNTY

Interior of eyes and mouth painted green; balance of picture in red; dimensions, 12x10 inches.

FIG. 10. A CONVENTIONALIZED HUMAN FIGURE, SITE NO. 2

Popularly called a "woman holding a teapot." Red paint. Height, 33 inches; width, 35½ inches.

FIG. 11. PICTOGRAPHS IN RED AT SITE NO. 2

1. Butterfly-like figure, locally known as a beetle; 5x6 inches.
2. An artistically executed bird made of dots and lines; 7½x12½ inches.

FIG. 12. PICTOGRAPHS AT SITE NO. 2

1. Zigzag line, painted red, 10 feet in length. Possible conventionalized hands and insects attached.
2. Tree painted white; height, 30 inches.

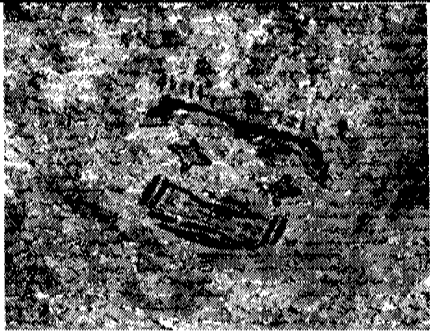


FIG. 5.



FIG. 10

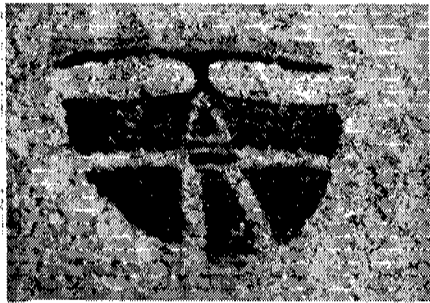
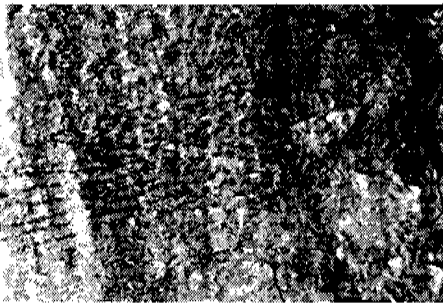
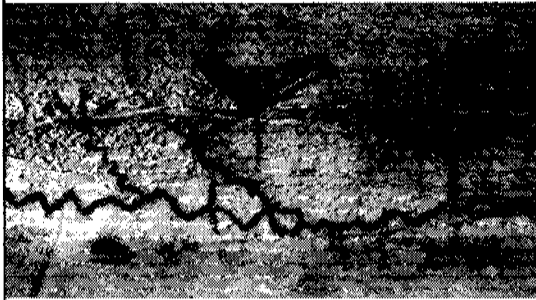


FIG. 11.

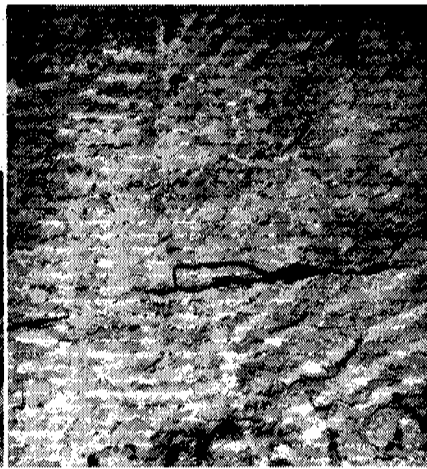


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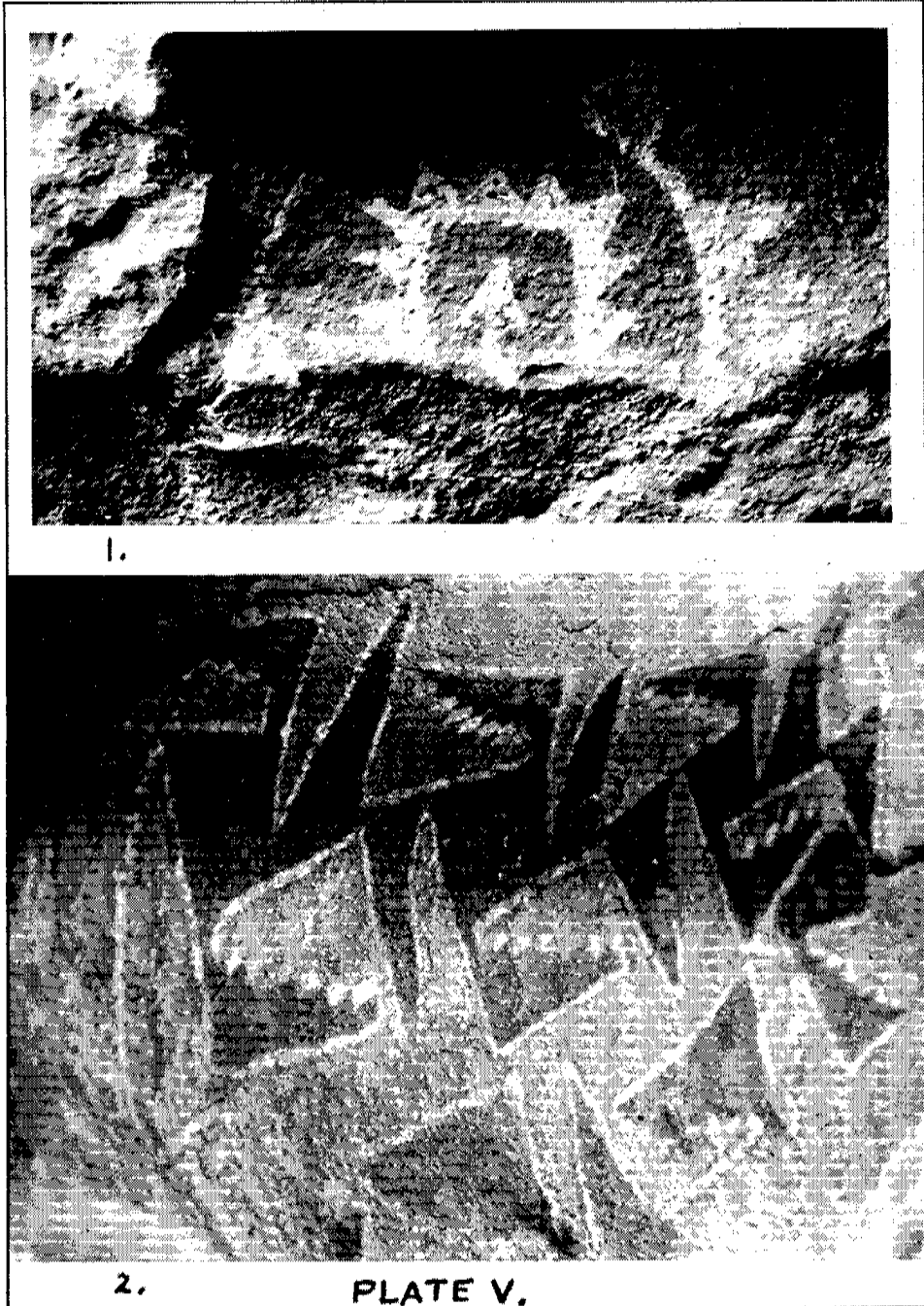


1.

FIG. 12.



2.



ARTISTIC PAINTINGS AT SITE NO. 2, EL PASO COUNTY

1. Sun-disc painted white.
2. A blanket-like design; outlined in white and with triangular figures in reddish-brown. Dimensions, 30x42 inches.



FIG. 13.



FIG. 14



FIG. 15.

FIG. 13. PICTOGRAPHS, SITE NO. 2, EL PASO COUNTY

Colors: 1, 3, 7, white; 2, 4, 6, red; 5, yellow; 8, 9, 10, black.

Dimensions: 6, 5x6 inches; 8, 13x6 inches; 9, 15x9 inches; 10, 4x4½ inches.

FIG. 14. GEOMETRIC AND SYMBOLIC DESIGNS, SITE NO. 2

Colors: 1, 3, 6, 8, 9, red; 2, black; 4, red outlined in black; 5, 7, white.

Dimensions: 1, 8¼x6½ inches; 2, 5, diameters 5 inches and 6 inches; 3, height 8 inches; 4, 22½x2 inches; 8, 6½x3½ inches; 9, 39x5 inches.

FIG. 15. OTHER GEOMETRIC AND SYMBOLIC DESIGNS, SITE NO. 2

Colors: 1, 3, black; 2, 4, 5, red; 7, 8, white; 6, red with bottom line of yellow; 9, yellow; 10, green.

Dimensions: 1, 13x5 inches; 2, 5x1¼ inches; 3, 6x10 inches; 4, 10 inches; 5, 6 inches; 6, 7½x9 inches; 7, 5 inches; 8, 6 inches; 9, 13x5½ inches; 10, 6 inches.

(Groupings by the author)

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 2

	Number	Per Cent
<i>Human Representations:</i>		
Complete figures:		
Dancing	20	
Running	3	
Phallic	1	
Armless	2	
Legless	2	
Headless	2	
Wearing horn headdresses.....	2	
Wearing feather headdresses.....	2	
Arms:		
Outstretched	4	
Upraised	2	
Lowered and outstretched.....	2	
Armed with club (?).....	2	
Mounted on horses.....	3	
Mounted on mountain sheep.....	1	
Problematical (Masked heads?).....	2	
Heads:		
Masked	16	
Unmasked	2	
Faces with painted stripes	7	
Face painted red and bordered black	1	

	Number	Per Cent
Eyes:		
"Raindrop" with dot in center.....	1	
Star-like (green and red).....	1	
Elliptical, black pupils.....	7	
Round, with black pupils.....	2	
Elliptical, no pupil.....	1	
Nose:		
Outlined, stripes across.....	1	
Outlined, vertical stripes.....	1	
Outlined, no stripes.....	2	
Outlined, dot for nostril.....	1	
White, surrounded by black.....	1	
Black, surrounded by red.....	1	
Black, no paint around.....	2	
Mouth:		
Crescent-shaped.....	6	
Horizontal line.....	4	
Triangular.....	2	
Rectangular, hatched.....	1	
Rake-shaped, showing teeth.....	1	
Elliptical.....	1	
Hands and Feet:		
Positive handprints.....	5	
Four-fingered hands.....	3	
Conventionalized hands.....	2	
Footprints.....	6	
	128	47
<i>Human Workmanship:</i>		
Projectile point.....	1	1
<i>Lower Life:</i>		
Larger animals:		
Horses.....	4	
Mountain sheep.....	9	
Projectile wounds.....	4	
Pelt (?).....	1	
Highly conventionalized.....	4	
Eyes—dot in circle.....	4	
Birds:		
Realistic.....	5	
Conventionalized.....	3	
Eye—dot in circle.....	1	
Eye—circle alone.....	1	
Serpents:		
Realistic.....	11	
Plumed.....	1	
Other animal forms:		
Insects (type vague).....	4	
Butterflies.....	2	
Fish.....	2	
	56	21
<i>Geometric and Symbolic:</i>		
Concentric circles.....	1	
Concentric diamond (rhombus) figure.....	1	
Semicircles.....	2	
Connected circles, series of.....	1	
Connected dots, series of.....	2	
Vertical hatching.....	1	
Horizontal hatching.....	1	
Zigzags.....	5	
Punctate zigzags.....	2	
Amoeboid figure.....	1	
Triangles.....	23	
Crosshatch.....	3	
Punctate designs.....	3	
Scrolls.....	4	
Rake-like elements.....	3	
Ladder-like elements.....	2	
Blanket-like elements.....	3	
Sun symbols.....	4	

	Number	Per Cent
Equal-armed crosses in circles.....	2	
Trees	2	
Cloud and rain symbols.....	7	
Anchor-like elements.....	2	
Ornament (?).....	1	
Problematical	8	
	84	31
Total	269	100

COLORS USED, SITE NO. 2

<i>Color</i>	Number Elements	Per Cent
White	115	42
Red	88	33
Black	59	22
Yellow	5	2
Green	2	1
	269	100

COMBINATIONS OF COLORS*

Black and red	9
Red and green	1
Red and white	2
Red and yellow.....	2
	14

*Included with the rarer colors in the above percentages.

OUTSTANDING FEATURES SITE NO. 2, EL PASO COUNTY

One of the outstanding features of the site is the large number of masked human heads. This trait disappears as one goes eastward. Another type of picture to be expected here is the mountain sheep. It likewise disappears from the pictographs when one reaches the eastern limit of its habitat in Texas. Deer, if present here, are too highly conventionalized to be recognized with certainty.

Of particular interest is the fact that 42 per cent of the paintings are in white. This probably is due in large part to the supply of this pigment being more abundant, or more easily obtained, than were paints of the other colors. The white paint has not been analyzed. But, according to C. L. Baker,⁹ "It is possible that the Indians used some white kaolin, gypsum, or barite as a base. All these substances could be readily obtainable in that part of the country." . . .

This is one of the very few pictograph sites where red does not predominate.

The paintings appear to extend from the prehistoric down into the historic period.

SITE NO. 3, EL PASO COUNTY

Reported as one site are several nearby small caves, on the limestone walls of which are pictures painted in red. Some of the pictographs, and specimens of the material culture of the occupants of the caves, have been pictured and discussed by Roberts.¹⁰ Anyone making a study of the subject is referred to his report. Of particular interest are his statements regarding the possible authorship of the paintings. It is his conclusion that "a great majority of them are to be attributed to the various groups

⁹Baker, C. L., Letter to A. T. Jackson, dated October 9, 1936.

¹⁰Roberts, Frank H. H., Jr., Recent Archaeological Developments in the Vicinity of El Paso, Texas, Smithsonian Miscellaneous Collections, Vol. 81, No. 7, Washington, 1929, pp. 1-14.

of Apache who were in that section of the Southwest in fairly large numbers; but a few of them suggest at least slight Pueblo influence."

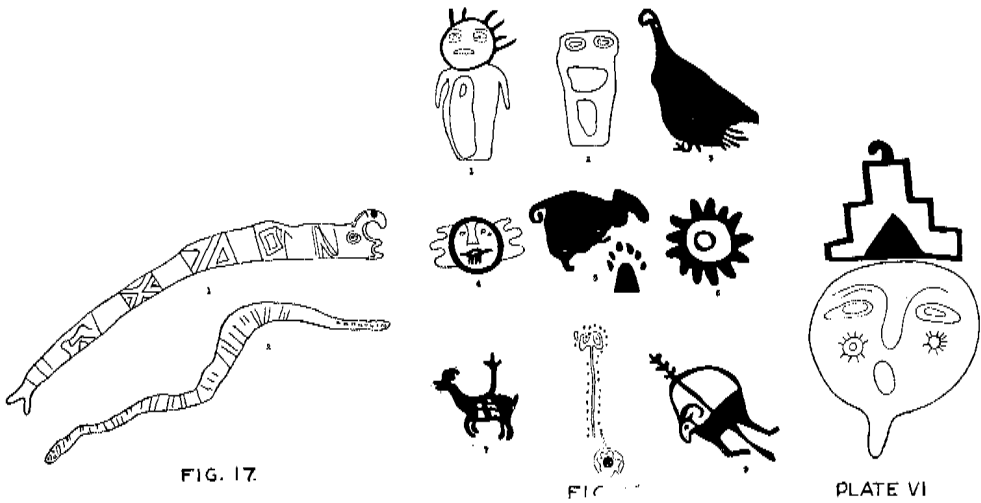


FIG. 17.

FIG. 16.

PLATE VI

(Courtesy of Victor J. Smith)

FIG. 16. PICTOGRAPHS AT SITE NO. 3, EL PASO COUNTY

FIG. 17. REALISTIC AND CONVENTIONALIZED SERPENTS, SITE NO. 3

The horned or plumed serpent figures prominently in the Southwest.

PLATE VI

REPRESENTATION OF A MASKED HUMAN HEAD PAINTED IN RED, SITE NO. 3

The terraced headdress is common to the Southwest.

By reference to Fig. 16 there will be noted several somewhat unusual pictographs. No. 1 is the representation of what appears to be a woman wearing a feather headdress. No. 2 is an elongated head, possibly wearing a mask. No. 4 is a slightly more realistic human head also dressed. No. 3 may well be taken as the representation of a turkey, or other large bird.

No. 5, though conventionalized, suggests a kangaroo rat, the little rodent so common in that semi-arid region. It is shown standing on hind legs as is its practice. There is also an enlarged or bushy end to its tail.

Nos. 7 and 9 are what may be considered mountain sheep, judging from their large curved horns. Each is peculiar in that it has a tree-like object protruding above its back. No. 7 also combines three equal-armed crosses in its body.

No. 8 shows a conventionalized serpent partly enclosed by a series of dots. Beneath it is a rayed sun-disc enclosing an equal-armed cross in a circle. No. 6 is another sun-disc of a fairly common type.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 3

Twenty-nine typical pictures from this site may be grouped into the following broad classes:

	Number	Per Cent
<i>Human Representations:</i>		
Wearing headdresses	6	
Full length figures.....	2	28
<i>Lower Life:</i>		
Mountain sheep	2	
Other animals	3	
Birds	3	
Serpents	4	41
<i>Geometric and Symbolic:</i>		
Sun-ray discs	5	
Equal-armed crosses	2	
Concentric circles	2	31
Total	29	100

HUDSPETH COUNTY

SITE No. 4

This is an extensive petroglyph site located along both sides of a ravine at the foot of an eroded hillside. There is a nearby seep spring, an open campsite, and an Indian trail that passed the place. There are 34 groups of pecked designs, including at least 180 distinct elements. They are on surface boulders; chiefly on the vertical sides of the rocks, although some are protected by slight overhangs. The lines appear to have been made by the use of hammerstones and are now shallow. While some are very legible, others have been almost destroyed by weathering of the stone.

The two zigzag lines pictured at the right center in Plate VII are almost identical with certain pictographs reported by Steward¹¹ from southern California. Based on ethnological records, he concludes that such marks in that region probably were made as a part of girls' puberty ceremonies. The writer knows of no account of the painting or pecking of zigzag lines or diamond-shaped designs in any similar ceremony among the Texas tribes. But it is possible that the practice may have existed. Such lines sometimes are referred to as lightning symbols, or male and female lightning.

¹¹Steward, Julian H., *op. cit.*, pp. 203, 225, 227 and Map 26.

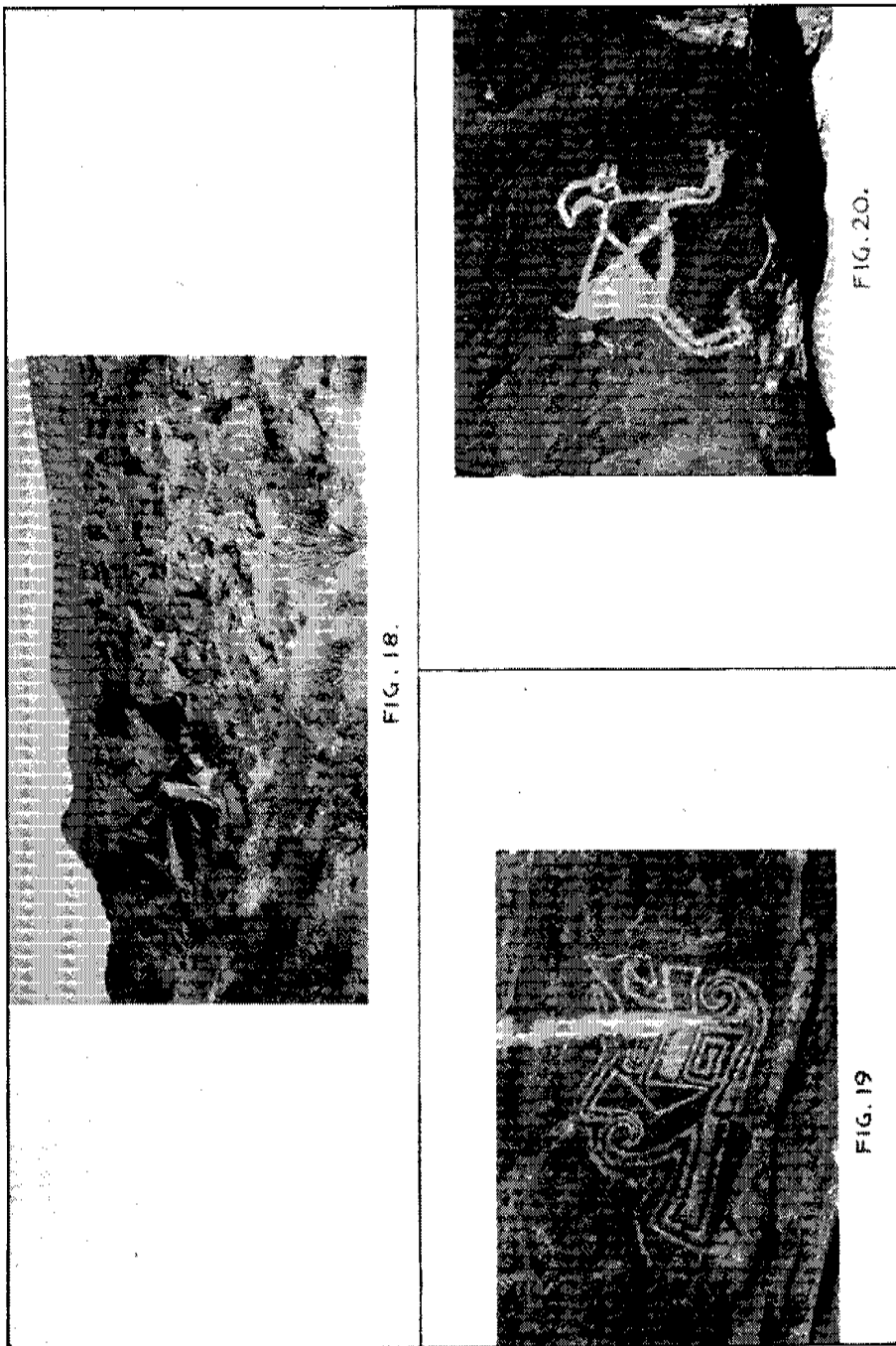


FIG. 18.

FIG. 20.

FIG. 19.

FIG. 18. A VIEW OF PETROGLYPH SITE NO. 4, HUDSPETH COUNTY
 FIG. 19. A COMPLICATED SCROLL VARIANT WITH A CENTRAL PIPE-LIKE
 ELEMENT, SITE NO. 4
 Dimensions, 18x11 inches.
 FIG. 20. A MOUNTAIN SHEEP AT SITE NO. 4
 Outlined in part and the balance pecked solidly. Dimensions, 12³/₄x9¹/₂ inches.

An interesting insight into some of the unusual locations in which the figures are found may be gained by mention of the placement of the ones shown in Fig. 21, Nos. 12-17. They were chipped on the bottom side of a rock, that is balanced only two feet above another boulder. All the facts in the case indicate that the top rock had not fallen onto the other since the pictures were made; but that the artist had lain on his back beneath the overhanging rock while doing the laborious work.

PLATE VII

A LARGE GROUP OF PETROGLYPHS AT SITE NO. 4, HUDSPETH COUNTY

These pecked designs cover the southwest side of a boulder that measures $10\frac{1}{2} \times 4\frac{1}{2}$ feet. Note the representation of a human head, connected circles, scrolls, zigzags, pitchfork-like elements, etc.

PLATE VIII

UNUSUAL PETROGLYPHS AT SITE NO. 4

A group of complicated designs on the south side of a boulder. Dimensions over all, 85x46 inches. Note the triangular design with radiating lines. This seems to be the head of a serpent of the so-called "plumed" type. Some of the lines have been superimposed over older ones.

PLATE IX

PETROGLYPHS ON SURFACE ROCKS AT SITE NO. 4

1. Mountain sheep and, possibly, an armadillo. Note the semicircles of pecked dots about the feet of the latter animal. Length, 59 inches; width, 26 inches.
2. Terraced elements suggestive of certain Southwestern pottery designs. Dimensions, 48x22 inches.

PLATE X

PETROGLYPHS AT SITE NO. 4

1. A deer, conventionalized human, connected circles and various curvilinear elements. Dimensions over all, 66x56 inches.
2. Carvings on the southwest side of a sloping rock. Note the snake-like figures, particularly that to the right. Dimensions, 96x28 inches.

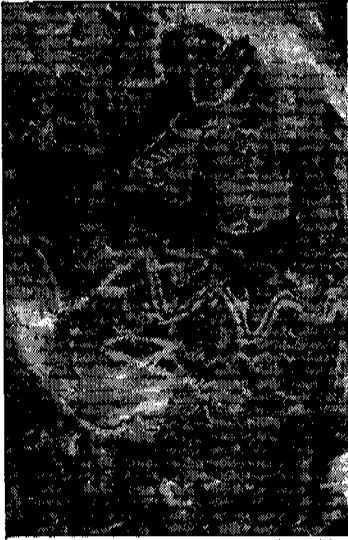


PLATE VIII.

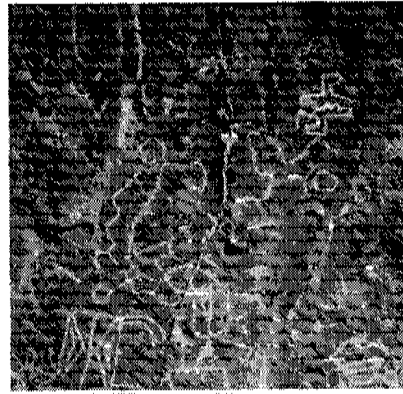


PLATE X.

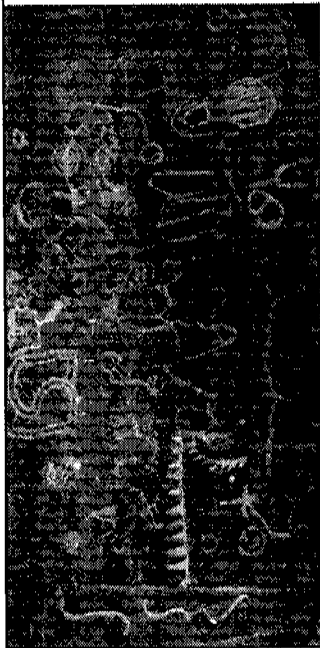


PLATE VII.

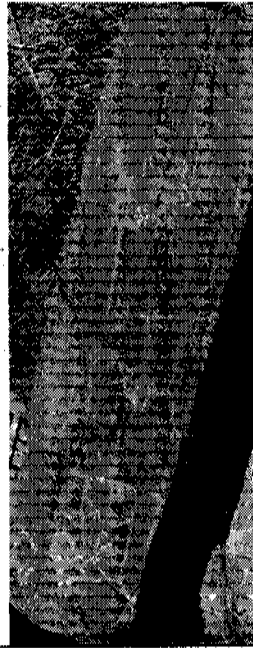


PLATE IX.



FIG. 21.

FIG. 21. PETROGLYPHS AT SITE NO. 4, HUDSPETH COUNTY

The outstanding of these designs are: 3, possible sun-disc; 10, conventionalized man, 13x15 inches; 12, thunderbird; 15, mountain sheep; 20, rain and cloud symbol, 14x16 inches; 27, fish, 12¾x4½ inches; 28, turtle or animal "pelt"; 30, rattlesnake, 6 feet long and 7 inches wide.



FIG. 22.

FIG. 22. SCROLLS, TEPEE, CONVENTIONALIZED HUMAN FIGURE, "BANNER," ETC.

On the east side of a badly eroded boulder, 76x33 inches. Site No. 4.



FIG. 23.

FIG. 23. PETROGLYPHS COVERING A WIDE RANGE OF DESIGN ELEMENTS, SITE NO. 4

They include conventionalized human figures, a masked head, human hands and foot, mountain sheep, bison, sun-disc, connected circles, pitchfork-like elements, etc. Dimensions: Group 1, 48x30 inches; 14, 13x10 inches; 23, 10½x6 inches; 28, 30x15 inches.

(Groupings by the author in Figs. 21 and 23)

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 4

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized figures	10	
Phallic	1	
Masked heads	5	
Hands	3	
Feet	4	23
		13
<i>Human Workmanship:</i>		
Tepees	3	
Woven bags (?)	2	
"Pipes" or pipe-like elements	2	
Hafted club or hammer	1	
Pendant (?)	1	
Projectile	1	
Projectile wounds	2	
Atlatis (?)	3	15
		8
<i>Lower Life:</i>		
Mountain sheep	12	
Buffalo or bison	1	
Armadillo (?)	1	
Conventionalized animals	5	
Animal tracks	3	
Pelt (?)	1	
Thunderbird	1	
Turtle	1	

	Number	Per Cent
<i>Serpents:</i>		
Realistic	14	
Plumed	3	
Fish	2	
Bird track	1	
Insects	2	
Plants and trees	5	29
<i>Geometric and Symbolic:</i>		
<i>Circles:</i>		
Connected	27	
Single	9	
Concentric	6	
Scrolls	14	
Figure eight	2	
Zigzags	4	
Y-shaped elements	3	
Terraced elements	2	
Ladder-like element	1	
Pitchfork-like elements	2	
Enclosure of dots	1	
Hourglass-like element	1	
Crosshatch	1	
Cross	1	
Cloud and rain symbols	9	
Sun symbols	3	
Problematical	4	
	90	50
Total	180	100

SITE NO. 5

This is a small petroglyph site, located on exposed rocks at the top of a bluff overlooking a wide canyon. A few of the figures are almost inaccessible. In common with most of the other petroglyphs of the region, the figures were pecked out by first using a pointed implement for roughing, then finishing with a smooth-edged hammerstone. In some cases the pits made by the first operation were not entirely eliminated.

A few large holes in the rocks on top of the bluff probably furnished water for a few weeks after rains. The place appears to have been a temporary site.

PLATE XI

PETROGLYPHS AT SITE NO. 4, HUDSPETH COUNTY

1. Snake with diamond-shaped head; on north side of rock; 26x2½ inches.
2. Scroll worked into a pipe-like design, 9x9½ inches. Pecking shows clearly.
3. Problematical figure, possibly a plumed serpent; over all, 24x11 inches.
4. Deer, conventionalized animals, footprint, concentric circles, etc.; 66x34 inches.
5. Tepee-like elements; dimensions, 18x7 inches.
6. Human head, connected circles, crosshatch, rain symbol, etc.; 72x29 inches.

PLATE XII

THE LOCATION OF SITE NO. 5, HUDSPETH COUNTY

1. Looking south down the canyon from the site.
2. A close-up of the rim of the bluff where the petroglyphs are located.

PLATE XIII

PETROGLYPHS AT SITE NO. 5

1. A conventionalized human figure pecked in an inverted position. Dimensions about 24x14 inches.
2. An interesting scroll design, 19½x14½ inches.
3. Triangular elements enclosed by band lines. Dimensions, 13½x7 inches.

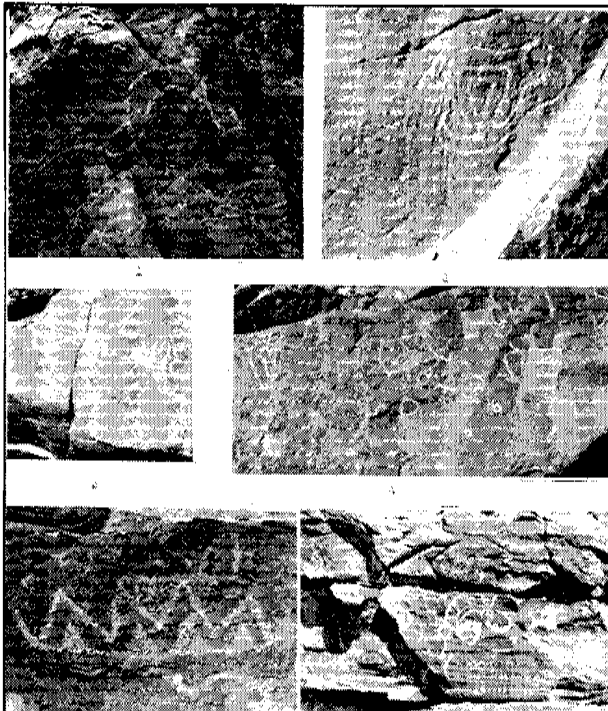


PLATE XI.

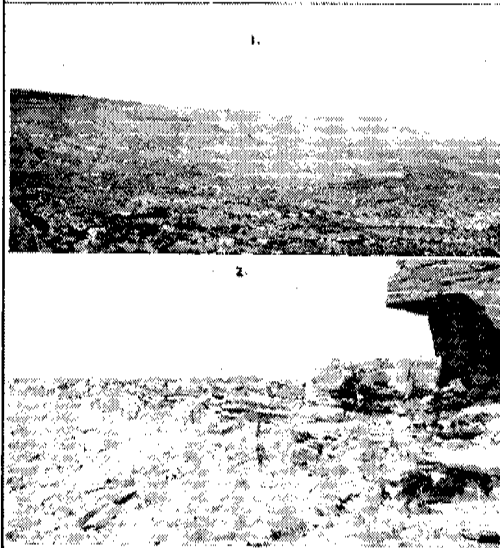


PLATE XII.

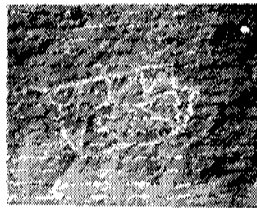
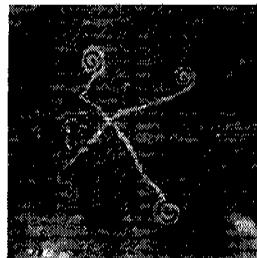


PLATE XIII.

The picture illustrated in Plate XIII, 1, is of interest for several reasons. It is a striking variant of the square-shouldered figures of the region, being highly conventionalized with neither arms nor legs. It will be noted that the head, with its large eyes, points downward. This, coupled with the fact that the design is more than eight feet above the nearest standing-point, but only four feet from the top, suggests that it may have been pecked from above. The three possible methods by which it could have been reached were by a ladder from below, a rope from above, or by another person holding the feet of the sculptor while the work was in progress.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 5

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized figure	1	
Masked head	1	8
<hr/>		
<i>Lower Life:</i>		
Serpent	1	
Insect	1	
Tree or plant.....	1	13
<hr/>		
<i>Geometric and Symbolic:</i>		
Triangles	7	
Rectangles	2	
Circles	3	
Scroll	1	
Curvilinear	4	
Figure eight element.....	1	
Pitchfork-like element	1	19
<hr/>		
Total	24	100

SITE No. 6

At this site are a few pictographs in black paint, on the walls of a large cave. The cave, located at an elevation of about 7,000 feet above sea level, is at the top of a talus slope in a prominent peak in a rugged section. The cave entrance is 55 feet wide and about 20 feet high. Its length is 265 feet and it tapers to a width of only 17 feet at the rear. The cave was long inhabited, although the nearest present water supply is from a hole more than half a mile away. Water may have been secured at shallow depths in the adjacent valley. The material culture, represented by the finds in the midden deposit in the cave, seems to be a modified type of Basket Maker. Sandals found in considerable numbers, by various diggers, are of the pointed-toe or so-called "fish-tail" type, like some of those pictured by Roberts¹² from the El Paso region.

The finding of corn cobs in the refuse indicates agriculture. They were found at depths as great as three feet; and were small, ranging from one to four inches in length and about half an inch in diameter.

Available evidence seems to indicate that the entire period of habitation was in prehistoric times. The only possible exceptions might be two of the pictographs

¹²Roberts, Frank H. H., Jr., *op. cit.*, pp. 5-9, Pl. 2.



FIG. 24. PETROGLYPHS AT SITE NO. 5, HUDSPETH COUNTY

Curvilinear Designs. 1, and 2, dimensions, 18x12 inches; 3, 7¾x6½ inches; 5, 6 and 7, 14x10 inches; 9 to 13, 37x16 inches. No. 12 is a typical pecked "figure eight."

FIG. 25. CONVENTIONALIZED ANIMALS ON CAVE WALL, SITE NO. 6, HUDSPETH COUNTY

Black paint. Dimensions: 1, about 10x4 inches; 2, 6x4 inches.

FIG. 26. REALISTIC AND CONVENTIONALIZED HUMAN FIGURES, SITE NO. 6
Dimensions of No. 5, about 7x3 inches. All painted in black.

FIG. 27. SYMBOLIC DESIGNS PAINTED IN BLACK ON CAVE WALL, SITE NO. 6
Dimensions of No. 1, 5x3 inches. No. 2, a sun-disc, is 4 inches in diameter.

FIG. 28. BADLY ERODED PETROGLYPHS, SITE NO. 8, HUDSPETH COUNTY

1 and 2 show contrast between round and square-shouldered human figures; 3 is a tree-like design; 4, scroll, has dimensions about 15x8 inches; 5, a maze or series of connected circles, is known locally as a map; 6, a rake-like figure.

(Figs. 26, 27 and 28, not original grouping)

(Fig. 26, 2 and 3). Their similarity to certain known historic paintings will be discussed in the section devoted to the distribution of design elements. (See Plate CCLXIII.)

PLATE XIV

PETROGLYPHS AT SITE NO. 5, HUDSPETH COUNTY

1. Butterfly or bird-like design. Dimensions, $14\frac{1}{2} \times 16$ inches.
2. An amorphous figure. Dimensions, $10\frac{1}{2} \times 12$ inches.

PLATE XV

LOCATION OF SITE NO. 6, HUDSPETH COUNTY

1. Entrance to the cave.
2. Interior view.

PLATE XVI

WELL PRESERVED PETROGLYPHS AT SITE NO. 8, HUDSPETH COUNTY

Note the ladder-like element at the right; also the remaining part of a figure destroyed by the spalling of the rock. The "ladder" is 23 inches long and 4 inches wide.

PLATE XVII

PETROGLYPHS AT SITE NO. 8

1. The figures near the bottom are badly worn by flood waters; while those higher up are in an excellent state of preservation.
2. A rectangular, ladder-like figure, apparently pecked with a wide-edged hammerstone. Dimensions about 10×6 inches.

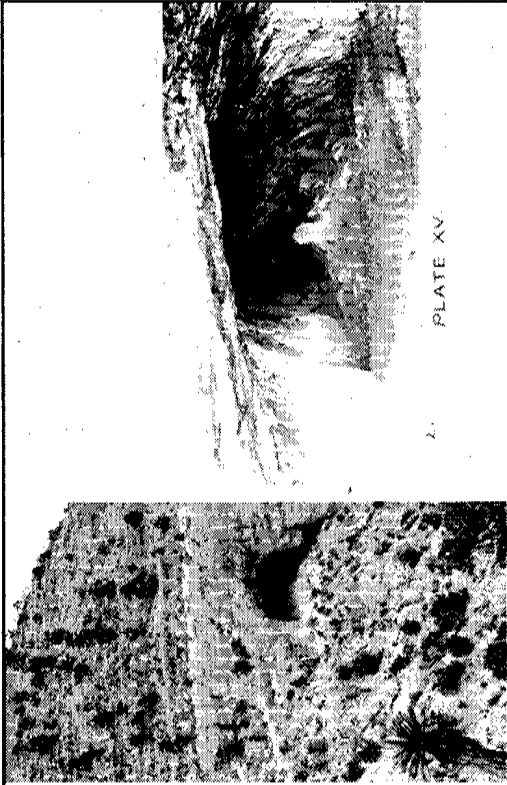


PLATE XV.

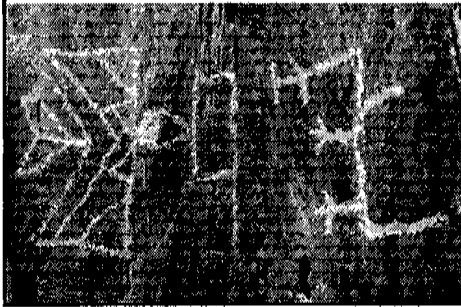


PLATE XIV.



PLATE XVI.

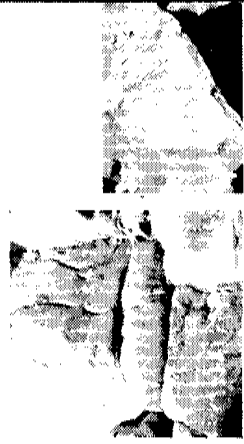


PLATE XVII.

These paintings are not high on the wall. Most of them range from 12 to 18 inches above the present floor level. Four of them, Figs. 25, 2; 26, 4; 26, 6; and 27, 2 were uncovered by excavation at a depth of about 12 inches below the floor. This suggests that they are comparatively old, having been painted on the wall when the floor was several feet below its present level.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 6

	Number	Per Cent
<i>Human Representations:</i>		
Realistic	2	
Conventionalized	4	55
<i>Lower Life:</i>		
Conventionalized animals	2	18
<i>Geometric and Symbolic:</i>		
Sun symbol	1	
Bisected circle	1	
Problematical	1	27
Total	11	100

SITE No. 7

The petroglyphs at this site are reported to be pecked on exposed rocks. The place has not been inspected by a representative of the Anthropology Department of The University of Texas.

SITE No. 8

A small petroglyph site is located in a draw or gap between two ranges of hills. Many of the rocks are flooded in time of heavy rains; with the result that most of the designs are badly eroded. Their condition has been made worse by the fact that the red shale is very weak.

The figures were pecked on the vertical sides and, in some cases, on top of the rocks. The few on high boulders are above flood waters and better preserved. But, taken as a whole, the petroglyphs are in a worse state of preservation than most of those in West Texas. Their extreme condition of weathering apparently is due more to the location and nature of the stone than to any great age. They, however, are prehistoric. Most of the designs are symbolic or geometric.

There is a small campsite a few hundred yards away, with a large one two miles to the north. On the surface of the midden at the latter site have been picked up a number of potsherds of a type common in the El Paso region.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 8

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered figure	1	
Round-shouldered figure	1	13
<i>Lower Life:</i>		
Trees	2	13
<i>Geometric and Symbolic:</i>		
Clouds	2	
Ladder-like element	1	
Scroll	1	
Rake-like element	1	

	Number	Per Cent
Zigzag	1	
Crosshatch	1	
Conneced circles or maze	1	
Curvilinear	3	74
Total	15	100

SITES NO. 9 AND 10

These sites have been reported but have not been visited by a representative of this department. At both sites are said to be petroglyphs pecked into the surface of exposed boulders. At the latter are also reported a few pictographs on overhanging ledges.

SITE NO. 11

At this site are both pictographs and petroglyphs. The former are painted in red, white and a few in black, on the walls of two rockshelters. The latter are pecked into the vertical sides of the surface boulders scattered about near the shelters. A nearby spring, not now usable, undoubtedly furnished water for the occupants of the site. Fifteen round mortar holes in the flat rock, near one of the shelters, bespeaks an extensive site and considerable occupation. The pictures show no definite indications of European contacts; hence, they are thought to be prehistoric.

Of 158 design elements represented at the site, 140 are petroglyphs and only 18 pictographs. The percentages of the various classes of designs compare closely for the two types of picture-writing. But an analysis of the detailed elements reveals a wide difference between the carvings and paintings. The most outstanding difference is in the animal pictures. More than half of the animal carvings are of mountain sheep and deer. Neither of these is represented in the paintings. This suggests that the paintings may have been made at a time, perhaps later, when mountain sheep and deer were not so plentiful. The fact that mountain sheep are painted at other sites in the region indicates that there was no taboo against their representation by this medium.

COLORS OF PICTOGRAPHS, SITE NO. 11

The number of paintings of the various colors are as follows:

Red	9
White	6
Black	2
Black and red	1
Total	18

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 11

PETROGLYPHS

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	10	
Square-shouldered	2	
Round-shouldered	4	
Phallic	4	
Headdresses	2	
Feet	2	
Hand	1	25
<i>Human Workmanship:</i>		
Projectiles	10	
Projectile points	23	
Woven pouch (?)	1	34
		24

	Number	Per Cent
<i>Lower Life:</i>		
Conventionalized animals	11	
Mountain sheep	17	
Deer	12	
Projectile wounds in animals	5	
Pelts or animal hides.....	5	
Animal track	1	
Bird track	1	
Snake	1	
<i>Geometric and Symbolic:</i>		
Connected circles	2	
Bisected circle	1	
Curvilinear	1	
Series of numeration marks (dots).....	2	
Single zigzags	2	
Parallel zigzags	4	
Y-shaped element	1	
Equal-armed crosses	3	
Cloud and rain symbols	2	
Problematical	10	
Total Petroglyphs	53	38
	28	20
Total Petroglyphs	140	100

PLATE XVIII

A SQUARE-SHOULDERED HUMAN FIGURE

Pecked on the vertical side of a boulder at Site No. 11, Hudspeth County. Note the headdress, with three feathers protruding; the upraised arm with a small circle at the tip of the second finger; the absence of the other arm; the triangular elements decorating the body; and the bent position of the legs. Total height, 21 inches; width, 11 inches.

PLATE XIX

PETROGLYPHS AT SITE NO. 11

1. Mountain sheep, $5\frac{1}{2} \times 5\frac{3}{4}$ inches; projectile shaft, $13\frac{1}{2}$ inches long; conventionalized human, $5 \times 2\frac{1}{2}$ inches.
2. Phallic human representation, projectile points and mountain sheep. Dimensions 41×47 inches.
3. Conventionalized animals; dimensions, over all, 29×18 inches. Note the partly pecked interior and feet of the animal to right.
4. Pecked projectile points; over-all dimensions, 23×20 inches.

PLATE XX

ERODED PETROGLYPHS AT SITE NO. 11

Some of the older figures are almost obliterated by erosion and the superimposing of other pictures. Represented here are human figures, right hand, animals pierced by projectiles, deer, mountain sheep, projectile points, etc. On south side of rock. Dimensions, 72×87 inches.

PLATE XXI

PETROGLYPHS AT SITE NO. 11

Outstanding among these carvings are the large projectile points and the human or bear tracks (?). The latter show four and five toes. Note the mountain sheep at lower left. Dimensions, 48×44 inches.

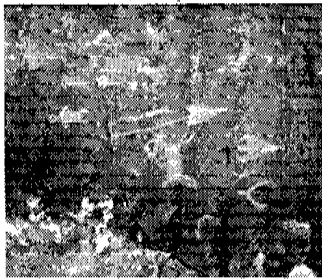
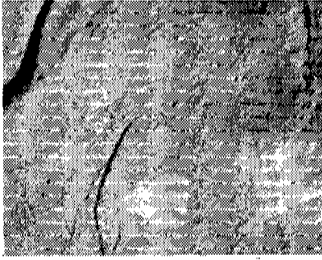
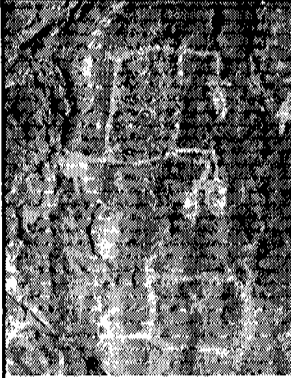


PLATE XIX.



PLATE XVIII.

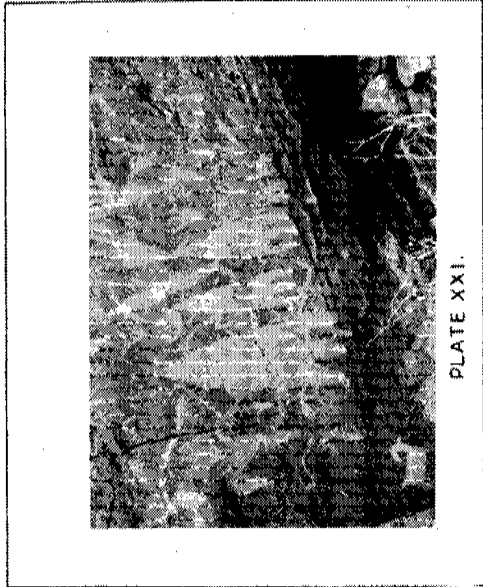


PLATE XXI.

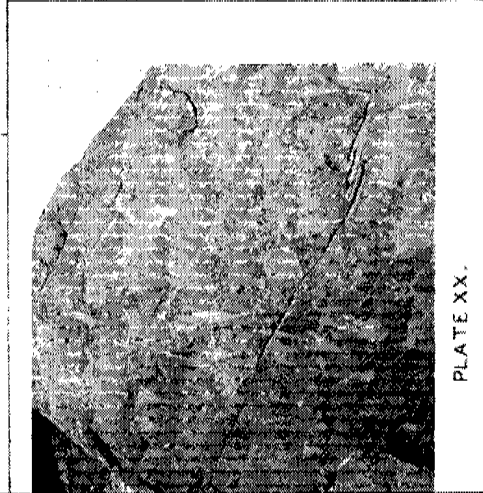


PLATE XX.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 11

PICTOGRAPHS		Number	Per Cent
<i>Human Representations:</i>			
Conventionalized	4		
Masked heads	2	6	33
<hr/>			
<i>Lower Life:</i>			
Conventionalized animals	3		
Armadillo (?)	1		
Bird	1		
Horned or plumed serpents	2	7	39
<hr/>			
<i>Geometric and Symbolic:</i>			
Crosshatch	1		
Curvilinear	3		
Series of dots	1	5	28
<hr/>			
Total Pictographs		18	100

Attention is directed to the large number of projectile shafts and separate points represented in the petroglyphs at this site. It will be noted that practically all of the 23 points are of the same shape or type. It is very similar to a class of projectile points found in the middle and bottom levels of many of the burnt-rock middens in Central Texas. Some of the same type come from the bottom level of middens in Edwards County. A large projectile point of the same kind was found by the writer in a grave, with a flexed skeleton, in a large shelter in Val Verde County.

FIG. 29. MORTAR HOLES IN FRONT OF SHELTER, SITE NO. 11,
HUDSPETH COUNTY, TEXAS

Note the effect of erosion around the central hole. Some holes are deep, others show slight use.

PLATE XXII

PETROGLYPHS AT SITE NO. 11

1. Left: Cloud, rain and lightning symbol; center: human; right: parallel zigzag lines. Dimensions, 72x40 inches.
2. Cross and parallel zigzag lines, or so-called girls' puberty signs. Dimensions: cross, 4x4 inches; zigzags, 9½x5½ inches.
3. Mountain sheep and human figures. Two animals pierced by projectile shafts. Dimensions, 30x36 inches.

PLATE XXIII

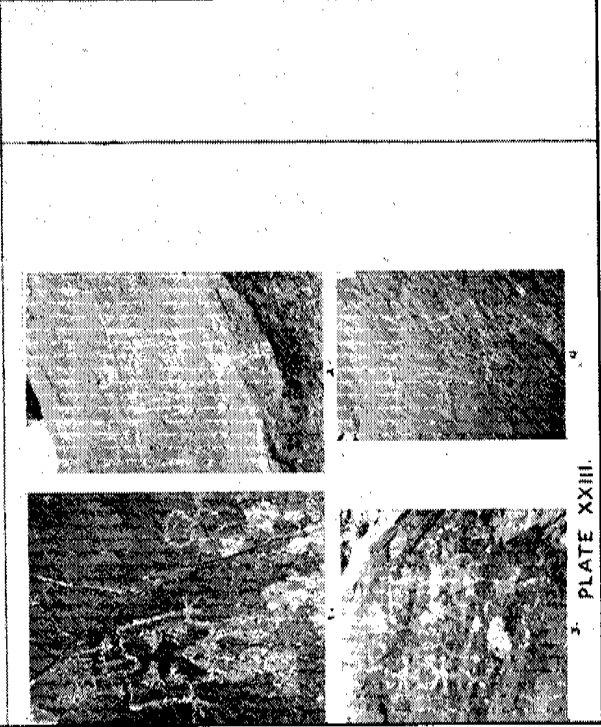
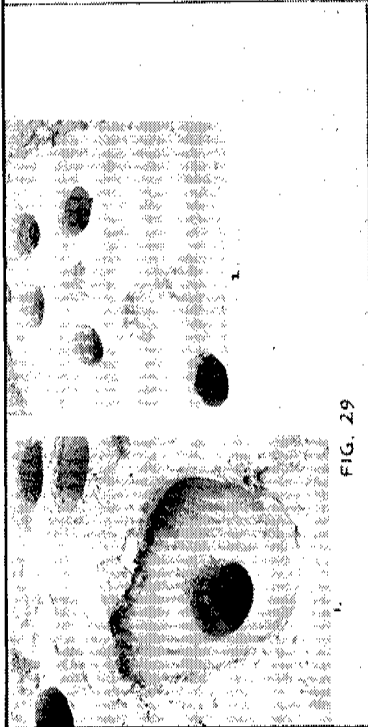
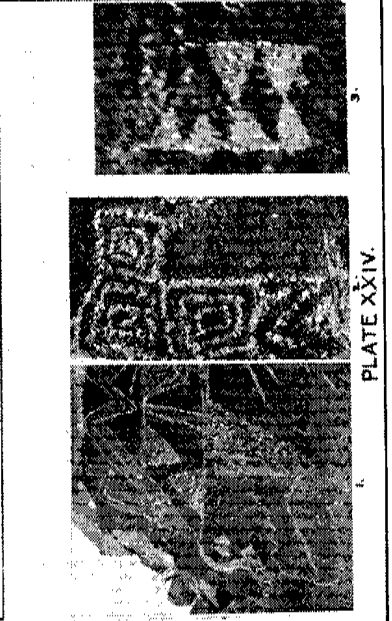
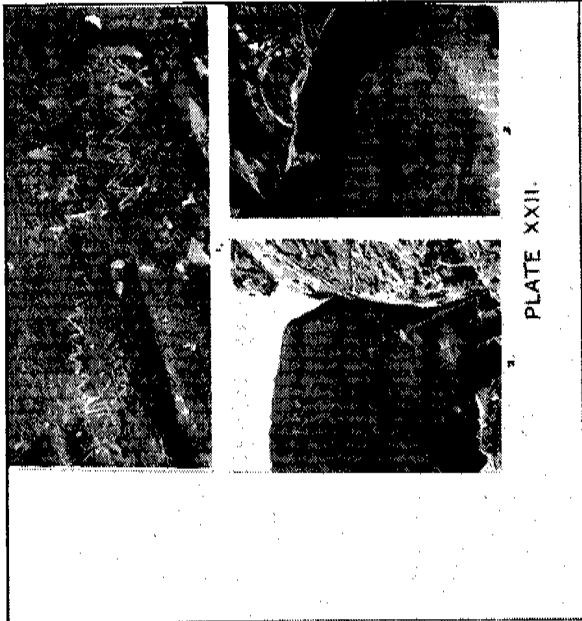
PETROGLYPHS AT SITE "A," OTERO COUNTY, NEW MEXICO

1. Human figure with masked head; 34x22 inches.
2. Square-shouldered human figure; 38x25 inches.
3. Lizard and insect-like elements; 34x22 inches.
4. Square-shouldered human figure; 32x28 inches.

PLATE XXIV

PETROGLYPHS AT SITE "A"

1. A terraced figure with a human foot attached; 49x40 inches.
2. Scroll-like elements and concentric parallelograms; 14x19 inches.
3. Triangular or hourglass-like elements; 22x18 inches.



SITES No. 12 AND 169

At the first of these sites are reported to be pictographs on a shelter wall and petroglyphs on nearby boulders. At the latter site are pictographs on the face of an overhanging rock. The paintings, in red, are said to include dots, horizontal lines, crosshatch and rake-like elements. The sites have not been visited by any University of Texas representative.

OTERO COUNTY, NEW MEXICO

Two picture-writing sites in New Mexico are included in this study for the sake of completeness. They are less than 20 miles from the Texas state line, and will prove of value by way of comparison with material from El Paso, Hudspeth, and Culberson Counties, Texas. These considerations outweigh an arbitrary adherence to present-day state boundaries.

These out-of-state sites have not been assigned numbers in the Texas series; but are given letters of the alphabet, that they may be readily differentiated.

SITE "A"

The petroglyph site is located on the southwest side of a prominent peak, at a spring. Around the spring are many boulders, on some of which designs are pecked. The rocks are reddish in color, of a sandy texture, somewhat porous, but fairly durable.

More than 60 per cent of the designs are geometric and symbolic. There is no evidence of European contact, so the pictures may be considered prehistoric.

CLASSIFICATION OF DESIGN ELEMENTS, SITE "A"

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	
Square-shouldered	3	
Round-shouldered	1	
Headdresses	3	
Feet	1	9
		28
<i>Lower Life:</i>		
Lizard	1	
Insects	2	3
		9
<i>Geometric and Symbolic:</i>		
Triangles	4	
Crosshatch	1	
Curvilinear	4	
Scroll	1	
Terraced element	1	
Single zigzag	1	
Parallel zigzags	1	
Hourglass-like element	1	
Ladder-like element	1	
Pitchfork-like element	1	
Rake-like element	1	
Cloud symbol	1	
Sun symbols	2	20
		63
Total	32	100

SITE "B"

Both pictographs and petroglyphs are found at this site. They are located at the southeast end of a prominent peak. The pictographs are on the walls of a cave or rock shelter. The place is in reality a crevice in the rock running back some 65 feet, with a width of from 15 to 18 feet at the floor. The walls lean inward as they rise, almost meeting at the top. Inside this shelter is a never-failing spring located in the middle of the floor.

Near the entrance to the shelter are the ruins of an old stage stand or inn.

On the boulders to the east of the cave are petroglyphs. Many of these consist of or contain human heads and figures. The carvings are on syenite, a granitoid rock. The carvings appear to be of different ages, some being very distinct while others are almost illegible.

A striking illustration of the manner in which some of the carvings are superimposed may be seen by reference to Plate XXVI. This clearly shows the impossibility, in certain cases, of definitely determining where one figure ends and another begins. The petroglyphs have been pecked one over another; sometimes wholly superposed, again overlapping only in part. As an example, attention is called to the human hands and the projectile shaft immediately to the left of the rotund human figure at the upper left. The fact that an unbroken line connects the hands and projectile point to the head may be an indication that they were made at the same time. On the other hand, there is a similar connection between two near-by figures that clearly represent superimposition. A foot of an upper human figure rests on the face of a lower one in such a manner that it at first appears to be a part of the latter picture. A close examination, however, proves that it belongs to the former.

In making sketches of individual figures the only safe plan, where there is much superimposition, is to include nothing about which there is a reasonable doubt. Where there are very unusual appendages or combinations of elements that do not occur in any of the other petroglyphs, they were omitted from the classification until such time as corroborative evidence was discovered. In such cases, however, photographs furnish a link in the chain of evidence relating to the chronology of the rock pictures.

PLATE XXV

VIEW OF THE MOUNTAIN IN WHICH SITE "B" IS LOCATED,
OTERO COUNTY, NEW MEXICO

PLATE XXVI

SUPERIMPOSED PETROGLYPHS AT SITE "B"

Clearly the figures in this group are of different ages and represent one type of chronology. Dimensions over all, 10x4 feet.

PLATE XXVII

A GROUP OF CONTEMPORANEOUS PETROGLYPHS, SITE "B"

These pecked figures are not superimposed and appear to be of about the same age. Note the hourglass-shaped human figure and the three-toed lizards or highly conventionalized humans. At the upper left is the representation of a footprint showing only four toes. Dimensions over all, 103x47 inches.

PLATE XXVIII

PETROGLYPHS AT SITE "B"

1. A maze of badly eroded, flaked and superimposed designs. This illustrates the damage resulting to many picture-writings from natural causes. Five feet 3 inches wide; 11 inches high.
2. A projectile, circle, scroll and tarantula-like design, over which a white man pecked his initials.
3. These carvings represent some unusual designs in association with others of common occurrence. Note the masked head, the connected circles and concentric triangles.
4. A terraced design common to the Southwest. Dimensions: 47x12 inches.

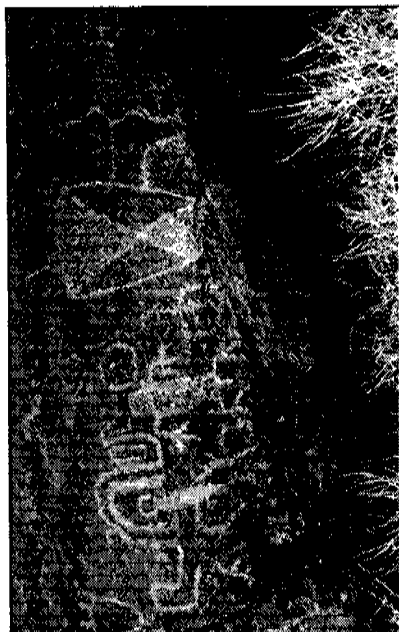


PLATE XXVII.

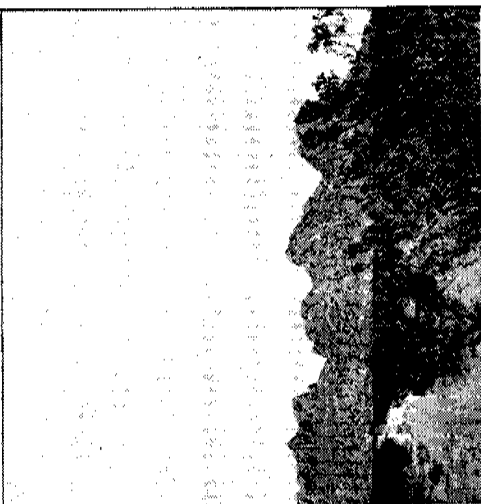


PLATE XXV.

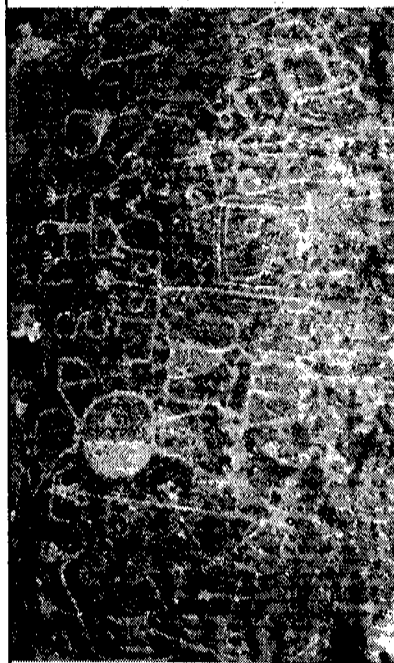


PLATE XXVI.

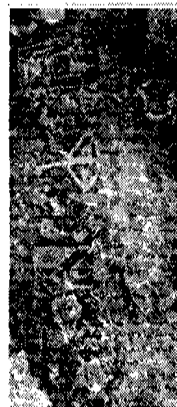
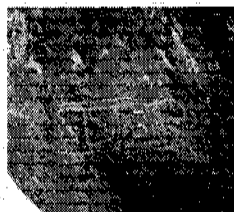


PLATE XXVIII.

FIG. 30. PETROGLYPHS AT SITE NO. 11, HUDSPETH COUNTY, TEXAS

Dimensions: 1, 2, 3, 49x34 inches; 4, 18x13 inches; 5, 8½x7 inches; 9, 8x6 inches; 13-16, 36x41 inches. Note Nos. 2, 4, and 15 with cord-like attachments to projectile points.

FIG. 31. PICTOGRAPHS AT SITE NO. 11

1. Armadillo-like figure, 32x24 inches. Outlined in black with two parallel red lines.
- 2, 3. Conventionalized heads painted white; 27x13 inches.
6. The head of this animal is much like that of a mythological character pictured by Mead¹³ in *Peruvian Art*. Dimensions, 43x38 inches. Possibly a coyote.
- 7-11. Scattered designs painted in red; No. 10 may represent a horned or plumed serpent and No. 11 a conventionalized lizard superimposed on other paintings.
12. A conventionalized serpent painted in white; length, 40 inches; width, 12 inches.

FIG. 32. PETROGLYPHS AT SITE "B," OTERO COUNTY, NEW MEXICO

These designs are on a boulder 11x5½ feet. Note the lizard, rabbit, and conventionalized men.

FIG. 33. PICTOGRAPHS AT SITE "B"

In shelter just back of an old stage stand. Dimensions: 1, 28x15 inches; 6, 12x18 inches; 9, 10, 35x25 inches.

At least two of the pictures show white contact. Colors: 1, black; 2, 3, 4, white; 5-10, black.

FIG. 34. PICTOGRAPHS AT SITE "B"

1. Outlined in white, with interior painted black.
- 2-6. Painted in red. Dimensions of No. 5, 18x14 inches.

(Groupings by the author)

¹³Mead, C. W., *Peruvian Art*, American Museum of Natural History, New York, 1916, Plate 5, Fig. 16.

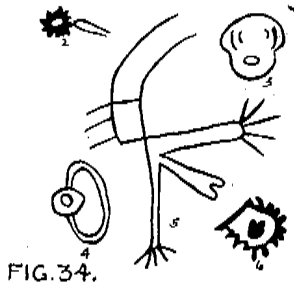
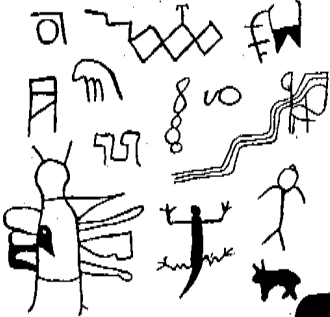
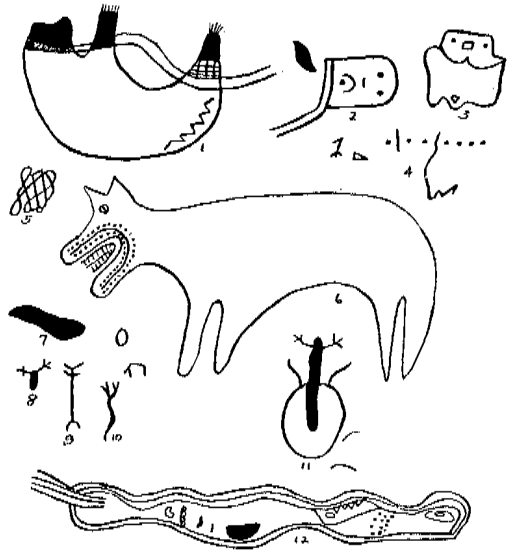
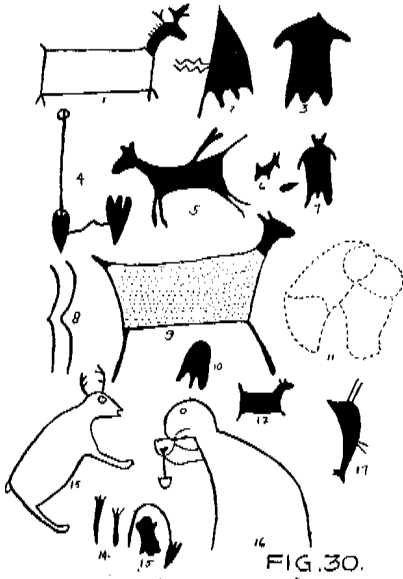


FIG. 33.

FIG. 34.

PLATE XXIX

A MASKED HUMAN HEAD

In Shelter No. 2, at Site "B," Otero County, New Mexico.

Outlined in white, with linework in the same color; interior painted red. Dimensions, 54x20 inches.

PLATE XXX

PICTOGRAPHS AT SITE "B"

Colors: 1, red; 2, white.

Dimensions: 1, 34x36 inches.

In No. 1 note the bow and the representation of ears.

PLATE XXXI

PICTOGRAPHS AT SITE "B"

1. A problematical design suggestive of a butterfly or frog. Painted red. Dimensions, about 37x24 inches.

2. Conventionalized animal and disc painted white; dancing human figure outlined in red paint.

PLATE XXXII

A MAZE OF PETROGLYPHS AT SITE NO. 13, CULBERSON COUNTY, TEXAS

The carvings extend over the edge and on the top of the boulder. Some local citizens see in this a map of the region, showing trails, water holes, and other strategic points. Dimensions: height, 105 inches; width, 76 inches.

PLATE XXXIII

DANCING FIGURES AND OTHER PETROGLYPHS, SITE NO. 13

The figure holding the spade-like object possibly may show white contact. Located on the southeast face of a boulder that measures 66x31 inches.

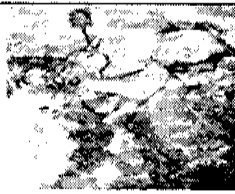
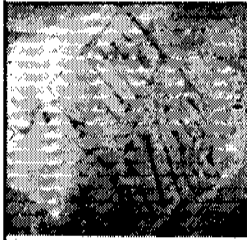


PLATE XXXI.

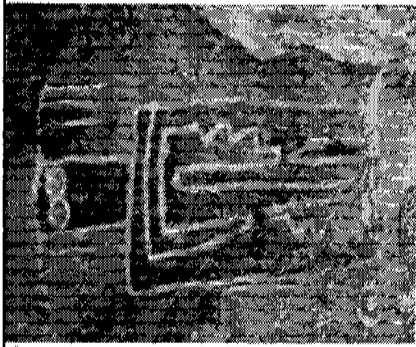


PLATE XXIX.



PLATE XXX.



1.

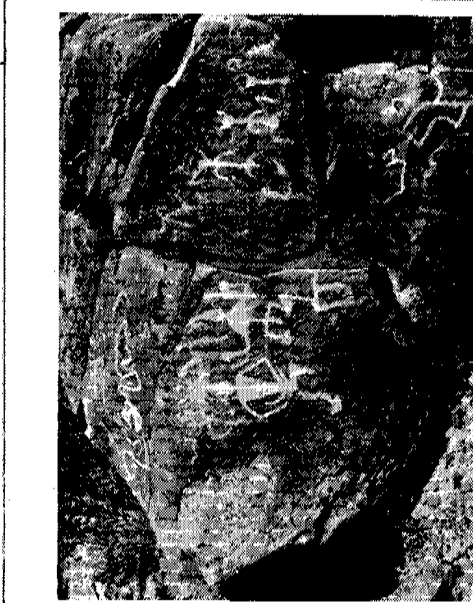


PLATE XXXIII.

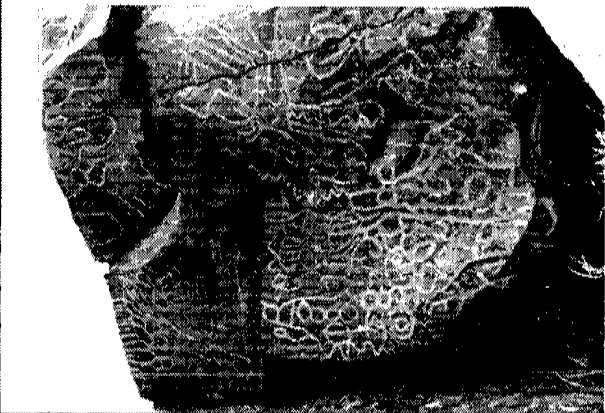


PLATE XXXII.

CLASSIFICATION OF PETROGLYPH DESIGN ELEMENTS, SITE "B"

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered	5	
Round-shouldered	3	
Conventionalized	16	
Masks and headdresses	3	
Phallic	2	
Feet	6	
Hands	2	37
		31
<i>Human Workmanship:</i>		
Projectile shafts	3	2
<i>Lower Life:</i>		
Conventionalized indistinguishable animals ..	5	
Rabbit	1	
Serpents	4	
Lizards	4	
Insects	5	
Animal tracks	2	
Bird track	1	
Tree	1	23
		20
<i>Geometric and Symbolic:</i>		
Triangles	9	
Rectangles	4	
Squares	4	
Concentric circles	2	
Single circles	6	
Connected circles	10	
Curvilinear	3	
Figure eight elements	3	
Scrolls	3	
Single zigzags	2	
Terraced elements	2	
Crosshatch	1	
Cloud and rain symbols	2	
Ladders	2	
Problematical	2	55
		47
Total	118	100

CLASSIFICATION OF PICTOGRAPH DESIGN ELEMENTS, SITE "B"

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered figures	2	
Round-shouldered figures	3	
Conventionalized	1	
Headdresses	3	9
		31
<i>Human Workmanship:</i>		
Bow and arrow	1	
Iron kettle (?)	1	2
		7
<i>Lower Life:</i>		
Conventionalized indistinguishable animals ..	3	
Buffalo or longhorn cow	1	
Mountain sheep	1	
Insect	1	
Tree	1	7
		24
<i>Geometric and Symbolic:</i>		
Single circle	1	
Concentric circles	2	
Triangle	1	
Curvilinear element	1	
Crosses	3	
Sun symbols	3	11
		38
Total	29	100

SUMMARY OF PICTOGRAPH COLORS AT SITE "B"

Color	Number Elements	Per Cent
Red	12	41
White	7	25
Black	7	25
Yellow	1	3
White and black	1	3
White and red	1	3
Total	29	100

CULBERSON COUNTY, TEXAS

SITE No. 13

An extensive petroglyph site is located at the base of a mesa, near the mouth of a small canyon, in the southwestern part of the county. A few of the pecked boulders are a short distance up the side of the peak; but most of them are on the flat land from 25 to 100 feet from the abruptly-rising side of the peak. The pecked figures are on the vertical sides and tops of large boulders of fine grained felsite. The rock is fairly durable.

One of the things that first impresses the close observer is that most of the carvings appear recent, as compared with some of the other petroglyphs of the region. The pecked surfaces have that white color characteristic of the stone when the weathered outer coating is penetrated. The carvings at all times look as though they had just been "chalked." A competent geologist has estimated that some 300 to 400 years might be required for carvings on rocks of this kind to age sufficiently to take on somewhat the same color as the remainder of the rock.

Yet, on the other hand, there is no definite evidence of European contacts. Hence, it would seem that most of these picture-writings belong to the late prehistoric period, and may range in age from 150 to 300 years. A few, however, are badly weathered and show considerable age.

Adjacent to the petroglyphs is an open campsite, located near a wet-weather water hole. On the surface may be found flintwork and a few broken manos.

Included among the designs are human representations, animals, snakes, turtle, geometric and symbolic figures. There is also a boulder almost completely covered with a maze of designs commonly called, by local inhabitants, a "map of the region."

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 13

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	25	
Square-shouldered	1	
Round-shouldered	6	
Feather headdresses	3	35
-----		14
<i>Human Workmanship:</i>		
Projectile	1	
Projectile points	3	4
-----		1
<i>Lower Life:</i>		
Conventionalized indistinguishable animals	6	
Other animals	4	
Turtles	2	
Snakes	27	
Bird track	1	
Insects	3	
Trec	1	44
-----		18

	Number	Per Cent
<i>Geometric and Symbolic:</i>		
Rectangles	2	
Vertical hatching	5	
Crosshatch	3	
Connected circles, groups of	37	
Concentric circles.....	3	
Bisected circles.....	4	
Single circles	20	
Curvilinear elements.....	34	
Single zigzags.....	8	
Parallel zigzags.....	7	
Terraced elements.....	2	
Figure eight elements	10	
Pitchfork-like elements.....	3	
Rake-like element.....	1	
Spade-like element.....	1	
U-shaped elements.....	9	
Equal-armed crosses	2	
Cloud, rain and water symbols	13	
Sun symbols.....	2	
	166	67
	-----	-----
Total	249	100

SITE No. 14

A few petroglyphs adorn the wall of a rockshelter in a large outcrop of sandstone, near the Hudspeth County line. The shelter, facing southwest, is at the base of a cliff, with a fairly level valley adjoining. The nearest water is about half a mile from the shelter.

In July, 1929, W. B. Lang, of the United States Geological Survey, examined the site as a nitrate prospect. In 1932 Mansfield and Boardman¹⁴ took their account from Lang's report. That part of the account relating to the shelter is as follows:

"The sandstone is of Lower Cretaceous age and is of variable texture, being in part conglomeratic, arkosic and crossbedded. . . . The southeast end forms a cliff that has a prominent overhanging ledge, which at some places extends out 15 feet at a height of 8 to 12 feet. The overhang runs approximately 200 feet and has afforded and still affords resting places for bats. There is also abundant evidence of the use of the place as a shelter by the Indians. The walls are scored, frescoed and blackened, and the ground at the base contains charcoal, bones and other organic matter."

Small arrowpoints, manos and other evidence of camp life may be found within 100 yards of the shelter. There are 23 circular mortar holes at the site, 12 being on a ledge a few feet below the petroglyphs and 11 others in nearby rocks. They average seven inches in diameter and 14 inches deep.

The petroglyphs are pecked into the sandstone. They are in a horizontal band about 25 feet long and one foot wide, located two feet above a thin protruding shelf-rock and 3½ feet above the floor level of the shelter. Some of the lines are about ¼ inch deep and some ½ inch wide. Other designs, where more exposed, are very dim.

¹⁴Mansfield, G. R., and Boardman, Leona, Nitrate Deposits of the United States, Bulletin 838, United States Department of the Interior, Washington, 1932, pp. 67-68.

PLATE XXXIV

SNAKE DESIGNS AND OTHER PETROGLYPHS, SITE NO. 13
CULBERSON COUNTY

Here is a representation of the diamond-back rattlesnake, the figure eight, and various other design elements. Located on the north side of a boulder that measures 72x67 inches.

PLATE XXXV

PETROGLYPHS SHOWING HUMAN FIGURES, SITE NO. 13

1. Nine running figures possibly playing some aboriginal game. Pictures on east side of rock. Dimensions, 66x26 inches.
2. A possible snake dance, the central figure having a snake in each hand. Dimensions: 52x33 inches.

PLATE XXXVI

PETROGLYPHS AT SITE NO. 13

1. Figures pecked on two sides of a boulder 71 inches tall. The design elements include connected circles, figure eight, rake, etc. Some of the designs are superimposed over older ones.
2. Scattered designs on side and top of a boulder. Dimensions over all: 55x55 inches.

PLATE XXXVII

PETROGLYPHS AT SITE NO. 13

1. Apparently three ages of designs are represented, a long period having elapsed between the making of the first and last. Upper center covered with figures almost obliterated by erosion; lower left and central right, later and better preserved; figures in lower center, youngest of all. Clear central design, 18x6 inches, on southeast face of boulder.
2. Curvilinear figures. Dimensions: 50x20 inches.

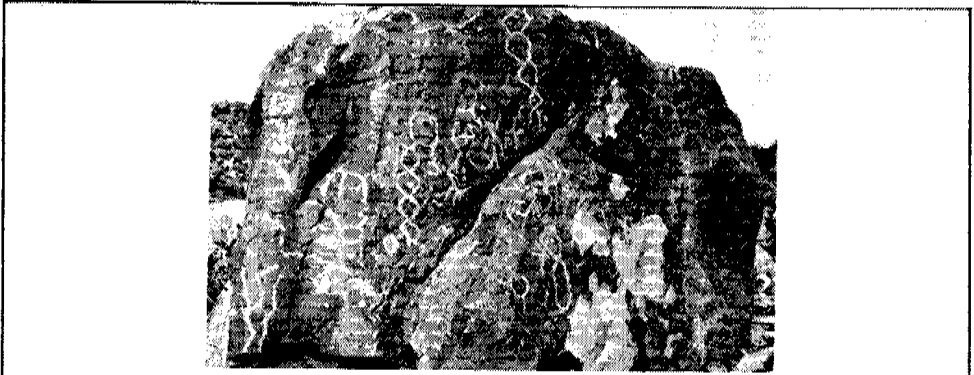


PLATE XXXIV.

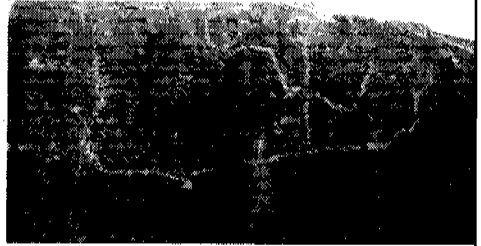
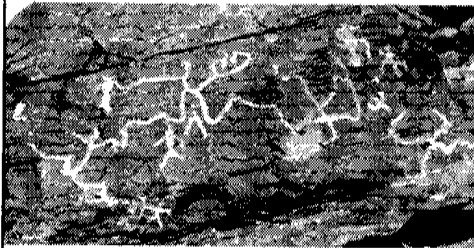


PLATE XXXV.

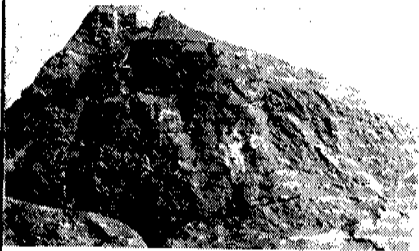
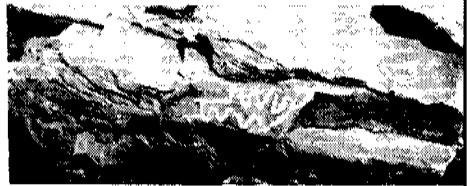
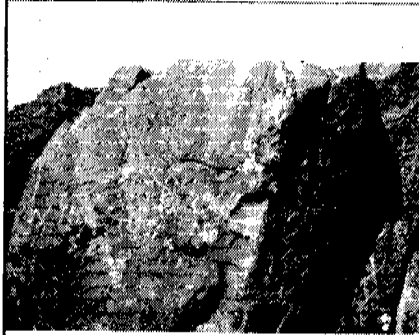


PLATE XXXVI.

PLATE XXXVII.

FIG. 35. PETROGLYPHS AT SITE NO. 13, CULBERSON COUNTY

- 1, 5, 7, 12, 21. Snakes, ranging in length from 15 to 84 inches.
- 2, 3, 17-20, 25. Human representations. Dimensions: 19, 13x5¼ inches; 20, 10x4½ inches.
6. Turtle.
13. Conventionalized animal.
- 14-16. Projectile points.
24. Sun-ray disc or conventionalized human.

FIG. 36. PETROGLYPHS AT SITE NO. 13

Curvilinear elements including connected circles, figure eight, ladder, conventionalized human and animal, etc.

FIG. 37. PETROGLYPHS AT SITE NO. 14, CULBERSON COUNTY

1. Triangular design pecked into the sandstone.
2. A so-called gondola design, including tepee and horn-like elements. Height of triangles, 5 inches. A possible headdress.
3. A section of the long pecked frieze that extends around the wall for some 25 feet. The rectangular elements vary in size, some being 8x6½ inches while others are 6½x4½ inches. There are 24 of them in the upper tier and an equal number below. Some are badly weathered. Green paint has been rubbed into the lines of one of the terraced elements.

FIG. 38. PAINTED STICK FROM A BURIAL, SITE NO. 16
CULBERSON COUNTY

The specimen is of interest since it is one of the few pieces of wood with painted designs found in Texas graves. The design itself is unusual.

FIG. 39. SMALL GEOMETRIC AND SYMBOLIC PAINTINGS AT SITE NO. 17
CULBERSON COUNTY

The crosshatch, No. 6, is 9x6 inches.

(Groupings by the author)

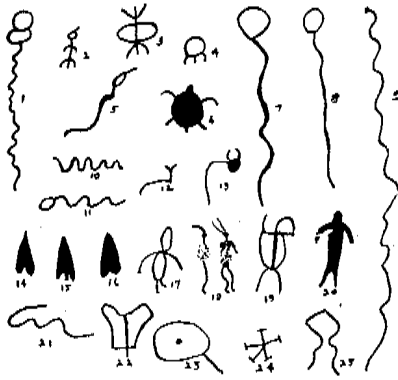


FIG. 35.



FIG. 36.

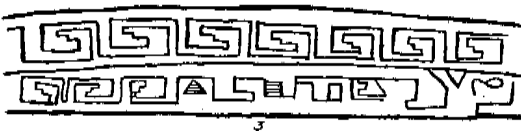
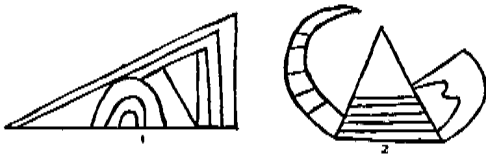


FIG. 37.



FIG. 38

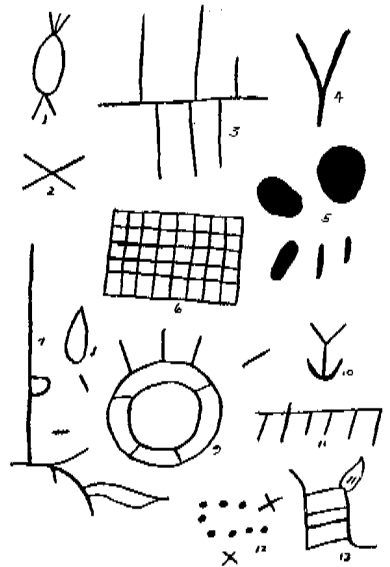


FIG. 39.

SITE No. 15

Pictographs have been reported at this site, near certain water holes in the hills. The paintings are said to be on overhanging ledges and in red and black colors. The place has not been examined by a representative of the Anthropology Department of The University of Texas.

SITE No. 16

Accompanying a burial of two skeletons, in a large cave in the eastern part of the county, was found a short piece of split yucca flower stalk with a design painted in black. Due to the dry condition of the cave the piece of wood is in a good state of preservation, but the paint is somewhat dim. The specimen measures $3\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{8}$ inches. From Fig. 38 it will be noted that the central design is suggestive of a highly conventionalized animal with a long tail. There is no design on the reverse side. No pictographs now remain on the walls of the cave from which the burial came.

PLATE XXXVIII

VIEWS AT SITE NO. 14, CULBERSON COUNTY

1. Part of the cliff, showing rockshelter near center. The shelter proper has an overhang of only 8 feet and a length of about 50 feet.
2. Circular mortar holes in a ledge adjoining the shelter.

PLATE XXXIX

BURIAL WITH WHICH A PAINTED STICK WAS FOUND
SITE NO. 16, CULBERSON COUNTY

Note the feet of the youth protruding from beneath the yucca-leaf mat at the right. Around the sharpened sticks, beneath the skull at the left, is wound a fiber cord net. Depth, 22 inches.

PLATE XL

SIGNAL PEAK, ELEVATION 9,500 FEET

Located in the same range and only a few miles from Pictograph Site No. 17, Culberson County.

PLATE XLI

VIEWS PERTAINING TO SITE NO. 17

1. The spring that furnished the water supply.
2. Rake-like designs painted in red; 4×4 inches and $4\frac{1}{2} \times 3$ inches.
3. Solid and punctate linework in red. Note the equal-armed cross made of dots.



PLATE XXXVIII.



PLATE XXXIX.



PLATE XL

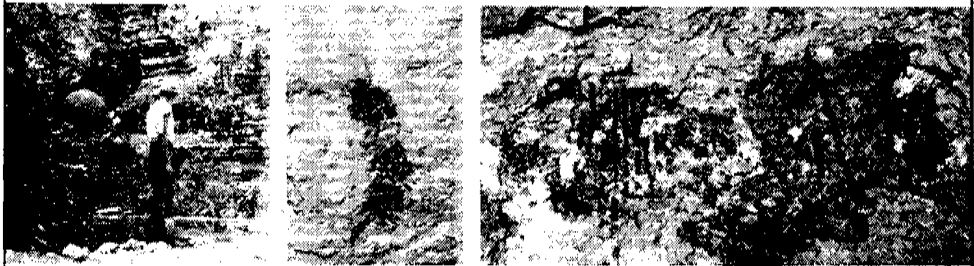


PLATE XLI.

SITE NO. 17

The pictographs at this site are on the walls of a double shelter that faces toward the southeast. It is located at the bottom of the caprock, and at the top of a half-mile-long talus slope, overlooking a rough valley in a range of tall mountains.

A fine spring at the base of the peak no doubt supplied the needs for water of the inhabitants of the shelter.

Practically all of the midden deposit in the shelter has been dug by an out-of-state institution. It is reported that basketry, matting and a number of sandals came from the shelter.

Since there was nothing to indicate European contact, and the paintings show evidence of considerable age, it seems probable that they represent a pictographic expression of the early occupants who made the articles found in the shelter.

According to C. L. Baker, who examined a specimen of the rock, it is "magnesian limestone recrystallized and almost marble in texture. It is very durable and will stand up well." It, however, spalls off somewhat and this has resulted in damage to certain paintings.

The paint represents shades somewhat different from those usually employed by the Indians in other parts of Texas. Most of the paintings are of a color intermediate between burnt Italian sienna and rose madder. The others are of a shade much like American vermilion.

The types of designs are distinctive in several respects. Only 11 per cent of them pertain to humans and human workmanship, eight per cent to lower life, with 81 per cent of geometric and symbolic elements. Of the latter, 50 per cent are made up of solid lines, while 31 per cent are punctate. It will thus be seen that the employment of dots is very pronounced. Seven per cent of the designs are so-called rakes and six per cent ladders. Next to the use of dots, rakes and ladders are the most outstanding features of the site. The linework varies widely in its width, ranging from $\frac{1}{8}$ to $\frac{1}{2}$ inch.

FIG. 40. PICTOGRAPHS AT SITE NO. 17, CULBERSON COUNTY

No. 5 may be considered a sun symbol. Nos. 6, 9, and 12 seem to be conventionalized humans. Chevron designs like No. 11, called by Fewkes¹⁵ "hoofprints of the mountain sheep," are said in some cases to be totemic signatures.

FIG. 41. PROBLEMATICAL PICTOGRAPHS AT SITE NO. 17

The projectile and the headless animal are suggestive of a hunting scene. Dimensions of rectangle, 18x8 $\frac{1}{2}$ inches.

FIG. 42. DESIGNS FORMED OF RED DOTS, SITE NO. 17

Dimensions: 1, 15x9 $\frac{1}{2}$ inches; 2, 13x11 $\frac{1}{2}$ inches.

FIG. 43. OTHER PICTOGRAPHS AT SITE NO. 17

Dimensions of so-called ladder, 12x3 inches.

(Groupings by the author in Figs. 40 and 41)

¹⁵Fewkes, J. W., Tusayan Totemic Signatures, *American Anthropologist* (O.S.) Vol. X, No. 1, Washington, January, 1897, pp. 1-11.



FIG. 40.

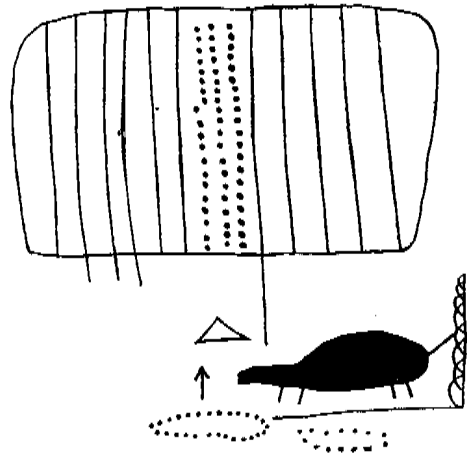


FIG. 41.



FIG. 42.

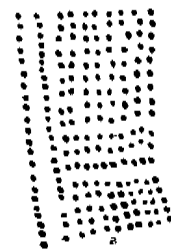
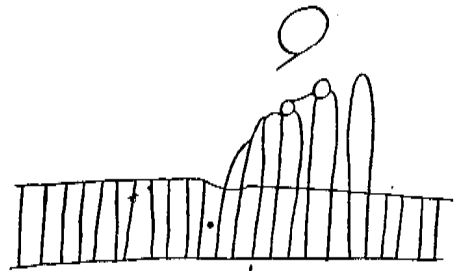


FIG. 43.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 17

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	5	7
<i>Human Workmanship:</i>		
Projectiles	2	
Projectile point	1	3
<i>Lower Life:</i>		
Conventionalized unrecognizable animals ..	3	
Insect	1	
Plants	2	6
<i>Geometric and Symbolic (Solid Line):</i>		
Triangle	1	
Connected circles	2	
Single circles	4	
Semicircles, series of	1	
Discs	2	
Curvilinear	3	
Vertical hatching	3	
Crosshatch	1	
Herringbone	1	
Chevron	1	
Parallel zigzags	2	
Ladder-like elements	4	
Rake-like elements	5	
Y-shaped elements	2	
Crosses	3	
Sun-ray disc	1	36
<i>Geometric and Symbolic (Punctate):</i>		
Lines	11	
Circles	8	
Equal-armed cross in circle	1	
Dot in circle	1	
Problematical	1	22
Total	72	100

SITE No. 18

The petroglyphs here are all on one boulder with dimensions of about 25x12x15 feet. It is of a sandstone that is not very durable. Hence the carvings probably have no great age, although they appear to be prehistoric. Among them is a square-shouldered human figure of the so-called Basket Maker type.

Adjacent to the boulder are five burnt-rock ring-mounds or "midden circles." The largest has a diameter of 33 feet and a height of two feet; the central depression has a diameter of 15 feet. These were formed by using slabs of limestone in cooking. The stones broke up into fragments, after repeated heating, and were thrown back from the fire places—thus building up the present ring-mounds. There is a small amount of flintwork around these old campsites.

The nearest water supply is a spring and water hole in the mountains about 2½ miles to the east. A nearby draw probably held water in the rainy season.

PLATE XLII

LARGE SANDSTONE BOULDER WITH PETROGLYPHS
SITE NO. 18, CULBERSON COUNTY

There is a midden or burnt-rock ring-mound between the boulder and the automobile. Figures are pecked into the sides of the rock. Note the range of hills in the background.

PLATE XLIII

SQUARE-SHOULDERED HUMAN FIGURE, SITE NO. 18

Note the feather headdress pecked into the rock, and the four-fingered hand. A phallic representation. Dimensions: 14x10 inches.

PLATE XLIV

A CONVENTIONALIZED ANIMAL PECKED INTO THE ROCK

Note the crook at the end of the tail, the rake-like element at the lower left, the body and head decorations. Dimensions: 39x12 inches. Site No. 18.

PLATE XLV

PETROGLYPHS AT SITE NO. 18

Animal, snakes, tree, connected circles, etc. The animal measures 8x4 inches and the three connected circles 13x5½ inches. The lines are pecked to a depth of about 1/16 inch.

PLATE XLVI

OTHER PETROGLYPHS AT SITE NO. 18

Dimensions: 1, 13x16 inches; 2, 5¼x4 inches; 3, 10x8 inches and 9x7 inches; 4, 16x26 inches. No. 2 may represent a conventionalized human or a thunderbird in flight.

PLATE XLVII

GROUP OF PETROGLYPHS AT SITE NO. 18

The zigzag line, or snake, at upper right is 24 inches long.

(Courtesy of Burch Carson)

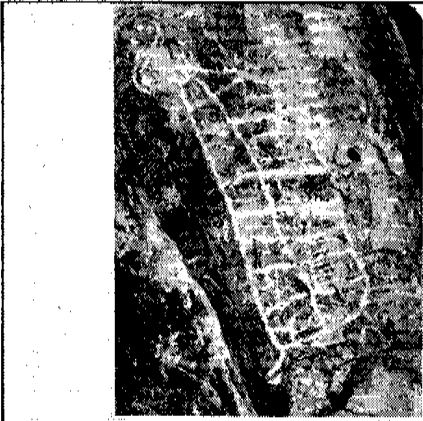


PLATE XLIV



PLATE XLVII

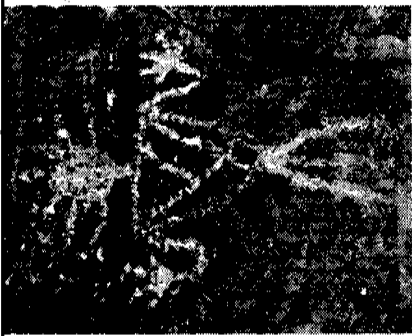


PLATE XLIII



PLATE XLII

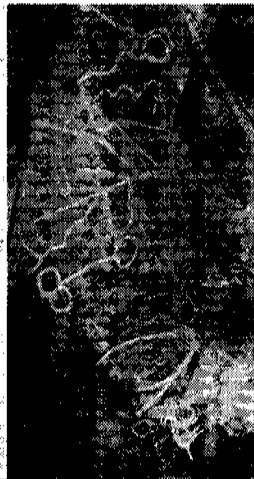


PLATE XLV

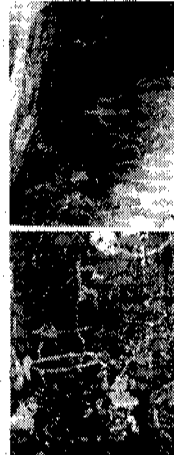


PLATE XLVI

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 18

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered	2	
Round-shouldered	1	
Conventionalized	4	13
	—	
<i>Lower Life:</i>		
Animals	9	
Serpents	17	
Tree	1	48
	—	
<i>Geometric and Symbolic:</i>		
Single circles	7	
Concentric circles	3	
Rayed circle	1	
Y-shaped elements	4	
Vertical hatching	2	
Series of dots	1	
Figure eight element	1	
Rake-like elements	2	
Problematical	1	39
	—	
Total	56	100

Attention is called to the fact that 30 per cent of the pictures are those of snakes, or snake-like designs. That is more than the combined figures of humans and other animals. Approximately 20 per cent of the designs are circular.

FIG. 44. PETROGLYPHS AT SITE NO. 18, CULBERSON COUNTY

The animal in the center measures 15x9½ inches.

FIG. 45. PETROGLYPHS AT SITE NO. 18

No. 4, a conventionalized human figure, measures 11x6 inches. Nos. 1 and 8 may represent the horned or plumed serpent.

FIG. 46. PETROGLYPHS AT SITE NO. 20, CULBERSON COUNTY

- 1, 2. Lines carved 1/10 inch deep; 2, 4 inches in diameter.
3. Lines ⅜ and holes ½ inch deep; 7 inches in diameter.
4. Lines 1/10 inch deep; 3 inches in length.

FIG. 47. PICTOGRAPHS ON CAVE WALL, SITE NO. 20

Located only a short distance above the floor. These red paintings are now very dim. Dimensions over all: 12x18 inches.

FIG. 48. PICTOGRAPHS IN BLACK, SITE NO. 20

Height of human figure, 4½ inches.

(Groupings by the author)



FIG. 44.

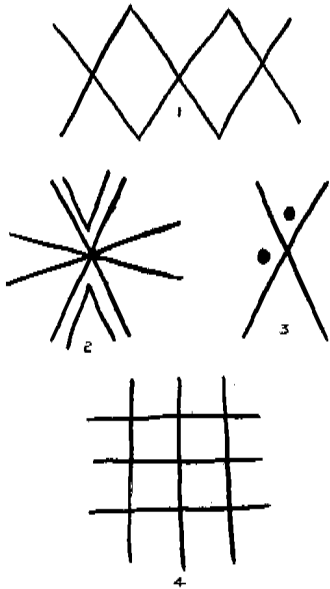


FIG. 46.

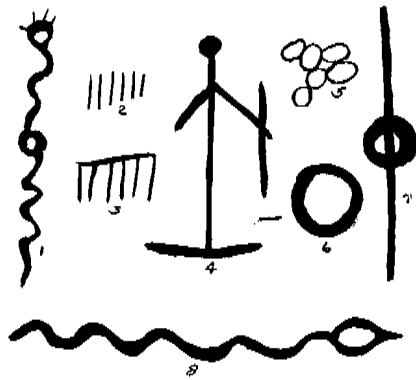


FIG. 45.



FIG. 47.



FIG. 48.

SITE No. 19

At this site are reported to be both pictographs and petroglyphs. The former are on the walls of a small shelter, while the latter are said to be on nearby boulders. The site, located in a rough region in the north central part of the county, has not been visited by a representative of the Anthropology Department of The University of Texas.

SITE No. 20

A few petroglyphs and dim pictographs are on the wall of a cave or sink-hole shelter, located in the northeastern part of the county. The site is on the west side of a low hillock, with numerous mesas and round-topped hills surrounding it on all sides. The adjacent valleys are small. The shelter faces southeast and has a surface opening averaging about 80 feet in diameter. The maximum inside length is 200 feet, with a slope toward the north. Only the central part had been inhabited; the area of the midden deposit being 50x35 feet, with a maximum depth of 99 inches. The picture-writings are on the east wall of the shelter near the entrance.

Occupation outside the shelter is evidenced by four nearby burnt-rock ring-mounds. Their diameters range from 25 to 40 feet, with central depressions from 12 to 15 feet in diameter; heights are from $\frac{1}{2}$ to $2\frac{1}{2}$ feet. The mounds are located on level land between the hills. Flintwork is scarce, both inside the shelter and around the middens.

Potsherds of Southwestern types were present, on the surface of the outside middens and in the midden deposit in the shelter at various levels ranging from 12 to 86 inches deep. A brief discussion of the pottery seems justified in view of the fact that it furnishes an inkling as to the probable age of the paintings and carvings.

Dr. H. P. Mera, of the Laboratory of Anthropology at Santa Fe, identified representative sherds from this site as Chupadera Black-on-white, Red-on-terracotta, El Paso Polychrome, El Paso Brown and a probable hybrid. He states:¹⁶ "I should say that all of these sherds, from what data we have at present, and regardless of depth, can be considered as contemporaneous within, to be on the safe side, 50 to 100 years at the most."

In discussing the Chupadera Black-on-white he says:¹⁷ "This particular type seems to have existed over a much longer period than many other black-on-white sorts. We think that its range would be from in the neighborhood of 1300 A.D., or perhaps a little earlier, to circa 1600." . . .

The association of pottery with the artifacts at the various levels was definitely determined. Fish-tail sandals were in association with sherds at depths of 10, 14, 20, 26, 34, and 78 inches. Coiled basketry was found in like associations at 22, 49, and 65 inches. Rabbit sticks from depths of 15 to 43 inches were in levels with, and not far removed from, pottery.

¹⁶Mera, H. P., Letter to A. T. Jackson, December 7, 1934.

¹⁷*Ibid.*, December 17, 1934.

In this connection Setzler¹⁸ states: "The details regarding the association of pottery in the . . . cave are convincing and I would certainly agree with you that the inhabitants, who for the most part belong to the western Big Bend culture, had contact with the Pueblo people in the eastern portion of the Southwest." . . .

From the above cited facts it would seem probable that the picture-writings on the wall of the cave are contemporaneous with the evidences of material culture found therein. If so, that places the age of the pictures at from 300 to 600 years.

The dim black paintings were badly defaced by the abrading grooves and shallow scratches of later occupants; but enough of the paint remains to trace the outlines. Similar damage had resulted to some of the red paintings. Lines $9/16$ inch deep, and $1/2$ inch to one inch wide at the surface, were abraded, or carved, through certain of the pictographs. These lines or grooves, in turn, have deep encrustations of soot in them. After the paintings had grown somewhat dim, the grooves were worn or carved across them. Then, after the grooves were used no longer in the process of sharpening bone or wood implements, a thick deposit of soot accumulated therein. Some grooves that appear to be more recent have no soot in them.

On the wall, in close proximity to the paintings, are hundreds of grooves, scratches and small round holes. Most of them probably owe their origin to utilitarian uses. There are certain cases, however, like some of those illustrated in Plates XLIX, 3 and L, 2, 3 that suggest intentional carving in purposeful arrangement. Some of the designs certainly did not result from mere coincidence. That they were intentionally shaped is further borne out by the fact that several of them are almost identical with other carvings at Site No. 40, Brewster County, and on painted pebbles from Site No. 82, Val Verde County.

The carved snake-like figures (Plate L, 2) are much like those on the Pecos River at Site No. 190, Loving County. The largest of these has a head one inch in diameter and a body ten inches long. The head-hole is $7/16$ inch deep and comes to a point at the bottom. The body-groove is $5/16$ inch deep and triangular in cross section. The groove seems to have been carved with a flint knife, rather than worn by rubbing.

Four of the serpents are carved on the roof, about two feet above the floor, in a recess at the extreme southeast edge of the shelter. Rattlesnakes frequently inhabit such places as this. It therefore seems appropriate that these carvings should be so placed, and confirms the supposition that they were intended to represent snakes.

¹⁸Setzler, F. M., Letter to A. T. Jackson, March 14, 1935.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 20

PICTOGRAPHS		Number	Per Cent
<i>Human Representations:</i>			
Conventionalized figures	2	3	18
Conventionalized hand	1		
<i>Lower Life:</i>			
Frog		1	6
<i>Geometric and Symbolic:</i>			
Vertical hatching	2	13	76
Horizontal hatching	1		
Series of dots	1		
Curvilinear	3		
Rayed sun-discs	5		
Problematical	1		
Total		17	100

PETROGLYPHS		Number	Per Cent
<i>Human Representations:</i>			
Conventionalized		2	11
<i>Lower Life:</i>			
Snakes		5	26
<i>Geometric and Symbolic:</i>			
Crosshatch	2	12	63
Crosses	5		
Tepees	2		
Rayed sun-discs	3		
Total			

PLATE XLVIII

ENTRANCE TO CAVE OR SINK-HOLE SHELTER
SITE NO. 20, CULBERSON COUNTY

PLATE XLIX

MORTAR HOLE, PITS AND PETROGLYPHS AT SITE NO. 20

1. Circular mortar hole in bedrock.
2. Conical pits in wall, supposedly made by pointing bone and wood implements.
3. Petroglyphs and abrading marks. Designs almost identical with these are found on painted pebbles in Val Verde County, Texas. Lines are 1/16 to 1/8 inch deep.

PLATE L

ABRADING MARKS AND PETROGLYPHS AT SITE NO. 20

1. Abrading marks and pits showing no attempt at design.
2. So-called snakes formed by connecting deeply cut grooves with conical pits, the latter forming the head of the serpent.
3. Abrading marks and so-called tepee. Lines are 1/8 inch deep.

PLATE LI

ENTRANCE TO SINK-HOLE SHELTER, SITE NO. 21
CULBERSON COUNTY

1. Distant view. 2. A close-up.



PLATE XLIX



PLATE LI

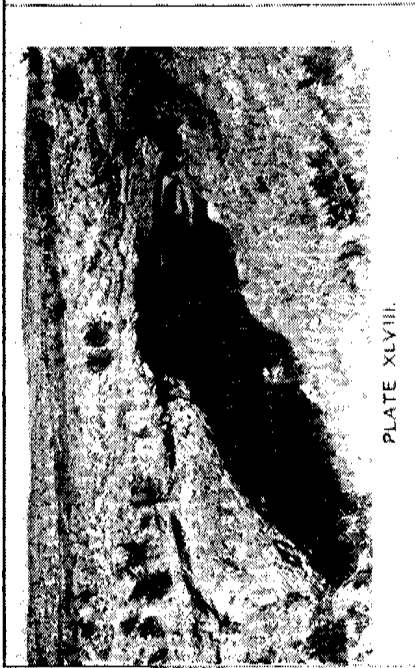


PLATE XLVIII

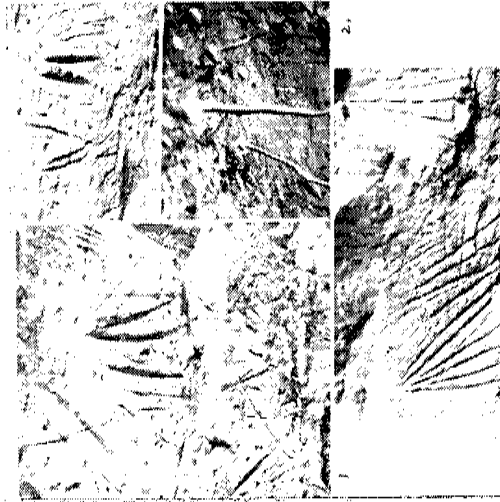


PLATE L

SITE No. 21

A few paintings on small stones were found in this cave, or sink-hole shelter, located a few miles northwest of Site No. 20. No pictographs now remain on the walls of the shelter. It seems probable, however, that the largest painted stone found in the camp refuse may have fallen from the roof. On the bottom side of the rock were a few dim figures painted in black. (See Fig. 50.)

This site represents an extreme among the so-called "sink-holes" of the region. Its opening, roughly circular and less than 40 feet in diameter, is invisible until one is within 50 yards of its brink. It widens out inside, forming a series of shelters for 60 per cent of its circumference, with a real cave in the rear. Four burnt-rock ring-mounds and two mortar holes are adjacent to the cave. The nearest permanent natural water supply is six miles distant.

Six small stones with designs painted in black were found in the midden deposit. All of the stones were thin, flat flakes of limestone, such as result from the spalling of the shelter walls. It seems that these represent flakes from pictographs that originally adorned the wall. The breakage of the flakes in the middle of certain designs seems to confirm this deduction. It is possible, however, that the flakes were painted after they fell from the wall. In that event they would be comparable to the painted pebbles of the lower Pecos River region.

FIG. 49. CIRCULAR MORTAR HOLE IN BEDROCK, SITE NO. 21
CULBERSON COUNTY

Outside the cave, a short distance to the northeast.

PLATE LII

PAINTED FLAKES FROM SHELTER WALL, SITE NO. 21

Found at depths of 4 to 8 inches.

PLATE LIII

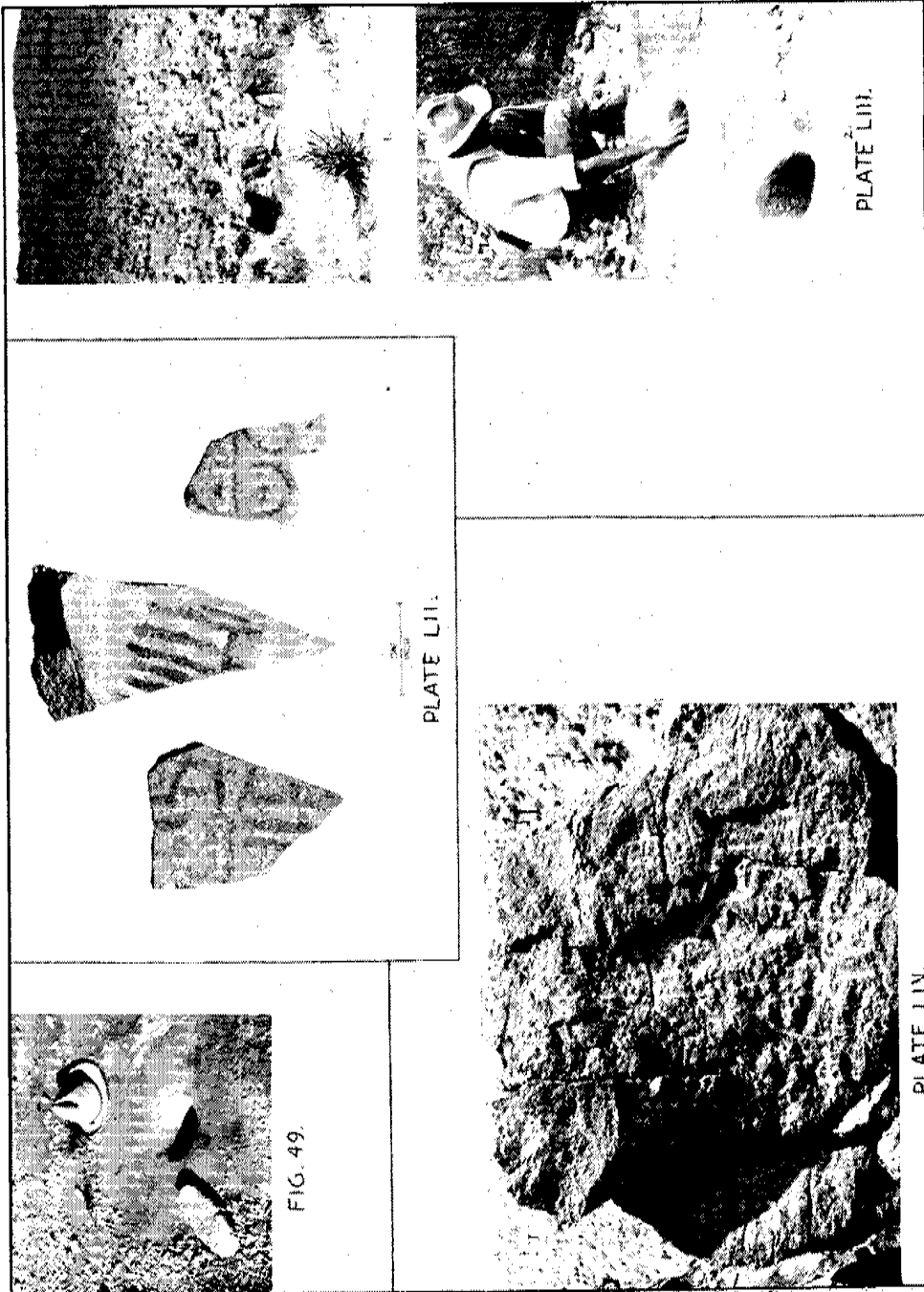
VIEWS AT SITE NO. 172, CULBERSON COUNTY

1. Rocks on which petroglyphs are pecked, showing hill in distance.
2. Round and oval mortar holes.

PLATE LIV-1

SO-CALLED "MAP OF THE PASS," SITE NO. 172

A comparison of this photograph with the sketch (Plate LIV-2) clearly illustrates the advantages to be gained from sketches in cases of this kind.



CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 21

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized figure	1	
Head	1	2
		14
<i>Lower Life:</i>		
Conventionalized animal	1	
Conventionalized bird	1	2
		14
<i>Geometric and Symbolic:</i>		
Curvilinear	2	
Triangle	1	
Crosshatch	2	
Horizontal hatching	4	
Y-shaped element	1	10
		72
Total	14	100

PALETTES

Nine stones, most of which were thin limestone slabs, but one a mano, had large roughly circular areas on one side covered with black paint. The paint usually extended to within an inch of the edge. The diameters of the painted portions of the stones ranged from three to 6½ inches. Two of them came from the surface in the shelter; the others from depths of nine, 17, and 29 inches. A mano from a depth of eight inches showed much use on one side and had a coat of black paint on the reverse.

FIG. 50. PICTOGRAPHS ON A FALLEN ROCK, SITE NO. 21
CULBERSON COUNTY

Note the two conventionalized figures, one human, the other a lower animal. Height, 1¾ inches.

FIG. 51. DESIGNS PAINTED IN BLACK ON WALL FLAKES

Found in debris at Site No. 21.

FIG. 52. PETROGLYPHS AT SITE NO. 172, CULBERSON COUNTY

On small boulder and reverse side of large one. The central figure is 22 inches long.

PLATE LIV-2

SO-CALLED MAP OF A MOUNTAIN PASS AND VICINITY

The lines are pecked on the west side of a boulder at Site No. 172. (See photo, Pl. LIV-1.) The semicircle indicated by the arrowpoint is supposed to represent a water hole adjacent to the campsite. Dimensions, 68x61 inches. The left half of the group is suggestive of a design on a painted pebble from a rock shelter near the mouth of the Pecos River. (See Fig. 266, 2.)

FIG. 54. CONVENTIONALIZED HUMAN OR SO-CALLED ANIMAL PELT
SITE NO. 178, CULBERSON COUNTY

Very dim black paint. Dimensions: 6x3 inches. (Not with main group of paintings.)
(Groupings by the author in Figs. 51 and 52)



FIG. 50.



FIG. 52.

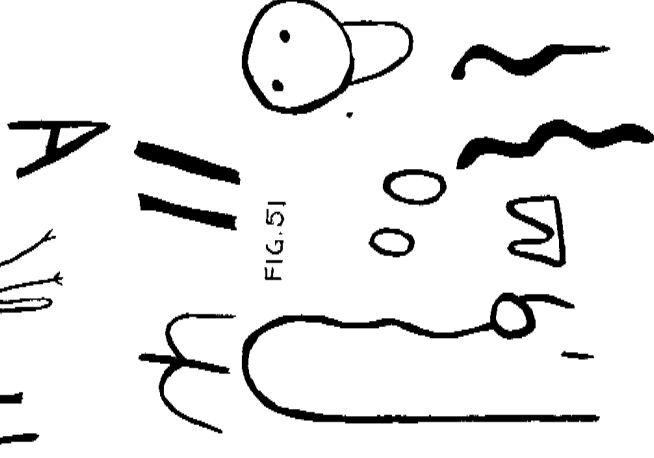


FIG. 51.

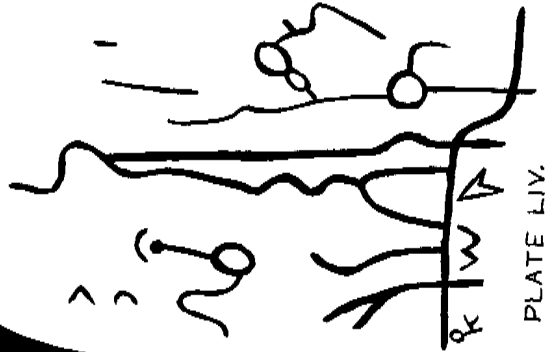


PLATE LIV.

FIG. 54.

SITES No. 170 AND 171

These sites, some 30 miles apart, are reported to have petroglyphs pecked on the exposed surfaces of boulders. They have not been examined by the Department of Anthropology, The University of Texas.

SITE No. 172

The petroglyphs here are pecked on two boulders that measure 15x12x6 feet. According to C. L. Baker, who examined the stone, it is a muscovite schist and not very durable. The location is in the edge of the mountains near the Hudspeth County line. There is a nearby water hole, and an extensive campsite surrounds the petroglyphs. In the bedrock adjacent to the peckings are six mortar holes of round and oval shapes.

Most of the linework is somewhat eroded and in spots almost obliterated. The figures include a human head, plumed or horned serpent, other snakes, and a so-called map of the region.

A description of a so-called map that answers, in every detail except one, to that pictured in Plate LIV was given by Mallery¹⁹ in 1889. The following is quoted from him:

"Mr. W. von Steerwitz, of the Geological Survey of Texas, contributes the copy of a map, evidently the work of Indians, which is received too late for reproduction. The map is roughly scratched into the flat surface of a large granite block, and is approximately a correct sketch of a pass and the nearest surroundings. The rock is situated in the pass above the so-called rattlesnake or mica tank, in a spur on the west side of Van Horn Mountains, El Paso County,²⁰ Texas. An Indian trail passes near the very rough and weathered rear part of the rock, which on this side shows weak traces of some scratched-in drawings which are nearly weathered off; made, no doubt, with the purpose to lead the attention of passing parties to the other side of the rock upon which the map is drawn. An old trail leads from the Rio Grande across the Eagle Mountains to this pass and in the shortest line from the Green River valley to the northern main range of the Van Horn and from there east to the Davis Mountains, formerly Apache Mountains, and thence through the southern extension of the Cuadalupe Mountains to this range and into New Mexico; also through the Sierra Carrizo to the Sierra Diablo; so that this trail must be regarded as one of the best warpaths for raids across the Rio Grande. An arrowhead at the upper end of the trail points out water (small or doubtful supply), as far as could be ascertained from drawings made by Apaches."

¹⁹Mallery, Garrick, *op. cit.*, 10th An. Rep., pp. 343-344.

²⁰Then in El Paso County, but now in the extreme southwest corner of Culberson County, which was organized in 1911 out of the eastern part of El Paso County. Hudspeth County was created from El Paso County and organized in 1917.

The one point of difference is that Mallery was advised that the rock was granite, whereas the one in question is a muscovite schist. Otherwise it would seem to be the same site.

This may be a map of the pass and vicinity as stated. But why the necessity of a map of a small area, when to see it one must be on the ground and could look around for himself? The facts regarding the Indian trail seem to be correct. But that does not necessarily prove that these petroglyphs were intended as a map. As for the pictures on the reverse side of the rock being intended to call attention of passers-by to the map, it may be added that the pecking of figures on two or more sides of a boulder is a common practice, apparently without any special significance.

The figure-eight element, the connected circles and the snake-like figures all play a prominent part in the petroglyphs of the region. They appear in many cases that apparently were not intended as maps. Since, however, there is historic evidence²¹ to the effect that the Indians did sometimes draw crude maps, this particular group may be one.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 172

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized head	1	
<i>Human Workmanship:</i>		
Projectile point	1	7
<i>Lower Life:</i>		
Serpents	11	
Bird track	1	41
<i>Geometric and Symbolic:</i>		
Curvilinear	7	
Figure eight elements	2	
Water symbols (?)	5	
Map (?)	1	
Total	29	100

SITE NO. 173

A small petroglyph site is located at a water hole and adjacent to a campsite. The figures are pecked into the exposed surface of boulders. The site was not examined by the Department of Anthropology, The University of Texas.

²¹Hunter, John D., *Memoirs of a Captivity Among the Indians of North America from Childhood to the Age of Nineteen, in Territory Westward of the Mississippi*, Longman, Hurst, Rees, Orme, Brown and Green, London, 1824, Third Edition, pp. 184-187.

FIG. 53. PETROGLYPHS AT SITE NO. 173, CULBERSON COUNTY

Note the sun-ray disc.
(Courtesy of Burch Carson)

PLATE LV

VIEW OF THE SMALL SHELTER, SITE NO. 178
CULBERSON COUNTY

The paintings are on the protruding ledge-like wall just back of the ocotillo bush (*Fouquieria splendens*) in the central foreground.

PLATE LVI

MOUNTAIN SHEEP AND HUMAN FIGURE, SITE NO. 178

This dim black painting, covering an area 10x6½ inches, is unusual in several respects. The animal is on the edge of the rock, the man with feather headdress is on the side; extending from the lower jaw of the animal is a line passing beneath the man's feet; from the animal's upper jaw is another line connecting with the man's arm. This suggests that the animal is in leash. Note the rake-like designs at the lower right.

PLATE LVII

DEER WITH HUGE ANTLERS AND LONG TAILS, SITE NO. 178

These dim black paintings are unique in animal representation among Texas pictographs. One has a six-pronged tail nearly twice as long as the body; the other has a straight tail almost three times the length of the animal. Note the cloven feet.

PLATE LIX-1

SO-CALLED DOUBLE THUNDERBIRD (MALLERY)
SITE NO. 22, REEVES COUNTY

Photograph of the dim black painting. Dimensions of the conventionalized birds are 4x4 inches. (See Pl. LIX-2.)

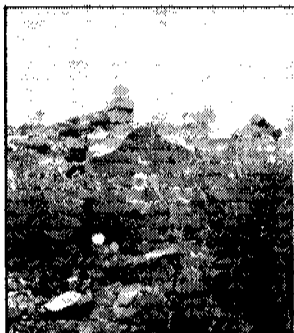


FIG. 53.



PLATE LV.

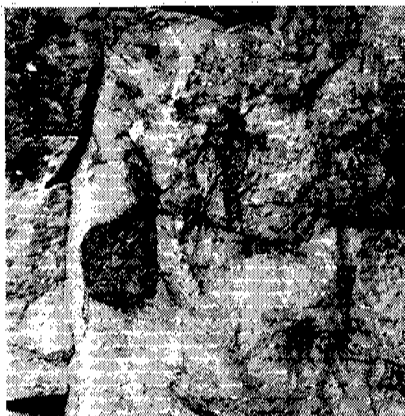


PLATE LVI.



PLATE LVII.



PLATE LIX.

SITES No. 174 to 177

These sites have not been visited by a University of Texas archaeological party. According to reports received from various local citizens, No. 174 has petroglyphs, while the other three are pictograph sites. The petroglyphs are pecked on exposed boulders; the pictographs in two cases are painted on the walls of rock shelters, in the remaining one on the low ceiling of a small shelter. Reports indicate that there are only a few pictures at each site. Among those at No. 177 are said to be four rakes, one ladder and a circle formed of a series of small red dots.

SITE No. 178

This is a small but interesting pictograph site. It is located in a rugged section to which some of the last raiding and stealing parties of Mescalero and Chiricahua Apaches fled to escape capture by the Rangers. The pictographs, however, appear to be prehistoric.

At the mouth of the canyon, $1\frac{1}{2}$ miles east of the pictograph site, are two large burnt-rock middens. The paintings are on the wall of a very small shelter, 21×7 feet, located on the north side of the canyon facing south. The area covered by the paintings measures only 62×27 inches. The roof is only four feet high. There is little midden deposit in the shelter. The floor is level and extends outward for $9\frac{1}{2}$ feet, then drops some three feet to the sloping canyon bank. It is about 30 feet above the canyon bed. The elevation above sea level is about 6,000 feet. According to C. L. Baker, who examined a specimen, the rock is "Permian limestone, very dense, hard and resistant."

There are 13 pictures in black, three red and two orange. The 18 pictures contain 25 design elements. One of the orange paintings is superimposed over an old black one. Part of a mountain sheep originally painted in orange was subsequently repainted in part with red. There are, however, a few remains of very dim red paintings that appear to be older than any of the others.

The so-called animal pelt may be a conventionalized human figure. It is in black paint and very dim. Dimensions are 6×3 inches.

The crosshatch, done in a shade of paint closely resembling American vermilion, measures 7×6 inches and is made up of lines $\frac{1}{8}$ inch wide.

The rakes, painted black, have seven tines and are slightly less than 2×1 inches. These seem to have much in common with similar rake-like elements at Site No. 17 and elsewhere.

Two of the human figures are represented as wearing three feathers each in the hair. A third wears a buffalo horn headdress. Two of the figures are in black, the others red. The dimensions are $3\frac{1}{2} \times 1\frac{3}{4}$ inches, $4 \times 2\frac{1}{4}$ inches and $4\frac{3}{4} \times 2$ inches.

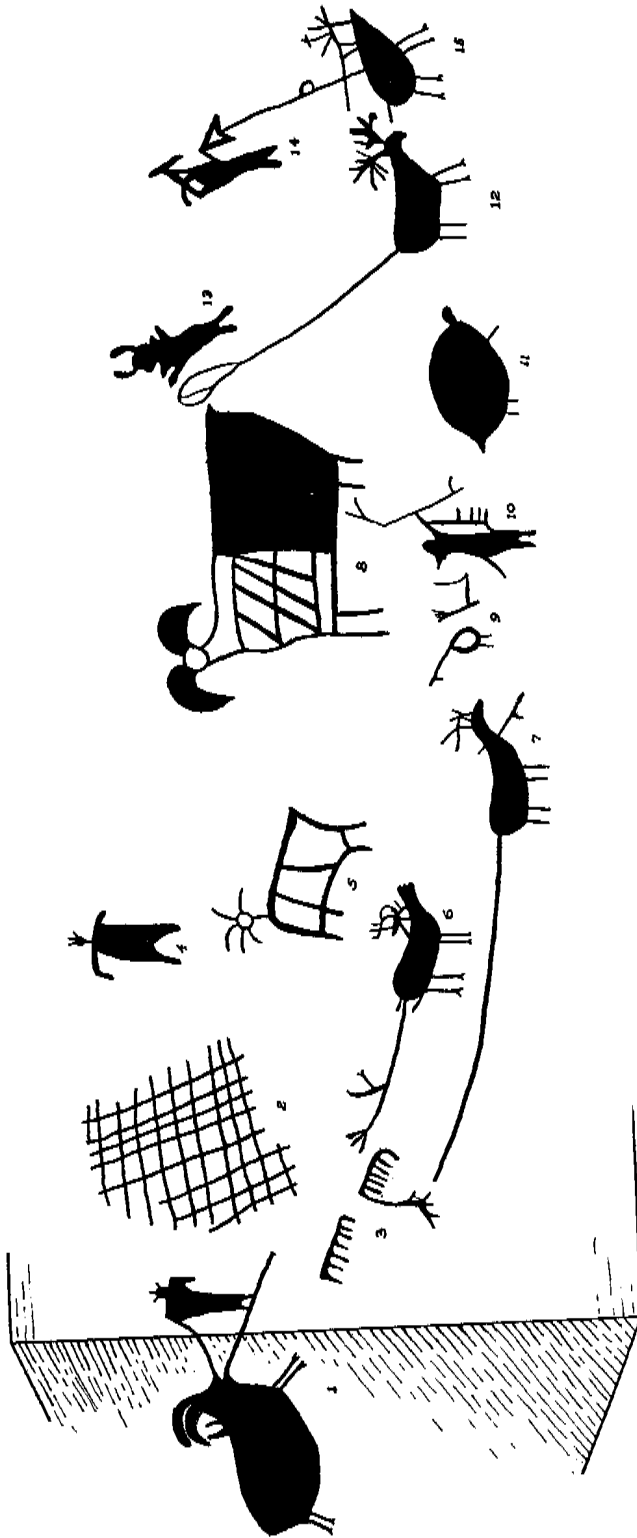


PLATE LVIII

PICTOGRAPHS AT SITE NO. 178

This is one of the most unusual small groups of paintings in Texas. Colors: 2 and 4, red; 5, orange; 8, red and orange; others, black. Dimensions over all, 62x27 inches.

The painted mountain sheep show a greater variety of forms than is common among similar petroglyphs. One, in orange paint, represents the animal with five large horns. The dimensions are $5\frac{1}{4} \times 4\frac{1}{2}$ inches. Another of the animals, measuring $1.1 \times 8\frac{1}{4}$ inches, has the rear half painted solidly in orange, while the balance is outlined and crosshatched with red paint. The two horns have a pronounced curve and are very wide. The third animal shows a closer resemblance to pecked mountain sheep.

The most outstanding feature of the paintings is the deer-like animals with massive antlers and extremely long tails. The animals, from nose to tail, average about four inches in length; whereas the tails average seven inches in length. The longest tail is $12\frac{3}{4}$ inches. The two animals with straight tails are pierced by projectile shafts; the other two are not pierced by shafts, but have very unusual appendages to their tails.

At Site No. 6, in the same county, is a conventionalized animal with a fairly long tail and certain other distinctive features resembling these at Site No. 178.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 178

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered figures	2	
Conventionalized figures	3	
Feather headdresses	2	
Horn headdress	1	
	8	32
<i>Human Workmanship:</i>		
Projectiles	2	8
<i>Lower Life:</i>		
Mountain sheep	3	
Long-tailed deer	4	
Conventionalized animal	1	
Conventionalized bird	1	
Animal pelt	1	
	10	40
<i>Geometric and Symbolic:</i>		
Crosshatch	1	
Rake-like elements	3	
Ladder-like element	1	
	5	20
Total	25	100

SITE No. 179

A local citizen reports a few pictographs painted in red on the wall of a shelter in a rugged canyon. According to the report there are two small deer, a rake and a few dots. The site has not been visited by a representative of The University of Texas.

REEVES COUNTY

In the "rim-rock" of a number of mesas or hills, in a range some 200 to 300 feet above the surrounding plain, are small rock shelters. Most of these show signs of habitation, and on the walls of several are pictographs. Here is a striking illustration of the fact that even small, poorly arranged natural shelters were preferable to living in the open in inclement weather.

SITE No. 22

This is a small pictograph site, the paintings being on the wall of a 16x8-foot shelter that faces east. The roof is smoke-blackened and there is a shallow midden deposit on the floor. The small black paintings are quite intricate. For symmetry of linework some of the designs can scarcely be excelled. Seventy-eight per cent of the design elements are geometric or symbolic.

The painting illustrated in Plate LIX is very suggestive of the Haida double thunderbird pictured by Mallery.²² There is, however, a possibility that, instead of being intended to represent the double eagle, this may be a conventionalized human figure. The figure-eight element plays a prominent part in the design.

The conventionalized projectile shaft illustrated in Figure 55, 1 is very much like some appearing on certain painted pebbles from shelters in Val Verde County.²³

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 22

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized figure	1	
Conventionalized hands	2	
Reproductive organs (?)	3	12
<i>Human Workmanship:</i>		
Projectile	1	2
<i>Lower Life:</i>		
Double thunderbird	1	
Serpents	2	6
<i>Geometric and Symbolic:</i>		
Vertical hatching	7	
Horizontal hatching	4	
Oblique hatching	1	
Crosshatch	1	
Single circles	6	
Curvilinear	2	
Ladder-like elements	5	
Bridle-like element	1	
U-shaped elements	6	
Y-shaped elements	3	
Figure eight elements	4	
Equal-armed cross	1	
	41	80
Total	51	100

²²Mallery, Garrick, *op. cit.*, Tenth Annual Report, Plate XXIV, page 401.

²³Pearce, J. E., and Jackson, A. T., A Prehistoric Rock Shelter in Val Verde County, Texas, Bulletin No. 3327, Anthropological Papers, Vol. I, No. 3, The University of Texas, Austin, 1933, Plate XIII, a, pp. 80 and 84.

SITE NO. 23

Pictographs, as well as a few petroglyphs and abrading grooves, are on the wall and roof of a small shelter. It is located in the "rim-rock" of a mesa, faces west, and overlooks a broad arroyo or creek. Its dimensions are $6\frac{1}{2} \times 24$ feet. The roof is smoke blackened. An extensive campsite extends along the creek some 100 yards from the mesa. On the surface are numerous burnt rocks, flint chips, an occasional flint artifact and numbers of broken manos and pestle stones.

There are remains of a number of paintings, many of them very dim. Most of them consist of small black lines, but a few are in red and somewhat larger. In addition to being dim, some of the pictographs are superimposed over others, while all have an accumulation of soot over them. Hence it sometimes is difficult to determine just where one design ends and another begins. A number of the drawings are quite complicated and show excellent workmanship.

The first written report on this site was made by Peabody²⁴ in 1909. Since then brief mention has been made by two writers. None, however, covered the material thoroughly.

Peabody's²⁵ description of the group of paintings illustrated in Figure 61 is as follows: "The pictographs include . . . a combination of curved lines and circles with dots in black, suggesting a grotesque cactus."

²⁴Peabody, Charles, A Reconnaissance Trip in Western Texas, *American Anthropologist* (N.S.), Vol. 11, No. 2, April-June, 1909, pp. 210-213.

²⁵Peabody, Charles, *op. cit.*, p. 213.

PLATE LIX-2

SO-CALLED DOUBLE THUNDERBIRD, SITE NO. 22
REEVES COUNTY

Sketched to bring out the dim details of the picture. (See Pl. LIX-1.)

FIG. 55. BLACK PICTOGRAPHS AT SITE NO. 22

Note the conventionalized projectile and so-called numeration marks.

FIG. 56. BLACK PAINTINGS AT SITE NO. 22

Nos. 2, 3, 5, and part of 6 are much dimmer than the other paintings. Height of No. 4 is 6 inches.

FIG. 57. PICTOGRAPHS IN BLACK, SITE NO. 22

The length of No. 2 is $5\frac{1}{2}$ inches. This unusual design suggests a bridle and bit; but may not have been so intended, since there is no other evidence of European contacts—unless the U-shaped elements represent hoofprints of horses.

(Figs. 56 and 57, courtesy of J. Charles Kelley)

FIG. 58. BLACK PICTOGRAPHS AT SITE NO. 22

No. 1 is $4\frac{3}{4}$ inches in length. Nos. 2 and 3 are suggestive of game sticks.

FIG. 59. POSSIBLE REPRESENTATIONS OF REPRODUCTIVE ORGANS
SITE NO. 22

Paintings, in black, on small slabs of stone from shelter wall. No. 3 has a diameter of 2 inches.

(Courtesy of Victor J. Smith)

(Groupings by the author in Figs. 55, 56, 58, and 59)

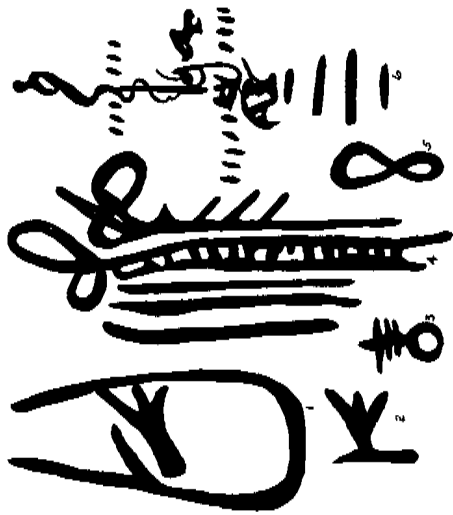


FIG. 56.

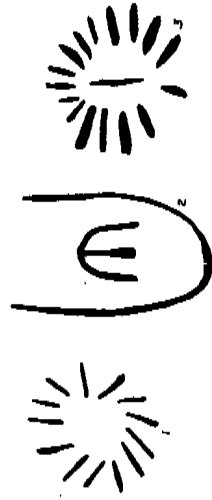


FIG. 59.

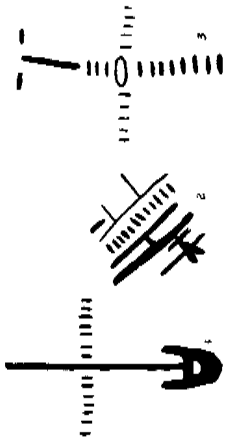


FIG. 55.



FIG. 58.



PLATE LIX

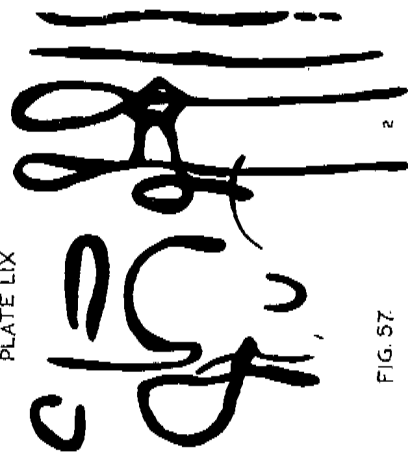


FIG. 57.

Kelley²⁶ first called attention to the right top figure in this group showing a marked resemblance to a conventionalized horse and rider. At least four of the circles enclosing dots seem to represent human heads. The connected circles containing dots are of the same class as certain petroglyphs at Site No. 81, Val Verde County.

The group illustrated in Fig. 62 is of particular interest because of the combination of such diverse elements. They include two small human figures, or "twins"; a line of 29 numeration dots on one side and 28 on the other; a vertical line or "back-bone"; a zigzag line; three concentric quadrants; two so-called discs, with an open space between; a chain of nine connected circles suspended from one side and 11 from the other; and, in the lower center, a ladder containing 22 rungs. This may be a fertility symbol. The painting is located on the south side of a narrow crevice toward the back of the shelter.

²⁶Kelley, J. Charles, Letter to A. T. Jackson, February 11, 1935.

FIG. 60. HUMAN FIGURES PAINTED BLACK, SITE NO. 23
REEVES COUNTY

Dimensions: 1, $7\frac{1}{4} \times 4\frac{1}{2}$ inches; 2, $5\frac{3}{4} \times 4\frac{1}{4}$ inches; 3, $1\frac{1}{2} \times \frac{3}{4}$ inches; 4, 3×3 inches.

Note the positions of the arms in Nos. 1, 2, 4; their absence in No. 3; the variation in the representation of fingers; and the headdress on No. 2.

FIG. 61. CONVENTIONALIZED PAINTINGS IN BLACK, SITE NO. 23

Dimensions over all: 4×5 inches.

FIG. 62. AN UNUSUAL PICTOGRAPH IN BLACK, SITE NO. 23

Dimensions: height, 4 inches; width, 5 inches; length of ladder, 2 inches.

FIG. 63. FROG AND SNAKE-LIKE PAINTINGS IN BLACK, SITE NO. 23

Dimensions: 1, $2 \times 2\frac{1}{4}$ inches; 2, $3\frac{1}{4} \times 3\frac{1}{2}$ inches.

FIG. 64. THUNDERBIRD WITH SNAKE IN BEAK, SITE NO. 23

Dimensions over all: 6×6 inches.

FIG. 65. PICTOGRAPHS OF SYMBOLIC NATURE, SITE NO. 23

Conventionalized human figure or "anchor," at upper right, painted in red; all others, black. Dimensions of crosshatch, $3\frac{3}{4} \times 3\frac{1}{2}$ inches.

(Figs. 61, 62, and 64 by courtesy of J. Charles Kelley)

(Groupings by the author in Figs. 60, 63, and 65)

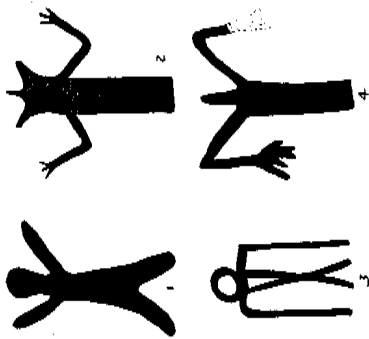


FIG. 60.

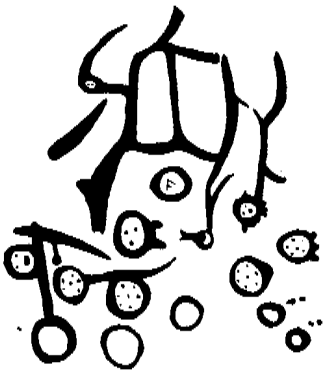


FIG. 61.

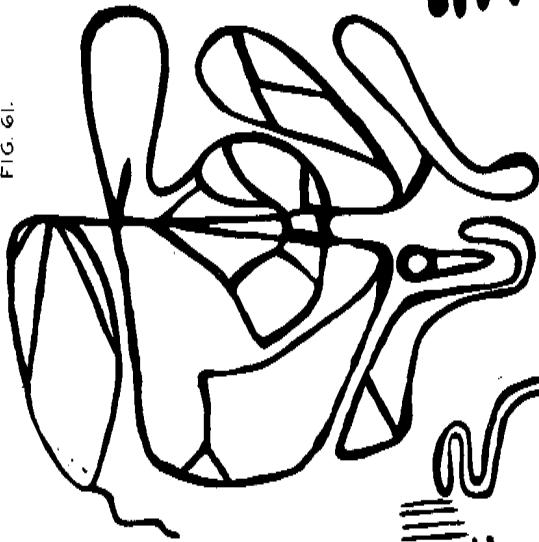


FIG. 64.

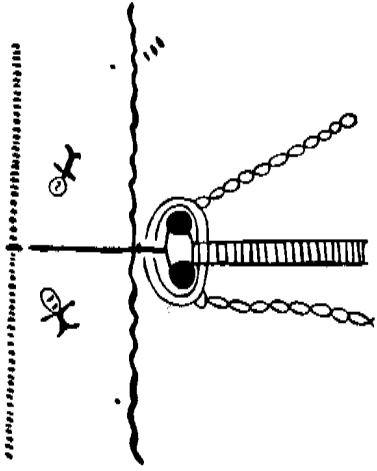


FIG. 62.

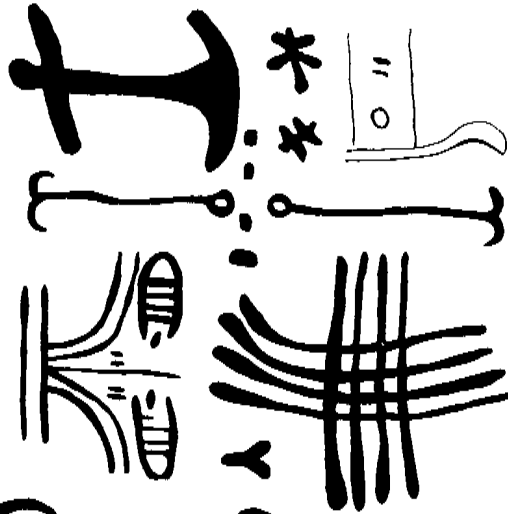


FIG. 65.

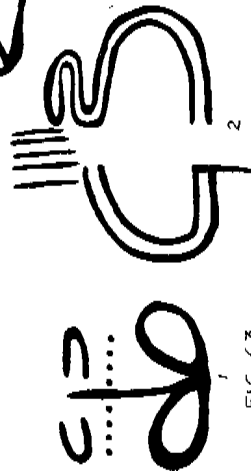


FIG. 63.

FIG. 66. PICTOGRAPHS IN RED AND BLACK, SITE NO. 23
REEVES COUNTY

1. Series of disconnected circles in red.
2. Line of black dots.
3. Plant-like figure (possibly corn) in black.
4. Black snake-like element.
- 5, 6, 7. Red figures resembling rabbit sticks; longest, 5 $\frac{3}{16}$ inches.

FIG. 67. PICTOGRAPHS IN BLACK PAINT, SITE NO. 23

1. Concentric circles; outer diameter, 3 inches.
2. A picture suggestive of a bow and arrow. Dimensions, 2x1 $\frac{1}{2}$ inches.

FIG. 68. SMALL DESIGNS IN BLACK, SITE NO. 23

1. Dimensions over all: 5x5 inches.
2. 2 $\frac{1}{4}$ x1 $\frac{1}{2}$ inches.

FIG. 69. CONVENTIONALIZED PAINTINGS IN RED SUPERIMPOSED
ON INCISED LINES, SITE NO. 24, REEVES COUNTY

1. An animal with neck and head painted over part of an incised crosshatch design.
2. A possible conventionalized animal with tail painted across a black club-like object.

FIG. 70. SYMBOLIC DESIGNS IN RED AND BLACK, SITE NO. 24

1. Problematical figure painted in red. Dimensions: 6x4 $\frac{1}{4}$ inches.
2. A rake-like element in black paint. Dimensions: 6x4 $\frac{1}{4}$ inches.

This is suggestive of what Mallery²⁷ calls a death count.

FIG. 71. BLURRED HUMAN HANDPRINT, SITE NO. 24

Elongated finger marks, apparently produced by movement of the paint-smearred hand. Dimensions: 7x5 inches.

FIG. 72. PICTOGRAPHS IN BLACK AND A COMBINATION OF BLACK
AND RED, SITE NO. 24

1. Dimensions over all, 3 $\frac{1}{4}$ x2 $\frac{1}{8}$ inches.
2. A possible conventionalized horse and rider. The lower figure is in black and the upper red. They probably were painted at different times. Dimensions, 3 $\frac{1}{2}$ x4 inches.
3. Roughly circular spot of red paint partly enclosed by black lines. Dimensions: 2 $\frac{1}{2}$ x2 inches.
4. Problematical design painted in black. Dimensions: 3 $\frac{1}{4}$ x $\frac{3}{4}$ inches.

(Figs. 69, 70, 71, and 72 by courtesy of J. Charles Kelley)

(Groupings by the author in Figs. 66, 67, 70, and 72)

²⁷Mallery, Garrick, *Picture-Writing of the American Indians*, Fourth Annual Report, Bureau of American Ethnology, 1882-83, Washington, 1884, pp. 124, 144, 146.

Op. cit., Tenth Annual Report, pp. 274, 285.

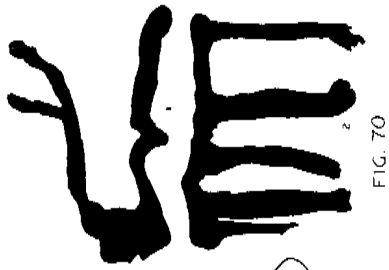


FIG. 70

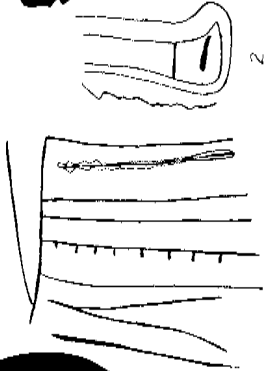


FIG. 68

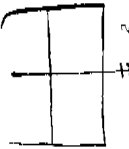


FIG. 67

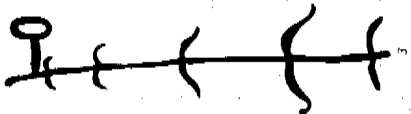


FIG. 66



FIG. 72



FIG. 71

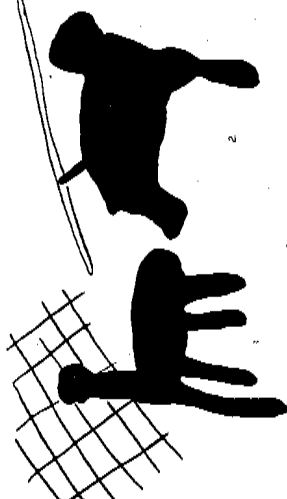


FIG. 69

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 23

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	8	
Square-shouldered	1	
Torsos	4	
Heads	6	
Arms:		
Downward	1	
Upraised	2	
Armless	1	
Reproductive organs (?)	2	
Headdresses	2	33
<hr/>		
<i>Human Workmanship:</i>		
Bow and arrow	1	
Possible atlats	2	
Flag (?)	1	5
<hr/>		
<i>Lower Life:</i>		
Conventionalized animal	1	
Horse	1	
Thunderbird	1	
Snake	1	
Frogs	2	
Insects	3	
Plant (Corn?)	1	12
<hr/>		
<i>Geometric and Symbolic:</i>		
Horizontal hatching	1	
Crosshatch	1	
Single circles	8	
Connected circles, series of	3	
Concentric circles	1	
Discs	2	
Zigzags	3	
Lines of dots	3	
Anchor-like elements	3	
Club-like elements	3	
Ladder-like elements	5	
Rake-like element	1	
Y-shaped element	1	
Water symbols	4	
Problematical	1	50
<hr/>		
Total	81	100

SITE NO. 24

The pictographs at this site are on the wall of a small rock shelter near the caprock of a mesa. The figures are painted in red and black. Four of the elements are red, six black, and three combine both colors. Only 13 design elements appear at this site. They are crude and show inferior workmanship as compared to the designs at Sites No. 22 and 23. Except for one painting, that might be interpreted as a conventionalized horse and rider, there is no evidence of white contact.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 24

	Number	Per Cent
<i>Human Representations:</i>		
Hand	1	8
<i>Lower Life:</i>		
Conventionalized animals.....	3	23
<i>Geometric and Symbolic:</i>		
Rectangle	1	
Crosshatch	1	
Punctate	1	
Curvilinear	3	
Disc	1	
Cross	1	
Rake-like element	1	
	9	69
Total	13	100

SITE No. 193

This site, containing abrading marks and petroglyphs, was described by Peabody²⁸ as follows:

"The shelter faces northeast; it rises from a height of three feet at the entrance and is ten feet deep. The walls and roof are much blackened by smoke, which seems to be of the same age as the pictographs (petroglyphs). These consist of innumerable grooves, sometimes parallel, sometimes crossing, and cut to a maximum depth of a third of an inch. They may certainly be divided into (a) sharpening grooves, (b) tally marks, (c) symbolic designs, (d) unrecognizable forms. Under (c) is an interesting sun or star with a hollow center and 19 rays; and under (d) a complicated figure (turtle) stippled, not cut, so as to appear light on the dark rock-surface."

It seems probable that there may be some connection between the makers of these petroglyphs and those at Site No. 20, Culberson County.

JEFF DAVIS COUNTY

Picture-writings in this county are predominantly pictographs. Of six sites recorded, five consist of paintings. These are characterized in general by geometric and symbolic figures.

SITE No. 25

This petroglyph site was reported in 1923 by a student at Texas Agricultural and Mechanical College. He stated that the figures were pecked on the sides of exposed sandstone boulders located in the southwest part of the county. The site has not been visited by a representative of The University of Texas.

²⁸Peabody, Charles, *op. cit.*, p. 213.

SITE NO. 26

The pictographs are on the wall of a low shelter that faces west and measures 21x18 feet. It is just above the flood plane of a small branch at its junction with a larger creek. The site is in a fairly accessible part of the mountain range that traverses the county.

More than half of the shallow midden deposit in the shelter has been excavated by unknown diggers. Metates and manos were found on the surface but flintwork was very scarce.

The paintings are in red and very dim.

PLATE LX

VIEW OF ROCK SHELTER, SITE NO. 23, REEVES COUNTY

In the foreground is an extensive campsite, adjacent to the creek bank.

PLATE LXI

DIM RED PICTOGRAPHS AT SITE NO. 23

PLATE LXII

VIEWS AT SITE NO. 26, JEFF DAVIS COUNTY

1. The rock shelter.
2. Dim pictographs on shelter wall.

PLATE LXIII

VIEWS AT SITE NO. 27, JEFF DAVIS COUNTY

1. One of the piles of syenite boulders among which the small shelters are located.
2. A circular mortar hole a short distance south of the pictographs.



PLATE LXI.

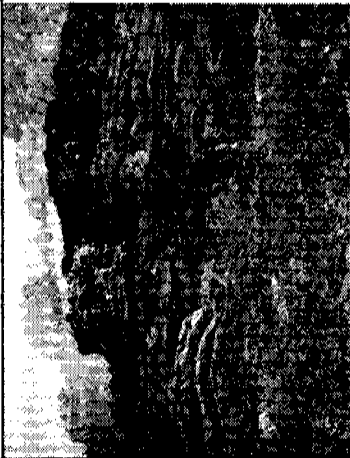


PLATE LX.

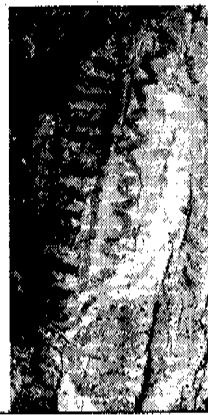


PLATE LXII.



2.

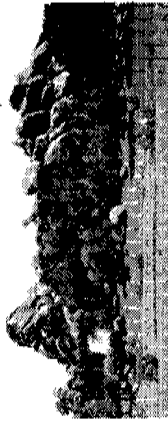


PLATE LXIII.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 26

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	6
<i>Lower Life:</i>		
Frogs (?)	2	13
<i>Geometric and Symbolic:</i>		
Connected circle.....	1	
Single circle.....	1	
Triangles.....	2	
Curvilinear	1	
Vertical hatching	1	
Punctate	2	
U-shaped elements.....	2	
Zigzag element	1	
Ladder-like element	1	
Problematical	1	
	13	81
Total	16	100

FIG. 73. HEADLESS FROG-LIKE PAINTINGS IN RED, SITE NO. 26
JEFF DAVIS COUNTY

1. Dimensions: $8\frac{1}{4} \times 8$ inches; lines $\frac{3}{16}$ inch wide.
2. Dimensions: 6×4 inches; lines $\frac{3}{16}$ inch wide.

FIG. 74. PROBLEMATICAL PICTOGRAPHS AT SITE NO. 26

1. Possibly a human representation. Dimensions: $4\frac{3}{4} \times 2\frac{3}{4}$ inches.
2. Dimensions: 6×10 inches, lines $\frac{1}{2}$ inch wide.

FIG. 75. SMALL PICTOGRAPHS IN RED, SITE NO. 26

1. Curvilinear design, $3\frac{1}{2} \times 4\frac{1}{2}$ inches. Lines $\frac{1}{8}$ inch wide.
2. Ladder and zigzag, 12×6 inches. Lines $\frac{1}{2}$ inch wide. This pictograph is much like a petroglyph at Site No. 8, Hudspeth County.

FIG. 76. A HUMAN FIGURE GRASPING A BOW, SITE NO. 27
JEFF DAVIS COUNTY

An interesting detail is the manner of indicating an arm bent across the body. This feature is duplicated in a pictograph at Site No. 150, Concho County. Height, $5\frac{1}{2}$ inches; color, red.

FIG. 77. ANIMALS PAINTED IN RED, SITE NO. 27

1. A conventionalized animal, probably representing the bison. Dimensions: $4\frac{1}{2} \times 1$ inches.
2. A running deer. Dimensions: $7\frac{1}{2} \times 1\frac{1}{2}$ inches.
3. A conventionalized animal measuring 7×2 inches.

FIG. 78. PAINTINGS IN RED, YELLOW, AND BLACK, SITE NO. 27

- 1, 2. Ladder-like designs locally known as a "Navajo blanket." Length, 18 inches.
- 3, 4. Tree-like element and triangle, painted in red.
5. Oblique hatching with outer lines in yellow, and inner ones, black.
6. An unusual combination of design elements, all in yellow except outer line of the rectangle, which is red. Dimensions: 16×12 inches.

(Groupings by the author in Figs. 73, 75, 77, and 78)

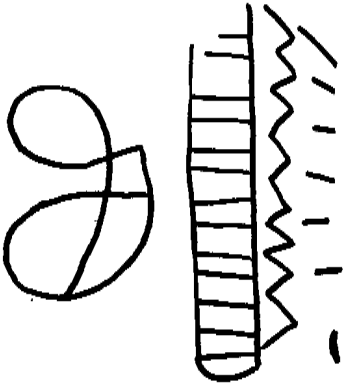


FIG. 75.

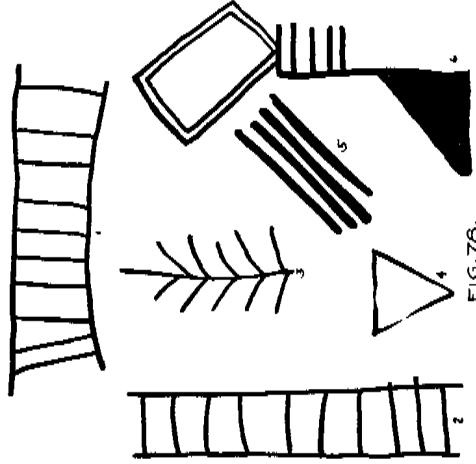


FIG. 76.

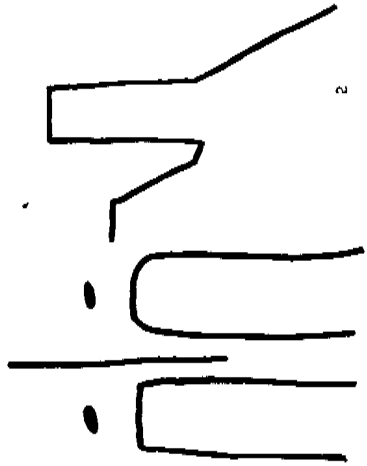


FIG. 77.

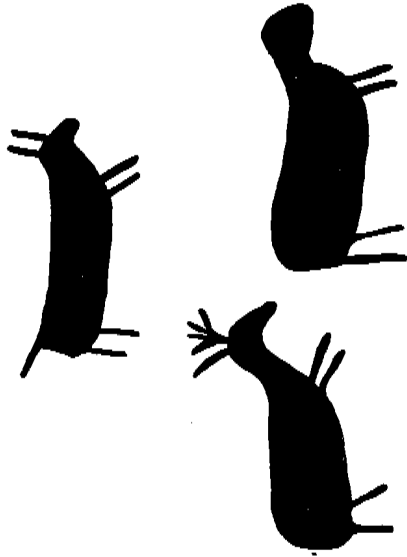


FIG. 78.

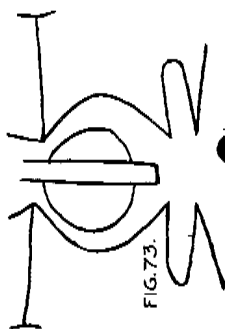
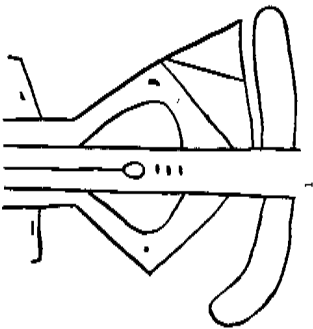


FIG. 79.

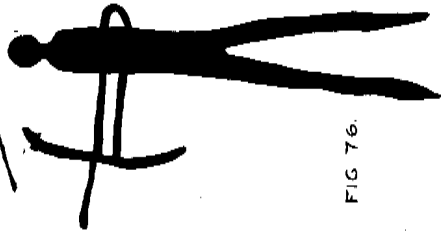


FIG. 80.

SITE NO. 27

Pictographs at this site are on the roof of one small shelter and the walls of two others. The site is located in the mountainous region near the south central part of the county, and is characterized by two huge piles of massive syenite boulders with a height of some 100 feet. The rock is very durable, but the paintings thereon have been dimmed by wind and sand action.

The sides of a number of the boulders that rest on the ground have a highly polished surface on a part of their areas. This polish is in the nature of so-called "desert varnish"—an effect deriving from wind-blown sand—but is thought by some to have resulted from the repeated use of the stones for rubbing large hides. The polish in certain cases, however, extends over such a large area as to preclude its having been formed in the latter manner.

The shelter with pictographs on its roof was unsuited for habitation, it having a sloping stone floor and a low roof. There is slight evidence of camp life in the corral surrounding this rock pile. The other small shelters are in a second pile of boulders, a few hundred yards south of the first. The floors of these shelters have shallow deposits of midden material. Flint chips also are present on the surface outside the shelters. Some half-dozen circular mortar holes are located in a flat-topped boulder a short distance south of the shelters.

The paintings in the first shelter are in red, yellow, and black. All are very dim. The paintings in the other shelter are in a shade of red ranging between American vermilion and English Venetian red.

All the paintings apparently are prehistoric. Certain features found here resemble some of the older paintings at Site No. 150 in Concho County.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 27

	Number	Per Cent
<i>Human Representations:</i>		
Man with bow.....	1	4
<i>Lower Life:</i>		
Deer.....	1	
Buffalo (?).....	1	
Conventionalized animal.....	1	
Tree.....	1	17
<i>Geometric and Symbolic:</i>		
Rectangles.....	2	
Triangles.....	2	
Connected circles, series of.....	1	
Curvilinear.....	4	
Perpendicular hatching.....	1	
Oblique hatching.....	1	
Y-shaped element.....	1	
U-shaped element.....	1	
Banner-like element.....	1	
Ladder-like elements.....	4	
Club-like element.....	1	
	19	79
Total	24	100

FIG. 79. SYMBOLIC PAINTINGS IN RED, SITE NO. 27
JEFF DAVIS COUNTY

The Y-shaped element has a length of $6\frac{1}{2}$ inches. The club-like element may represent a rabbit-stick.

FIG. 80. CURVILINEAR DESIGNS IN RED, SITE NO. 27

Dimensions: 1, 12x4 inches; 2, 8x8 inches; 3, 3x2 inches; 4, $8\frac{1}{2}$ x4 inches.

FIG. 81. CONVENTIONALIZED HUMAN FORMS, SITE NO. 29
JEFF DAVIS COUNTY

Colors: 1, red; 2, orange.

FIG. 82. A MISSION BUILDING PAINTED IN RED

Dimensions over all: $14 \times 6\frac{3}{4}$ inches.

(Courtesy of Victor J. Smith)

FIG. 83. CONVENTIONALIZED ANIMALS, SITE NO. 29

Colors: 1, black surrounded by white; 2, red.

Note the projectile shaft in line with the entering arrow.

(Courtesy of R. A. Gotholt)

FIG. 84. DEER PAINTED IN RED, SITE NO. 29

FIG. 85. SYMBOLIC PICTOGRAPHS, SITE NO. 29

Colors: red, and black bordered with white.

1. Club-like objects, probably rabbit sticks.
2. Pipe-like element, in association with handprints.
3. Pitchfork-like elements, possibly representing hands or clusters of yucca blossoms.

(Groupings by the author in Figs. 79, 80, 83, 84, and 85)



FIG. 79.

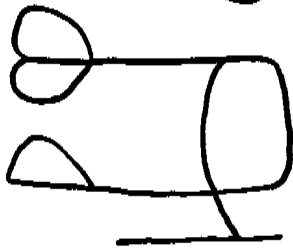


FIG. 80.

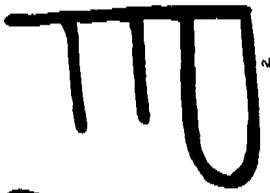


FIG. 81.

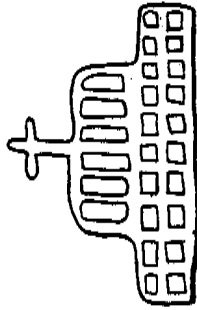


FIG. 82.



FIG. 83.



FIG. 84.



FIG. 85.

SITE NO. 28

Located in the mountains in the southeastern part of Jeff Davis County is a small shelter on the wall of which are a few handprints and other paintings in red. The site was reported by a local citizen but has not been visited by a representative of The University of Texas.

SITE NO. 29

This site was first reported by Peabody²⁰ who stated:

"The shelter faces eastward and is a natural hollow six feet high and the same in width and depth. It was originally well covered with pictographs, but as the surface is peeling through seeping and atmospheric influences, many have disappeared. . . . The lines are brownish-red and about half an inch wide. Directly opposite, facing westward, at the base of the same mountain is a natural dolman-shaped shelter near a work site. The pictographs in lighter red emphasize a 'W' motive; this is hardly significant, as so many of the adjoining lines are obliterated."

The rock is a durable syenite like that at Site No. 27.

The second of these shelters is about 20 feet wide and the same depth, with a height of about six feet. There is very little midden deposit in the shelter. The ceiling and part of the wall are smoke-covered. There are paintings on the two "pillars" which support the overlying boulder.

The human handprints illustrated in Plate LXXV, 3 are somewhat unusual. The use of white paint for this purpose is not common; a comparable site is No. 2, El Paso County.

Of the 16 handprints at Site No. 29, nine are solid white, four entirely black and three black outlined in white. The positive prints were made by applying the hand after covering it with paint.

The black prints outlined in white seem to make use of a technique not generally employed. A more common practice was to hold the hand to the surface of a soot-covered wall or ceiling and produce a white margin by scraping away the surrounding soot for a distance of a few inches. No paint was used. In the present case, however, it seems that black and white paints have been employed; the black added to accentuate the darkness of the soot, and the white to make the outline of the hand more contrasting. This use of two colors seems to be the same as that reported at Site No. 48, Pecos County, Texas. Sites at which the other technique was employed are No. 53, Upton County, and No. 47, Brewster County, Texas.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 29

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	6	
Handprints	16	35
<i>Human Workmanship:</i>		
Projectile	1	
Bows (?).....	2	
Rabbit sticks.....	3	
Pipe (?).....	1	
Mission building.....	1	8

²⁰*Ibid.*, p. 214.

	Number	Per Cent
<i>Lower Life:</i>		
Conventionalized animals.....	4	
Deer	2	
Snakes	2	
Turkey tracks (?).....	4	
Yucca blossoms (?).....	3	15
<hr/>		
<i>Geometric and Symbolic:</i>		
Vertical hatching (numeration marks).....	2	
Y-shaped elements	3	
Crosses	9	
Amoeboid figures.....	2	
Crescent or moon.....	1	17
<hr/>		
Total	62	28
		<hr/>
		100

SITE NO. 30

The paintings at this site are located in one of the most inaccessible, and yet most scenic, spots in Texas. It is high in the rugged mountains, in the northeastern part of Jeff Davis County, with an elevation of about 6,500 feet.

The shelter that protects the paintings has a roof some 60 feet high. The area formerly occupied covers a space approximately 50x20 feet. Nothing more than test digging has been done in the shelter. It was here that Professor Victor J. Smith found a deer scapula on which are painted designs.

After examining a specimen of the rock from the shelter wall, Dr. C. L. Baker stated: "It is rhyolite lava and will last indefinitely. The condition and probable age of the pictographs would, therefore, depend on conditions other than the durability of the stone."

Many of the large boulders, as well as parts of the tall cliff, are covered with grape vines.

PLATE LXIV

VIEW OF ONE OF THE SHELTERS, SITE NO. 29,
JEFF DAVIS COUNTY

The paintings are clearly visible on the wall of the shallow shelter.

PLATE LXV

PICTOGRAPHS AT SITE NO. 29

1. Designs in red paint. Dimensions, 64x44 inches.
2. Possibly a conventionalized animal; paint, red; dimensions, 20x20 inches.
3. Handprints in white paint; and in black outlined by white. Dimensions, over all, 6x5 feet. White hands are 6x5 inches and black ones 8x6 inches.

PLATE LXVI

VIEW OF TALL ROCK SHELTER, PARTLY HIDDEN BY TREES, SITE NO. 30,
JEFF DAVIS COUNTY

PLATE LXVIII

PICTOGRAPHS AT SITE NO. 30

1. Alternate red and orange stripes covering an area of 8x6 feet.
2. Linework in white paint.
3. A conventionalized head, or loop, in dim red paint. Dimensions, 24x15 inches; line 1¼ inches wide.

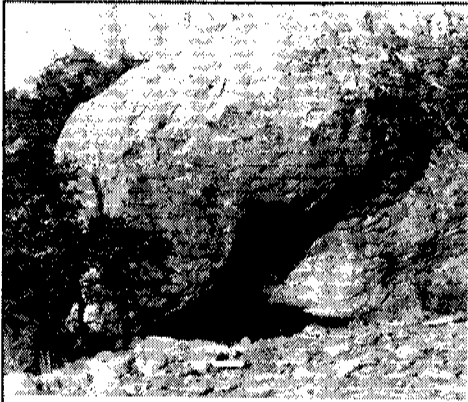
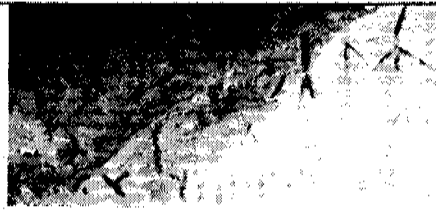


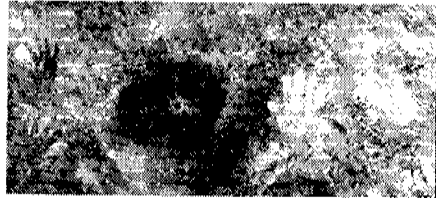
PLATE LXIV.



1.



2.



3.
PLATE LXV.



PLATE LXVI.



1.



2.



3.
PLATE LXVIII.

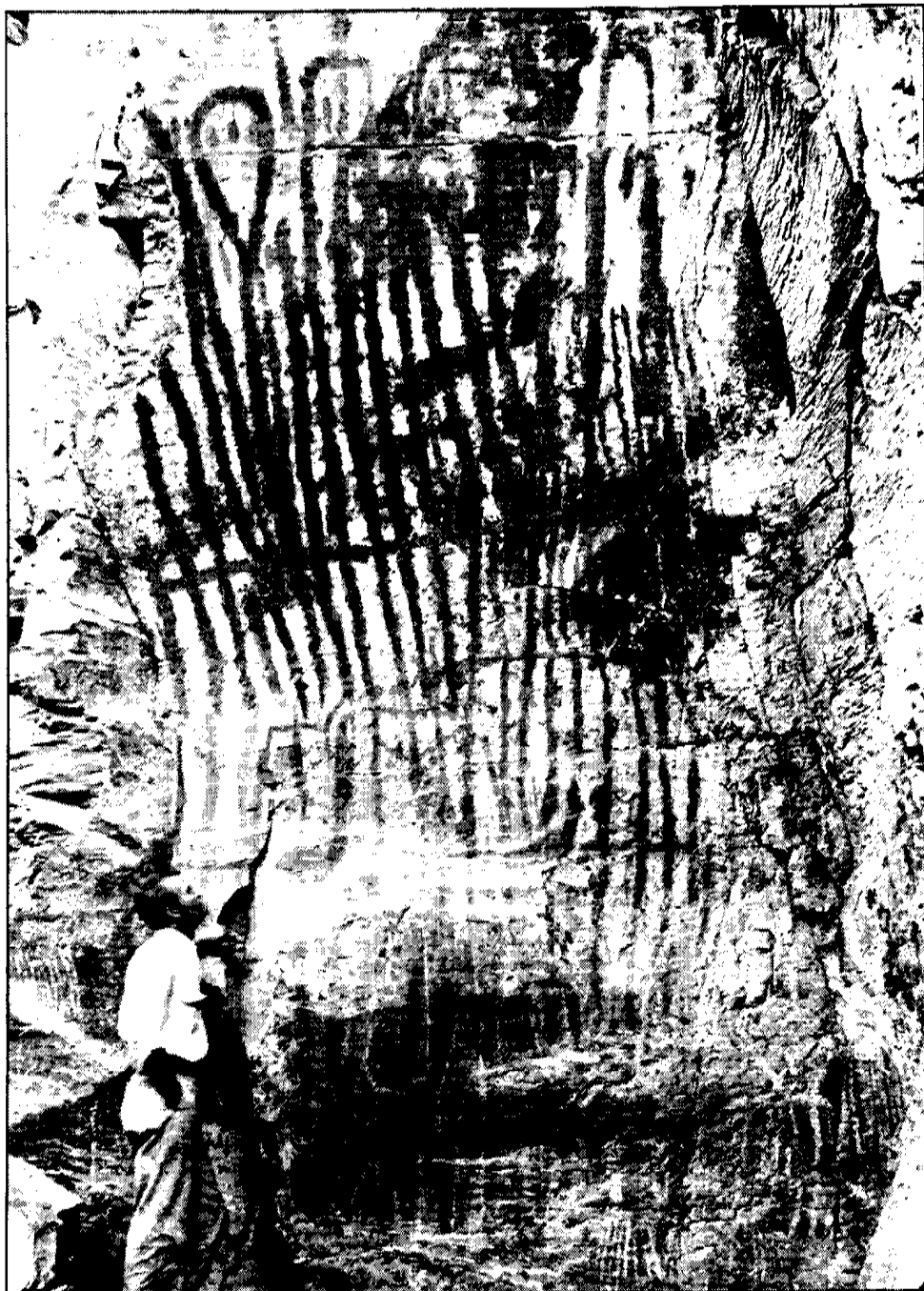


PLATE LXVII
THE TALLEST KNOWN PICTOGRAPH IN TEXAS, SITE NO. 30,
JEFF DAVIS COUNTY

Height, 18 feet. The colors are red, orange, brown, white and green. The picture is a composite, the upper part being very brilliant, while the paint near the bottom is dim. This suggests different ages.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 30

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	23	41
<i>Lower Life:</i>		
Conventionalized animal.....	1	
Butterflies (?)	3	7
<i>Geometric and Symbolic:</i>		
Vertical hatching	5	
Crosshatch	1	
Punctate	1	
Triangles	2	
U-shaped elements	6	
Figure eight elements.....	5	
Bridge-like element.....	1	
Ladder-like elements	3	
Rake-like elements.....	3	
Rayed circles	2	
	29	52
Total	56	100

CULTURAL RELATIONS

A study of the pictographs at Site No. 30 not only suggests a considerable time element, but likewise reveals interesting similarities to certain paintings in other sections of the State.

The small black paintings show a technique much like that employed in Reeves, Edwards, and Real Counties. As a class, they appear to belong to the late prehistoric and early historic periods.

The large red paintings, while differing widely in types of designs, seem to have several traits in common with certain ones along the Rio Grande near the mouth of the Pecos River.

The white and green paintings suggest connections with the El Paso region.

A number of the small red paintings remind one of a class of prehistoric paintings in the southern Big Bend and lower Pecos regions. Among these may be mentioned the crude conventionalized dancing figures, sun-ray discs and insect-like figures. More research needs to be done, in working out these relations, than the writer has had time or opportunity to do for this monograph.

PRESIDIO COUNTY

SITE No. 31

The pictographs are located on the wall of a shelter that faces southwest. The shelter is about 100 feet long, overhangs some 30 feet with a roof 20 feet high. According to Baker the rock is "ryolite tuffbreccia or volcanic ash. It is not very durable."

The paintings are in red and black, in a fair state of preservation, and range in size from medium to small. A few of them appear to be much older than the others. These are dimmer and have other pictures superimposed on them. Some are historic, others apparently prehistoric.

FIG. 86. COMPLICATED PICTOGRAPH IN BLACK, SITE NO. 30,
JEFF DAVIS COUNTY

Dimensions: 16x7 inches. Dim. Note the U-shaped elements, resembling certain paintings at Site No. 22, Reeves County.

FIG. 87. TALL CONVENTIONALIZED HUMAN FORMS, SITE NO. 30

Colors: red, orange, white and green.

Dimensions: 6x3 feet, with lines 2 inches wide.

FIG. 88. HUMAN AND ANIMALISTIC DESIGNS, SITE NO. 30

1. Dancing figures painted in red; very dim. Height, 6 inches; lines $\frac{1}{2}$ inch wide.
2. Conventionalized animal head, painted in green. Diameter, 12 inches. Partly covered with an accumulation of soot.

FIG. 89. SYMBOLIC DESIGNS IN RED, SITE NO. 30

1. A butterfly-like figure, $9\frac{1}{2}$ x8 inches.
2. Connected circles, or double figure eight; 12x8 inches.
3. Vertical hatching, 6x4 inches.
4. So-called "pole-ladder"; dimensions, 8x6 inches.

FIG. 90. PICTOGRAPHS AT SITE NO. 30

1. Pitchfork-like element in red; 22x14 inches.
2. Ladder-like element in red; 13x6 inches.
3. Sun-ray disc, painted white; diameter, 12 inches.
4. Pole-ladder element in red; 6x6 inches.
5. Sun-ray disc in red; diameter, 10 inches.

FIG. 91. PICTOGRAPHS IN RED, SITE NO. 30

1. An unusual design, locally known as "the natural bridge." There is such a bridge in the canyon. Dimensions, 8x12 inches.
2. So-called "house with two gables"; possibly represents a mission building. Dimensions: 20x15 inches.

FIG. 92. PICTOGRAPHS IN WHITE PAINT, SITE NO. 30

The designs all consist of simple straight lines. Dimensions: 1, 12x9 inches; 2, 22x12 inches; 3, 12x16 inches; 4, 18x10 inches. The lines vary from $\frac{1}{2}$ to 1 inch in width.

FIG. 93. AN INSECT-LIKE DESIGN, SITE NO. 30

The U-shaped element is prominent. Painted in red.
Dimensions over all, 12x8 inches.

(Groupings by the author in Figs. 88, 89, 90, 91, and 92)

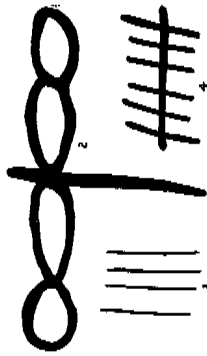
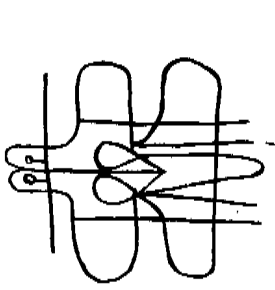


FIG. 89.



FIG 92



FIG 88

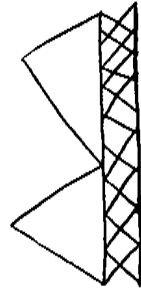


FIG 91.

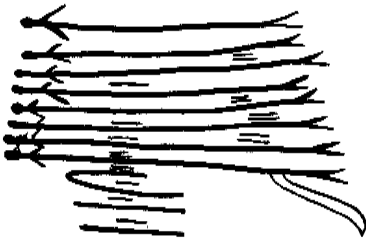


FIG 87

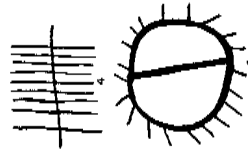
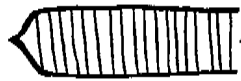


FIG 90

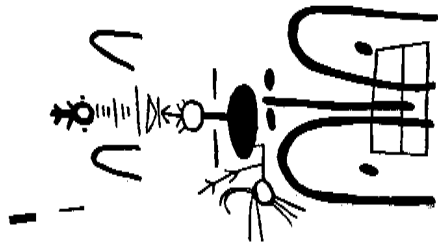
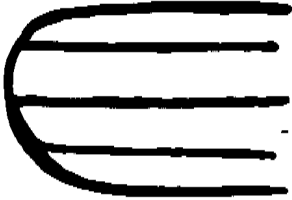


FIG 86.

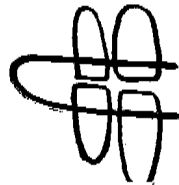


FIG. 93.

This site is less than 75 miles from the early mission center across the Rio Grande from the present town of Presidio, Texas. Hence it is not surprising that some of the paintings show European contacts. The first mission in that region was built prior to 1670; there were nine missions by 1715, and their influence was widespread until 1783. Hence the paintings of Europeans may be from 150 to 250 years old.

In writing of this site Peabody³⁰ stated:

"Its pictographs are quite celebrated. They include a set of figures, human and not human, in black; an outlined Greek cross in red; a headless human figure. . . . Many parallel lines in red; six black marks over a small recess; a scalp-shaped figure in black. . . . a rude arrow in orange, nine horned animals pointing the same way, and some modern initials."

³⁰Peabody, Charles, *op. cit.*, p. 215.

PLATE LXX

EVIDENCES OF EUROPEAN CONTACTS PICTOGRAPHS IN RED PAINT, SITE NO. 31, PRESIDIO COUNTY

1. An Indian representation of a white woman. Dimensions: 9x5 inches.
2. White men, wearing hats. Note that each has one arm akimbo. Dimensions: 9x5¼ inches.
3. An equal-armed cross in the center of a painted field. Dimensions: 16x16 inches.

FIG. 94. CONVENTIONALIZED HUMAN FORMS, SITE NO. 31

- 1, 3. Black paint.
2. Outlined in red; height, 10 inches.
- 4, 5, 6. Red paint.

FIG. 95. A HERD OF CATTLE OUTLINED IN RED PAINT, SITE NO. 31

Dimensions range from 8x4 to 16x6 inches.

FIG. 96. CONVENTIONALIZED ANIMALS AND SERPENT PAINTED IN RED, SITE NO. 31

Dimensions of No. 1, 15x8 inches.

FIG. 97. GEOMETRIC AND SYMBOLIC PICTOGRAPHS, SITE NO. 31

Colors: 1, alternate red and black; others, red. Projectile point with attached cord (No. 3) has a total length of 12 inches.

FIG. 98. PICTOGRAPHS IN RED AND YELLOW, SITE NO. 180, PRESIDIO COUNTY

These paintings are connected in such manner as to suggest a record of some incident. The animal at upper left seems to be a bison. Dimensions over all, 36x14 inches.

(All groupings by the author, except in Fig. 98)

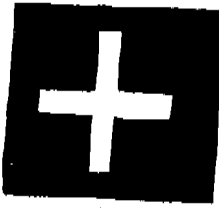


PLATE LXX

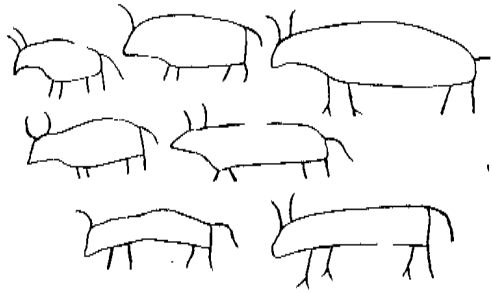


FIG. 95.

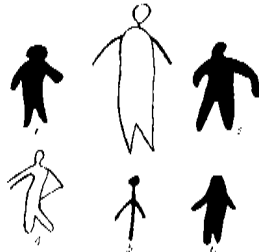


FIG. 94



FIG. 96

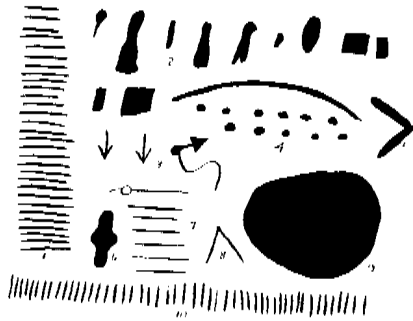


FIG. 97

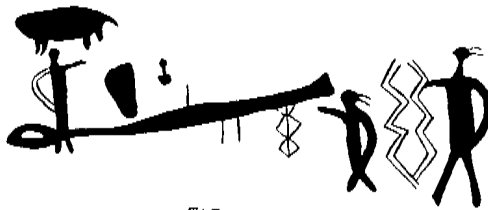


FIG. 98

An interesting feature illustrated in Plate LXX, 2 is the placing of hands on the hips. Charlevoix³¹ makes the following comment regarding this posture:

“. . . When there are any French, . . . they set their arms akimbo, or their hands upon their hips, to distinguish them from the savages whom they represent with their arms hanging down. This distinction is not purely arbitrary; it proceeds from these people having observed that the French often put themselves in this posture, which is not used among them.”

In most cases, as will be shown in Part V of this paper, arms when so placed are on Europeans. There are, however, a few exceptions. (See discussion of Site No. 180, this county, and No. 6, Hudspeth County.)

With regard to headless figures Charlevoix says:

“There were two figures of men without heads and some entire. The first denoted the dead and the second the prisoners.”

³¹Charlevoix, Pierre, *Travels Through Canada and Louisiana to the Gulf of Mexico*, R. Coadby, London, 1763, p. 304.

PLATE LXIX

THE SHELTER AT SITE NO. 31, PRESIDIO COUNTY

There are a few paintings scattered along the entire length of the wall.

PLATE LXXI

PICTOGRAPHS, IN RED, SITE NO. 31

1. Buffalo or longhorn cow; dimensions, 10x5 inches.
2. Conventionalized human and “tally marks.”
3. Human figure.
4. Perpendicular hatching.

PLATE LXXII

VIEW OF SHELTER AT SITE NO. 180, PRESIDIO COUNTY

The man is examining pictographs. Note the rough surface of the rock.

PLATE LXXIII

PICTOGRAPHS IN RED PAINT, SITE NO. 180

Human figures with parallel zigzag lines between.

PLATE LXXIV

UNUSUAL PICTOGRAPHS IN RED, SITE NO. 180

These figures are suggestive of conventionalized animal heads. Note the dim parallel zigzag over which the heads were painted. Dimensions, 22x6 inches.



PLATE LXIX.



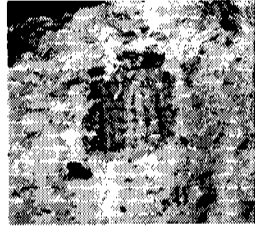
1.



2.



3.



4.

PLATE LXXI.



PLATE LXXII.

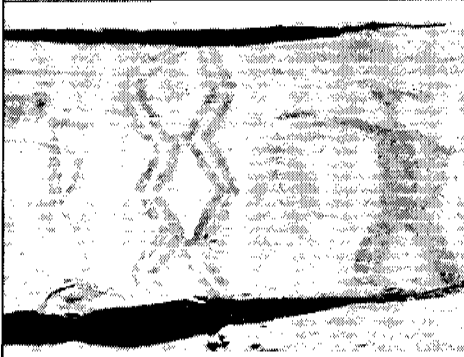


PLATE LXXIII.



PLATE LXXIV.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 31

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	8	
Europeans	3	18
<i>Human Workmanship:</i>		
Projectile points.....	5	
Projectile	1	
Hoes or axes (?).....	4	
Ornament (?).....	1	18
<i>Lower Life:</i>		
Cattle	9	
Conventionalized animals.....	2	
Serpent	1	19
<i>Geometric and Symbolic:</i>		
Squares and rectangles.....	8	
Curvilinear	1	
Triangle	1	
Vertical hatching.....	6	
Horizontal hatching.....	2	
Punctate	1	
Amoeboid figures.....	4	
V-shaped elements.....	2	
Sphere or boulder.....	1	
Cross	1	
Problematical	1	
Total	28	45
	62	100

SITE NO. 32

This petroglyph site, located in the northwest part of the county, was reported to the writer by E. B. Sayles. He states that it is an extensive site, with many figures pecked into the table-like surface of sandstone. Most of them are conventionalized. The carvings have not been studied by a University of Texas party.

SITE NO. 33

This pictograph site, also, was reported to the writer by E. B. Sayles. It is located on a tributary of a small creek in the south central part of the county. The paintings are on the wall of the shelter. The site has not been studied by a University of Texas representative.

SITE NO. 34

A local amateur first reported this site, located in the southeastern part of the county, as having many clear paintings. The landowner, however, knows of only one location on his ranch where paintings are found. At that place, he states, is one handprint, and a sword-like painting in red. The site has not been visited by a representative of The University of Texas Anthropology Department.

SITES NO. 35 AND 36

These sites, located in the southeastern part of the county, are reported as having pictographs on the walls of shelters. They have not been visited by anyone from The University of Texas.

SITE No. 37

Frank Mills, a former Texas Ranger, reports many paintings at this site, located near the Rio Grande in the southeastern part of the county. He states that potsherds are present in the midden deposit in the cave. The site has not been studied by anyone from The University of Texas.

SITE No. 180

The pictograph site consists of two small overhanging ledges, one of which had been inhabited and contains a shallow midden deposit. Between the two shelters is a small spring. According to C. L. Baker the rock is "a good durable, fine grained lava, but spalls off."

FIG. 99. DANCING FIGURES AND TEPEES, SITE NO. 180, PRESIDIO COUNTY

The conventionalized human figures are 3 inches in height. The tepee-like triangles are 5 inches in height. Color, red.

FIG. 100. VERY DIM RED PAINTINGS, SITE NO. 180

Crosshatch, zigzags, chevrons, and punctate decorations are here combined. Fewkes³³ states that certain chevron-like elements represent tracks of mountain sheep.

FIG. 101. HUMAN REPRESENTATIONS IN RED AND YELLOW, SITE NO. 180

Three of the 8 figures have one arm akimbo and the other outstretched. Dimensions range from 5x3 to 13x6 inches. Colors: 2, yellow; others, red.

FIG. 102. LADDER, ZIGZAG, AND CURVILINEAR DESIGNS, SITE NO. 180

Colors: 1, 3, 5, 6, 8, red; 2, 4, 7, yellow.

Dimensions: 1, 10x4 inches; 2, 3x2 inches; 3, 8x4 inches; 4, 3x2 inches; 5, 8x6 inches; 6, 8x4 inches; 7, 8x5 inches; 8, 15x2½ inches.

FIG. 103. TRIANGULAR AND HOURGLASS-SHAPED ELEMENTS, SITE NO. 180

The forming of a large triangle from a number of smaller ones is a feature also found at Site No. 40, Brewster County. Dimensions: 1, 6x6 inches; 2, 6x5 inches; 3, 6x4 inches; 4, 3x3 inches; 5, 8x6 inches; 6, 12x10 inches. Colors: 1, 2, 3, yellow; 4, and 6, red; 5, the outer part yellow and the inner part red.

FIG. 104. PICTOGRAPHS IN RED AND YELLOW, SITE NO. 180

- 1, 6. U-shaped elements common at this site.
- 3, 8. Forms of the cross frequently found at historic sites.
5. A variation from the usual type of zigzag line. It may symbolize lightning.
- 7, 9. Amoeboid elements, or splotches of paint.
10. A bottle-shaped element suggestive of an earthenware water bottle.
11. A possible conventionalized atlatl.
12. A conventionalized group of 5 buildings probably representing missions. Dimensions: 22x10 inches. At La Junta, across the Rio Grande and some 25 miles distant, were 9 Spanish missions.
13. A row of chevron-like elements sometimes referred to as tracks of mountain sheep.
14. A conventionalized snake or so-called plumed serpent. Dimensions, 18x3 inches.

(All groupings by the author, except in Fig. 100)

³³Fewkes, J. W., *op. cit.*, pp. 1-11.

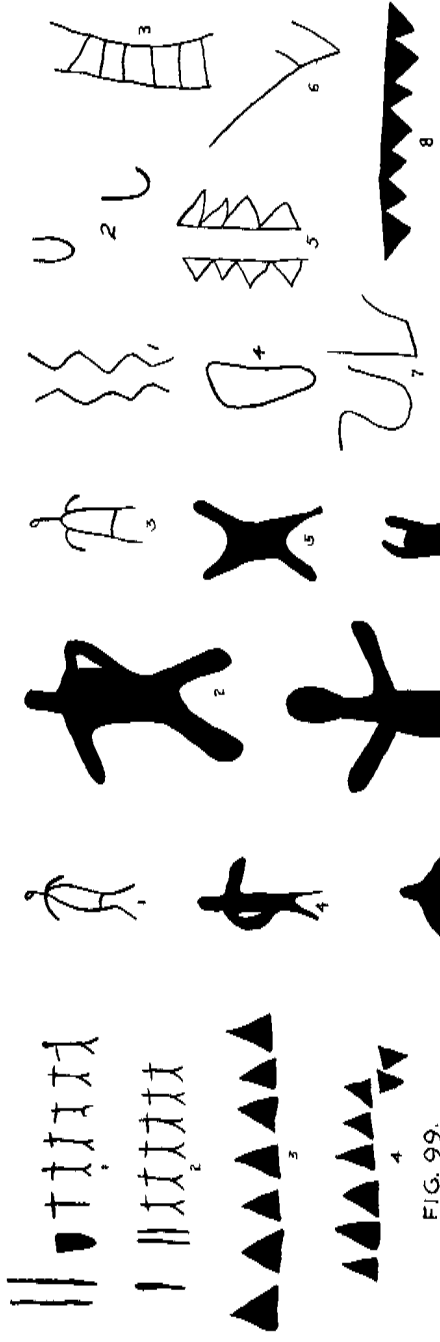


FIG. 99.

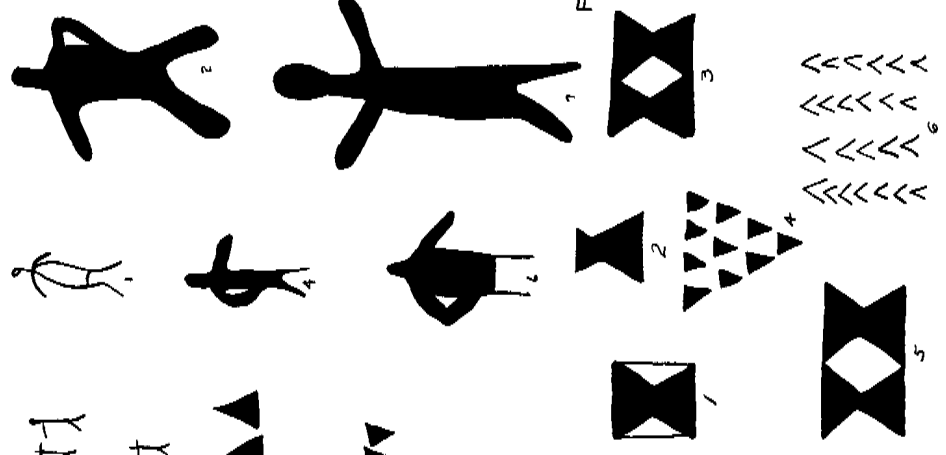


FIG. 100.

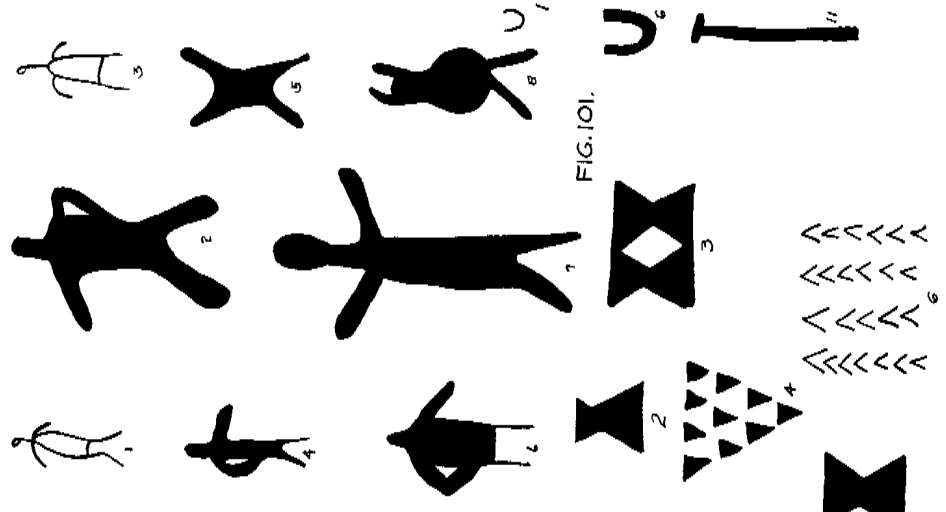


FIG. 101.

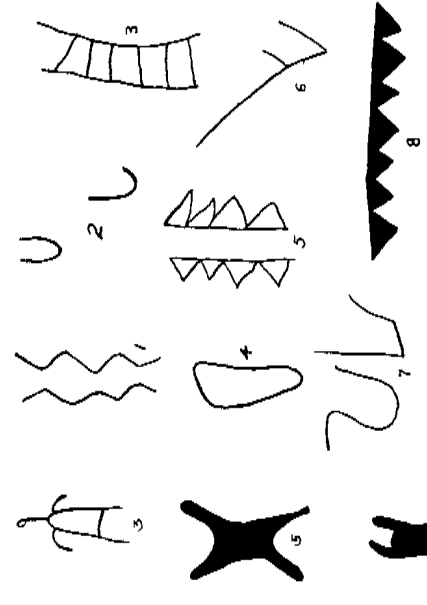


FIG. 102.

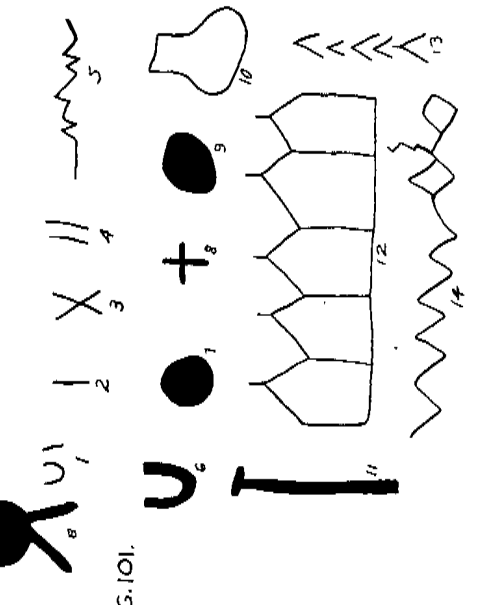


FIG. 103.

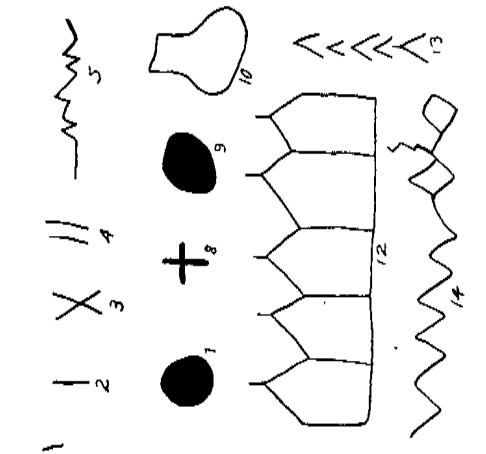


FIG. 104.

The paintings are in red and yellow.

It will be noted that the two figures in Plate LXXIII wear feathers in the hair, thus labeling them as Indians. Despite this fact, an arm of each is akimbo. This posture is said to be used in picture-writing only for the representation of Europeans. Since there is evidence of mission influence at the site, one might expect to find a mixture of white and Indian traits.

Parallel zigzag lines such as illustrated in Plate LXXIII are called by Steward³² girls' puberty paintings.

CLASSIFICATION OF LEGIBLE DESIGN ELEMENTS, SITE NO. 180

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	24	
Feather headdresses	11	
Position of arms:		
Outstretched	14	
Downward	3	
Upraised	1	
Akimbo	6	
	59	38
<i>Human Workmanship:</i>		
Mission buildings	5	
Earthenware bottle (?)	1	
Hafted ax (?)	1	
	7	5
<i>Lower Life:</i>		
Conventionalized animal heads	3	
Buffalo (?)	1	
Plumed serpent	1	
Conventionalized serpent	1	
	6	4
<i>Geometric and Symbolic:</i>		
Tepees	16	
Triangular elements	10	
Perpendicular hatching	7	
Series of chevrons	7	
Zigzags:		
Single	5	
Set	1	
Parallel	2	
Hourglass-like elements	6	
U-shaped elements	5	
Lozenges or diamonds	4	
Series of pendant triangles	3	
Discs	2	
Ladder-like elements	2	
Amoeboid figures	2	
Ham-shaped elements (trophy of chase)	2	
Curvilinear elements	2	
Crosses	2	
Spade-like element	1	
Horizontal band line	1	
Crosshatch	1	
Punctate	1	
	82	53
Total	154	100

SITE No. 181

The pictographs at this site are located several miles across the mountain from Site No. 180. The paintings are on the wall of a large shelter. The place was reported

³²Steward, Julian H., *op. cit.*, p. 203, Map 26.

by Henry Schutze of Marfa, who states that there are about 100 handprints, a few concentric circles, a man shooting with a bow and arrow, and a few other designs. Most of the paintings are in red.

They have not been studied by a representative of The University of Texas.

SITE No. 182

The pictographs were reported by Walter Mayfield of Valentine as being on the wall of a small shelter, in an inaccessible canyon, in the northwestern part of the county. According to his statement, the paintings are in red, few in number, consist of parallel zigzags, concentric circles, conventionalized animals and men, and a swastika. The latter design is rare in Texas pictographs. The paintings have not been studied by a University of Texas representative.

SITE No. 183

The few pictographs at this site were first reported to the writer by a local amateur. In 1932 Mansfield and Boardman,³⁴ in reporting on nitrate deposits, made mention of the pictographs. Their statement is as follows:

"The rock in the immediate vicinity . . . is igneous, fine grained and dark, and is tentatively classed as a basalt. Just above the prospect cave there is a natural cave that at one time was, in all probability, an old Indian camp. On the wall are figures in red paint; and the floor of the cave contains black dirt, presumably the ashes from old camp fires mixed with other camp refuse containing a large percentage of organic matter. In many places the walls are covered with a black tar-like smut as much as a quarter of an inch thick." . . .

The amateur who reported the site tells of finding some 300 projectile points in the midden deposit in the cave. His statement regarding the paintings indicates that there is a handprint and a few other dim designs. The location has not been visited by a representative of The University of Texas.

SITE No. 184

Pictographs on the wall of the shelter were reported by a local amateur. The site is in the south central part of the county. According to the report, there are only a few paintings. One of these represents a man on a horse. The picture is in black and about nine inches high. The other paintings are dim.

Concerning this site, Peabody³⁵ writes:

"The shelter faces northeastward and is black with smoke. Red pictographs, in parallel and converging lines and triangles, adorn it; some of them combine to form a resemblance to the modern Comanche sign for 'farewell' (on the testimony of Wellington Glaze, who, as a cowboy, has had experience here). Nearby is a cut or stippled human face or skull, through the upper part of which is drawn a red line. A few paces to the south is another small shelter, and near it on the rock a figure in red of an arrow pointing upward."

The paintings have not been studied by anyone from The University of Texas.

³⁴Mansfield, G. R., and Boardman, Leona, *op. cit.*, pp. 80-83.

³⁵Peabody, Charles, *op. cit.*, p. 214.

CHIHUAHUA, MEXICO

Due to their proximity to the Texas border, it is thought pertinent to report certain petroglyphs from the northern part of Mexico.

SITE "C"

The petroglyphs are not far south of the tip of the Texas Big Bend. They were reported by E. C. Niebuhr, formerly a student technician with the United States National Park Service, in the Chisos State Park. The petroglyphs are pecked into the limestone of the vertical canyon wall. Most of them are at heights ranging from one to six feet. Some, however, are much higher. Weathering has damaged some of the figures.

Adjacent to the petroglyphs is an extensive campsite accompanied by a number of very large, deep, circular mortar holes.



PLATE LXXV

PETROGLYPHS AT SITE "C," CHIHUAHUA, MEXICO

This is a striking illustration of the manner in which picture-writings sometimes are superimposed. Note the human hand and footprints, the cloud and rain symbol, and the connected circles.

(Courtesy of E. C. Niebuhr)



PLATE LXXVII.

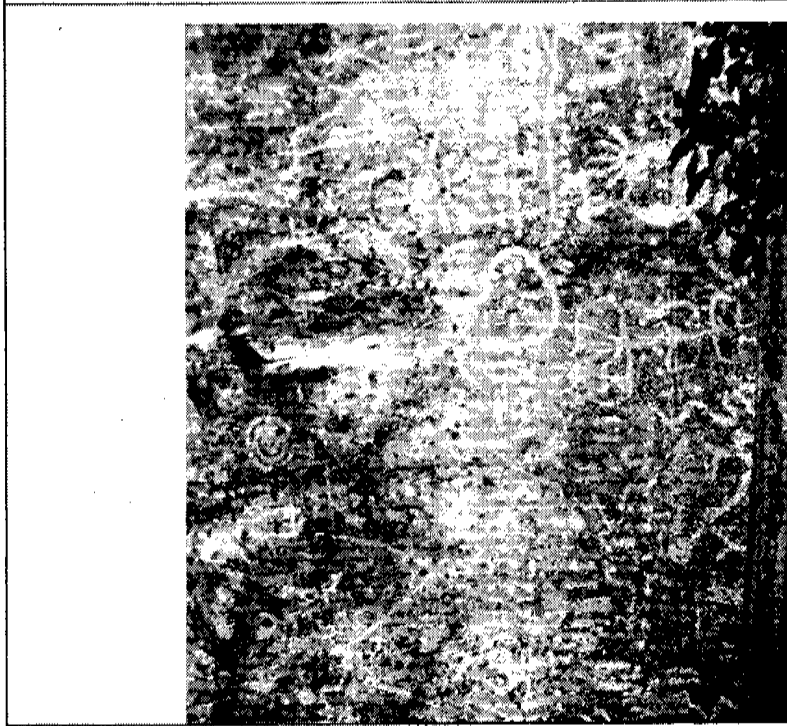


PLATE LXXVI.

(Courtesy of E. C. Niebuhr)

PLATE LXXVI

PETROGLYPHS AT SITE "C," CHIHUAHUA, MEXICO

Note the conventionalized human figure, hand, sun-ray disc, concentric circles and punctate decoration.

PLATE LXXVII

OTHER PETROGLYPHS AT SITE "C"

Note the conventionalized human figure, bear track, zigzags, connected circles, connected dots and U-shaped elements.

CLASSIFICATION OF LEGIBLE DESIGN ELEMENTS, SITE "C"

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	9	
Position of arms:		
Upraised	3	
Outstretched	3	
Downward	3	
Hands:		
Right	5	
Left	5	
Conventionalized	2	
Six-fingered	1	
Feet	3	
	34	28
<i>Lower Life:</i>		
Conventionalized animal	1	
Animal pelt	1	
Frogs	2	
Lizard	1	
Bird tracks	2	
Spiders	2	
Serpents:		
Plumed	2	
Other	5	
	16	13
<i>Geometric and Symbolic:</i>		
Circles:		
Concentric	4	
Single	4	
Connected	9	
Connected concentric	1	
Connected discs	1	
Series of lozenges	1	
Rectangles	3	
Square	1	
Equal-armed crosses	2	
Punctate designs	7	
Curvilinear elements	4	
Vertical lines	4	
Zigzags	10	
U-shaped elements	11	
Y-shaped elements	2	
Rake-like element	1	
Ladder-like element	1	
Cloud and rain symbols	2	
Sun-ray discs	2	
	70	59
Total	120	100

POSSIBLE CULTURAL RELATIONS, SITE "C," CHIHUAHUA, MEXICO

The petroglyphs at this site have a number of points in common with the pecked figures at Sites No. 4 and No. 11, Hudspeth County, Texas. Among these similarities are the realistic handprints, footprints, zigzags, connected circles, cloud and rain symbols.

FIG. 106. PREHISTORIC AND HISTORIC PAINTINGS, SITE NO. 38,
BREWSTER COUNTY

Dimensions: 1, $9\frac{1}{2} \times 8\frac{1}{2}$ inches; 2, 6×7 inches; 3, $4\frac{1}{2} \times 2\frac{1}{4}$ inches; 4, $5 \times 3\frac{1}{2}$ inches; 5, $5 \times 4\frac{3}{4}$ inches; 6, $3\frac{1}{8} \times 2$ inches. Diameter of the disc is $1\frac{1}{2}$ inches.

FIG. 107. HUMAN, ANIMAL, AND SYMBOLIC DESIGNS, SITE NO. 38

Note the projectiles in the man's hand (No. 3).

Dimensions: 1, $7\frac{1}{2} \times 6$ inches; 2, $7\frac{3}{4} \times 5\frac{1}{2}$ inches; 3, $10\frac{1}{2} \times 5$ inches; 4, $4\frac{1}{2} \times 4\frac{1}{4}$ inches; 5 $4\frac{1}{2} \times 4$ inches; 6, 6×2 inches; 7, $14\frac{1}{2} \times 8\frac{1}{2}$ inches.

FIG. 108. SYMBOLIC DESIGNS, SITE NO. 38

The representation of a mission has dimensions of $8\frac{1}{4} \times 6\frac{1}{4}$ inches. The date of this painting probably is between 1700 and 1800 A.D., during which time the Spanish missions were active at La Junta.

FIG. 109. CONVENTIONALIZED HUMAN FIGURES IN ACTION, SITE NO. 38

1. Painted in red with an orange disc above the head, and a red disc slightly higher. Possibly a representation of a snake dance. Dimensions: $5\frac{1}{2} \times 5\frac{3}{4}$ inches.
2. Human figure wearing feather headdress and grasping a shield in one hand. Dimensions: $7\frac{1}{4} \times 5\frac{1}{2}$ inches. Painted in red.

FIG. 110. HUMAN REPRESENTATIONS AND SYMBOLIC FIGURES, SITE NO. 38

1. A positive print of the left hand. Length, 9 inches.
2. Human figure accompanied by a ham or other possible trophy of the chase. Dimensions over all, $8 \times 6\frac{1}{4}$ inches.
3. Figure with arms upraised, in an attitude of supplication. Dimensions: $10\frac{1}{2} \times 6$ inches.

FIG. 111. HUMAN AND SYMBOLIC REPRESENTATIONS, SITE NO. 38

1. Elongated human figure with stone or other object in one hand. Height, $14\frac{1}{4}$ inches.
2. Crudely drawn human head. Dimensions: $3 \times 2\frac{1}{4}$ inches.
3. Sun disc. Diameter: 2 inches.
4. A shapeless, problematical figure. Length: 8 inches.

(Courtesy of Victor J. Smith)

(Groupings by the author)

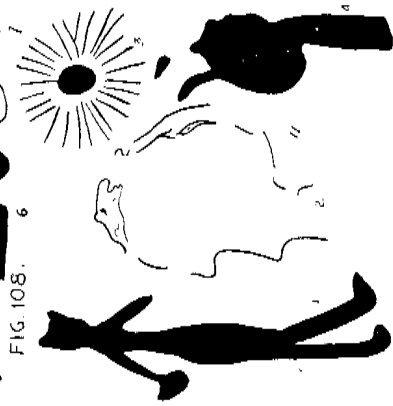


FIG. 108.

FIG. 111

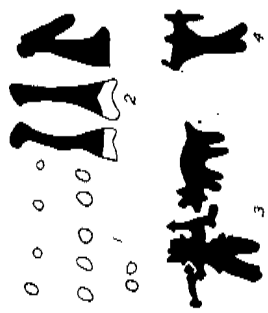


FIG. 107



FIG. 110.



FIG. 106



FIG. 109

A noticeable difference, however, is the absence at Site "C" of mountain sheep, which are abundant at Sites No. 4 and No. 11; and projectile points, numerous at Site No. 11. The human figures of the two regions likewise vary quite a bit in the method of representation.

There is a similarity between the technique of the long, narrow, conventionalized human hands appearing at Site "C" and those pecked into the wall of a shelter at Site No. 190, Loving County, Texas.

BREWSTER COUNTY, TEXAS

SITE No. 38

Near the southwestern edge of the county is a rock shelter on the wall of which are a number of pictographs. The site was first reported, in published form, by Victor J. Smith³⁶ in 1923. Mr. Smith illustrated a number of the paintings and discussed them in connection with other pictographs of the Big Bend region.

In 1932 Mansfield and Boardman,³⁷ in reporting on nitrate deposits, gave a brief discussion both of the shelter and the paintings. The following is quoted from the latter source:

"The rocks . . . are igneous and have been determined by E. S. Larsen, of the Geological Survey, as soda rhyolite. The bluff is approximately 450 feet high and hangs over enough to protect its lower part from rain and running water. Large blocks have broken down from the sides and have formed recesses or half-caves at the sides of the bluff near the base. These recesses have apparently made very desirable dens for animals and may have been used by Indians. The ground at the foot of the bluff here is black with organic matter, made up largely of camp refuse and animal excreta, and the rock wall is ornamented with figures made with red paint, commonly supposed to be the work of Indians. The excellent spring of water and the overhanging bluff no doubt made an attractive campsite for the Indians, and the amount of organic matter now in sight at the foot of the bluff implies that the locality was very popular." . . .

³⁶Smith, Victor J., *Indian Pictographs of the Big Bend in Texas*, Publication of Texas Folk-Lore Society, Vol. II, Austin, 1923, pp. 18-30.

³⁷Mansfield, G. R., and Boardman, Leona, *op. cit.*, pp. 55-57.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 38

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered	1	
Phallic	1	
Mounted men	2	
Dancing figure	1	
Arms:		
Downward	6	
Outstretched	3	
Upraised	4	
Headless	4	
Head only	1	
Wearing headdress	3	
Positive handprint	1	
Three-fingered hand	1	
	28	26
<i>Human Workmanship:</i>		
Weapons:		
Projectiles	3	
Axes	3	
Clubs	3	
Shield (?)	1	
Stone	1	
Conventionalized implements	3	
Mission building	1	
	15	14
<i>Lower Life:</i>		
Conventionalized animals	9	
Horse (?)	1	
Bison (?)	1	
Deer or elk	1	
Snakes	3	
	15	14
<i>Geometric and Symbolic:</i>		
Rectangle	1	
Triangular design	1	
Pendant triangles, series of	2	
Oblique hatching	1	
Single circle	1	
Concentric circles	2	
Curvilinear	4	
Amoeboid figures	17	
Numeration dots, series of	8	
Punctate	1	
Zigzag	1	
V-shaped elements	2	
Anchor-like element	1	
Spectacle-like element	1	
Trophy of chase (ham?)	1	
Sun-ray disc	1	
Equal-armed cross	1	
Problematical	4	
	50	46
Total	108	100

SITE NO. 39

The small shelter, located near the northwest corner of the county, was reported by Victor J. Smith, in Archaeological Circular No. 2 of Sul Ross State Teachers College, Alpine. One of the outstanding features of the site is the mass of abrading marks and crisscross lines appearing on the wall of the shelter.

The shelter has not been visited by a representative of The University of Texas.

FIG. 112. ANIMALISTIC DESIGNS IN RED, SITE NO. 38, BREWSTER COUNTY

Dimensions: 1, $7 \times 3\frac{1}{2}$ inches; 2, $6 \times 3\frac{1}{2}$ inches; 3, $6\frac{1}{4} \times 4\frac{1}{2}$ inches.

FIG. 113. CONVENTIONALIZED ANIMALS AND EQUAL-ARMED CROSS, SITE NO. 38

Dimensions: 1, $2\frac{1}{2} \times 2\frac{1}{4}$ inches; 2, 4×3 inches; 3, $10 \times 7\frac{1}{2}$ inches.

FIG. 114. GEOMETRIC AND SYMBOLIC DESIGNS, SITE NO. 38

Dimensions: 1, $5\frac{3}{4} \times 5\frac{3}{4}$ inches; 2, $5 \times 4\frac{3}{4}$ inches; 3, $3\frac{1}{2} \times 3\frac{1}{4}$ inches; 4, $6 \times 3\frac{1}{4}$ inches.

FIG. 115. CURVILINEAR AND SNAKE-LIKE ELEMENTS, SITE NO. 38

1. Dimensions over all: 7×5 inches.
2. Length: 11 inches.

FIG. 116. SMALL PICTOGRAPHS IN RED, SITE NO. 38

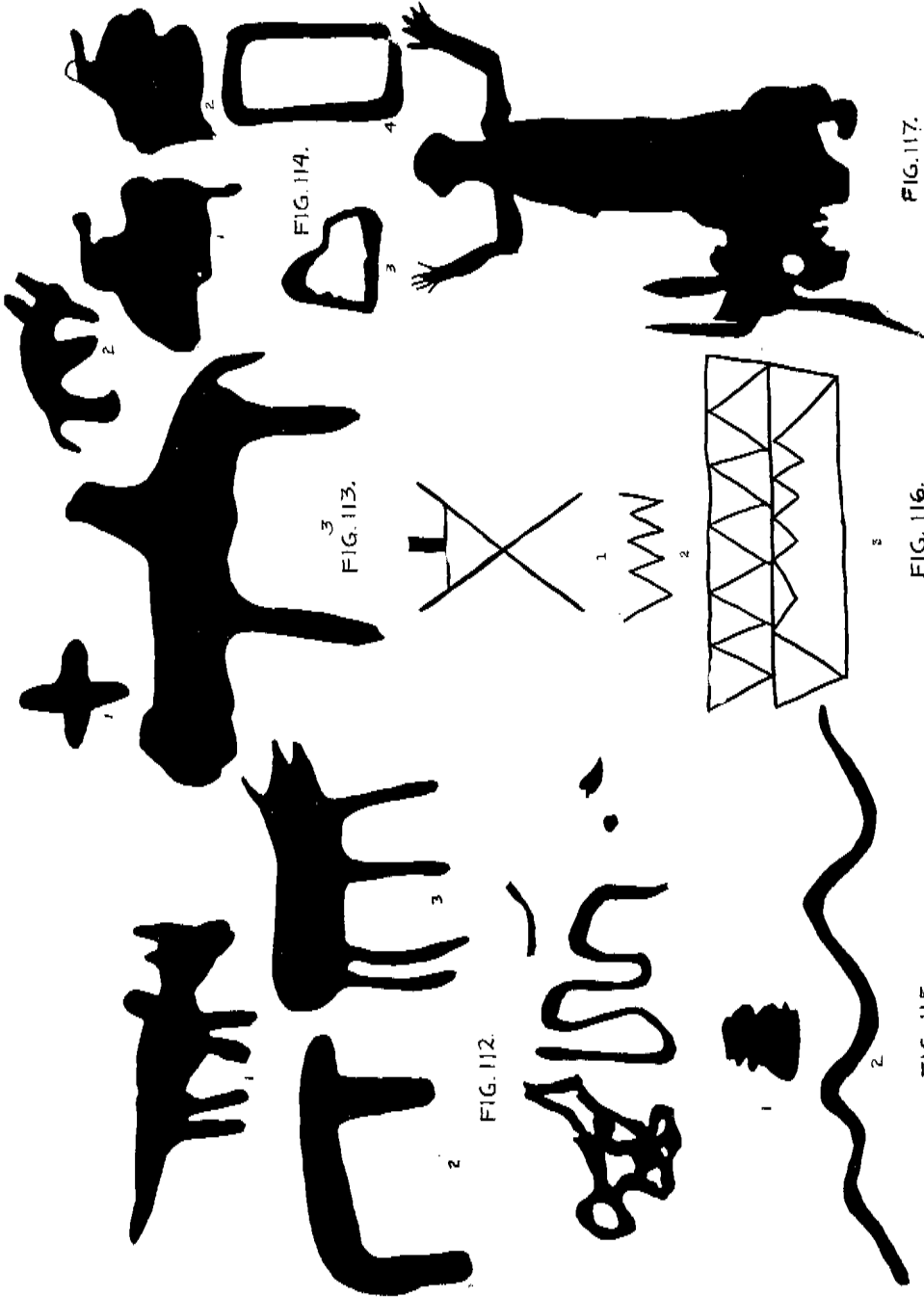
1. Square-shouldered human figure; height: 8 inches.
2. Zigzag, 6 inches long.
3. Triangular design. Dimensions: 6×12 inches.

FIG. 117. SUPERIMPOSED PICTOGRAPH AT SITE NO. 38

Apparently a conventionalized animal was first painted. Over a part of it was next painted a circular design and on that the lower part of a human figure. The composite picture thus gives the appearance of a human figure astride the animal.

(Figs. 112-115, courtesy of Victor J. Smith)

(Groupings by the author)



SITE NO. 40

At Site No. 40 are both pictographs and petroglyphs. They are located at a spring, just south of a line of hills, in the southwestern part of the county. Near the picture-writing is an open campsite, in which are circular mortar holes, flakes from flintwork and a few stone artifacts. There is more flint here than at many of the other sites in the region.

Petroglyphs

The petroglyphs are on andesite boulders of a dull brick-red color. Some of the pecked lines are fairly deep, while others are quite shallow. They are located on 18 boulders, scattered over a distance of about a quarter of a mile. Some of the rocks have on them only a few figures; others are covered for spaces as large as 12x4 feet. A feature worthy of note is the absence of realistic animal or human figures. There are a few highly conventionalized human figures; but, in the main, the pictures consist of geometric designs, some of which the local ranchmen designate as "cattle brands."

Pictographs

The pictographs are confined to a single group of boulders and are located on the lower side of a large balanced rock that forms a small shelter. The paintings are geometric, consisting chiefly of circles and triangles.

FIG. 105. HEADLESS HUMAN FIGURES PAINTED IN RED, SITE NO. 38

Dimensions over all: $6\frac{1}{4} \times 8\frac{1}{2}$ inches.

FIG. 118. ABRADING MARKS ON WALL OF SHELTER, SITE NO. 39,
BREWSTER COUNTY

(Courtesy of Victor J. Smith)

PLATE LXXVIII

CIRCULAR MORTAR HOLES IN BOULDERS AND BEDROCK, SITE NO. 40,
BREWSTER COUNTY

1. Boulder containing a well shaped mortar hole, worn into the stone prior to its overturn.
2. Mortar holes arranged in triangular form. One end of the pestle shows evidence of use.

PLATE LXXIX

PETROGLYPHS PECKED ON THE FACE OF BOULDERS, SITE NO. 40

1. One of the outstanding groups at the site. Near the upper center is a design suggestive of a human figure. Another is at the extreme left.
2. Dim petroglyphs, almost obliterated by weathering of the stone. Their condition suggests considerable age.

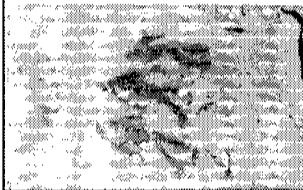
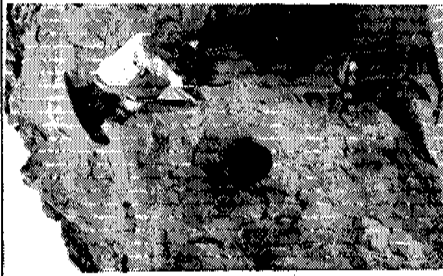


FIG. 105.

FIG. 118.

PLATE LXXVIII.

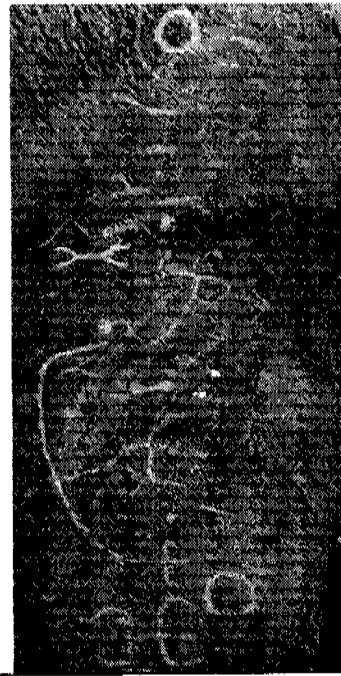
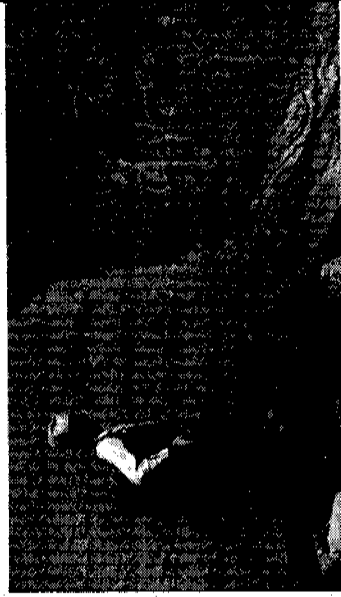


PLATE LXXIX.

2.

1.

PLATE LXXX

GEOMETRIC AND SYMBOLIC PETROGLYPHS, SITE NO. 40, BREWSTER COUNTY

1. Concentric circles, zigzags, and problematical designs. Two of them are suggestive of snakes. These figures have been very little eroded.
2. A well preserved design suggesting a compound human and animal figure. Height, 21 inches; width of lines, $\frac{1}{2}$ to $\frac{3}{4}$ inch.

PLATE LXXXI

PETROGLYPHS PECKED IN ANDESITE BOULDERS, SITE NO. 40

1. Sun discs and a spider-like design.
2. Pecked figures almost obliterated by weathering. Since they have about the same exposure as the other petroglyphs, it seems that these must be older. Note the dim projectile at the upper center.
3. Slightly curved or zigzag lines common to the site.
4. A complicated group of pecked figures in a good state of preservation. The group is referred to sometimes as a map of the region. The central figure suggests a conventionalized animal. Length of figure, 28 inches.

PLATE LXXXII

OTHER PETROGLYPHS AT SITE NO. 40

1. A group of pecked designs ranged about crosslines. The feature of having intersecting lines through the center of a group is common at this site. The scroll-like elements sometimes are called water symbols.
2. A simple pecked figure; possibly a conventionalized atlatl.

FIG. 120. DIM PAINTINGS IN RED, SITE NO. 40

1. A so-called cloud symbol.
 2. An unusual design, possibly representing a shield. Decorated with pendant triangles and zigzag lines. Dimensions: 15x11 inches.
- Two dim prints of the right hand are located just beneath the circular design in No. 2.

FIG. 122. PICTOGRAPHS AT SITE NO. 41, BREWSTER COUNTY

These figures are suggestive of certain pictographs at Site No. 150, Concho County, Texas.

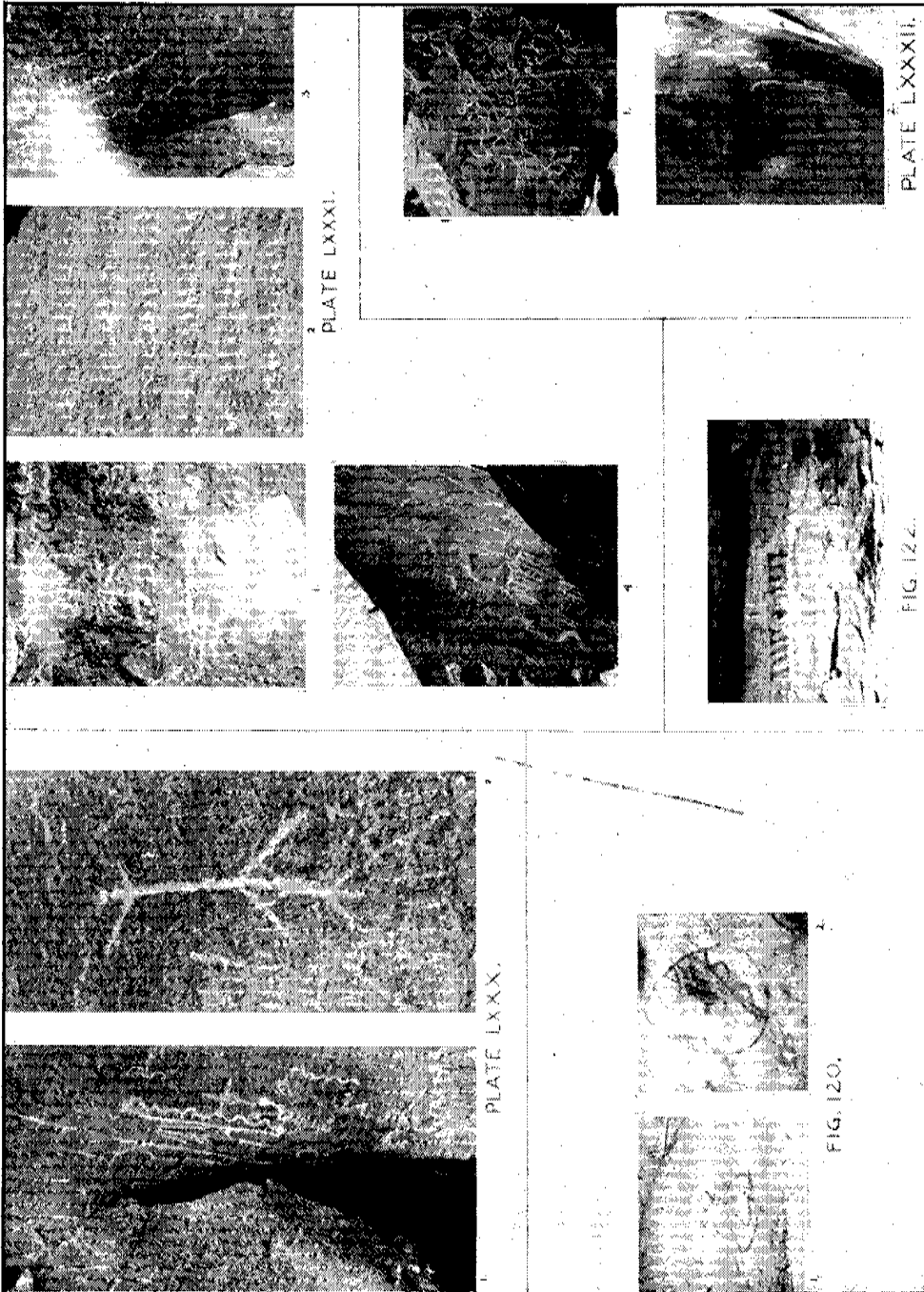


PLATE LXXXI.

PLATE LXXX.

PLATE LXXXII.

FIG. 120.

FIG. 122.

FIG. 121.

CLASSIFICATION OF TRACEABLE DESIGN ELEMENTS, SITE NO. 40

PETROGLYPHS

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized figures	6	
Conventionalized hand	1	
With headdress	1	7
<i>Human Workmanship:</i>		
Projectile	1	
Projectile point	1	
Possible atlatl	1	3
<i>Lower Life:</i>		
Conventionalized animals	3	
Snakes	9	
Plumed or horned serpents	2	
Horned frog	1	
Spiders (?)	2	
Bird track	1	17
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	1	
Oblique hatching	2	
Vertical band line	1	
Horizontal band lines	3	
Single circles	10	
Connected circles	7	
Concentric circles	1	
Bisected circle	1	
Curvilinear	8	
Connected dots	4	
Scrolls	2	
Zigzags	16	
Equal-armed crosses	2	
Other crosses	2	
Pitchfork-like elements	2	
Rake-like element	1	
Y-shaped elements	4	
Sun-ray discs	4	
Cloud and rain symbols	6	
Total	106	100

PICTOGRAPHS

	Number	Per Cent
<i>Human Representations:</i>		
Right hand (positive prints)	2	12
<i>Human Workmanship:</i>		
Possible shield	1	6
<i>Geometric and Symbolic:</i>		
Single triangles	7	
Zigzags	2	
Pendant triangles	2	
Cloud symbol	1	
Concentric circle	1	
Equal-armed cross	1	
Total	17	100

SITE No. 41

This small pictograph site is in a canyon, near a water hole, in the southwestern part of the county. The paintings are on the limestone wall of an overhanging ledge. A number of the figures are of the so-called hourglass type similar to certain ones at Site No. 180, Presidio County.

The site was first reported to this department of the University by C. S. Young, who was then conducting an expedition for Witte Memorial Museum of San Antonio.

SITE No. 42

The picture-writings are located on the limestone wall of a large rock shelter in the south central part of the county. The shelter is located at the mouth of a box canyon, in a rugged section, faces east and is well protected from rain. The occupants secured water stored in a natural reservoir nearby.

The shelter contains a deep midden deposit. It was examined and testing done by M. R. Harrington; and subsequently the excavation was completed by E. F. Coffin of the Museum of the American Indian, Heye Foundation, New York. In his report Coffin³⁸ gave a brief description of the pictographs as follows:

"On the wall at the back were a number of pictographs in red oxide of iron, one of which probably represents a bird with wings spread and two others, human beings. . . . About midway between the east and west walls of house 4 was limned an outline of a left hand and wrist. Inside the outline, which was dark red, the surface was clean with the exception of a trace of lighter red on the two center fingers and across the knuckles. Outside there were smudges of smoke blackening on the left side of the wrist and between the thumb, first, second and third fingers. The left outline of the third finger was missing and the tips of thumb and fingers were not completed. The total length of this outline was 13½ inches.

"On the wall of the rock shelter, about midway between the remains of the east and west walls of house 3, were five impressions made by hands smeared with red oxide of iron, four of which, placed in pairs, one above the other, faced directly into the room. The thumbs of the upper pair were placed opposite each other, while the thumbs of the lower pair faced outward. The lower left impression was 6¾ inches long and was three feet above the surface of the room before excavating began. The fifth impression was that of a left hand placed on a fractured surface facing southwest and a few inches to the west of the four above described. The imprint of the fingers was elongated, as though the person had drawn his hand down with the fingers touching the wall for a short distance before pressing the palm upon it. The bottom of this imprint was about in line with the top of the highest of the other four. About six inches below the imprint last described there was a smear on the wall, as though the hand had been wiped on it after making the impression."

Coffin³⁹ likewise reports: "A flat piece of wood ⅝ of an inch wide by 2½ inches long decorated with three black painted designs, one of which appears to represent a dragonfly, another possibly a butterfly, while the last is a rectangular oblong outline." These painted designs on a small piece of wood are quite similar to that found in a grave in a cave at Site No. 16, Culberson County. (See Fig. 38.)

³⁸Coffin, E. F., *Archaeological Exploration of a Rock Shelter in Brewster County, Texas*. Monograph No. 48, Museum of the American Indian, Heye Foundation, New York, 1932, pp. 5, 12, 16.

³⁹*Ibid.*, p. 31.

FIG. 119. UNUSUAL PETROGLYPHS, SITE NO. 40, BREWSTER COUNTY

1. A projectile and shield (?); apparently quite old as the lines are almost destroyed by weathering.
2. An anchor-like element with two connected circles attached. It is suggestive of a projectile with cord and ring attached. This resembles a projectile head with attached cord at Site No. 31, Presidio County.
3. A conventionalized horned frog, or possible human representation. Almost destroyed by weathering.
4. A conventionalized animal and rake-like element. Length, 28 inches.
5. A so-called plumed or horned serpent. Length, 25 inches.

FIG. 121. PICTOGRAPHS AT SITE NO. 40

1. Equal-armed cross enclosed in a circle. Note the concentric circles at the center of the cross. The diameter of the outer circle is 4 inches. The lines are $\frac{3}{16}$ and $\frac{1}{4}$ inch wide. The figure is strikingly like certain designs incised on pottery from graves in Northeast Texas.
- 2, 3. Groups of small triangular elements combined into larger triangles. Height, $6\frac{1}{2}$ inches; width, 5 inches. These dim designs are like one at Site No. 180, Presidio County.

FIG. 124. PICTOGRAPHS AT SITE NO. 42, BREWSTER COUNTY

- 1, 4. Human figures suggestive of the square-shouldered paintings of the Southwest.
3. A limned handprint $8\frac{1}{2}$ inches in length.
- 5, 6, and 7. Highly conventionalized human figures.

FIG. 125. CONVENTIONALIZED HUMANS PAINTED IN RED, SITE NO. 43, BREWSTER COUNTY

1. A man wielding a club. Dimensions, $7\frac{5}{8} \times 5\frac{3}{4}$ inches.
2. A possible representation of the snake dance. The figure is much like a painting at Site No. 38, this county. Dimensions, $4 \times 3\frac{3}{8}$ inches.
3. A human bust with arms hanging downward. Dimensions, $4\frac{3}{8} \times 4\frac{1}{4}$ inches.
4. A complete human figure, highly conventionalized. Dimensions, $4\frac{3}{4} \times 4\frac{1}{4}$ inches.

FIG. 126. SYMBOLIC DESIGNS PAINTED IN RED, SITE NO. 43

1. A so-called animal pelt. Dimensions, $4 \times 5\frac{1}{2}$ inches.
2. A ham or trophy of the chase. Dimensions, $2\frac{1}{4} \times 3\frac{3}{4}$ inches.
3. Problematical. Dimensions, $5\frac{1}{2} \times 3\frac{3}{4}$ inches.
4. Problematical. Dimensions, $2 \times 1\frac{1}{2}$ inches.

FIG. 127. SYMBOLIC DESIGNS AT SITE NO. 43

1. Possibly a conventionalized animal. Dimensions, $8 \times 4\frac{1}{2}$ inches.
2. Problematical. Dimensions, $2\frac{1}{4} \times 1\frac{1}{2}$ inches.
3. Pipe-shaped problematical figure. Dimensions, $4\frac{1}{4} \times 3\frac{3}{4}$ inches.
4. Problematical. Dimensions, $3\frac{1}{2} \times 2\frac{3}{4}$ inches.
5. Zigzag. Possibly representing a serpent. Length, 11 inches. Lines $\frac{1}{4}$ inch wide.

(Fig. 124, Courtesy of E. C. Niebuhr)

(Figs. 125, 126, 127, Courtesy of Victor J. Smith)

(Groupings by the author)

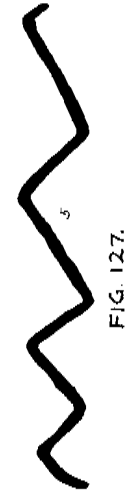
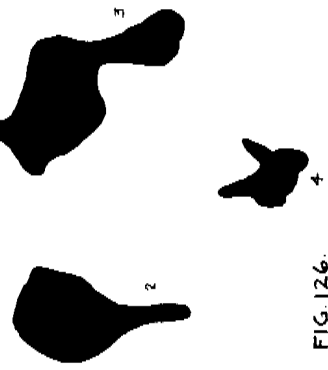
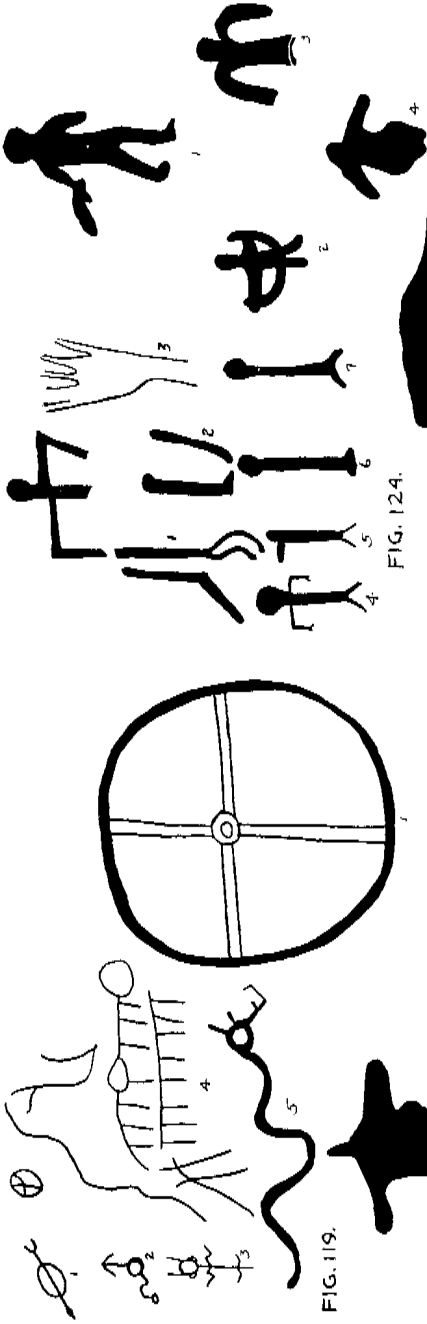


FIG. 128. PICTOGRAPHS AT SITE NO. 186, BREWSTER COUNTY

1. An elongated disc enclosed by a circle. Diameter, 10 inches.
2. Concentric circles with an outer diameter of $8\frac{1}{2}$ inches.
3. Concentric circles with an outer diameter of 3 inches.

(Courtesy of Victor J. Smith)

FIG. 129. UNUSUAL PETROGLYPHS AT SITE NO. 50, WARD COUNTY

1. Shooting a snake with a bow and arrow.
2. Conventionalized animal.
3. Square-shouldered human figure.
4. Conventionalized bird or animal (?); possibly a cloud and rain symbol.
5. Rake-like element.
6. Square-shouldered human figure.
7. Combination ladder and tree, suggesting the source of the ladder material.

FIG. 130. PETROGLYPHS AT SITE NO. 190, LOVING COUNTY

1. A ladder-like design.
2. Combination ladder and rake-like elements. Dimensions, 9x4 inches.
3. Conventionalized bow and arrow, accompanied by rows of small pits. Dimensions, 11x10 inches.
4. A pit with connected groove, suggestive of a snake. Pit is 2 inches in diameter and $\frac{3}{4}$ inch deep. Length, 6 inches.
5. A small carved hand accompanied by 6 pits and a snake-like figure. Dimensions of hand, 12x2 inches.
6. Conventionalized human head, with two feathers (?). Dimensions: 13x6 inches.
7. Triangular tepee element. Dimensions: 8x5 inches.
8. Conventionalized human hand or bear track. Dimensions: 4x3 $\frac{1}{2}$ inches. Lines $\frac{1}{4}$ inch deep.
9. Rectangular figure with lines $\frac{1}{2}$ to 1 inch deep. Dimensions: 12x6 inches.

FIG. 131. HUMAN FIGURES PAINTED IN RED, SITE NO. 51, WINKLER COUNTY

1. A typical Indian painting "in the round." Height, 4 $\frac{1}{4}$ inches.
2. Conventionalized human hand or bear track. Dimensions: 4 $\frac{1}{2}$ x5 inches.
3. Positive handprint. Apparently with part of third finger missing.
4. A highly conventionalized human, bird or insect. Length, 4 $\frac{3}{4}$ inches.
5. A headless figure thought to represent a white woman. Height, 5 $\frac{1}{4}$ inches.

(Groupings by the author)

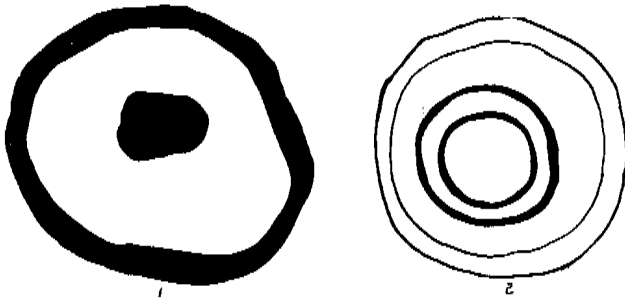


FIG. 128.

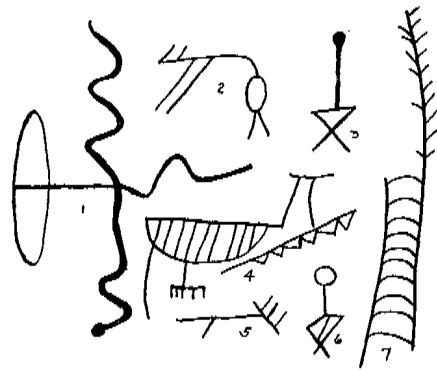


FIG. 129.

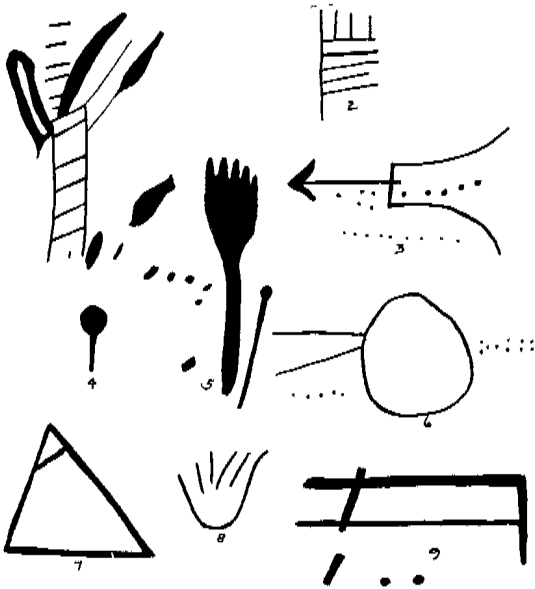


FIG. 130

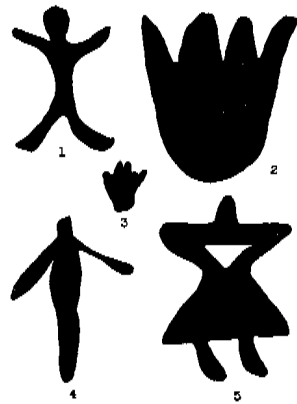


FIG. 131.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 42

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	6	
Handprints	5	73
<i>Lower Life:</i>		
Bird	1	
Insects	2	20
<i>Geometric and Symbolic:</i>		
Rectangle	1	7
Total	15	100

SITE NO. 43

Paintings in red are located on the wall of a rock shelter in the extreme southwestern part of the county. The site has been reported by Victor J. Smith.⁴⁰

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 43

	Number	Per Cent
<i>Human Representations:</i>		
Snake dance (?)	1	
Man armed with club	1	
Bust	1	
With arms:		
Downward	2	
Outstretched	2	39
<i>Lower Life:</i>		
Conventionalized animal	1	5
<i>Geometric and Symbolic:</i>		
Trophies of the chase (?):		
Ham	1	
Pelt	1	
Series of numeration dots	2	
Zigzag	1	
Problematical	5	56
Total	18	100

SITE NO. 44

Picture-writings at this site, located in the eastern part of the county, have been reported to the department by E. B. Sayles. The place has not been visited by a representative of The University of Texas.

SITE NO. 45

There are a few pictographs on the wall of a shelter located in the southeastern part of the county. The site has not been examined by a representative of The University of Texas. According to a report of Col. M. L. Crimmins, the paintings are in red and consist of birds, animals, and handprints.

SITE NO. 46

A local amateur reported a few pictographs on the wall of a shelter in the southern part of the county. It has not been studied by anyone from The University of Texas.

⁴⁰Smith, Victor J., *op. cit.*, pp. 18-30.

SITE No. 47

At this site, located in the northwestern part of the county, are a few pictographs. Outstanding among them are handprints. Smith⁴¹ states there are "thirty-two handprints; two right, thirty left. A few small prints indicate the hands of women and children."

In addition to the usual methods of showing the hand, an unusual technique employed here was the placing of the hand on the black wall and removing the sooty background. This left a whitish field surrounding the black hand. No paint was required. The same method was used at Site No. 53, Upton County; and a similar one at Sites No. 29, 48, and 61, Jeff Davis, Pecos, and Terrell Counties.

SITES No. 185 AND 186

These sites, located in the western part of the county, were reported by Victor J. Smith. At the former are a few pictographs and handprints. At the latter, one of the outstanding paintings consists of concentric circles. The sites have not been examined by a representative of The University of Texas.

SITE No. 192

The petroglyphs at this site were reported by Col. M. L. Crimmins. They are located on exposed boulders in the southern part of the county, near the Rio Grande. The pecked figures have not been studied by a representative of The University of Texas.

⁴¹Smith, Victor J., *The Human Hand in Primitive Art*, Publication of Texas Folk-Lore Society, Vol. IV, Austin, 1925, p. 90, fig. 11.

FIG. 123. PICTURE-WRITING AT SITE NO. 42, BREWSTER COUNTY

1. Pictographs in red, representing a conventionalized bird or insect.
2. Petroglyph on wall just above shelter floor.

(Courtesy of E. C. Niebuhr)

PLATE LXXXIII

PETROGLYPHS AT SITE NO. 192, BREWSTER COUNTY

1. A conventionalized animal suggestive of the mountain sheep.
2. A masked human face. The eyes are connected to the nose in a manner indicating spectacles.

(Courtesy of Col. M. L. Crimmins)

PLATE LXXXIV

CIRCULAR DESIGNS PECKED IN SANDSTONE, SITE NO. 50,
WARD COUNTY

1. Sun disc. Diameter of outer circle, 23 inches. Dimensions over all, 50x47 inches.
2. Equal-armed cross enclosed by concentric circles. Diameter, 14 inches.

PLATE LXXXV

PETROGLYPHS AT SITE NO. 50

Dimensions: 1, 2x6 feet; 2, diameter, 9 inches; 3, diameter of circle, 10 inches.

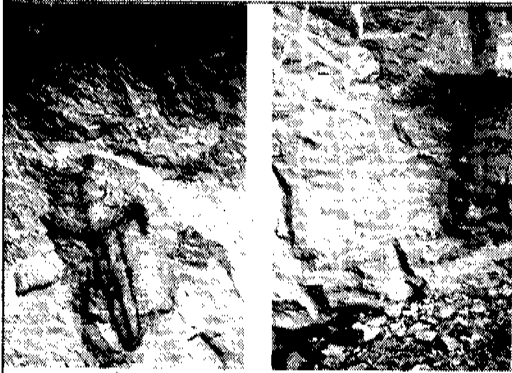
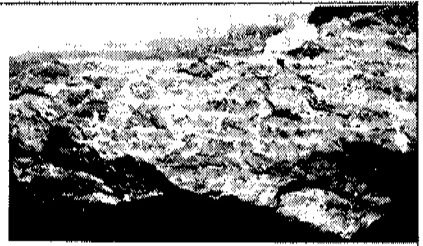


FIG. 123.



1.

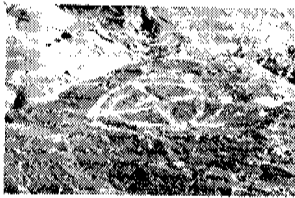


2.

PLATE LXXXIII.

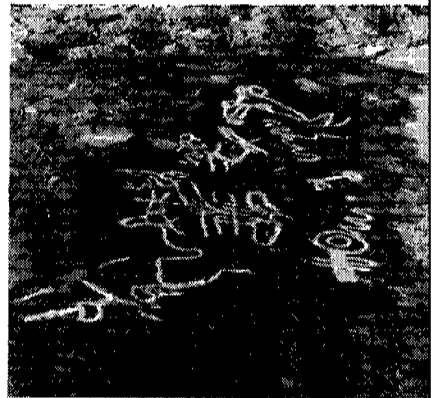


1.



2.

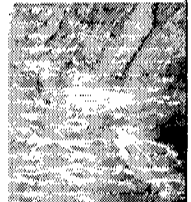
PLATE LXXXIV.



1.



2.



3.

PLATE LXXXV.

PECOS COUNTY

Sites lending themselves to the preservation of picture-writings are few in the county, due to the large area of rolling plains. There probably are, however, some sites that have not been reported.

SITE No. 48

A few pictographs, including handprints in black bordered by white, are on the roof of a rock shelter. E. B. Sayles, who reported the site to the writer, is uncertain as to whether paint was employed in the making of such handprints; or if it is another case where the hand was merely applied to the soot-covered roof and held in place while the surrounding smut was scraped away. He seems inclined to think that both processes may have been used, the black and white paints having been applied after the print was made by the other method. This feature of the site seems to have much in common with Sites No. 29, 47, 53, and 61, Jeff Davis, Brewster, Upton, and Terrell Counties.

The pictographs have not been examined by a representative of The University of Texas.

SITE No. 49

A local resident reported a few pictographs, in red paint, on the wall of a very small shelter near the western edge of the county. The shelter is in the "rim rock" of a mesa. According to the report, the paintings consist of a headless animal, a conventionalized bird and several other dim designs.

The site has not been studied by this department of The University of Texas; but, judging from the description, it seems to show a relation to Sites No. 22, 23, and 24, Reeves County.

SITE No. 130

This site, reported by V. D. Gilliland of McCamey, is a small one, consisting of a human figure "carved in the rock." It has not been visited by any official of this department of The University of Texas.

WARD COUNTY

SITE No. 50

An extensive and important petroglyph site is located on a mesa a few miles east of the Pecos River. The numerous pecked designs are on the flat tops of rocks that protrude scarcely a foot above the surface of the ground. The red sandstone is fairly well cemented; and, according to C. L. Baker, is durable for 200 or 300 years. Lichens, however, tend to disintegrate the rock. The stones containing the petroglyphs are intermixed with scores of similar, unpecked boulders scattered over the western edge and part of the hilltop. The site overlooks a broad valley.

There are a few eroded, semi-boat-shaped mortar holes and a number of hearths near the base of the hill. Two burials have been reported half a mile to the south.

The site was briefly mentioned, without illustrations, in an article by Kelley.⁴²

The petroglyphs are predominantly geometric and symbolic, 68 per cent of them being in this class. The number of figures showing human representations and workmanship balance with the representations of lower life, there being 16 per cent for each of the two.

⁴²Kelley, J. Charles, Report on Archaeological Field-Work in Madera Valley Area, West Texas Historical and Scientific Society Bulletin No. 48, Publication No. 5, Alpinc, December, 1933, pp. 53, 55-56.

PETROGLYPHS AT SITE NO. 50, WARD COUNTY

PLATE LXXXVI

Among the design elements are human head, equal-armed cross in circle, ladder, rake, zigzag, cloud and rain symbol, etc. Dimensions: 53x46 inches.

PLATE LXXXVII

1. Triangular and crosshatch elements. Dimensions: 21x23 inches.
2. A complicated design, suggestive of a butterfly or bird. Dimensions: 24x19 inches.
3. Angular meander and rain symbol. Dimensions: 28x10 inches.

PLATE LXXXVIII

1. So-called tepee, equal-armed cross, perpendicular hatching, etc. Dimensions over all: 52x50 inches.
2. Conventionalized human figures and Y-shaped elements. Dimensions: 32x24 inches.
3. Curvilinear designs, connected circles, etc. Dimensions: 57x48 inches.

PLATE LXXXIX

1. Conventionalized human figure and other designs. Dimensions: 38x30 inches.
2. A possible atlatl and curvilinear elements. Dimensions: 30x27 inches.
3. So-called bird track and other lines. Dimensions: 16x10 inches.
4. Curvilinear elements. Dimensions: 9x8 inches.
5. Linear elements. Dimensions: 17x19 inches.
6. Conventionalized human figure, etc. Dimensions: 20x19 inches.

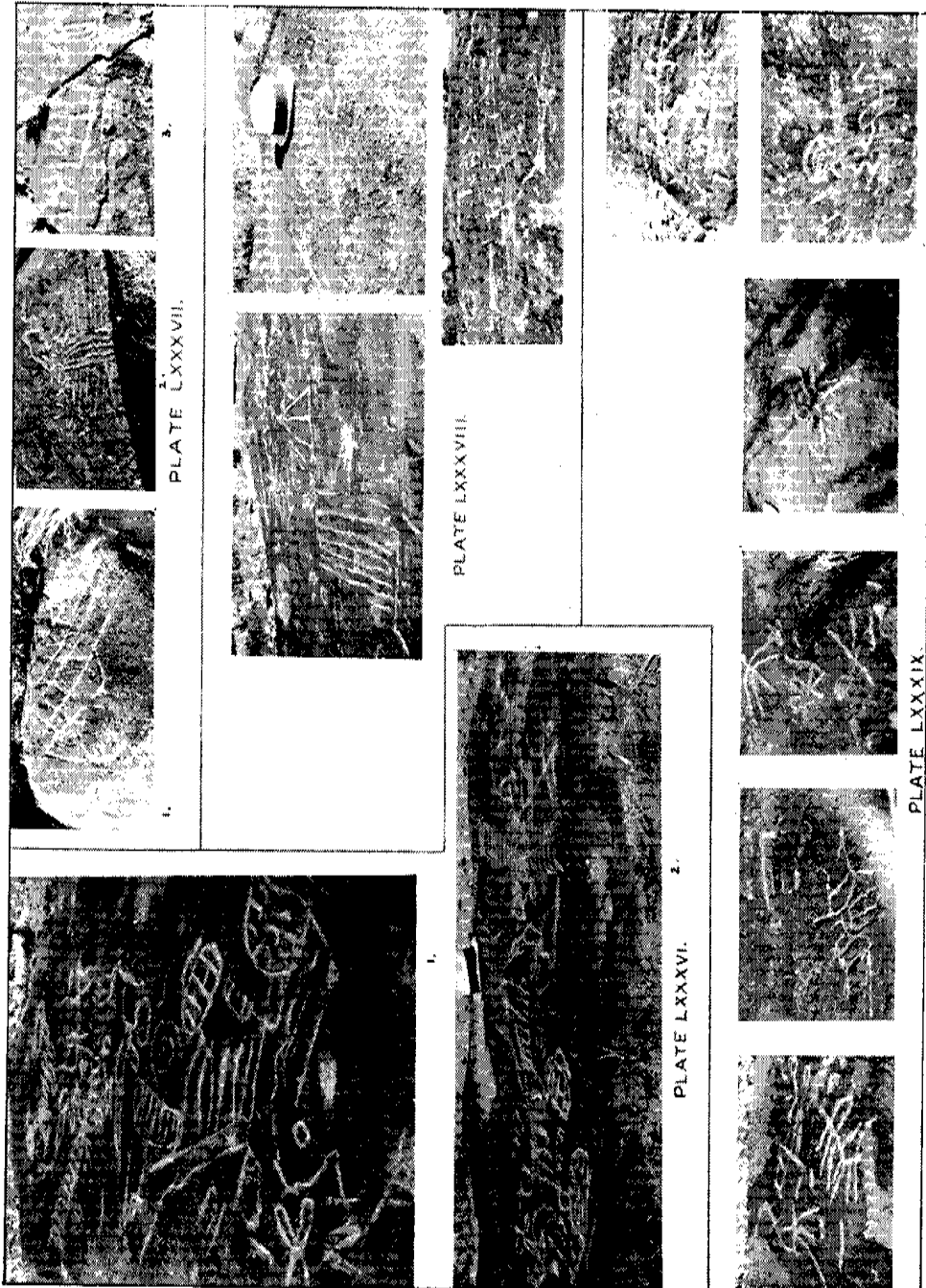


PLATE LXXXVII.

PLATE LXXXVIII.

PLATE LXXXVI.

PLATE LXXXIX.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 50

	Number	Per Cent
<i>Human Representations:</i>		
Highly conventionalized.....	16	
Square-shouldered.....	3	
Phallic.....	5	
Masked head.....	1	25
	—	12
<i>Human Workmanship:</i>		
Projectile and point.....	2	
Bows and arrows.....	2	
Possible atlants.....	4	8
	—	4
<i>Lower Life:</i>		
Conventionalized animals.....	3	
Conventionalized bird.....	1	
Serpents:		
Plumed.....	6	
Other.....	20	
Trees.....	5	35
	—	16
<i>Geometric and Symbolic:</i>		
Perpendicular hatching.....	4	
Crosshatch.....	1	
Rectangle.....	1	
Triangles, series of.....	1	
Discs and dots.....	23	
Circles:		
Single.....	16	
Connected.....	5	
Concentric.....	7	
Rayed.....	9	
Semicircles.....	11	
Quarter-circle.....	1	
Figure eight element.....	1	
Ladder-like elements.....	3	
Rake-like elements.....	8	
Tepee-like elements.....	3	
T-shaped elements.....	3	
U-shaped elements.....	4	
V-shaped elements.....	2	
Y-shaped elements.....	11	
Crosses.....	4	
Equal-armed crosses in circles.....	3	
Cloud symbols, or terraced elements.....	3	
Zigzags or lightning.....	2	
Sun symbols.....	4	
Problematical.....	16	146
	—	68
Total		214
		100

CULTURAL RELATIONS

The petroglyphs at Site No. 50, Ward County, seem to have much in common with those at Site No. 81, Val Verde County. Both are on the east side of the Pecos River, but are separated by a distance of about 180 miles. There is a very noticeable similarity between the classes of design elements, as well as in the technique of the work, at these widely separated places.

LOVING COUNTY

SITE NO. 190

On the east bank of the Pecos River is a small rock shelter on the walls of which are petroglyphs and abrading marks. A local citizen states that prior to the West Texas earthquake, July 30, 1925, there was another small shelter nearby in which were some bright pictographs. The quake, however, caused the roof of the latter shelter to fall in, thus burying the paintings.

Near the mouth of the small canyon in which the shelter is located is an outcropping of limestone along the bank of the river. In it are many mortar holes that range in depth from three to 12 inches. About 60 per cent of them are oval or "boat-shaped." The others are round. It is uncertain as to whether the mortar holes are contemporaneous with the petroglyphs in origin. There probably was an extensive campsite adjacent to the rocks. If so the camp has been covered by wind-blown sand.

The shelter, about 300 yards northeast of the mortar holes, has walls of conglomerate made up of innumerable small stones. But that part of the wall on which the carvings are located is a fairly soft sandstone. The shelter contains very little camp refuse and no perishable materials, a fact due to its floor being flooded from time to time.

In addition to the petroglyphs, there are many abrading marks and small conical holes probably formed by utilitarian use. Some of the petroglyphs probably started as abrading marks, formed by sharpening bone awls, etc., and later were added to for the purpose of forming definite designs. Apparently others were shaped originally as intentional designs.

PLATE XC

BEND IN PECOS RIVER ADJACENT TO PETROGLYPHS, SITE NO. 190,
LOVING COUNTY

The mortar holes are in the ledge, the edge of which shows in the left foreground. The trees lining the banks of the stream are "salt cedar" (*Tamarix gallica*).

PLATE XCI

MORTAR HOLES AT PETROGLYPH SITE NO. 190

1. Oblong or boat-shaped hole.
2. Circular and semi-boat-shaped holes.

PLATE XCII

PETROGLYPHS AT SITE NO. 190

The outstanding feature of this site is the presence of long narrow, conventionalized hands. The number of fingers range from four to six. Note the cup-shaped pits, to some of which carvings are attached.

PLATE XCIII

PITS AND ABRADING MARKS AT SITE NO. 190

1. Note the deeply carved parallel lines.
2. A section honeycombed with artificial pits.

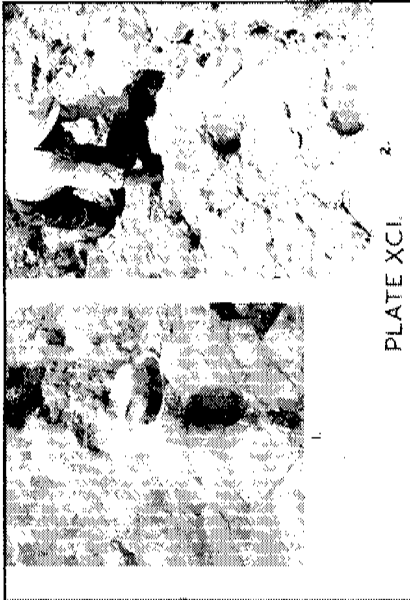


PLATE XCI. 2.



PLATE XCIII. 2.



PLATE XC.



PLATE XCII.

Attention is called to Fig. 130, 5. This miniature hand is not merely outlined but actually "etched out." It is very unusual in that it has a hand and wrist length of 12 inches, but is only two inches wide. It is not recent and undoubtedly represents Indian workmanship.

Due to similarity in workmanship and design, it seems probable that these petroglyphs are the work of a people closely related to, and contemporaneous with, the people who carved on the wall of the cave at Site No. 20, Culberson County. If such is the case, it places the date of the Loving County site at from 1300 to 1600 A.D., as determined from potsherds found at Site No. 20. The assumption, however, cannot be finally accepted until more archaeological work has been done in the two regions.

FIG. 136. HANDPRINTS WITH SCRAPED OUTLINES, SITE NO. 53, UPTON COUNTY

The prints appear to have been made without the use of paint.

PLATE XCIV

PETROGLYPHS AND ABRADING MARKS AT SITE NO. 190, LOVING COUNTY

1. A circle and semicircle formed by rows of small pits. Some of the larger pits have rounded bottoms and are suggestive of the so-called cup-carvings. Note the deep central groove.
2. Pits and abrading marks.

PLATE XCV

A PANORAMIC VIEW OF SITE NO. 51, WINKLER COUNTY

The small shelter to the left contains a midden deposit; while the pictographs are in the shelter back of the large central boulders.

PLATE XCVI

SMALL PICTOGRAPHS AT SITE NO. 51

Some of the paintings have been damaged by spalling of the stone.

PLATE XCVII

CARVINGS ON BOULDERS AT SITE NO. 54, CROCKETT COUNTY

The marks, in most cases, seem to be the result of utilitarian uses.



FIG. 136.

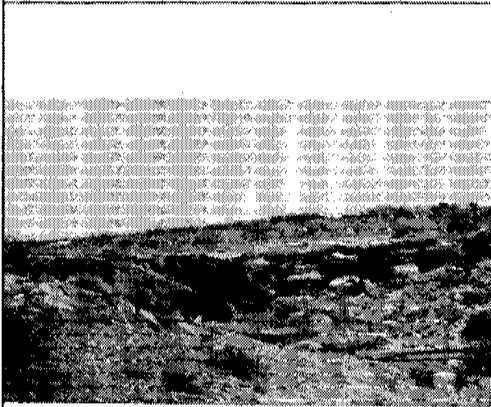


PLATE XCV.

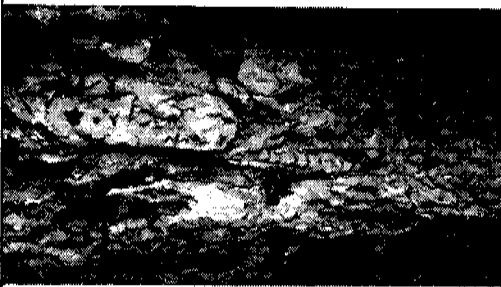


PLATE XCVI.



PLATE XCIV.



PLATE XCVII.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 190

	Number	Per Cent
<i>Human Representations:</i>		
Human head.....	1	
Conventionalized human hands.....	10	18
<i>Human Workmanship:</i>		
Conventionalized bow and arrow.....	1	1
<i>Lower Life:</i>		
Snakes.....	6	
Conventionalized animal track.....	1	
Bird tracks (?).....	2	15
<i>Geometric and Symbolic:</i>		
Punctate.....	13	
So-called cups.....	15	
Perpendicular hatching.....	4	
Rectangle.....	1	
Ladder-like elements.....	2	
Rake-like element.....	1	
Triangle.....	1	
Tepee.....	1	
Punctate circle.....	1	
Punctate semicircle.....	1	
Total.....	61	66

WINKLER COUNTY

SITE No. 51

The site, first reported by R. H. Shuffler of Odessa, consists of two rock shelters in the escarpment of the Llano Estacado. It is located in the extreme eastern part of the county, very near the Ector County line. The shelters, which face southeast, are low and small. One of them contains a comparatively thin deposit of camp refuse; the other has little deposit, but its walls are decorated with pictographs.

In the limestone immediately above, and for a distance of about 100 feet in both directions, are 138 mortar holes. They are of the elliptical, or so-called boat-shaped type, and average about nine inches in depth, seven inches in length and four inches in width at the top, tapering gradually to the bottom. Many of them have been badly damaged by erosion. These are said to be the only mortar holes for miles around, most of the surrounding country being of the "sand hill" type.

The paintings are small, the average height being about four inches. They are in red and fairly decipherable, except where spalling of the stone has destroyed portions of a few of them. They are on the wall and roof of the shelter at heights of four to eight feet above the floor. Although a few seem to show considerable age, many are comparatively recent. The presence of a horse and a white woman prove European contact.

Some years ago Jim Cook,⁴⁴ a former captive among the Comanches, attempted to interpret some of the pictographs at this site. He recognized the place as being one at which the Indians spent some time while he was with them. His views on the subject are given in the hope that they may throw some light on picture-writing in general.

⁴⁴Shuffler, R. H., Blue Mountain Caves in Indian Days Described by Captain Cook, Who Lived There With Comanches, *Odessa News-Times*, December 7, 1934.

"It was after the raids down in the white man's country," Cook stated, "that the Comanches did most of their paintings. . . . The Indians took a soft red rock and burnt it until it was ready to crumble, then crushed it to a powder and mixed it with water to make a red pasty paint. Then, with a stick or twig feathered out on the end for a brush, they painted whatever came into their minds. The kids were always fooling around with paint, practicing, and the older fellows did the same thing. When a warrior came back from a raid he always made a long barangue about what he had seen and done in the white man's country; and he would often draw a picture on the cliff to illustrate what he told. . . . The Comanches didn't go in for signs much, just as signs. They usually tried to paint the things they were thinking about in full."

Cook thinks that the handprints were not made by the Comanches, but are much older.

In speaking of the design in which the horse appears (Fig. 132, 1) Cook interprets it as follows: "You see the bars of the fence are let down at one end. They meant to show that the place, to which the other marks pointed, was a good horse country and an easy place to steal ponies."

The unusual design pictured in Fig. 132, 4, he interprets as being "a water hole sign. They meant that it was nine days' travel to this place; and the place to the northeast was a water hole made by some springs upon the north plains, north of where Lamesa is now. The springs dried up a long time ago."

The two circular elements with the four numeration marks between are likewise interpreted as water signs. The one to the right, or east, with the dots in its center represented good water, in the Colorado River. The other merely water—supposedly in the Pecos River. The numeration marks are thought to have referred to four days' travel on horseback from one stream to the other.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 51

	Number	Per Cent
<i>Human Representations:</i>		
Hands	2	
Conventionalized	2	
Indian man	1	
European woman	1	6
<hr/>		
<i>Human Workmanship:</i>		
Fence (?)	1	
Projectile	1	
Projectile point	1	
Shield	1	4
<hr/>		
<i>Lower Life:</i>		
Horse	1	
Insect-like element	1	
Conventionalized thunderbird	1	
Stalk of corn (?)	1	4
<hr/>		
<i>Geometric and Symbolic:</i>		
Circles	3	
Y-shaped elements	5	
T-shaped elements	5	
V-shaped element	1	
Series of numeration dots	2	
Sun symbol	1	
Water symbols	2	
Problematical	2	21
<hr/>		
Total	35	59
<hr/>		
		100

SITE No. 52

On the wall of a small shelter, about four miles west of Site No. 51, is a solitary painting reported as "a chief wearing a headdress." A former resident of that section, who reported the site, states that the shelter is damp and shows no signs of habitation. The place has not been visited by a representative of The University of Texas.

UPTON COUNTY

SITE No. 53

The site, in the southwestern edge of the county, consists of a small shelter on the roof of which are handprints with scraped or "etched" outlines. The low roof is very black with soot and on it are some 30 handprints.

V. D. Gilliland, who reported the site, has dug most of the midden deposit and reports finding a number of sandals, basket fragments, cordage, etc.

The prints appear to have been made by applying the unpainted hand and holding it in position on the sooty roof while the surrounding smoke-covered area was scraped away, thus making an etched-like outline and leaving a narrow border of white around the black handprint. The technique is like that employed at Sites No. 29, 47, 48, Jeff Davis, Brewster, and Pecos Counties.

CROCKETT COUNTY

SITE No. 54

On a bluff on the east side of the Pecos River are some large boulders, on the protected surface of which are a number of abrading marks and conical pits. There are included a few tree-like elements that may have been purposely so shaped.

A short distance from the carvings is a campsite including burnt-rock middens and several circular mortar holes.

SITE No. 55

The site, located in the southwestern part of the county, contains only a few pictographs. They are on the wall of a medium sized shelter and appear to be of considerable age. Some are almost covered by smoke, while others have lichens growing over them. A number of the paintings are now illegible. Only three can be traced with certainty. The colors used were red and orange.

FIG. 132. ANIMALISTIC AND SYMBOLIC PAINTINGS, SITE NO. 51,
WINKLER COUNTY

1. Horse tethered to fence. Dimensions: $7\frac{3}{4} \times 3$ inches.
2. Problematical object, possibly a conventionalized projectile point.
3. Possibly a conventionalized thunderbird or human torso. Dimensions: $3\frac{1}{4} \times 3\frac{3}{8}$ inches.
4. Symbolic design featuring the number nine. Length, 25 inches.

FIG. 133. SYMBOLIC PAINTINGS AT SITE NO. 51

1. Dimensions: $5\frac{3}{4} \times 4$ inches.
2. The upper part resembles what Steward⁴³ calls "sheep horns"; but, when considered as a whole, the figure gives the impression of a stalk of corn or other leafed or branched plant. Dimensions over all: 7×5 inches. This is suggestive of a painting at Site No. 150, Concho County.

FIG. 134. CIRCULAR DESIGNS AT SITE NO. 51

1. Possible representation of a shield. Diameter, 6 inches.
2. So-called water symbols. Dimensions over all: $6\frac{1}{2} \times 3$ inches.

FIG. 135. PICTOGRAPHS AT SITE NO. 51

T- and Y-shaped elements.

The central design may be a conventionalized projectile.

FIG. 137. DIM PICTOGRAPHS AT SITE NO. 55, CROCKETT COUNTY

(Groupings by the author)

⁴³Steward, J. H., *op. cit.*, p. 198, Map 19.

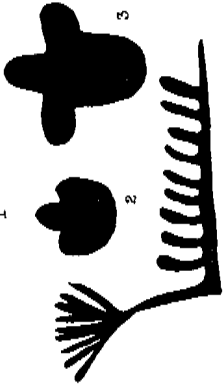
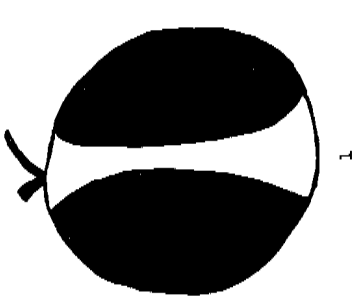


FIG. 132.

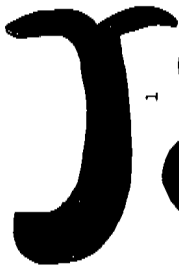


FIG. 133.

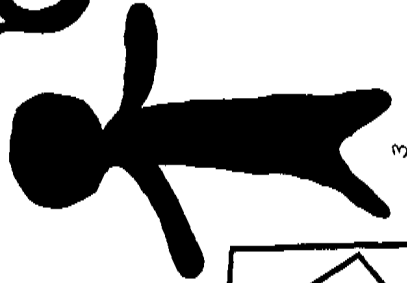


FIG. 135.

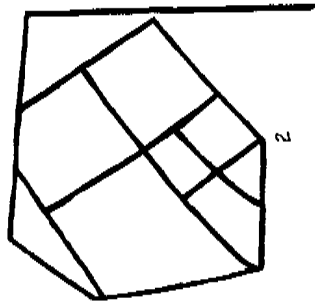


1

FIG. 134.



3



2

FIG. 137.

TERRELL COUNTY

SITE No. 56

The paintings at this site are located on the limestone wall of an overhanging ledge that faces west. To the south of the shelter is a spring. It attracted not only the primitive dwellers of the region; but later served as a watering place for soldiers, stationed there to protect the frontier from Indian attacks.

No midden deposit remains in the shallow shelter, due to flood waters which periodically swept the floor. But there is ample evidence to show that the site had been occupied. There are 32 large, deep, round mortar holes in front of and adjacent to the overhang. An extensive campsite is located nearby. Intermixed with burnt rocks and flint chips are rifle balls and other European articles.

Many of the paintings are rather large. All but a few are in red paint. The remaining ones are yellow. A few figures, painted in black, seem to be of white origin. Many of the paintings are clear; others are in either a damaged or badly weathered condition. A few are so dim from age as to be almost illegible. A number of them are from eight to ten feet above the shelter floor.

The site is of particular interest because having both prehistoric and historic paintings. Among the latter are representations of missions, priests, horses and other evidence of European contact.

In certain respects the place is similar to Site No. 150, Concho County, Texas. It may have been visited at different times by the Jumano, Comanche, and various groups of Apache Indians.

On examining a photograph of the design illustrated in Plate XCVIII, Chief Red Fox, 65-year-old Sioux Indian, called it a sun symbol and calendar painting. He stated that the sun represented one day; and that usually there were 28 lines, or sun-rays, which signified the number of days in a "moon." In this case, however, there are 32 rays; four groups of four long lines each; and four groups of four triangular elements, filling the spaces between the parallel lines. It is assumed that the groups of parallel lines refer to the "four winds" or cardinal points of the compass.

The painting is not very old, as proved by the fact that it is superimposed over three dim conventionalized human or animal figures. But it has been badly damaged by the recent carving of names and dates over the painted lines.

The design is almost identical with that employed on highway markers in New Mexico, the latter having been taken from Indian designs of that State.

Three of the dancers in Plate CI carry circular objects suspended from the elbow. Chief Red Fox thinks that these represent small shields used, much like tambourines, in the dance.



PLATE XCIX

THUNDERBIRD WITH WINGS OUTSPREAD, SITE NO. 56, FERRELL COUNTY, TEXAS

Note the prominent beak and long talons. Height, 36 inches; wing-spread, 60 inches.

CLASSIFICATION OF TRACEABLE DESIGN ELEMENTS, SITE NO. 56

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	32	
Dancing figures	24	
Phallic	4	
European figures.....	2	
Arms:		
Akimbo	4	
Downward	8	
Outstretched	19	
Upraised	18	
Hands:		
Left	5	
Right	13	
Thumb missing.....	4	
Horn headdress.....	1	
Feather headdresses	19	
Stone (?) in hand	1	154
		61
<hr/>		
<i>Human Workmanship:</i>		
Shields	3	
Atlats	6	
Bows and arrows.....	3	
Projectile	1	
Rabbit stick	1	
Baskets (?).....	3	
Mission buildings	3	
Stage coach, so-called	1	21
		8
<hr/>		
<i>Lower Life:</i>		
Conventionalized animals	4	
Horses	7	
Deer	1	
Buffalo or longhorn cow	1	
Thunderbirds	3	
Snakes	6	22
		9
<hr/>		
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	5	
Horizontal hatching	2	
Rectangle	1	
Pendant triangles, series of.....	4	
Single circles	6	
Concentric circles	1	
Connected circles, series of.....	1	
Semicircles	3	
Amoeboid figure	1	
Figure eight element	1	
Numeration dots, series of.....	1	
Hourglass-like element	1	
Swastika-like element	1	
Tepee-like element	1	
Equal-armed crosses	8	
Other crosses	11	
Sun symbols	6	
Problematical	1	55
		22
<hr/>		
Total	252	100

PLATE XCVIII

CROSS AND CIRCLE, COMBINING A SUN DISC, SITE NO. 56, TERRELL COUNTY

The number four plays a prominent part in the design. Dimensions: height, 44 inches; diameter of circle, 17 inches. Note the paintings at each side, over which the sun symbol was superimposed. White vandalism has badly damaged the painting.

PLATE C

ANOTHER THUNDERBIRD, PAINTED IN RED, SITE NO. 56

Known locally as the "flying fish." Dimensions over all: 56x55 inches.

PLATE CI

NINE DANCING INDIANS, PLUS A EUROPEAN FIGURE, SITE NO. 56

The former are outlined, the latter painted solid red. Height, 12 inches; total length, 58 inches. Note the feather headdresses; and the animal tails, or other form of tassels, dangling from the waist.

PLATE CII

TEN DANCING FIGURES AND EIGHT POSITIVE HANDPRINTS, SITE NO. 56

That the paintings are historic is proved by the fact that the figure at the left was painted over a part of a mission picture. The circles above two of the heads appear to be older than the dancers. Note the parallel hook-like lines at the right. Both right and left hands were used making the prints. Dimensions over all: 63x11 inches.

PLATE CIII

HORSE AND RIDER. PAINTING BADLY DAMAGED BY VANDALS, SITE NO. 56

Gun shots, writing of names and carving of a groove have done much toward destroying this otherwise clear red painting. Note the feather in the hair. Dimensions over all: 23x25 inches.

PLATE CIV

CLOSELY SPACED, DIM PICTOGRAPHS, SITE NO. 56

The sun discs are 10 and 7 inches in diameter. Chief Red Fox calls them "sun shields." Note the right handprint and the turtle superimposed over a circle. The large circular design has a striking resemblance to certain incised pottery designs in Northeast Texas.



PLATE CI.



PLATE CIV.



PLATE C.



PLATE CIII.



PLATE XCVIII.



PLATE CII.

PLATE CV

SO-CALLED SNAKES, PAINTED IN RED, SITE NO. 56, TERRELL COUNTY

These may be conventionalized representations of atlatls. They are almost identical with ones at Site No. 64, Val Verde County, with which a projectile is pictured. They also are suggestive of shinny, lacrosse or other game sticks.

PLATE CVI

EUROPEAN FIGURE, OUTLINED IN RED, SITE NO. 56

Above the high-topped hat is a cross, another is held in the hand and two others beside the hat. Note the robe-like garment and the large ears, as well as the European-like eyes, nose and mouth. Dimensions: 30x13½ inches.

PLATE CVII

SPANISH MISSION OUTLINED IN RED, SITE NO. 56

Height from base of building to top of cross, 5 feet.

PLATE CVIII

COMPOSITE MISSION AND HUMAN FIGURE, SITE NO. 56

This picture is imposed on a much older one. Note the projectile and the crosses. Painting is badly vandalized. Dimensions over all: 65x37 inches.

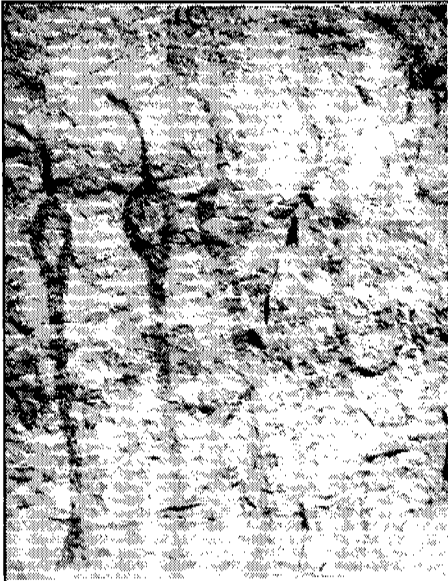


PLATE CV.

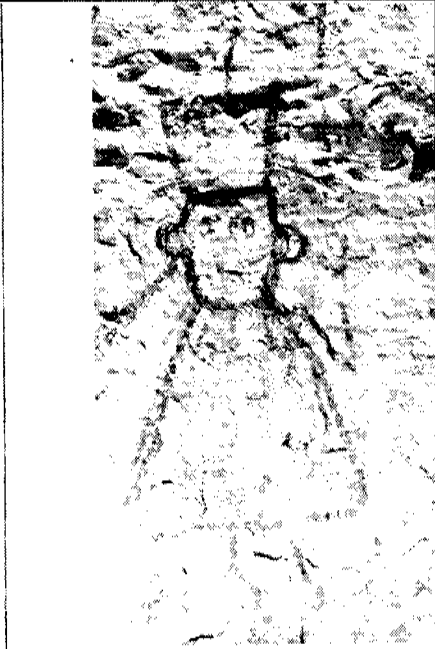


PLATE CVI.



PLATE CVII.

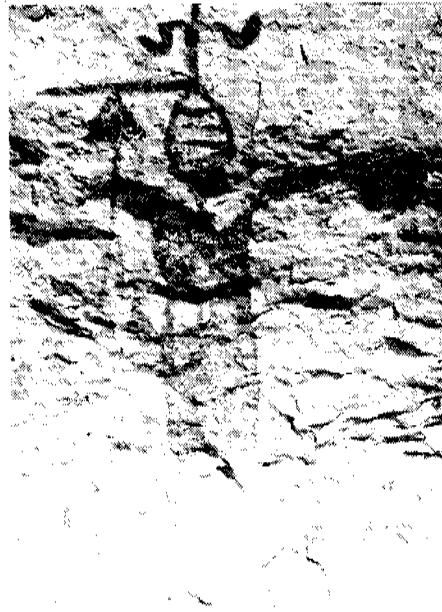


PLATE CVIII.

PLATE CIX

DIM PICTOGRAPHS AT SITE NO. 56, TERRELL COUNTY

1. Human figure holding a shield; arms outstretched.
2. Paintings of various ages. Note the human figure superimposed over a dim horse. At right is a man with bow and arrow. Dimensions over all: 80x28 inches.

PLATE CX

PICTOGRAPHS DAMAGED BY WEATHERING, SITE NO. 56

1. Conventionalized human figure; height, 15 inches.
2. Dancing figures damaged by spalling of stone; height, 22 inches.
3. Swastika-like element enclosed by a circle; diameter, 10 inches.
4. Human hands with thumb missing. Colors: 1, 2, 4, red; 3, yellow.

PLATE CXI

SUPERIMPOSED PICTOGRAPHS AT SITE NO. 56

1. A mission painted over old human figures.
2. Problematical designs. Upper right may be a conventionalized human figure with a shield; or an animal with one foot superimposed over part of the circle. It has red legs and yellow body. The lower painting is of the figure-eight type.

PLATE CXII

OTHER DIM PICTOGRAPHS AT SITE NO. 56

1. Human figure holding a shield in one hand and a club or rabbit stick in the other. Color, red.
2. Concentric circles and conventionalized human figure. Color, red.
3. Circle with conventionalized human figure above. Note the arms akimbo. Color, red.
4. Four positive handprints in a row. Very dim. Color, red.

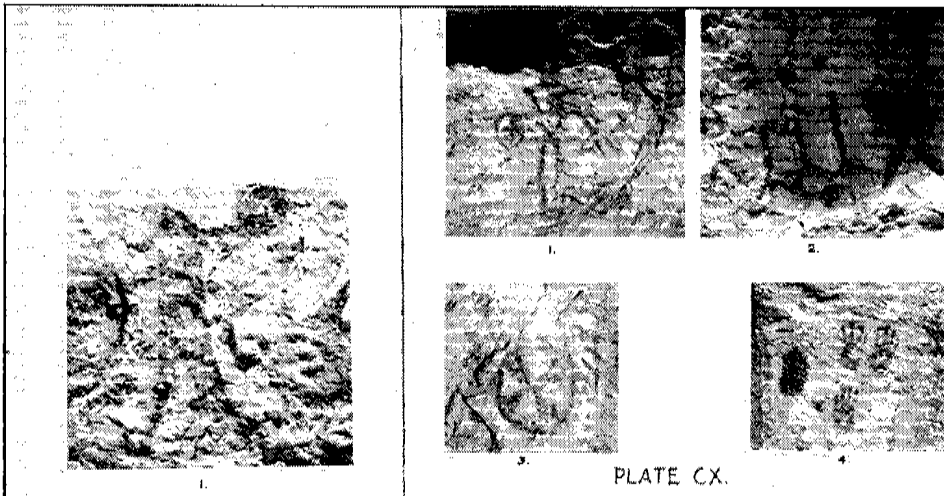


PLATE CX.

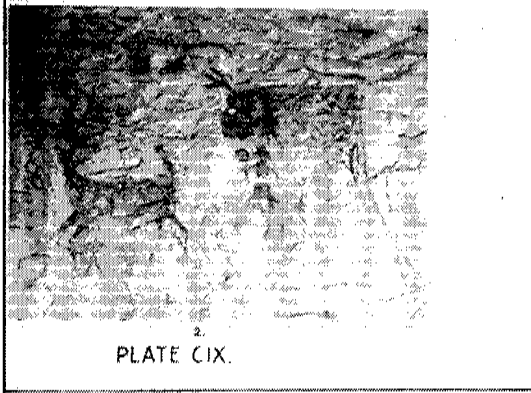


PLATE CIX.

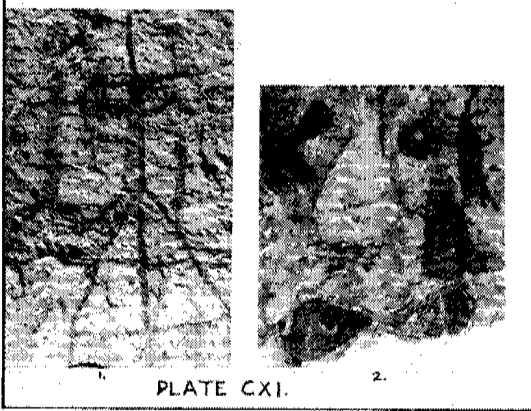


PLATE CXI.

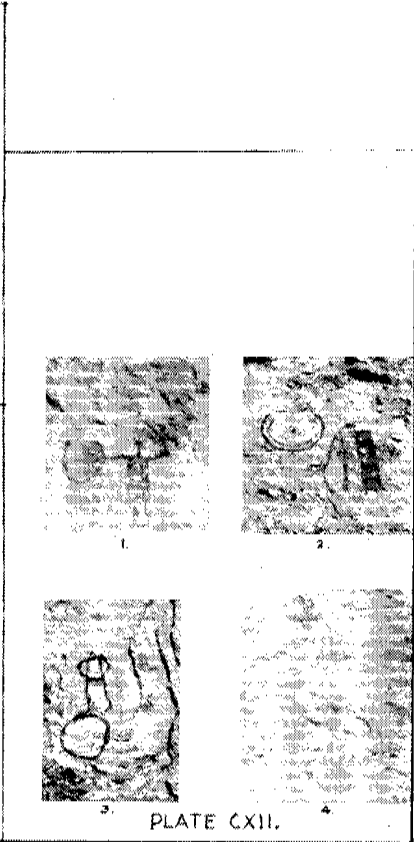


PLATE CXII.

FIG. 138. HISTORIC PAINTINGS AT SITE NO. 56, TERRELL COUNTY

No. 1 is what remains of a so-called stage coach scene.

FIG. 139. PAINTINGS OF VARIOUS AGES, SITE NO. 56

Some of the originals are exceedingly dim, others more legible. Nos. 4 and 9 feature the bow and arrow; No. 10, a possible atlatl.

FIG. 140. PREHISTORIC AND HISTORIC PAINTINGS, SITE NO. 56

No. 3, the hourglass-shaped element, appears to be very old.

FIG. 141. PICTOGRAPHS AT SITE NO. 61, TERRELL COUNTY

Dimensions of No. 1: 96x39 inches. Color, yellow. No. 2 may represent the cysthos or female genital organs; No. 5 pictures a bow and arrow; No. 8 is a figure eight element.

FIG. 142. PICTOGRAPHS SUPERIMPOSED OVER HANDPRINTS, SITE NO. 61

Dimensions of No. 6 over all: 10x5 feet. Pictographs in yellow and white; handprints, black.

FIG. 143. PICTOGRAPHS IN WHITE, YELLOW AND BLACK, SITE NO. 61

No. 10 represents the prickly pear (*Opuntia lindheimeri*), one of the food plants of the Indians.

FIG. 144. PICTOGRAPHS IN BLACK, SITE NO. 61

Atlatls, projectiles, crescents, handprints, etc.

(Groupings by the author)

SITES NO. 57 AND 58

Picture-writings at these sites were reported by E. B. Sayles, and have not been studied by the Anthropology Department of The University of Texas.

SITE NO. 59

The petroglyphs at this site, located in the southeast part of the county, are on a stone that has broken off from the bluff. The area covered by the carvings measures 66x26 inches. The lines have the appearance of having been carved with a sharp-pointed implement. They are on the vertical edge of a relatively soft limestone stratum, and are protected by an overhanging rock which juts out about six feet.

This interesting group is popularly called "the Indian map of the Trans-Pecos region." On it are depicted an Indian camp, indicated by tepees; mountain ranges, represented by lines forming a series of jagged tops; the principal streams supposedly appear as wavy lines; Indian trails are marked by rows of dashes; good hunting ranges are denoted by the presence of deer; forested mountain tops are shown by trees; and a road is indicated by two rows of horse tracks. Such interpretation is conjectural, but may offer a possible explanation as to the motivation of these carvings.

Various writers⁴⁵ mention the making of crude maps by Indians. So, it is not unreasonable to suppose that this group of carvings might be an attempt at showing topographic features.

On Lean Wolf's map (Hidatsa), pictured by Mallery⁴⁶ a line of dashes denotes human footprints; and a row of semicircles, horse tracks. The streams are represented by lines. An Indian village is indicated by tepees. There are, therefore, several comparable features between the Dakota map and this one on a rock in a West Texas canyon.

The age of the carvings at Site No. 59 is uncertain. They suggest the use of metal tools, although the work might have been done with flint implements. If the rows of semicircles represent horse tracks, this confirms the idea of a historic site.

⁴⁵Mallery, Garrick, *op. cit.*, 10th An. Rep., pp. 341-346.

Smithwick, Noah, *The Evolution of a State, or Recollections of Old Texas Days*, Cammel Book Co., Austin, 1900; facsimile reproduction, The Steck Co., Austin, 1935, p. 177.

Hunter, John D., *op. cit.*, pp. 184-187.

⁴⁶Mallery, Garrick, *ibid.*, p. 342, fig. 452.

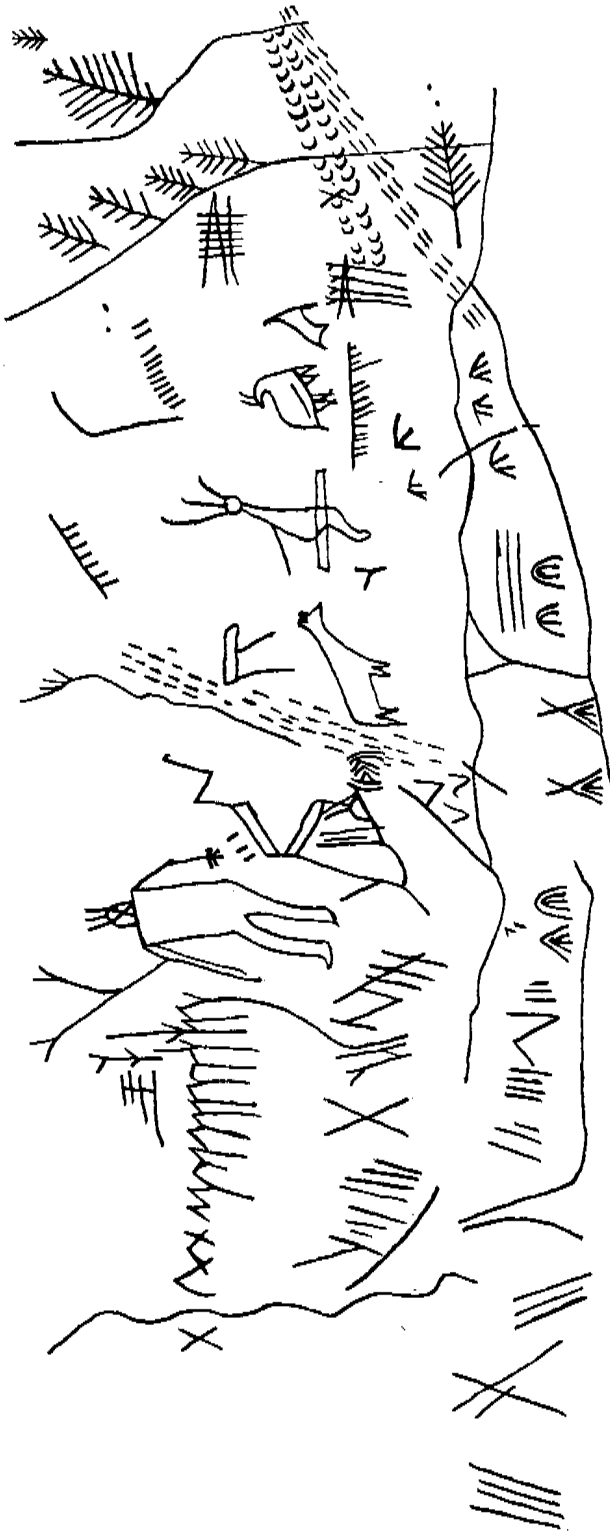


PLATE CXIII

SO-CALLED INDIAN MAP OF THE TRANS-PECOS

Petroglyphs at Site No. 59, Terrell County, Texas

(Courtesy of Witte Memorial Museum.)

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 59

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	2	
Feather headdresses	2	
Foot	1	7
<i>Human Workmanship:</i>		
Projectile point	1	2
<i>Lower Life:</i>		
Conventionalized animals	2	
Deer	1	
Trees	8	17
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	1	
Horizontal hatching	1	
Oblique hatching	2	
Crosshatch	3	
Horizontal band lines	3	
Vertical band lines	5	
Series of chevron-like elements	1	
V-shaped elements	3	
Y-shaped elements	2	
X-shaped elements, or crosses	5	
Equal-armed cross	1	
Rake-like elements	2	
Ladder-like element	1	
Series of numeration marks	1	
Tepees	14	
Lightning	1	
Cloud and rain symbol	1	
Mountain symbol	1	
Problematical	1	
	49	74
Total	66	100

SITE No. 60

A former resident of the section reports carvings and abrading marks on the walls of two rock shelters. The place has not been visited by a representative of this department of The University of Texas.

SITE No. 61

At the head of a draw, in the northern part of the county, is a rock shelter measuring about 70x18x10 feet. The curving wall and roof are covered with soot. Eleven mortar holes are located in and near the shelter; and there is a large accumulation of burnt rocks and ashes, showing extensive occupation.

A number of unusual designs were made on the wall by placing objects on the sooty rock and scraping or pecking out the outline. There also are some dim paintings in yellow and others in white. But the most outstanding feature of the site is the presence of 32 black left handprints with scraped outlines. They are scattered over the wall and the accessible part of the roof.

Another significant feature is the representation of primitive weapons. One of these, in black, is an atlatl with a shaft in place; another picture shows merely the atlatl with a conventionalized spur at the end; in yellow paint is a bow and arrow, and a separate feathered projectile.

Among the handprints are several crescents or moon symbols. One of these is very suggestive of a boat. Anchor, figure eight, ladder and butterfly or frog-like designs, in yellow, seem to be contemporaneous with the bow and arrow. But the handprints,

atlatls, crescents and a picture of a prickly pear (*Opuntia lindheimeri*) seem to be of a different age, perhaps older. Some of the paintings are almost covered by soot. All are crude and appear to be of considerable age.

The handprints with scraped or etched outlines are much like ones at Sites No. 29, 47, 48, and 53 in Jeff Davis, Brewster, Pecos, and Upton Counties. It will thus be noted that this culture trait is localized in five adjacent counties.

There also is some evidence of the use of paint on certain of the handprints.

CLASSIFICATION OF LEGIBLE DESIGN ELEMENTS, SITE NO. 61

	Number	Per Cent
<i>Human Representations:</i>		
Hands	35	46
<i>Human Workmanship:</i>		
Atlatl	1	
Atlatl and shaft.....	1	
Bow and arrow	1	
Projectiles	2	5
<hr/>		
<i>Lower Life:</i>		
Conventionalized animals	2	
Butterflies (?)	3	
Insect	1	
Prickly pear (<i>Opuntia</i>).....	1	
Tree	1	8
<hr/>		
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	4	
Horizontal band line.....	1	
Single circle	1	
Connected circles, series of.....	3	
Disc enclosed by circle.....	1	
Amoeboid figures	2	
Figure eight	1	
U-shaped elements	2	
Ladder-like elements	3	
Anchor-like elements	2	
Crescents or moons.....	2	
Stars	3	
Series of chevrons.....	1	
Parallel zigzags (cysthos?)	1	
Problematical	2	
	<hr/>	<hr/>
Total	77	100

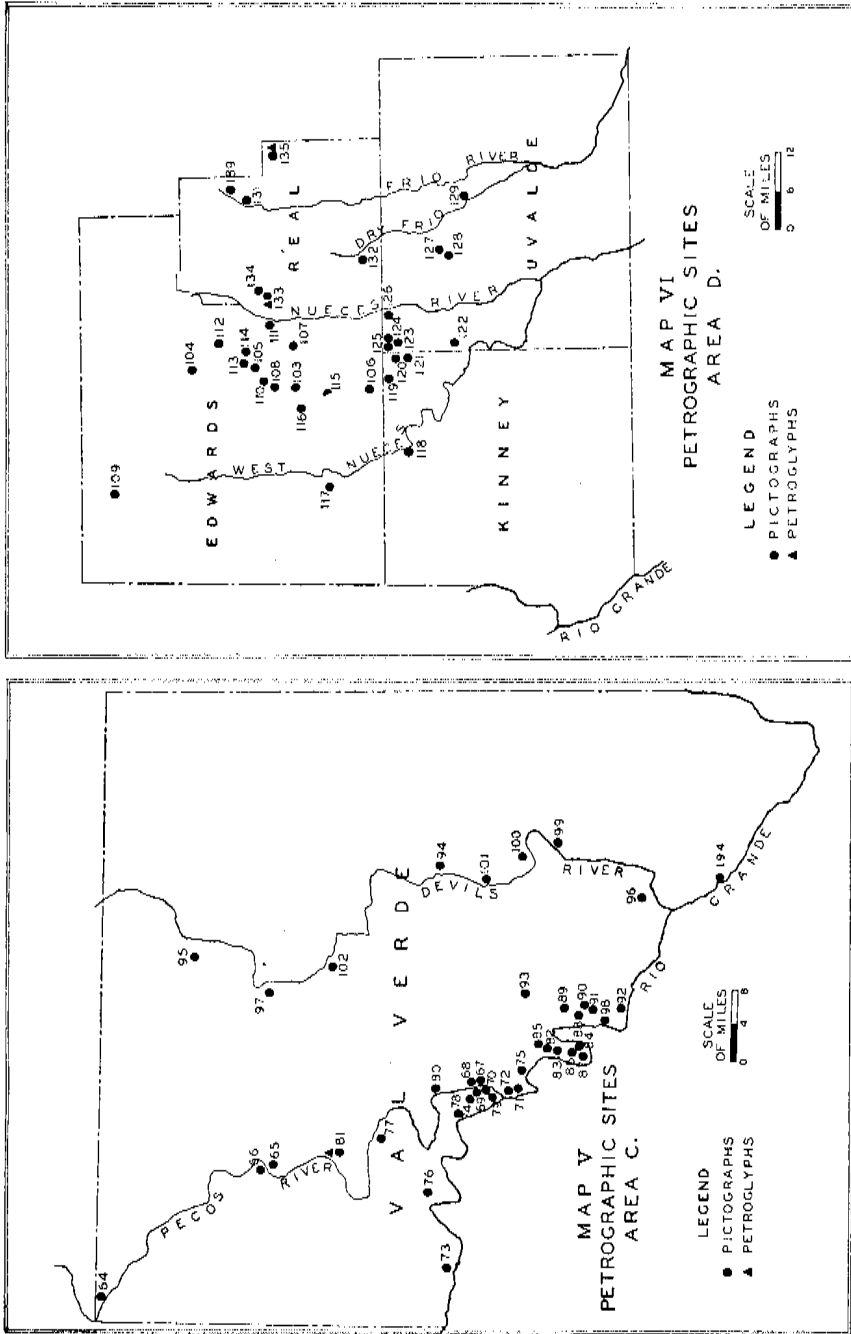
SITE No. 62

The pictographs are on the wall of a cave, in a bluff on the north bank of a canyon. The dimensions of the cave are about 20x20x10 feet, with both floor and ceiling almost level. There is an ash deposit in the cave, and three burnt-rock middens just across the canyon.

The paintings are in red, and about eight feet above the floor. The spalling of the rock has resulted in damage to some of them. The main group, measuring 46x28 inches, represents a hunting scene in which are four men and four animals. Two of the men are armed with spears and clubs, or rabbit sticks; one is shooting with a bow and arrow; while the fourth—highly conventionalized—is above, apparently on a hillside, unarmed. The animals are not identifiable, except that one suggests a buffalo.

The scene here depicted is similar to one at Site No. 38, Brewster County, Texas.

Two other small groups of paintings consist entirely of crosshatch designs.



MAP V. PETROGRAPHIC SITES, AREA C
 MAP VI. PETROGRAPHIC SITES, AREA D

In Area C most of the sites are along the rivers. In Area D they frequently are located on small spring-fed tributaries.



PLATE CXIV
A HUNTING SCENE, SITE NO. 62, TERRELL COUNTY, TEXAS
Painted in red.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 62

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	4	
<i>Arms:</i>		
Downward	1	
Outstretched	1	
Upraised	2	8
<i>Human Workmanship:</i>		
Bow and arrow	1	
Projectiles	2	
Rabbit sticks	2	5
<i>Lower Life:</i>		
Conventionalized animals	4	20
<i>Geometric and Symbolic:</i>		
Parallel zigzags	1	
Crosshatch	2	3
Total	20	100

SITE No. 63

The site, located in the north central part of the county, is reported to have some pictographs on the wall of a cave. The place has not been examined by this department of The University of Texas.

VAL VERDE COUNTY

Val Verde County, with its numerous rock shelters in the walls of the canyons, is the premier pictograph area of the State. Forty picture-writing sites have been recorded; and there are, no doubt, many more not reported. The pictures include the works of the aborigines from early prehistoric down into historic times. They show a diversity in designs and technique suggestive of migrations or trade relations with tribes of widely separated areas.

SITE No. 64

The pictographs at this site are on the sides of a slightly overhanging bluff in the northwest corner of the county, very near the Crockett County line. At intervals along the stream, within half a mile of the pictographs, are burnt-rock middens showing evidence of extensive occupation.

All the paintings but two consist of small black lines; those two are in red. The pictographs include two features worthy of note. The first is the presence of square-shouldered figures, much like ones in the Southwest. The second is the occurrence of paintings apparently intended to represent atlatls.

The six hook-end paintings, illustrated in Plate CXV, are almost identical with others on the wall of an overhanging ledge at Site No. 56, Terrell County. (See Plate CV.) There is, however, a considerable difference in sizes of the two sets of figures. The ones in Val Verde County are only eight inches long, while those in Terrell County are almost three feet. Other differences are as follows:

1. The "loops" in the Val Verde County paintings are almost round; those in Terrell County are elliptical in shape.
2. The "hooks" in the Val Verde County specimens turn to the right and are very pronounced; those in Terrell County turn to the left and have a gradual curvature.
3. Included in the Val Verde County group is a feathered projectile; no such shaft is in direct association with the Terrell County group.

Despite the minor differences, there is too striking a similarity between these two groups of paintings for them not to have a common meaning.

PLATE CXV

POSSIBLE ATLATLS AND PROJECTILE, SITE NO. 64, VAL VERDE COUNTY

Dimensions: 8x8½ inches; lines ⅛ inch wide. Black paint.

PLATE CXVI

HUMAN REPRESENTATIONS IN RED PAINT, SITE NO. 65, VAL VERDE COUNTY

1. Two human figures are armless. Dimensions: 17x13 inches.
2. Note feather headdress and position of arms and feet. Dimensions: 11x11 inches.
3. Phallic representation. Dimensions: 17x6 inches; body 2 inches wide.
4. Positive print of left hand. Dimensions: 9x4½ inches.

PLATE CXVII

UNUSUAL HUMAN FIGURE, SITE NO. 65

A phallic representation. Note the masked head. Dimensions: 16x8½ inches. Paint is red. The painting possibly may represent a horned frog or lizard.

PLATE CXVIII

HUMAN HANDPRINTS AND CONVENTIONALIZED ANIMAL, SITE NO. 67, VAL VERDE COUNTY

The animal, measuring 10½x8½ inches, locally is referred to as the javalina, or wild hog (Texas peccary, *Tayassu angulatum*); but it may represent a coyote or possibly a dog.

PLATE CXIX

PICTOGRAPHS IN RED, BLACK AND YELLOW, SITE NO. 69, VAL VERDE COUNTY

1. One of the brightest and best preserved of Texas pictographs. Dimensions over all, about 8x9 feet. Popularly called a "map."
2. An unusual group, some of the paintings being superimposed. Dimensions over all: 8x7½ feet. Note the deer at the extreme right.

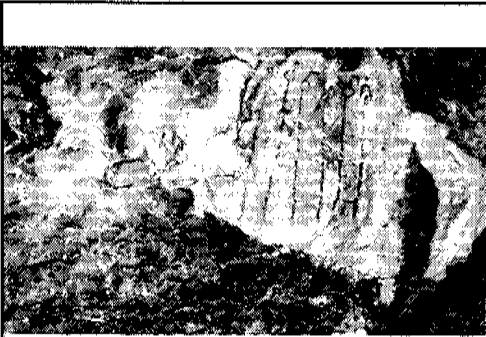


PLATE CXV.

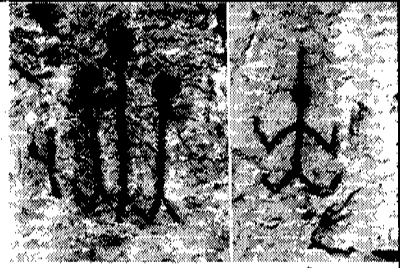


PLATE CXVI.



PLATE CXVII.

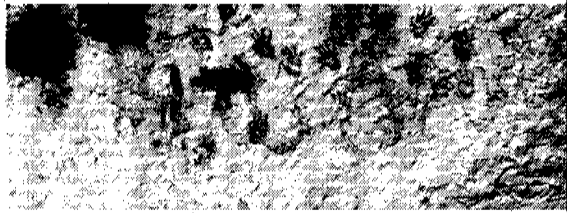


PLATE CXVIII.

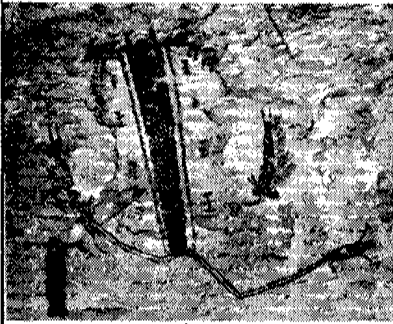


PLATE CXIX.

FIG. 145. HUMAN, ANIMAL AND SYMBOLIC DESIGNS, SITE NO. 64,
VAL VERDE COUNTY

Colors: No. 8, red; all others black. Dimensions: 1, $8\frac{1}{2} \times 5$ inches; 2, 6×3 inches; 3, $6\frac{1}{4} \times 3$ inches; 4, 2 inches tall; 5, $2\frac{3}{4} \times 1$ inches; 6, $7\frac{1}{2} \times 2\frac{1}{2}$ inches; 7, $2\frac{1}{4}$ inches long; 8, 12×8 inches. The crosshatch in No. 8 is on the bluff at a height of 15 feet.

FIG. 146. SMALL PICTOGRAPHS IN BLACK, SITE NO. 64

Dimensions: 1, $2\frac{3}{4} \times 1\frac{1}{4}$ inches; 2, $1\frac{1}{4}$ inches diameter; 3, $4 \times 1\frac{1}{2}$ inches; 4, $5\frac{1}{2} \times 4\frac{1}{4}$ inches; 5, $2\frac{1}{4} \times 1\frac{1}{4}$ inches; 6, 5 inches long.

FIG. 147. DIM PICTOGRAPHS IN RED, BLACK AND ORANGE, SITE NO. 65,
VAL VERDE COUNTY

Dimensions: Group 1, 90×50 inches; 2, 45×42 inches; 3, 28×34 inches.

FIG. 148. CLOSELY SPACED PICTOGRAPHS, SITE NO. 65

Colors: Red, black and orange.

Group 1. Two human figures superimposed over older paintings. Dimensions: 82×40 inches.

Group 2. Dimensions: 9×4 feet. Note the pitchfork-like design. The figure at extreme right is a possible cysthos.

FIG. 149. OLD PICTOGRAPHS IN RED, SITE NO. 65

The painting at the upper right is suggestive of a rabbit stick. Dimensions: Group 1, 96×42 inches; group 2, 6×2 feet.

FIG. 150. INSECTS, PROJECTILES AND HUMAN FORMS, SITE NO. 66,
VAL VERDE COUNTY

Colors: Black, red and orange. Height, 30 inches.

FIG. 151. AN UNUSUAL GROUP OF PAINTINGS, SITE NO. 66

Colors: Red, black and orange. Dimensions: 75×34 inches.

The pictures include a possible atlatl and shaft, conventionalized humans, animals and a serpent.

FIG. 152. HUMAN AND ANIMAL REPRESENTATIONS, SITE NO. 66

Dimensions: Group 1, 72×40 inches; 2, 57×35 inches; 3, 72×36 inches. Colors: 1, black and red; 2, black; 3, red and black.

FIG. 153. OTHER PICTOGRAPHS AT SITE NO. 66

Dimensions: Group 1, 9×5 feet; 2, $32 \times 6\frac{1}{2}$ inches; 3, 92×38 inches. Colors: 1, black and red; 2, orange and red; 3, black and red.

(All groupings by the author except in Fig. 151)

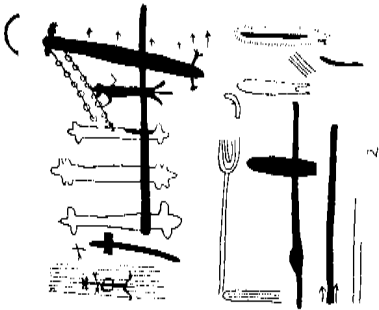


FIG. 148

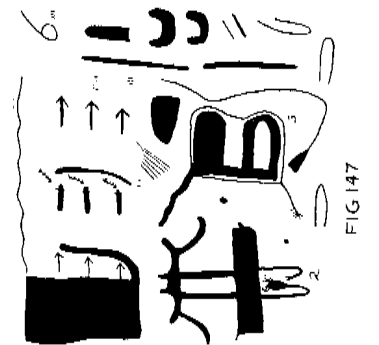


FIG. 147

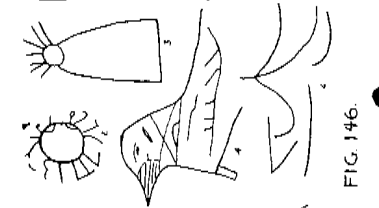


FIG. 146

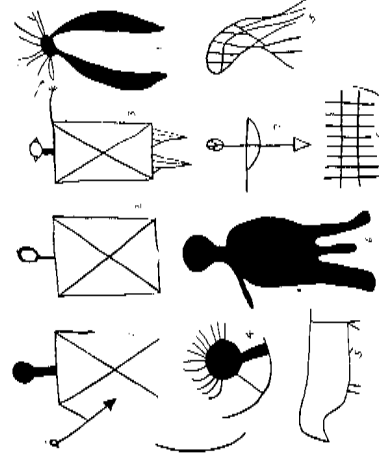


FIG. 145

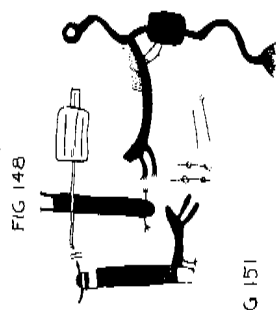


FIG. 149

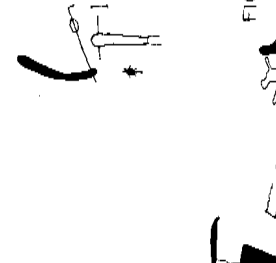


FIG. 150

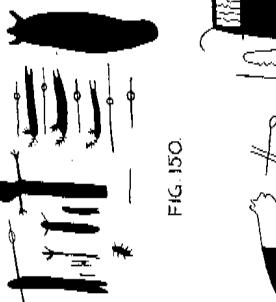


FIG. 151

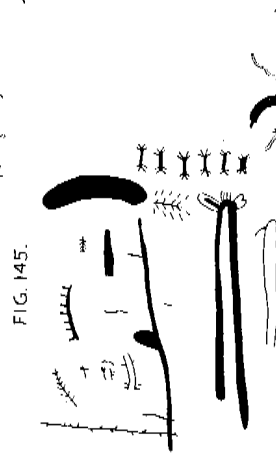


FIG. 152



FIG. 153

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 64

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered figures	3	
Conventionalized figures	3	
Feather headdresses	3	
Armless figures	2	
Head	1	
Arms:		
Downward	1	
Outstretched	1	
Phallic	1	
	15	48
<i>Human Workmanship:</i>		
Projectiles	3	
Possible atlatls	5	
Bow and arrow	1	
	9	29
<i>Lower Life:</i>		
Bird	1	
Conventionalized animal	1	
	2	6
<i>Geometric and Symbolic:</i>		
Crosshatch	2	
Sun-ray disc	1	
Curvilinear	2	
	5	17
Total	31	100

SITE NO. 65

Pictographs are on the wall of a large shelter near the Pecos River. The usual burnt rocks are present on the floor of the shelter. The wall space on which the paintings are located measures about 75x6 feet. Some of the paintings have been destroyed by spalling of the stone. All the pictures are within easy reach of the floor.

Some of the dim paintings appear to be much older than a few of the bright ones. The latter consist of conventionalized human figures, some of which are phallic, and a positive print of a left hand. The handprint is on rock that has spalled off and is over part of an older painting. One of the human figures likewise is superimposed over some earlier pictures. The older paintings include zigzags, feathers, oblique hatching, connected circles, curvilinear elements, pelts, large insects, projectile shafts, etc.

It will thus be noted that there is not only a marked difference in the state of preservation of the paintings, but likewise entirely different types of pictures. There is no evidence of European contacts. Hence it would seem that the older pictographs were made by the first occupants, in early prehistoric times; and the newer ones in the late prehistoric period. This is another way of saying that the earlier paintings probably are the work of a modified type of Basket Makers; while the more recent ones resemble the picture-writings thought to have been made by the Mescalero or other groups of Apache in late prehistoric and early historic times.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 65

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	17	
Arms:		
Outstretched	6	
Downward	3	
Upraised	3	
Armless	4	
Hands	2	
Feather headdresses	3	
Masked head	1	
Phallic (?)	2	41
<hr/>		
<i>Human Workmanship:</i>		
Projectiles	6	
Possible atlatl and shaft	1	
Rabbit sticks	2	
Club	1	
Sword-like element	1	11
<hr/>		
<i>Lower Life:</i>		
Insects	10	
Pelts (?)	3	
Conventionalized bird	1	
Tree branches, or feathers.....	5	19
<hr/>		
<i>Geometric and Symbolic:</i>		
Oblique hatching	2	
Perpendicular hatching	4	
Horizontal band lines	3	
Vertical band line.....	1	
Connected circles	2	
Line enclosed by dashes	1	
Rayed line	1	
Amoeboid figure	1	
Rectangle	1	
U-shaped elements	4	
Curvilinear	4	
Crescent or moon	1	
Pitchfork-like element	1	
Cross	1	
Equal-armed cross in circle.....	1	
Problematical	2	30
<hr/>		
Total	101	100

SITE No. 66

This pictograph site is scarcely two miles from No. 65 and overlooks the Pecos River. The paintings, which are quite clear, cover a comparatively small area on the wall of a shelter that measures about 100x20 feet. The floor of the shelter is solid rock, with no deposit. The paint used was red, black, and orange. The pictures apparently are prehistoric, there being no indication of European contacts.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 66

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	19	
Arms:		
Upraised	4	
Outstretched	8	
One missing	3	
Downward	1	
Headless	1	
Feather headdresses	4	46
<hr/>		

	Number	Per Cent
<i>Human Workmanship:</i>		
Rabbit stick	1	
Fringed garments (?)	2	
Atlatl and shaft	1	
Projectiles	6	10
<hr/>		
<i>Lower Life:</i>		
Conventionalized animals	2	
Animal outlined in part	1	
Snake	1	
Insects	4	
Lizard	1	
Horned frog	1	
Plumed serpent	1	11
<hr/>		
<i>Geometric and Symbolic:</i>		
Curvilinear	6	
Single circles	2	
Connected circles, series of	2	
Horizontal hatching	3	
Crosshatching	3	
Horizontal band line	1	
Vertical band line	1	
Parallel zigzags	2	
Single zigzag	1	
Rectangle	1	
Rake-like element	1	
Y-shaped element	1	
Problematical	1	25
<hr/>		
Total	86	100

SITE No. 67

The shelter, located in the southern part of the county, has very few paintings. All are in red and appear to be prehistoric. Most of them are positive handprints, there being 11 prints of the right and ten of the left hand. The other pictures include conventionalized men and animals.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 67

	Number	Per Cent
<i>Human Representations:</i>		
Hands:		
Right	10	
Left	11	
Conventionalized humans	2	
Arms downward	1	
Armless	1	
Phallic	1	26
<hr/>		
<i>Human Workmanship:</i>		
Earthenware bottle or gourd	1	3
<hr/>		
<i>Lower Life:</i>		
Conventionalized animals	2	6
<hr/>		
<i>Geometric and Symbolic:</i>		
Single circles	2	6
<hr/>		
Total	31	100

SITE No. 68

The paintings are on the wall of a small rock shelter located in a narrow canyon. The paintings in the lower portion of Fig. 155 are unusual in several respects.

No. 5 apparently represents a rabbit stick; the vertical lines near the end depicting grooves, such as frequently found on archaeological specimens from this region.

Nos. 6 and 8 are painted entirely in green. Nos. 7 and 9 combine green and red. This is one of the few Texas sites where green paint was used in picture-writing. The source of the paint will be discussed in another place. Other sites where it occurs are Nos. 2, 14, 30, El Paso, Culberson, and Jeff Davis Counties.

Fig. 155, 6 has the general shape of a rabbit stick, but has the telltale atlatl spur at one end. No. 7, with a mop-like end painted red, is suggestive of a paint brush.

There is no evidence of European contact; but the paintings do not appear extremely old and may be of the late prehistoric period.

FIG. 154. HUMAN, ANIMAL AND GEOMETRIC PAINTINGS, SITE NO. 67,
VAL VERDE COUNTY

Dimensions: 1, 2, 22x12 inches; 3, 10x8 inches. No. 4 is suggestive of an earthenware or gourd vessel.

FIG. 155. UNUSUAL PICTOGRAPHS IN BROWN, RED, GREEN AND BLACK, SITE NO. 68,
VAL VERDE COUNTY

Dimensions over all: 12x7 feet.

FIG. 156. CARNIVOROUS ANIMALS, PERHAPS PUMAS OR MOUNTAIN LIONS,
SITE NO. 69, VAL VERDE COUNTY

These long-tailed, large cat-like animals are very suggestive of the gray mountain lion (*Felis cougar aztecus*), commonly called panther or cougar. The technique of painting is unusual, the figures having been formed by a series of elliptical lines. Color, red. Large animals of this type though not numerous are typical of the paintings in the lower Pecos River region. Dimensions: 16x4 feet.

FIG. 157. PAINTINGS OF ANIMALS AND TREE OR FEATHER-LIKE DESIGNS, SITE NO. 69

This is a detailed sketch of part of the paintings in Plate CXXIV, 3.

FIG. 158. PICTOGRAPHS IN RED AND BLACK, SITE NO. 69

Dimensions: 80x41 inches. Note the fly-like design and pitchfork element.

FIG. 159. SYMBOLIC PAINTINGS IN RED AND BLACK, SITE NO. 69

Note the four-fingered hand and what appears to be a projectile piercing the arm.

FIG. 160. PICTOGRAPHS IN RED, BLACK AND ORANGE, SITE NO. 69

Dimensions: 8x6 feet. Note the sun-disc resting on the man's outstretched arm.

FIG. 161. UNUSUAL PAINTINGS IN BLACK AND RED, SITE NO. 69

Note the so-called yucca blossom, No. 3; and atlatl with shaft, No. 4. Dimensions: 9x6 feet.

FIG. 162. HUMAN FIGURE ARMED WITH ATLATL AND SHAFT, SITE NO. 69

Note the feather headdress, fringed garment, and insect-like objects suspended from each outstretched arm. These arm attachments are suggestive of bags or pouches.

FIG. 163. PICTOGRAPHS IN RED AT SITE NO. 70, VAL VERDE COUNTY

The negative handprint has a painted outline. The rounded figure may represent a shield. Dimensions: 5½x3 feet.

(Groupings by the author in Figs. 154, 155, 158, 160, 161.)

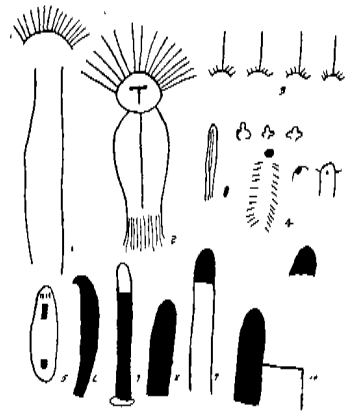


FIG. 155.

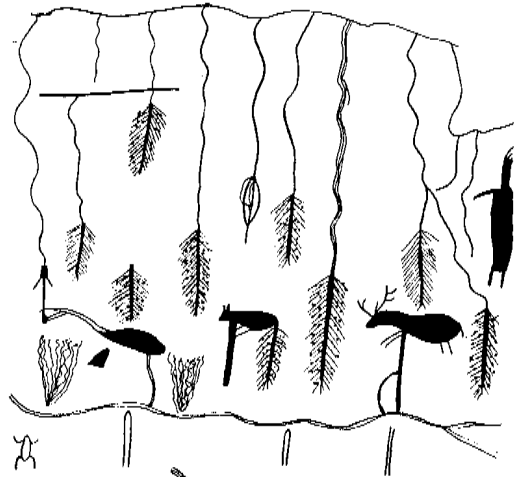


FIG. 157.



FIG. 156.

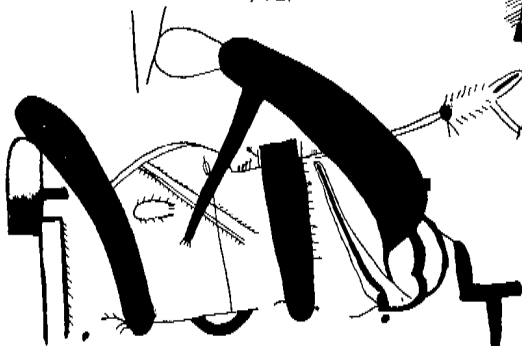


FIG. 159.

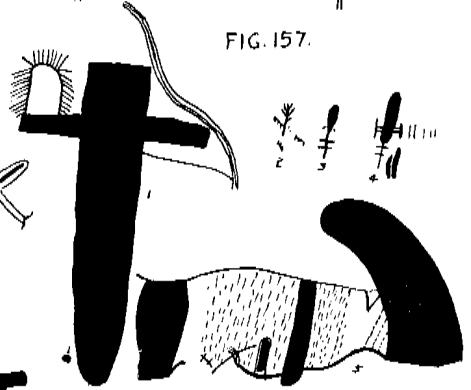


FIG. 160.



FIG. 161.

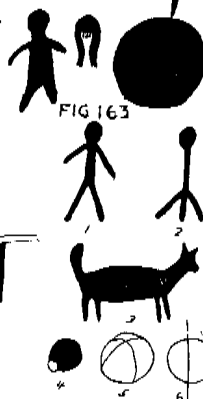


FIG. 163.

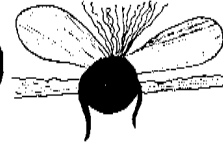


FIG. 158.

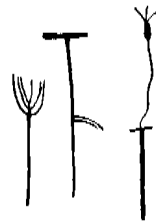


FIG. 162.



FIG. 154.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 68

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	2	
Arms upraised	1	
Armless	1	
Legless	1	
Feather headdress	1	
	6	32
<i>Human Workmanship:</i>		
Rabbit sticks (?)	3	
Atlatl	1	
Atlatl and projectile.....	1	
Paint brush (?)	1	
	6	32
<i>Lower Life:</i>		
Insect	1	4
<i>Geometric and Symbolic:</i>		
Rayed semicircles	5	
Parallel lines	1	
	6	32
Total	19	100

SITE NO. 69

The shelter in which these paintings are located faces east, overlooking the Pecos River. The dimensions are about 120x70x50 feet. In the rear center is a midden deposit.

Paintings range along the wall for a distance of about 90 feet. The lowest are three feet above the floor, the highest eight feet. The colors are black, red, and yellow. All appear to be prehistoric.

Plate CXIX, 1 may be intended for a conventionalized human figure. The meaning of the unusual attachments to the legs is doubtful. The body of the figure is in red, bounded by yellow stripes. The legs are yellow, with the insect-like objects in red attached. The presence of large insects, associated with certain human-like features, is a cultural trait common to the region.

Plate CXIX, 2 includes three conventionalized humans, a deer, a possible thunder-bird, a spider-like element and several problematical figures.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 69

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	34	
<i>Arms:</i>		
Outstretched	19	
Downward	4	
Upraised	3	
Armless	5	
One arm missing	1	
<i>Arm decoration:</i>		
Feather	4	
Other	3	
Legless	1	
Leg decoration	1	
<i>Headdress:</i>		
Feather	5	
Horn	1	
Other	1	
Headless	2	
Fringed garments	4	
Phallic	1	
	89	37

PLATE CXX

INTRICATE GROUP OF PAINTINGS IN BLACK, ORANGE AND RED, SITE NO. 69,
VAL VERDE COUNTY

The pictures include a number of human figures, a butterfly-like design, connected circles, zigzags, and various other elements. Two of the human figures have their heads downward. Dimensions over all: 17x5½ feet.

PLATE CXXI

HUMAN, INSECT AND GEOMETRIC FIGURES, SITE NO. 69

Dimensions: 66x44 inches. Note the ten tarantula-like elements on each side of the tall human figure.

PLATE CXXII

PICTOGRAPHS AT SITE NO. 69

1. Conventionalized human figures. Dimensions: 58x58 inches.
2. Human figure wearing horn headdress; connected circles, conventionalized hands, etc. Dimensions: 72x74 inches. Note the feather-like arm decoration.

PLATE CXXIII

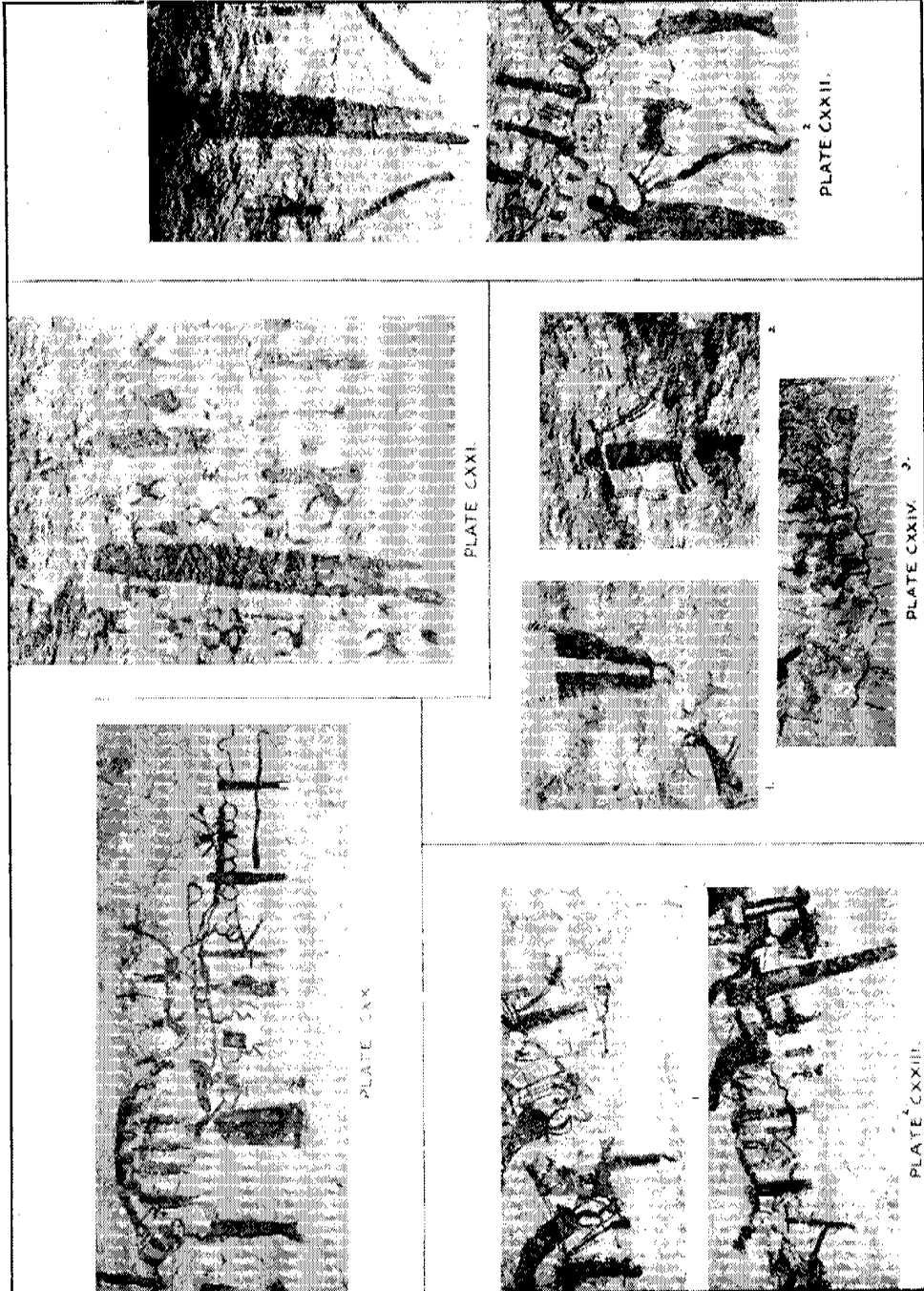
PICTOGRAPHS AT SITE NO. 69

1. Dimensions: 7½x4½ feet. The outstanding picture is the human figure at the right, with atlatl and projectile in hand. (See Fig. 162.)
2. Dimensions: 10½x6 feet. Colors, black, red and orange.

PLATE CXXIV

CONVENTIONALIZED AND SYMBOLIC PAINTINGS, SITE NO. 69

1. Problematical figure, buck deer and fawn. Color, red and black. Dimensions: 38x52 inches.
2. Conventionalized human representation, measuring 40x20 inches. Colors, black, red and orange.
3. Intricate animal and feather-like designs, painted in black, red and orange. Note the band line from which objects are suspended. Possibly a map. Dimensions: 12x6 feet. (See Fig. 157.)



	Number	Per Cent
<i>Human Workmanship:</i>		
Atlals	3	
Atlals and shafts.....	3	
Projectiles	7	
Clubs	2	
Pole ladders (?).....	13	10
<hr/>		
<i>Lower Life:</i>		
Conventionalized animals	4	
Carnivorous animals	2	
Deer	5	
Snakes	2	
Plumed serpent	1	
Thunderbird	1	
Conventionalized bird	1	
Insects	20	
Spider	1	
Centipede	1	
Butterfly	1	
Trees	3	
Yucca stalk	1	17
<hr/>		
<i>Geometric and Symbolic:</i>		
Single circles	10	
Connected circles, series of.....	3	
Semicircles	2	
Rayed semicircles	3	
Curvilinear	2	
Rectangles	4	
Perpendicular hatching	12	
Oblique hatching	3	
Horizontal hatching	1	
Horizontal band lines.....	10	
Parallel zigzag lines.....	1	
Zigzag lines	2	
Amoeboid figure	1	
Punctate	2	
Y-shaped element	1	
Feather-like elements	12	
Ladder-like element	1	
Pitchfork-like element	1	
Sun-ray disc	1	
Rayed cross	1	
Problematical	15	36
<hr/>		
Total	248	100

SITE No. 70

The shelter in which these paintings are located has a sloping floor with no midden deposit. Its dimensions are about 150x30x50 feet. The paintings, done in red, consist of a few human, animal and symbolic designs.

The paintings at this site show no evidence of European contact but apparently are of no great age. They perhaps belong to the late prehistoric period.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 70

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	
Arms downward	1	
Negative handprints	2	
	4	40
<i>Human Workmanship:</i>		
Shield (?)	1	10
<i>Lower Life:</i>		
Wolves	2	
Snake	1	
Insect	1	
Conventionalized animal	1	
	5	50
Total	10	100

SITE NO. 71

A large circular shelter at this site, with dimensions of about 195x135x40 feet, has many pictographs on its wall. The floor slopes from back to front; but is covered with a deposit of camp refuse, deepest along the back and side wall. Located near the back is a spring that furnishes permanent water.

The paintings have been preserved on parts of the wall, in spite of a certain amount of seepage over the rock constituting it.

PLATE CXXV

A VIEW OF PECOS CANYON LOOKING OUT FROM SITE NO. 70,
VAL VERDE COUNTY

PLATE CXXVI

SNAKE, NEGATIVE HANDPRINT AND SO-CALLED WOLVES, SITE NO. 70

Dimensions over all: 14x4 feet. Small rabbit and bird-like figures appear at the extreme left.

PLATE CXXVII

A VIEW OF THE SHELTER AT SITE NO. 71, VAL VERDE COUNTY

PLATE CXXIX

PICTOGRAPHS IN RED, BLACK AND ORANGE, SITE NO. 71

1. Unusual curvilinear and hatched design. Dimensions over all: 92x41 inches. Note that the central design is enclosed by parallel zigzag lines.

2. Large insect-like painting, pierced by two projectiles. Dimensions: 22x18 inches.

PLATE CXXX

PICTOGRAPHS AT SITE NO. 72, VAL VERDE COUNTY

Dimensions over all: 20x16½ feet. Pictures are dim and damaged by spalling.

1. Unusual vine- or snake-like designs and groups of parallel zigzag lines. Color, red.

2. Parallel zigzags in red, black and orange; deer, other conventionalized animals and large insects, or frogs, in red.

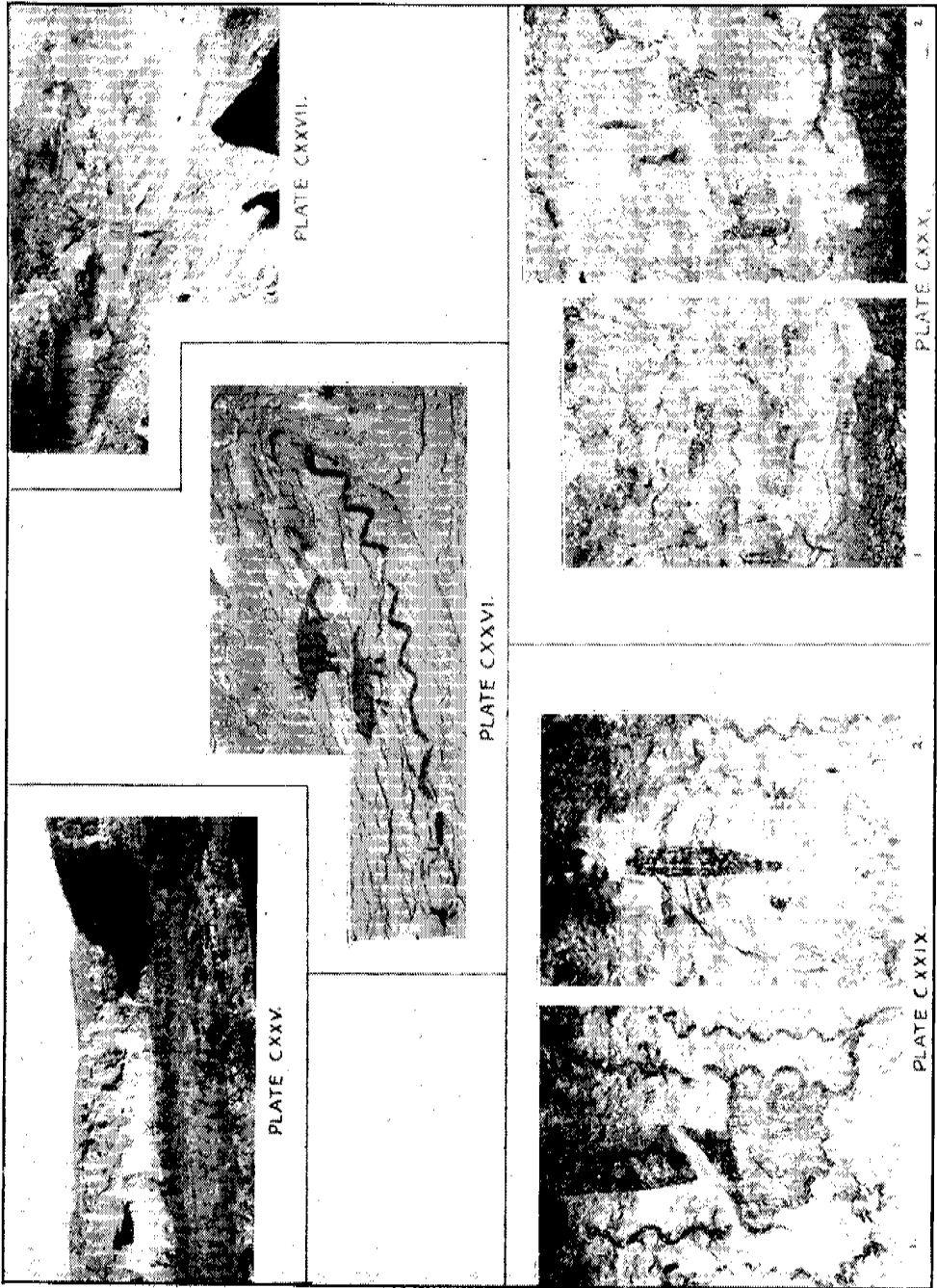




PLATE CXXVIII

A BLANKET-LIKE DESIGN, SITE NO. 71, VAL VERDE COUNTY, TEXAS

Painted in orange and bordered with red. Dimensions: about $6 \times 5\frac{1}{2}$ feet. Located on wall 12 feet above the floor.

The paintings are prehistoric and appear to have been made by the occupants who left the deposit in the shelter. The large insect-like figures, some of which are pierced by projectiles, show a striking resemblance to certain paintings at Site No. 82, same county.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 71

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	
Projectile wound	1	2
		4
<i>Human Workmanship:</i>		
Projectiles	4	
Pole ladder	1	5
		9
<i>Lower Life:</i>		
Insects	9	
Plumed serpents	2	
Projectile wounds in animals	2	
Tree	1	14
		25
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	1	
Oblique hatching	2	
Crosshatch	1	
Horizontal band line	1	
Rectangles	4	
Concentric circles	1	
Connected circles	1	
Curvilinear	1	
Parallel zigzags	5	
Single zigzags	5	
U-shaped elements	3	
V-shaped elements	2	
Ladder-like element	1	
Anchor-like elements	2	
Blanket-like element	1	
Rain symbol	1	
Problematical	2	34
		62
Total	55	100

SITE NO. 72

Located near Site No. 71 is another shelter about 80x60x40 feet. Its floor is covered by midden deposit; there also are many rocks that have fallen from the roof.

The pictographs, not numerous, are intricate and characteristic of the old paintings of the region. There are included a few animalistic designs that appear to be more recent. The predominant color in most of the paintings is red. A few, however, are black with red outlines. One of the outstanding features is the presence of large insects.

Referring to Fig. 167, it is possible that the rayed U-shaped elements at the top of group 1, and the semicircles at the bottom of No. 2, might represent stretched rabbit nets, set up with stakes. A net with accompanying stakes was found, in a West Texas cave, by an archaeological expedition from The University of Texas.

In the lower part of group 1, above figure, the conventionalized animal—partly enclosed by a line of connected circles—is almost surrounded by projectiles. Nearby are two figures that may represent hunters.

FIG. 164. PICTOGRAPHS AT SITE NO. 71, VAL VERDE COUNTY

Colors: Red, black and orange. Dimensions: 1, 20½x16 inches; 2, wing spread, 5½ inches; 3, 22x17 inches; 4, 17x10 inches; 5, 36x12 inches.

FIG. 165. PICTOGRAPHS AT SITE NO. 71

Colors: Red and black. Dimensions: 1, 36x36 inches; 3, 66x24 inches.

FIG. 166. CONVENTIONALIZED HUMANS, INSECTS, AND CROSSHATCH DESIGNS,
SITE NO. 72, VAL VERDE COUNTY

Colors: Black, red and orange. Dimensions: 7x12 feet. Note that the human figures wear feather headdresses. The stippled animals illustrate an unusual technique suggestive of that found in certain petroglyphs at Site No. 11, Hudspeth County.

FIG. 167. INSECTS, FROG, HUNTING SCENE AND OTHER PICTURES, SITE NO. 72

Colors: Red, orange and black. Dimensions: Group 1, 6x4 feet; 2, about 9½x4½ feet; and 3, 40x33 inches. Note the concentric circles in group No. 1.

FIG. 168. SYMBOLIC PAINTINGS AT SITE NO. 73-A, VAL VERDE COUNTY

The target-like figure to the left, pierced by a projectile, may symbolize a shield. The zigzag element probably represents a snake. The human figure partly enclosed by 3 rows of dots is unusual in that it shows what appears to be an atlatl and shaft. Dimensions: 11x2½ feet.

FIG. 169. HUMAN AND SYMBOLIC FIGURES, SITE NO. 74, VAL VERDE COUNTY

Colors: Black, red and yellow. Dimensions: 84x28 inches.

(Groupings by the author, except in Fig. 166.)

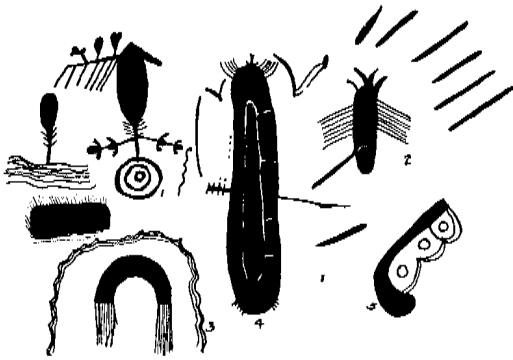


FIG. 164.

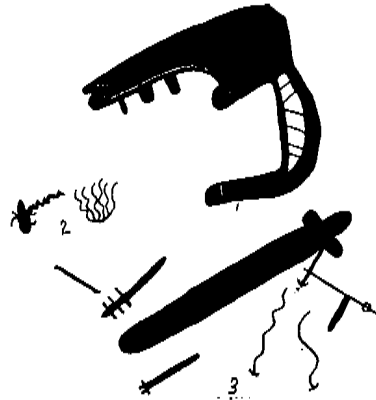


FIG. 165.

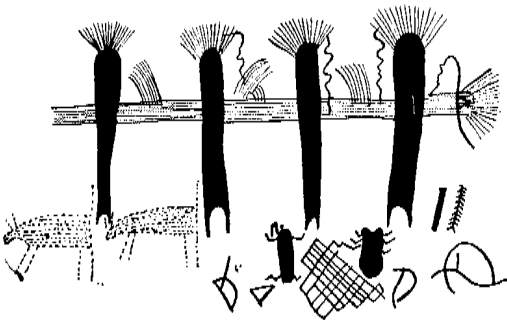


FIG. 166.

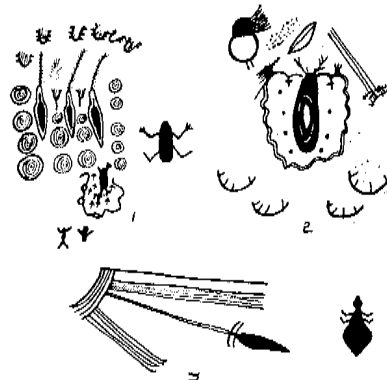


FIG. 167.

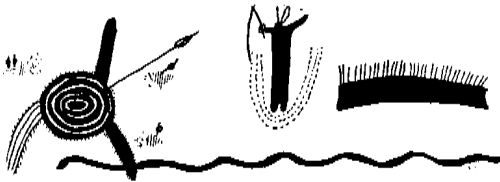


FIG. 168.

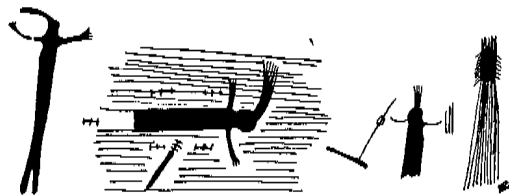


FIG. 169.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 72

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	8	
Arms upraised	4	
Armless	4	
Legless	1	
Feather headdresses	4	21
		19
<i>Human Workmanship:</i>		
Projectiles	8	
Bow and arrow	1	
Polc ladder	1	10
		9
<i>Lower Life:</i>		
Insects (?)	16	
Stippled animals	3	
Deer	2	
Conventionalized animal	1	
Lizard	1	
Conventionalized bird	1	
Centipede (?)	1	
Plumed serpent	1	
Butterfly or large fly	1	27
		24
<i>Geometric and Symbolic:</i>		
Concentric circles	15	
Connected circles, series of	1	
Concentric semicircle	1	
Rayed semicircles	4	
Series of parallel zigzag lines	9	
Feather-like elements	5	
Crosshatch	2	
Rectangle	1	
Triangle	1	
Curvilinear	2	
Rayed discs	6	
Perpendicular hatching	7	
Punctate	1	55
		48
Total	113	100

SITE No. 73

Because of their proximity, a rock shelter and two slightly overhanging ledges have been grouped here under one site number. The first of these, designated as Site No. 73-A, is a shelter measuring 90x18x12 feet. The floor is about eight feet wide and the shelter contains practically no midden deposit. This condition may have resulted from flooding by back-water in the canyon, coming from the Rio Grande. Sites No. 73-B and C are low, have solid, clean rock floors and were flooded each freshet. (See Plate CXXXVIII.) There are 12 mortar holes in the canyon adjacent to the three shelters. On the bluff nearby, overlooking the Rio Grande, is an extensive campsite consisting of several small burnt-rock middens.

SITE NO. 73-A

The wall of the main shelter, for a space of 75 feet, is covered with a mass of paintings in red, black, and orange. These appear to be of different ages, many being superimposed over others. There is no evidence in this shelter of European contact, unless it be the sword-like elements that are repeated several times. Since, however, this design appears in other old sites, it would seem to be prehistoric. Many of the paintings are of human figures wearing feather headdresses. Among the other pictures are various insect-like designs. A small element, prominent on account of the number of times repeated, is a bisected circle suggestive of the projectile and shield common among the paintings of the region. In most cases, however, the shafts of the projectiles are longer than those here represented.

Although some of the paintings on the wall of Site No. 73-A are as much as ten feet above the floor, they could have been painted by an adult standing on the floor and wielding a stick with a paint brush or "mop" attached to the end. Since, however, the wall has considerable curvature, it seems probable that a barefoot artist might have climbed up a few feet and maintained his balance while painting. The writer did this while measuring certain pictures.

PLATE CXXXI

PICTOGRAPHS AT SITE NO. 73-A, VAL VERDE COUNTY

Photograph of water color sketch made from original. (West section.)

PLATE CXXXII

PICTOGRAPHS AT SITE NO. 73-A

Photograph of water color sketch made from original. (Middle section.) Note the sword-like elements and the numerous small bisected circles.

PLATE CXXXIII

OTHER PICTOGRAPHS AT SITE NO. 73 A

Photograph of water color sketch made from original. (East section.)

PLATE CXXXIV

DIM PICTOGRAPHS AT SITE NO. 73-A

Note the sword-like elements near upper left.

PLATE CXXXV

CONVENTIONALIZED HUMAN FIGURES, SITE NO. 73-A

1. Paintings outlined in red with black bar down center. Note the arm decoration.
2. Tall, slim figure with arms upraised. Red outline with black bar down the center. Decoration on one arm.

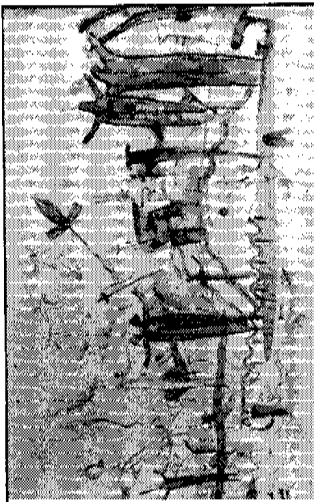


PLATE CXXXII

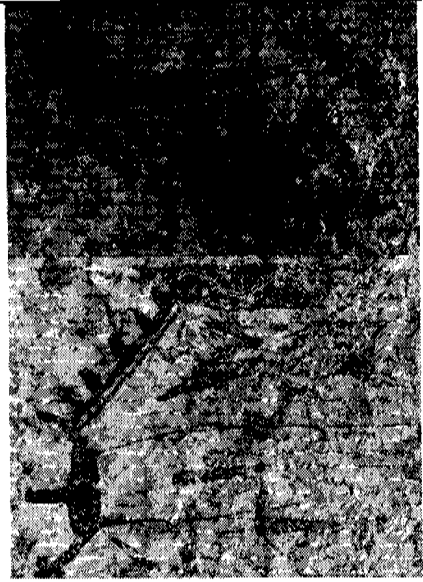


PLATE CXXXV

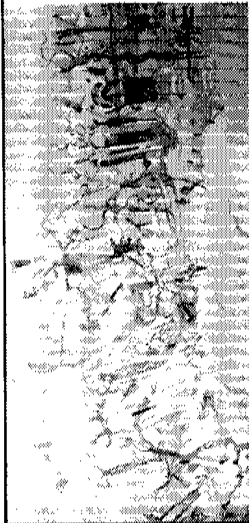


PLATE CXXXI



PLATE CXXXIII

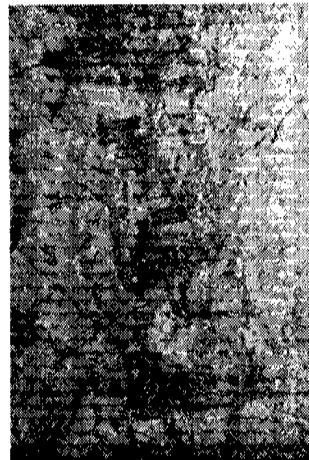


PLATE CXXXIV

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 73-A

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	40	
Arms:		
Upraised	18	
Downward	1	
Outstretched	14	
Armless	4	
One arm missing	1	
Arm decorations	7	
Legless	4	
Head	1	
Viscera	1	
Feather headdresses	24	
Fringed garments	8	
Projectile wound	1	124
		43
<i>Human Workmanship:</i>		
Rabbit sticks	4	
Atlatl and shaft	1	
Projectiles	3	
Projectile points	2	
Hafted stone implement (?)	1	
Club	1	
Shield, or target	1	13
		5
<i>Lower Life:</i>		
Conventionalized animals	11	
Snake	1	
Insects	24	
Spiders	4	
Centipedes (?)	2	
Butterfly	1	
Yucca blossoms (?)	7	50
		17
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	5	
Horizontal band lines	6	
Rayed horizontal band line	1	
Bisected circles:		
Small	42	
Large	4	
Concentric circles	1	
Curvilinear	3	
Amoeboid figures	5	
Punctate	1	
Rectangle	1	
Enclosure:		
Of dashes	1	
Of dots	1	
Single zigzags	4	
Parallel zigzags	6	
Banner-like elements	2	
Sword-like elements	6	
Equal-armed cross	1	
Cross	1	
Rainbow (?)	1	
Rain symbol	1	
Problematical	8	101
		35
Total	288	100

PLATE CXXXVI

CLOSE-UP OF DIM PAINTINGS AT SITE NO. 73 A, VAL VERDE COUNTY

PLATE CXXXVII

PAINTING SHOWING HUMAN VISCERA, SITE NO. 73-A

Note the vertebrae and ribs, also feather headdress and arm decoration.

PLATE CXXXVIII

VIEW OF CANYON IN WHICH SHELTERS ARE LOCATED

Site No. 73-B may be seen at lower left.

PLATE CXXXIX

HISTORIC PAINTINGS AT SITE NO. 73-B

Dimensions over all: 11x6 feet.

PLATE CXL

MAN POINTING TOWARD A HIGH PAINTING, SITE NO. 73-C



PLATE CXXXVI.



PLATE CXXXVII.

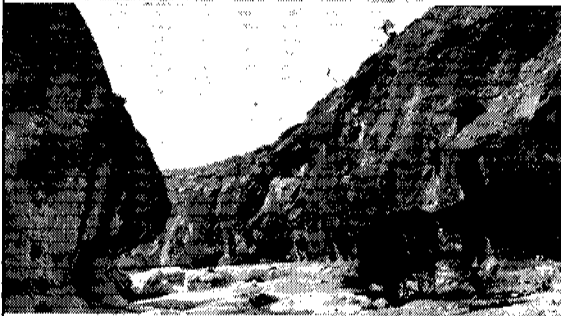


PLATE CXXXVIII.

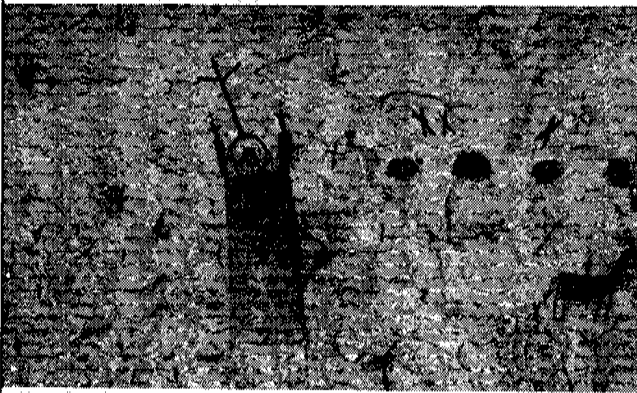


PLATE CXXXIX.

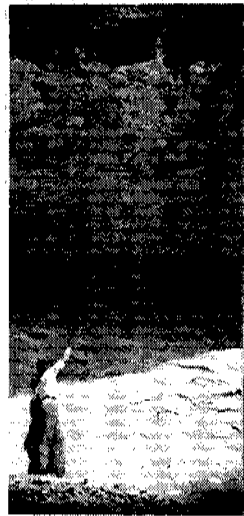


PLATE CXL.

FIG. 170. CONVENTIONALIZED PAINTINGS, SITE NO. 74, VAL VERDE COUNTY

Colors: 1, yellow outlined in black; 2, black; 3, red and black; 4, red; 5, black; 6, red and yellow. Dimensions: 3, 72x60 inches. No. 4 may be a cloud and rain symbol, or possibly a scalp.

FIG. 171. PICTOGRAPHS AT SITE NO. 74

Group 1: Colors, red and black. Dimensions: 122x34 inches.

Groups 2-3: Red, yellow and black.

Group 4: Outlined in red; upper end black; circles, black, on a yellow background.

FIG. 172. HUMAN FIGURES AND CLUBS, SITE NO. 74

Colors: Red, black and yellow.

FIG. 173. REPRESENTATIONS OF HUMAN AND LOWER LIFE, SITE NO. 75,
VAL VERDE COUNTY

Color, red. Note the headdresses.

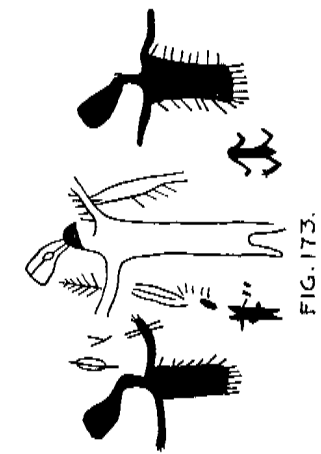
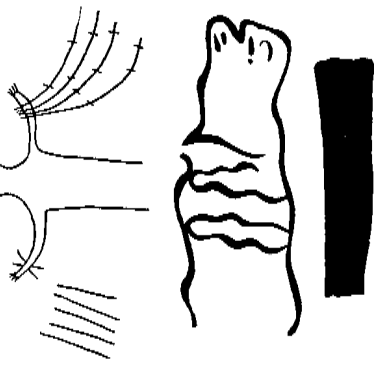
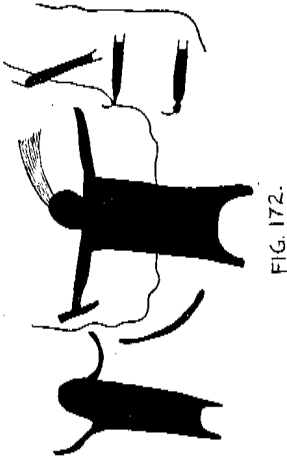
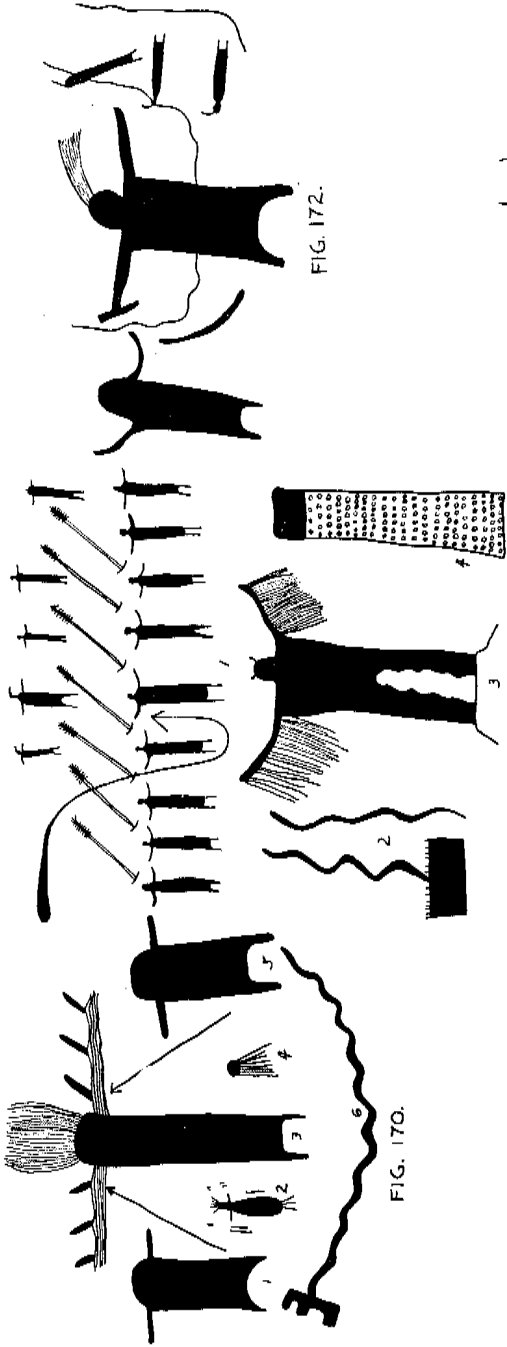
FIG. 174. PICTOGRAPHS AT SITE NO. 75

Color, red. Note the unusual projectile at left and atlatl, with shaft, at right.

FIG. 175. HUMAN AND SYMBOLIC PAINTINGS, SITE NO. 75

Color, red. Note the horn headdress and arm decorations.

(Groupings by the author, except in Fig. 172)



SITE NO. 73-B

The wall of this overhanging ledge has on it a number of historic paintings in red and orange. The paint is quite clear and may be seen for some distance. The paintings include a human figure with a large cross above the head and a small one in each upraised hand. Eyes, mouth, and nose are indicated. The total height is six feet, with a width of 14 inches. Two positive prints of the right hand are on the wall nearby. A few feet to the right is a horse painted in red. It has a long, slender neck, very similar to certain paintings made by historic Kiowa and Comanche Indians.⁴⁷

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 73-B

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	
Arms upraised	1	
Positive handprints	2	4
	4	14
<i>Lower Life:</i>		
Horse	1	4
<i>Geometric and Symbolic:</i>		
Crosses	12	
Numeration dots	10	
Problematical	1	23
	23	82
Total	28	100

SITE NO. 73-C

Only a few dim paintings remain on the roof of this overhanging ledge. They are located about 20 feet high and apparently required the use of a ladder—unless a huge boulder has since washed away.

SITE NO. 74

The shelter, rather difficult of approach, is located in a canyon wall and measures 130x30x16 feet. There is a level, midden-covered floor space of 63x8 feet. In the adjacent ledge, under the overhang, are 16 mortar holes of the narrow, shallow type. One is five inches wide and 1.6 inches deep; no other is more than three inches deep.

The wall paintings, old and dim, are located about ten feet above the floor. But a small ledge three feet from the floor probably was utilized by the primitive artists as a bench on which to stand. The pictures, in yellow, red, and black, are in the middle section and cover a wall space of 45 feet.

⁴⁷Smith, Dr. S. L. S., Collection of Historic Indian Paintings, work of Oklahoma Indians in late 1870's and early 1880's. Made for Dr. Smith at the time he was attached to 10th U.S. Cavalry, stationed at Fort Concho, Texas. Privately owned.

Group 1 in Fig. 171 contains seven problematical paintings that are suggestive of atlatls. Four are in black and three, red. The long, bent projectile, in red, was superimposed over two of the black atlatl-like or sword-like elements.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 74

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	14	
<i>Arms:</i>		
Outstretched	22	
Upraised	2	
Armless	3	
Arm decorations	2	
Dancing figures	13	
Feather headdresses	11	
Headless	2	
Fringed garment	1	
	70	66
<i>Human Workmanship:</i>		
Atlatl and shaft	1	
Atlatl only	1	
Possible atlatls	7	
Projectiles	2	
Rabbit stick	1	
Club	1	
Pole ladders	5	
	18	17
<i>Lower Life:</i>		
Plumed serpents	2	
Insect	1	
	3	3
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	2	
Horizontal hatching	1	
Vertical band line	1	
Rectangle	1	
Curvilinear	1	
Single zigzags	2	
Parallel zigzags	2	
Series of numeration dots	2	
Ground-line representation	1	
Cloud and rain symbol	1	
Problematical	1	
	15	14
Total	106	100

SITE NO. 75

The pictographs are on the wall of a large shelter that faces south, overlooking the Rio Grande. The shelter contains evidence of extensive occupation. The wall is soot-covered to such an extent that some of the old paintings are partly obliterated. The pictures are in red and consist of human, insect, and symbolic figures. Some of the former are much like certain ones at Site No. 73-A.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 75

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	6	
Fringed garments	2	
Feather headdresses	3	
Horn headdress	1	
Arm decorations	2	
Headless	2	
Arms upraised	3	
Head	1	20
		35
<i>Human Workmanship:</i>		
Pole ladders	4	
Projectile	1	
Atlatl and shaft	1	6
		10
<i>Lower Life:</i>		
Conventionalized animals	3	
Frog	1	
Insect	1	
Animal pelt (?)	1	
Trees	2	
Yucca blossoms (?)	2	10
		17

FIG. 176. SYMBOLIC DESIGNS, SITE NO. 75, VAL VERDE COUNTY

Color, red. Dimensions: 1, height, 32 inches; 2, height, 26 inches.

FIG. 177. PICTOGRAPHS AT SITE NO. 76, VAL VERDE COUNTY

Colors: Black, red and yellow.

FIG. 178. HUMAN AND SYMBOLIC DESIGNS, SITE NO. 76

Colors: Black and red.

FIG. 179. PAINTINGS SUGGESTIVE OF THE PLUMED SERPENT, SITE NO. 77,
VAL VERDE COUNTY

The lower design is 10 feet long and shows a close resemblance to serpents pecked into the stone at Sites No. 40, Brewster County, 18 and 172, Culberson County. It also is similar to paintings at Sites No. 66 and 139, Val Verde and Kimble Counties. The elements above suggest projectiles.

FIG. 180. PETROGLYPHS AT SITE NO. 81, VAL VERDE COUNTY

Connected circles, projectile point, equal-armed cross enclosed in circle, etc.

(Figs. 177 and 178, courtesy of E. C. Niebuhr.)

(Fig. 179, courtesy of W. E. McCarron, Jr.)

(Groupings by the author, except in Fig. 179.)

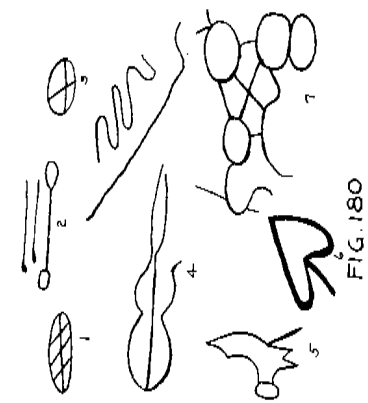
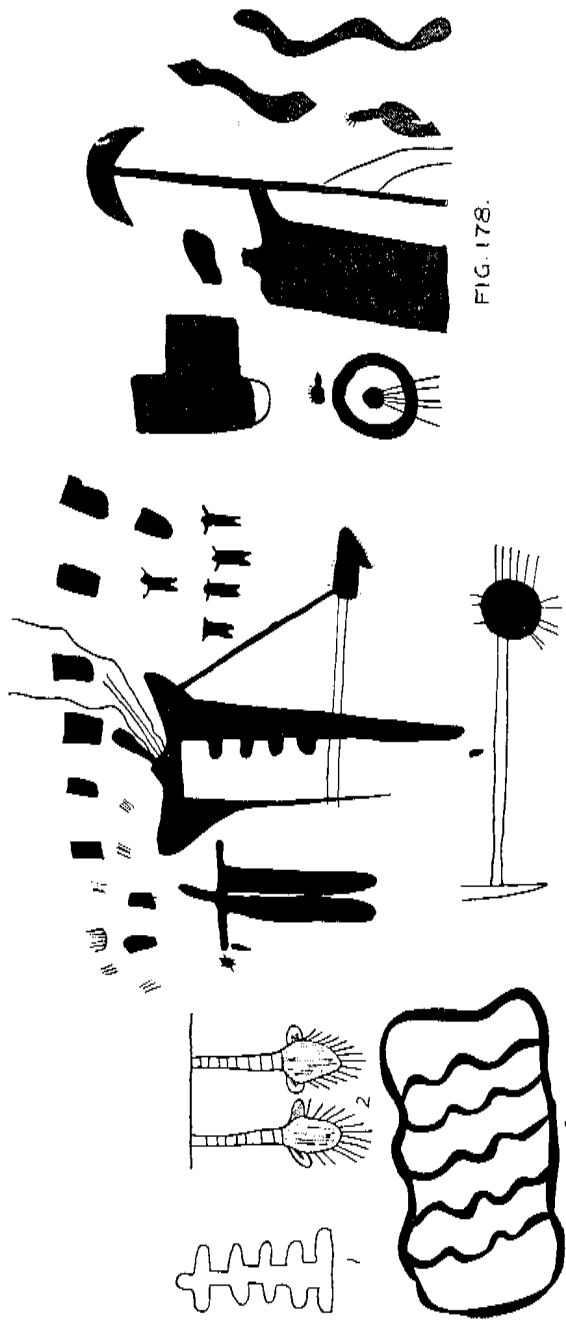


FIG. 176.

FIG. 177.

FIG. 178.

FIG. 179.

FIG. 180.

	Number	Per Cent
<i>Geometric and Symbolic:</i>		
Amoeboid figures	9	
Perpendicular hatching	2	
Horizontal hatching	1	
Bisected circles	2	
Curvilinear	2	
Terraced element	1	
Cloud and rain symbol	1	
Rectangle	1	
Rayed line	1	
Y-shaped element	1	
Parallel zigzags	1	
	22	38
Total	58	100

SITE No. 76

On the wall of a large shelter near the Rio Grande are a few pictographs painted in black, red, and yellow. They consist of human, geometric, and symbolic figures.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 76

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	8	
Feather headdress	1	
Arms:		
Outstretched	6	
Upraised	2	
Arm decoration	1	
Legless	2	
Projectile wound	1	
	21	45
<i>Human Workmanship:</i>		
Bow and arrow	1	
Projectile	1	
Shield	1	
	3	5
<i>Lower Life:</i>		
Snakes	2	4
<i>Geometric and Symbolic:</i>		
Rectangles	10	
Oblique hatching	7	
Sun symbol	1	
Curvilinear	2	
Problematical	2	
	22	46
Total	48	100

SITE No. 77

The site, reported by W. E. McC Carson, Jr., is featured by several painted snake-like designs. No representative of The University of Texas has visited the shelter.

SITES No. 78, 79, AND 80

Pictographs at these sites have been reported by W. E. McC Carson, Jr., but have not been studied by any one from The University of Texas.

SITE NO. 81

This is an outstanding petroglyph site, with the designs pecked into an extensive flat stone surface on a level with the surrounding land. The location is adjacent to a mesa and on the clean horizontal rock surface of the third terrace of the present stream channel. The surface of the partially stone-covered terrace slopes gently from the mesas to the north and east toward the next lower terrace.

Occasional heavy rains cause water to flow over the petroglyphs, resulting in a certain amount of erosion. Lichens also grow in the pecked lines and cause some damage to the stone. A round-pointed stick was used in lightly tracing along to clear the lines for photographing.

A large burnt-rock midden is located on the terrace between the petroglyphs and the stream. There is evidence of extensive occupation of the site.

A few badly damaged pictographs are on the wall of a nearby rock shelter. An interesting feature of the shelter is a pool of water beneath the overhang.

PLATE CXLI

LOCATION OF PETROGLYPHS AT SITE NO. 81, VAL VERDE COUNTY

Note the flat, level stone surface in which the figures are pecked.

PLATE CXLII

CONVENTIONALIZED HUMAN FIGURES, SITE NO. 81

1. Phallic representation; much like a pictograph at Site No. 150, Concho County.
2. Legs and one arm missing.
3. Cross-like element in hand, possibly showing mission influence.
4. Conventionalized human and separate head.

PLATE CXLIII

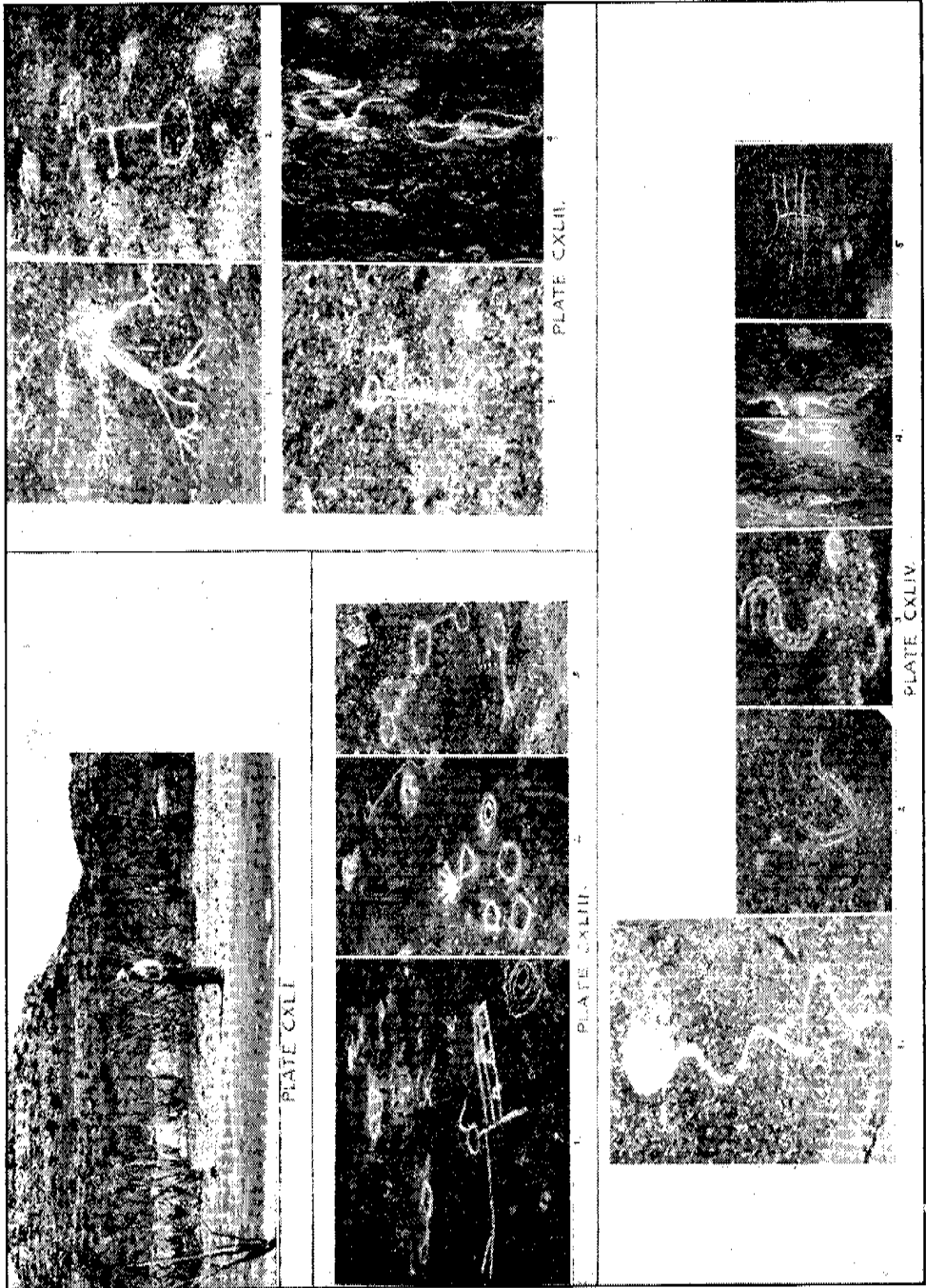
PETROGLYPHS AT SITE NO. 81

1. Legless human, with feather headdress; spiral, connected circles, etc.
2. Realistic human right hand; circles and concentric circles.
3. Conventionalized hand, connected circles and figure eight.

PLATE CXLIV

REPRESENTATIONS OF LOWER LIFE, SITE NO. 81

- 1, 2, 3. Serpents.
4. So-called angular lizard or tarantula.
5. Butterfly or other insect.



CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 81

PETROGLYPHS

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	9	
Arms:		
Downward	1	
Outstretched	3	
One arm missing	2	
Armless	2	
Hand	1	
Legless	1	
Head	1	
Feather headdress	1	
Phallic	1	
	22	14
<i>Human Workmanship:</i>		
Projectiles	3	
Projectile point	1	
Bow and arrow	1	
Pole ladder	1	
	6	3
<i>Lower Life:</i>		
Conventionalized animal	1	
Animal track	1	
Snakes	9	
Conventionalized fish	1	
Turtle	1	
Lizards	2	
Spider	1	
Insect	1	
Bird tracks (?)	2	
Tree	1	
	20	13
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	2	
Horizontal hatching	2	
Square	1	
Scroll	1	
Punctate	1	
Connected circles	18	
Concentric circles	6	
Single circles	14	
Enclosure of dots	2	
Connected concentric circles	3	
Semicircle	1	
Bisected circles	2	
Curvilinear	13	
Series of pendant triangles	1	
Figure eight elements	7	
Angular meanders	2	
Single zigzags	4	
Parallel zigzags	2	
Lightning	2	
Cloud and rain symbols	2	
Water symbol	1	
Sun symbols	11	
Crosses:		
Equal-armed in circle	8	
Equal-armed in semicircle	2	
Other	4	
Problematical	1	
	113	70
Total	161	100

PLATE CXLV

CONVENTIONALIZED AND GEOMETRIC CARVINGS, SITE NO. 81,
VAL VERDE COUNTY

1. Insect or fish.
2. Turtle.
3. Bird track or "bird foot," equal-armed cross in circle, etc.

PLATE CXLVI

RAYED DISCS, CONCENTRIC CIRCLES, ETC., SITE NO. 81

Rayed discs in No. 1 are identical with certain designs incised on pottery in East Texas. The connected concentric circles in No. 2 are much like a painted design on an effigy vessel from a mound in Georgia.

PLATE CXLVII

CONNECTED CIRCLES, FIGURE EIGHT, ETC., SITE NO. 81

The connected circles in upper central part of No. 1 form a cross. The figure eight, at left of No. 2, is very similar to pictographs in Edwards and Reeves Counties and others in Val Verde County.

PLATE CXLVIII

CONNECTED CIRCLES, ETC., SITE NO. 81

Note the stippled interior of one of the circles in No. 2.

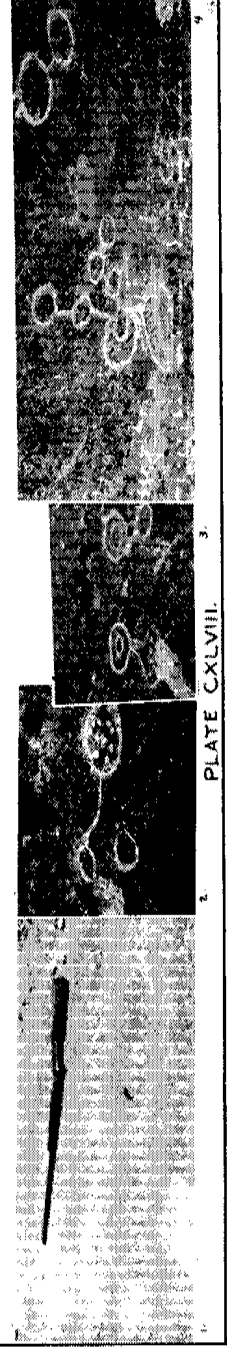
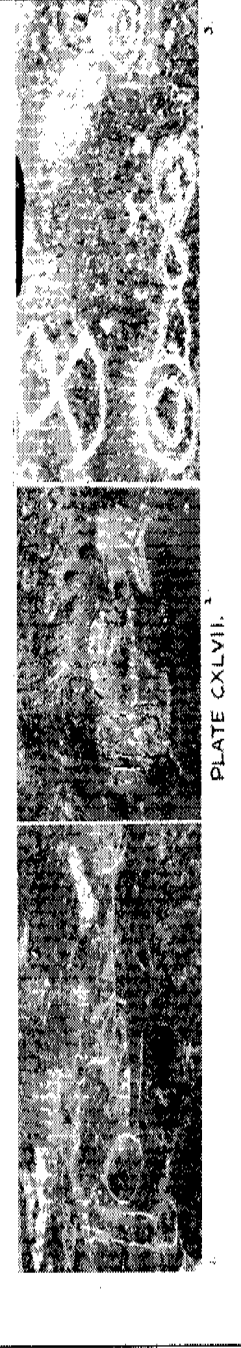
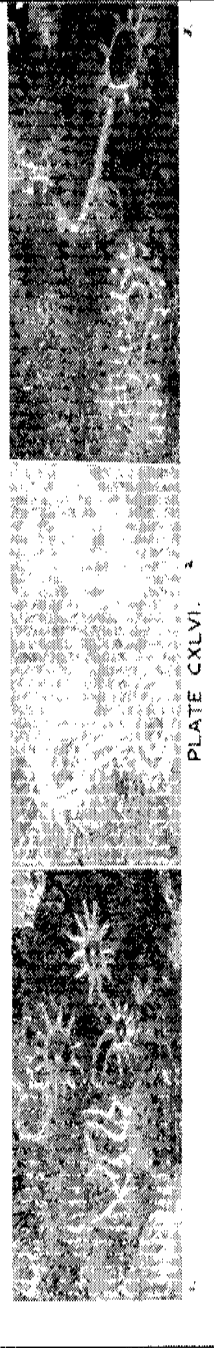
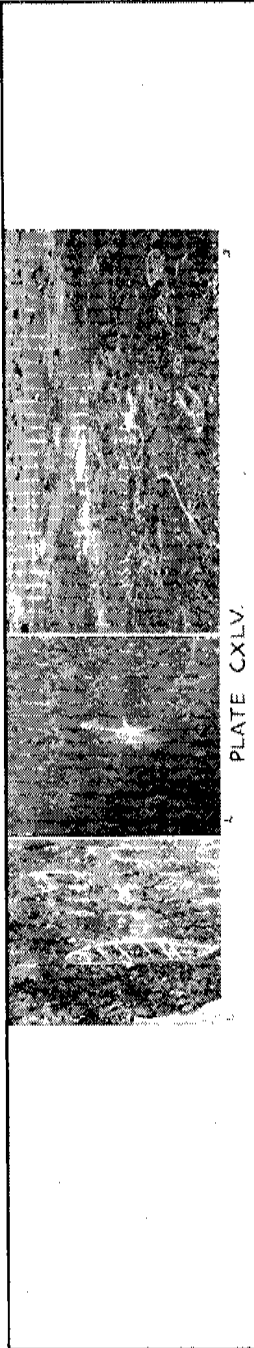


PLATE CXLIX

PETROGLYPHS AT SITE NO. 81, VAL VERDE COUNTY

At center of No. 2 is a projectile head. At lower right, in No. 3, is a bow and arrow near a cross.

PLATE CL

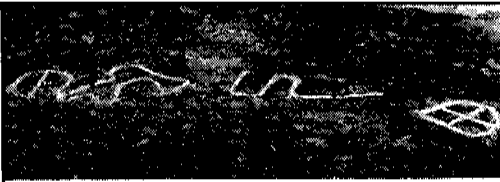
CONNECTED CIRCLES, RAYED DISCS, RAIN SYMBOL, ETC., SITE NO. 81

At upper left in No. 2 is a so-called cloud and rain symbol. At top of No. 4 is a set of zigzag lines with a central band line. It may be a representation of the cysthos.

PLATE CLI

ROCK SHELTER AND PICTOGRAPH AT SITE NO. 81

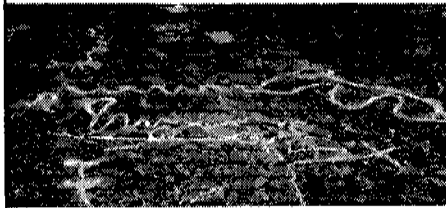
1. View of shelter and pool of water.
2. Pictograph in red, damaged by seepage. The painting locally is referred to as "the devil with horns." It may be a conventionalized large animal or a huge lizard.



1.



2.



3.
PLATE CXLIX.

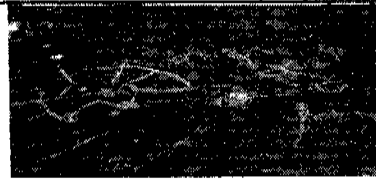


4.

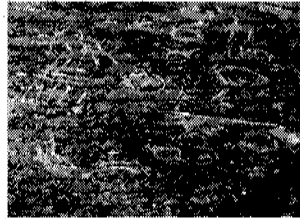


5.

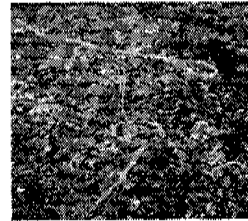
PLATE CLI.



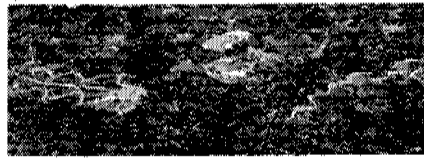
1.



2.



3.



4.



5.

PLATE CL.

SITE NO. 82

Some of the pictographs on the wall of the large shelter, and adjoining smaller one, were illustrated and others described by Pearce and Jackson.⁴⁸ The reader is referred to that report for details, both as to the paintings and the material culture found in the shelter. The illustrations here given supplement the original report.

⁴⁸Pearce, J. E., and Jackson, A. T., *op. cit.*, pp. 18-27.

FIG. 181. UNUSUAL PICTOGRAPHS AT SITE NO. 82, VAL VERDE COUNTY

1. Composite painting in black, red and yellow. Height, 28 inches. Popularly called "the snake charmer."
2. Nondescript creature, pierced by a projectile. Color, red and yellow. Length, 39 inches.

FIG. 182. HUMAN, ANIMAL AND SYMBOLIC PAINTINGS, SITE NO. 82

- Colors: 1, yellow; 2-5, red; 6, black bordered with red; 7-8, red.
- Dimensions: 1, 18 inches tall; 2, length, 7 inches; 3, length, 4½ inches; 4, height, 18 inches; 5, length, 9 inches; 6, diameter of crescent, 12 inches; 7, length, 3 feet; 8, height, 9 inches.

FIG. 183. PICTOGRAPHS IN RED PAINT, SITE NO. 82

1. Reclining human figure. Length, 17 inches.
2. Conventionalized human hands or bear tracks. Height, about 10 inches.
3. Concentric circles; outer diameter, 17 inches.
4. Conventionalized animal. Length, 8 inches.

FIG. 184. UNUSUAL PICTOGRAPHS AT SITE NO. 82

1. Compact group containing a fish-like design. Color, red with small amount of black. Height, about 4½ feet.
2. Height, 16½ inches. Color, yellow.
3. Punctate design in red. Height, about 4½ feet.

FIG. 185. BIRDS, SPIDER AND INSECTS, SITE NO. 82

Dimensions: Birds about 5 inches tall; insects, or human figures, 7½ inches long; spider, or sun-ray disc, 32 inches in diameter. Colors: Disc, red and yellow; others, red. Very dim.

FIG. 186. A GROUP OF CEREMONIAL DANCERS, SITE NO. 82

Height is about 26 inches.

The red paint is very dim; and the bottom of the group comes down to the midden deposit, indicating that the floor was built up several feet after the pictures were painted. The group shows a close resemblance to dancers painted at Sites No. 30, 56, and 150, Jeff Davis, Terrell and Concho Counties.

FIG. 187. A GROUP OF STORY-TELLING PICTURES, SITE NO. 82

So-called "altar with smoke arising" possibly a square-shouldered human figure with a feather headdress. The picture includes the ladder element. Note the trees and rows of numeration dots. Color is red; very dim. Height, about four feet.

FIG. 188. CONVENTIONALIZED HUMAN, ANIMAL AND SYMBOLIC DESIGNS,
SITE NO. 82

Colors: 1, 10, black outlined in red; 4, outlined in black; others in red.

Dimensions: 1, 7 feet tall; 4, 7 feet long; 5, length from nose to base of tail, 24 inches; 9, length, 15 inches; 11, height, 40 inches. In No. 11 an animal or human figure is superimposed over a dim tree. No. 5 may represent a barking squirrel.

(Groupings by the author, except in Figs. 186, 187.)

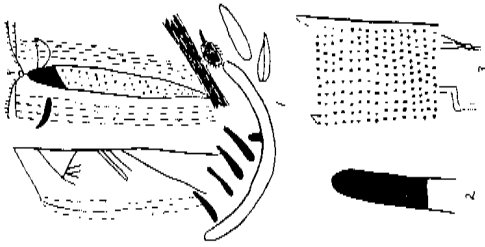


FIG. 184

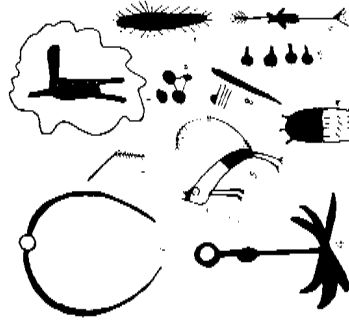


FIG. 188

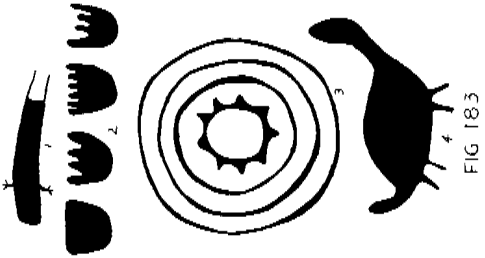


FIG. 183



FIG. 182



FIG. 186.

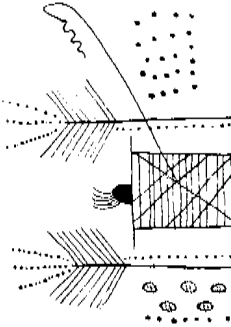


FIG. 187.

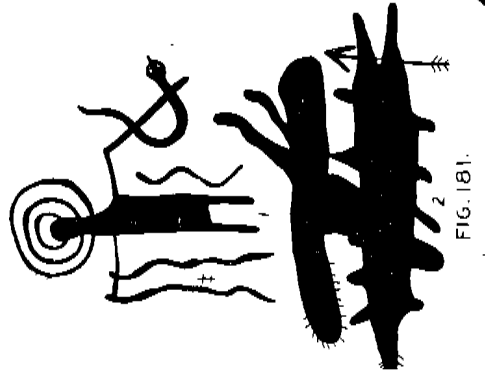
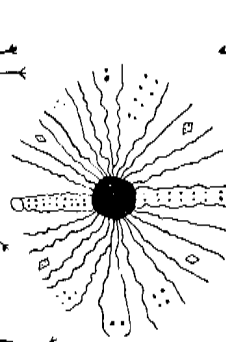


FIG. 181.



FIG. 185.



CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 82

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	15	
Dancing figures	10	
Square-shouldered figure	1	
Limned hands	5	
Arms:		
Upraised	13	
Outstretched	3	
One arm missing	1	
Armless	1	
Legless	1	
Headless	2	
Headdress:		
Deerhorn	1	
Feather	3	
Feather bedecked garment.....	1	
Fringed garments	2	59
<hr/>		
<i>Human Workmanship:</i>		
Projectiles	5	
Clubs	6	
Sandal	1	
Pole ladders	13	
Ladder-like element	1	26
<hr/>		
<i>Lower Life:</i>		
Conventionalized animals	7	
Animal: part colored, part outlined.....	1	
Animal tracks	4	
Plumed serpents	2	
Snakes	10	
Lizards	3	
Birds	7	
Bird track	1	
Fish (?)	1	
Butterfly (?)	1	
Insects (?)	14	
Projectile wound	1	
Trees	3	55
<hr/>		
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	1	
Oblique hatching	1	
Horizontal hatching	1	
Horizontal band lines	3	
Vertical band line	1	
Enclosing line	1	
Enclosure of dashes	1	
Rectangles	2	
Legged-box element	1	
Amoeboid figures	4	
Punctate	3	
Concentric circles	3	
Single zigzag line	1	
Parallel zigzag lines	1	
Crescents or moons	13	
Stars	13	
Sun symbols	4	
Cloud and rain symbols	2	
"Altar" (?)	1	
Anchors	2	59
<hr/>		
Total	199	100

SITE NO. 83

On the wall of a shelter, 1½ miles down the canyon from Site No. 82, are a few dim paintings in red. The shelter faces east and contains a midden deposit, that has been riddled by various amateur diggers. Boulders near the edge of the shelter contain a number of deep cylindrical mortar holes.

PLATE CLII

MORTAR HOLES AT SITE NO. 83, VAL VERDE COUNTY

1. Holes of various depths.
2. A deep cylindrical hole destroyed by someone who attempted to break it out.

PLATE CLIII

PICTOGRAPHS AT SITE NO. 83

1. Concentric circles and other badly damaged designs.
2. Amoeboid figure, or paint daub, with line attached.

PLATE CLIV

VIEW OF THE PAINTED WALL AT SITE NO. 84, VAL VERDE COUNTY

Note the size of the paintings as compared with that of the man. Numerous superimposed pictures are shown in the photograph.

PLATE CLVI

CLOSE-UP OF PAINTINGS OF VARIOUS AGES, SITE NO. 84

The central cross is 3½ feet in length. Although superimposed over other paintings, the cross itself is damaged by spalling and appears to be of considerable age. It is doubtful if it indicates white contact, since no other paintings at the site show such evidence. The paintings are in red, orange and black, the predominating color being red. Note the feather-like leg decoration at lower right, and compare same feature in Plate CLVIII.

PLATE CLVII

HUMAN FIGURE WITH ARMS OUTSTRETCHED, SITE NO. 84

The painting illustrates the common technique of gradually tapering the body from shoulders to feet. Color is red. Note the arm decoration.

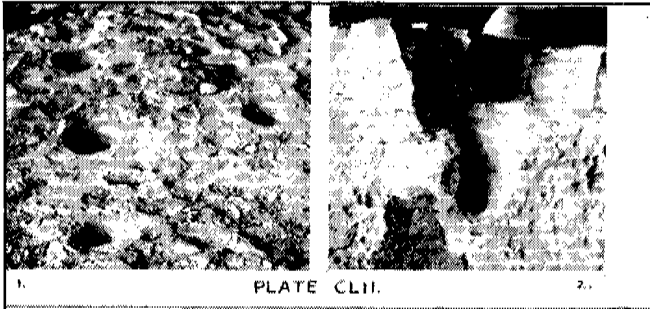


PLATE CLII.

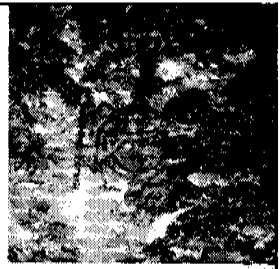


PLATE CLIII.

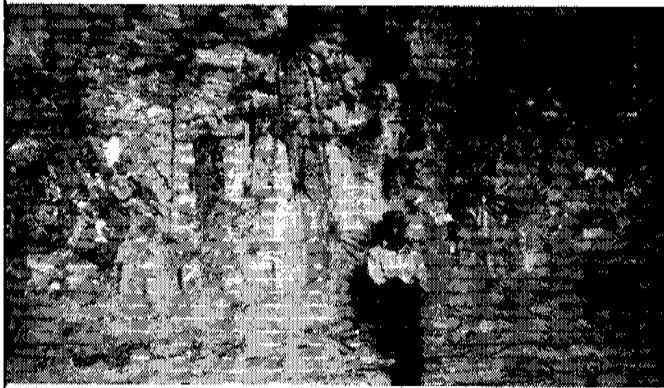


PLATE CLIV.

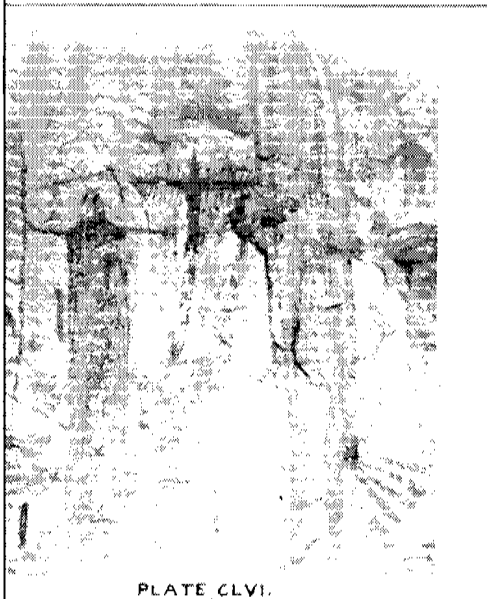


PLATE CLVI.

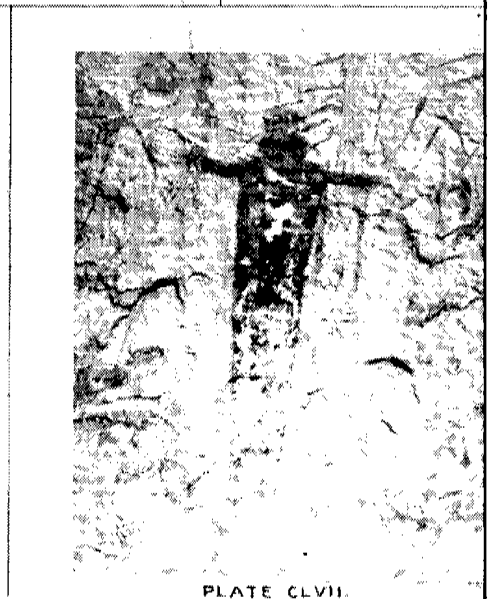


PLATE CLVII.

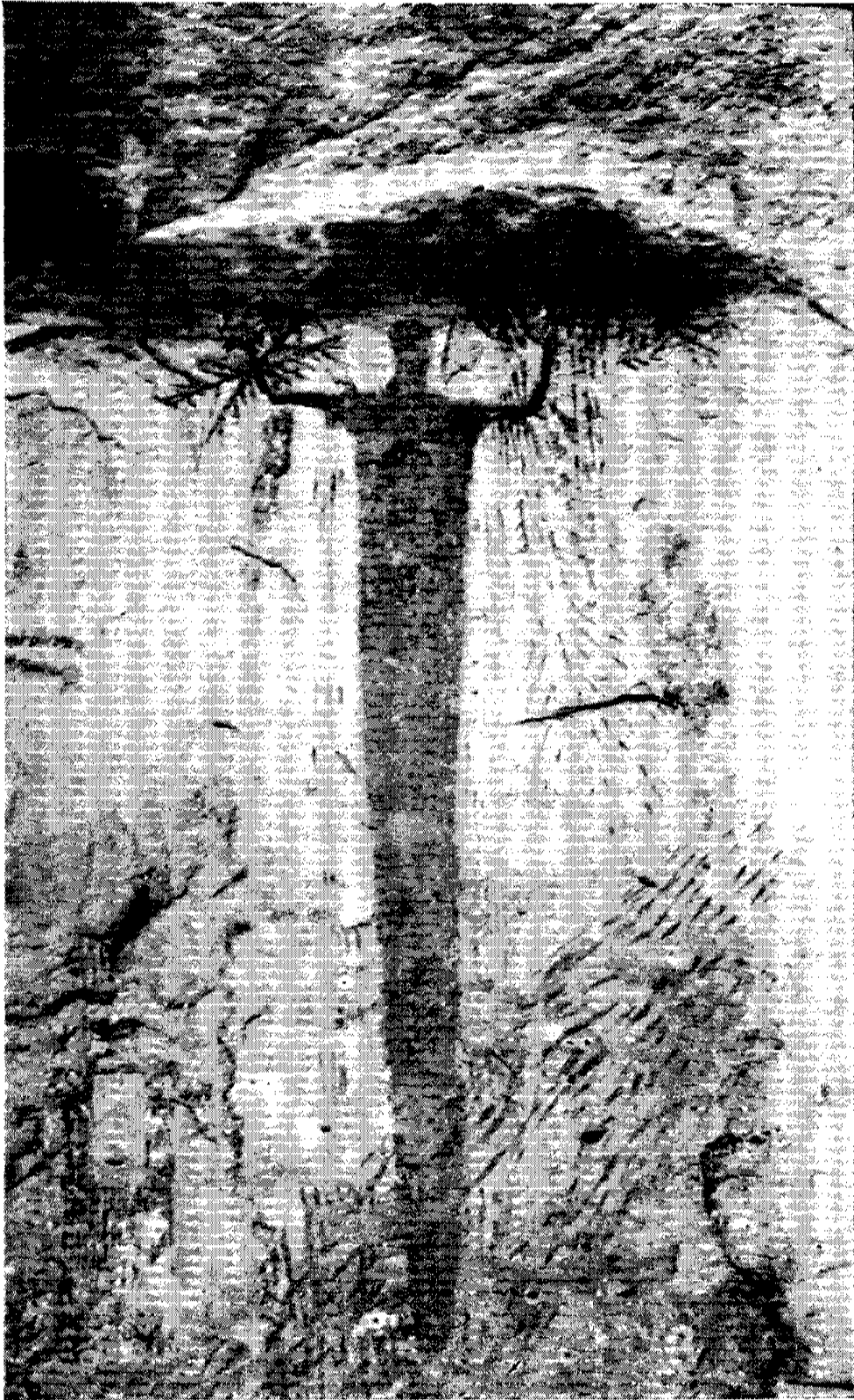


PLATE CIV

HUMAN FIGURE 10 FEET TALL AND 16 INCHES WIDE, SITE NO. 84,
VAL VERDE COUNTY, TEXAS

The feather-like arm decoration is a feature common to the region. Note that the arms are upraised and feet missing.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 83

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	4	
<i>Arms:</i>		
Outstretched	1	
Upraised	1	
Downward	1	
	7	58
<i>Lower Life:</i>		
Conventionalized animal	1	9
<i>Geometric and Symbolic:</i>		
Concentric circle	1	
Perpendicular hatching	1	
Amoeboid figure	1	
Problematical	1	
	4	33
Total	12	100

SITE NO. 84

At this place the paintings completely cover the wall of a rock shelter—located high in the cliff at the mouth of a canyon—on the north bank of the Rio Grande. The midden deposit indicates long occupation.

This is an outstanding pictograph site, and probably contains more superimposed paintings in a given area than any other in Texas. The pictures range from some that are very dim, and almost destroyed by spalling of the stone, to others clear and undamaged. All—with one possible exception—appear to be prehistoric. A distinctive feature is the large size of some of the paintings. A few are as much as ten feet in height and seven feet in width. There also are some small pictures. Most of the paintings are red, although black and orange appear in some.

PLATE CLVIII

HEADLESS HUMAN FIGURE, 8½ FEET TALL, SITE NO. 84, VAL VERDE COUNTY

Note the arm and leg decoration. A smaller human figure, enclosed by a terraced design, may be seen at the lower left.

PLATE CLIX

A SYMBOLIC FIGURE SUGGESTIVE OF THE PLUMED SERPENT, SITE NO. 84

Some of the adjacent paintings appear to be older than the central one.

PLATE CLX

A HUGE INSECT, OR MASKED FIGURE, SITE NO. 84

Note the surrounding small, rayed splashes of paint.

PLATE CLXI

UNUSUAL CIRCULAR DESIGN SUGGESTIVE OF A TURTLE, PERHAPS
REPRESENTING A SHIELD, SITE NO. 84

Some see in the picture a resemblance to a conventionalized beaver. The central portion is colored black; while the legs, tail and adjacent lines are in red.

PLATE CLXII

SYMBOLIC DESIGNS, SITE NO. 84

1. So-called flower stalk of the Spanish bayonet (*Yucca treculeana Carr*). Color, red.
2. An arrow or atlatl shaft with a large wooden hunt point. The circular element at the opposite end of the shaft suggests feathering.
3. Rayed splotches, possibly representing spiders or small sun-ray discs.



PLATE CLX.

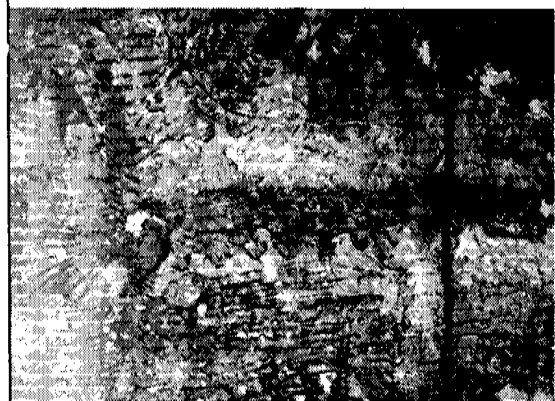


PLATE CLIX.

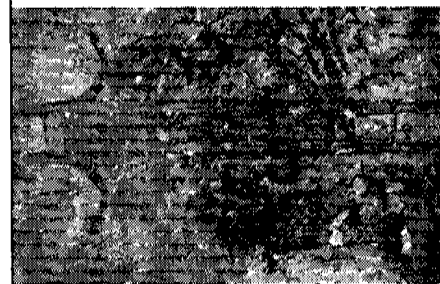
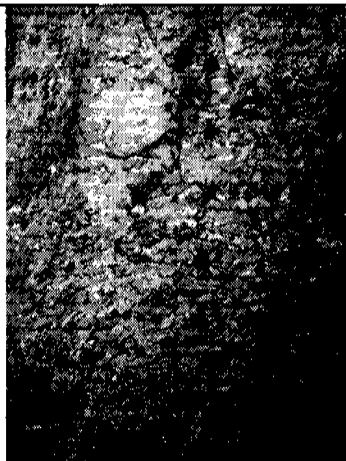


PLATE CLVIII.



PLATE CLXI.



3.

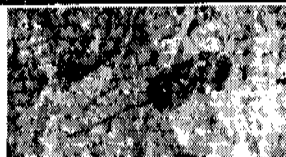


PLATE CLXII.



4.

PLATE CLXIII

HUMAN, ANIMAL AND SYMBOLIC DESIGNS, SITE NO. 84, VAL VERDE COUNTY

1. Outline of human figure with arms upraised. Legs missing.
2. So-called cloud and rain symbol, thought by some to represent a flag. Dim and damaged by spalling of the stone.
- 3, 5. Running deer, one showing projectile seemingly in hind leg.
4. Legless human figure, with problematical object in hand.

FIG. 189. CONVENTIONALIZED HUMAN AND ANIMAL REPRESENTATIONS,
SITE NO. 84

Colors: 1, 4, 5, 6, 8, red; 2, black, red and orange; 3, black with red border; 7, orange with black center. No. 8, supposedly representing a puma or mountain lion, is painted in red high on the shelter wall. Length, not including tail, 82 inches; tail, 96 inches long. Height of animal, 42 inches.

FIG. 190. AMOEBA-LIKE ELEMENTS, TEPEE, TREE, ETC., SITE NO. 84

Rayed daubs of paint may represent sun discs or possibly shields. Note that No. 7 is pierced by a projectile. Another daub is suggestive of the root system of a tree.

No. 5 may be a human figure or a ladder. Nos. 2 and 10 are suggestive of tepee and rabbit stick, respectively. Height of No. 5 is 9 feet. Color is red.

FIG. 191. HUMAN, ANIMAL AND SYMBOLIC PAINTINGS, SITE NO. 88,
VAL VERDE COUNTY

Note that Nos. 10 and 11 represent men armed with clubs or rabbit sticks. Color is red.

FIG. 192. HUMAN FIGURES WITH UPRAISED ARMS, SITE NO. 90,
VAL VERDE COUNTY

- 1, 2. Perhaps dancers. Color is red.
3. "Warrior" with bow. Color, yellowish-red. Note the lines; significance unknown.

FIG. 193. HUMAN, TURTLE AND SYMBOLIC DESIGNS, SITE NO. 90

Color is red.

Nos. 3 and 6 show feathers in the hair. No. 4 shows two men armed with bows and arrows, one with a club or rabbit stick, and a turtle enclosed by dots. No. 5 is a negative handprint with painted background.

(Groupings by the author)

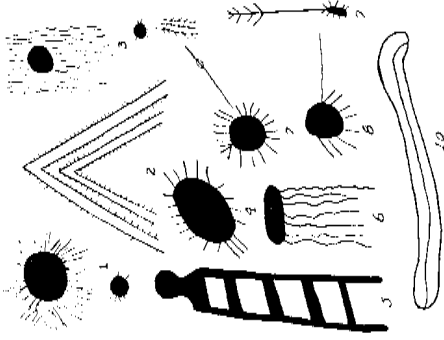


FIG. 190.

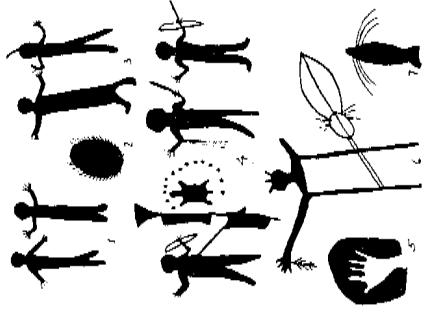


FIG. 193.

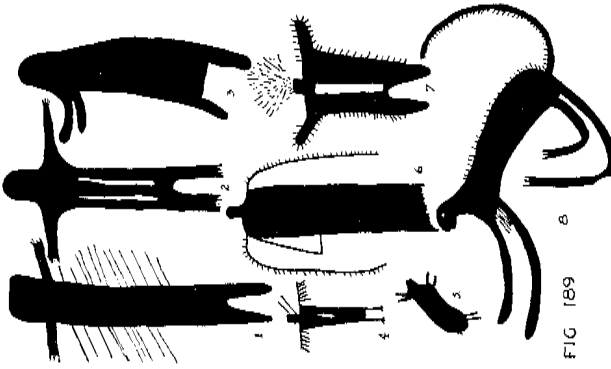


FIG. 189.



FIG. 192.

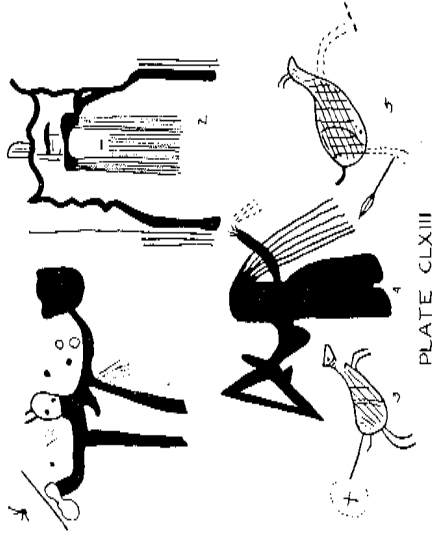


PLATE CLXIII

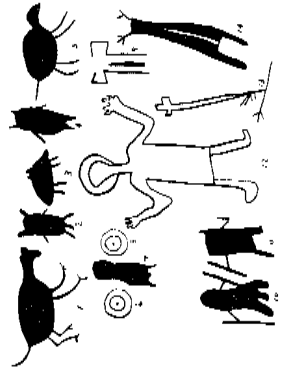


FIG. 191

PLATE CLXIV

SYMBOLIC PAINTINGS AT SITE NO. 84, VAL VERDE COUNTY

1. A maze of intricate lines, among which is a ladder-like element.
2. So-called pole ladder (possible insect) horizontal hatching, and other elements. Color of paintings, 1 and 2, red.
3. Dim human figure with arms upraised.

PLATE CLXV

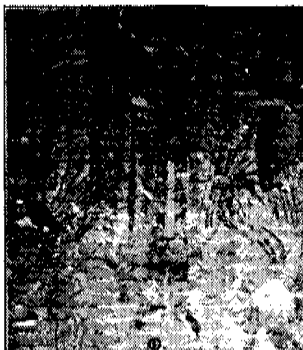
VIEWS AT SITE NO. 85, VAL VERDE COUNTY

1. Overhanging ledge, as seen from across the canyon.
2. Mortar holes in bedrock adjacent to stream. Many of the holes are filled with pebbles and soil.

PLATE CLXVI

PICTOGRAPHS AT SITE NO. 85

1. Dancing human figures. Legs almost obliterated by flood water.
2. View of shelter and stream showing dim paintings on wall.



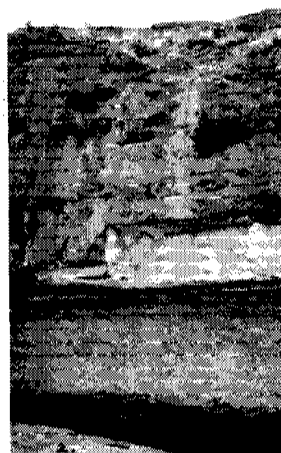
PLATE³ CLXIV.



PLATE CLXV.



PLATE CLXVI.



CLASSIFICATION OF TRACEABLE DESIGN ELEMENTS, SITE NO. 84

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	28	
Arms:		
Upraised	9	
Outstretched	15	
Down	1	
Armless	4	
Arm decorations	16	
Headdress:		
Feather	10	
Horn	1	
Leg decorations	6	
Legless	2	
Headless	3	
Fringed garments	7	
	102	41
<i>Human Workmanship:</i>		
Projectiles	3	
Projectile with bunt point	1	
Atlatl and dart	1	
Possible atlatl	1	
Rabbit sticks	4	
Shield	1	
Tepee	1	
Pole ladder	1	
	13	5
<i>Lower Life:</i>		
Conventionalized animals	2	
Carnivorous animal	1	
Deer	2	
Projectile wound	1	
Snakes	3	
Turtle	1	
Lizard	1	
Insects (?)	15	
Yucca flower stalk (?)	1	
Yucca blossoms (?)	5	
Trees	4	
	36	14
<i>Geometric and Symbolic:</i>		
Hatching:		
Perpendicular	12	
Oblique	2	
Horizontal	5	
Horizontal band line	1	
Crosshatch	1	
Punctate	1	
Concentric circles	2	
Curvilinear	3	
Amoeboid figures	9	
Squares	4	
Rayed discs:		
Small	34	
Large	11	
Cross with rayed arms	1	
Equal-armed crosses	2	
Zigzag line	1	
Series of numeration dots	1	
Ladder-like element	1	
Flag-like element	1	
Cloud and rain symbols	3	
Problematical	1	
	96	40
Total	247	100

SITE No. 85

Located about one mile north of Site No. 82, in the west side of the same canyon, is a shelter in which are found a few dim paintings. The stream runs at the base of the wall and immediately opposite is a campsite, with a burnt-rock midden and 124 mortar holes.

The paintings are in red and consist largely of human figures. Several have been damaged by vandals.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 85

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	7	
Dancing figures	3	
Legless	1	
<i>Arms:</i>		
Outstretched	2	
Upraised	8	
	21	81
<i>Lower Life:</i>		
Conventionalized animals	2	
Bird track (?)	1	
	3	12
<i>Geometric and Symbolic:</i>		
Triangle	1	
Horizontal hatching	1	
	2	7
Total	26	100

SITES No. 86 AND 87

The few pictographs reported on the walls of shelters at these sites have not been studied by the Anthropology Department of The University of Texas.

SITE No. 88

On the wall of a rock shelter a few miles north of the Rio Grande are pictographs that appear to be prehistoric. Part of the floor is covered by midden deposit.

PLATE CLXVII

DIM PAINTINGS AT SITE NO. 85, VAL VERDE COUNTY

- 1, 2. Human figures with upraised arms.
- 3, 4. Other paintings on the wall.

PLATE CLXVIII

VIEW OF ROCK SHELTER AT SITE NO. 88, VAL VERDE COUNTY

PLATE CLXX

CONVENTIONALIZED HUMAN FIGURES AT SITE NO. 88

Colors, red and black. Height, 4½ feet.

PLATE CLXXI

SYMBOLIC DESIGNS AT SITE NO. 88

1. So-called plumed serpent, 4 feet in length. The tail is of alternate red and black lines. The balance of the design is solid black. The 4 so-called plumes point upward.
2. Problematical design, painted in black with red borders. Height, 4 feet; width of red border, 1 inch.

PLATE CLXXII

PROBLEMATICAL PAINTINGS, SITE NO. 88

1. Box-like figure without legs and with parallel zigzag lines above. Similar groups of badly damaged zigzags are located on each side of the box. These are suggestive of what Steward⁴⁹ calls "girls' puberty paintings."
2. Dim problematical designs. Similar paintings are found in Edwards and Kinney Counties. Color, red.

⁴⁹Steward, Julian H., *op. cit.*, pp. 202, 203 and Map 26.

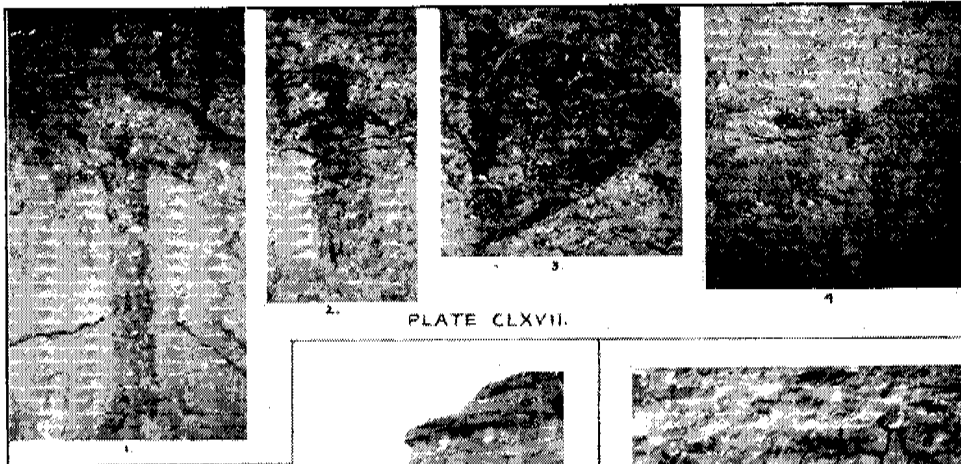


PLATE CLXVII.

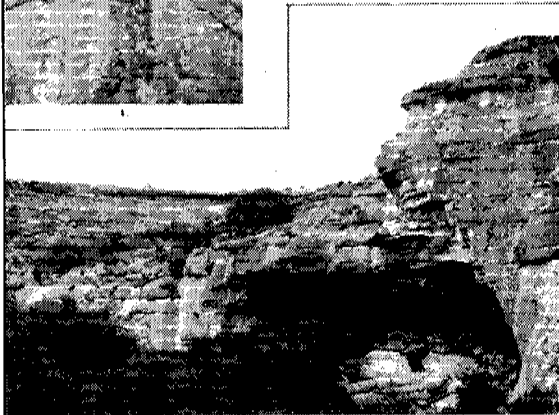


PLATE CLXVIII.



PLATE CLXX.

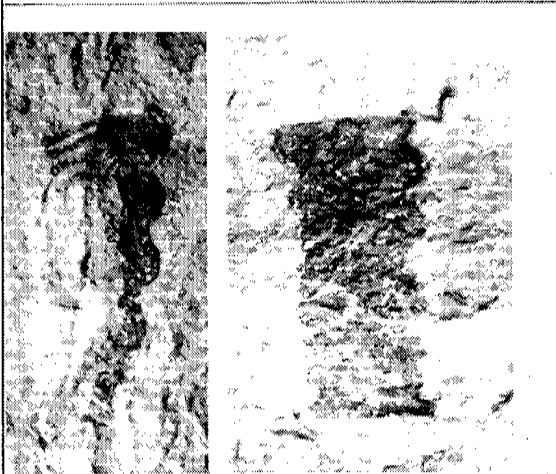


PLATE CLXXI.

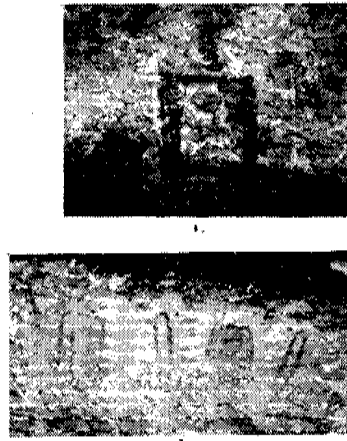


PLATE CLXXII.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 88

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	7	
Arms:		
Outstretched	1	
Upraised	4	
Downward	1	
Armless	1	
Legless	1	
Phallic	1	30
	16	
<i>Human Workmanship:</i>		
Rabbit sticks	2	
Projectile	1	5
	3	
<i>Lower Life:</i>		
Conventionalized animals	3	
Insects (?)	3	
Plumed serpent	1	13
	7	
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	4	
Blanket-like element	1	
Sword-like element	1	
Legged-box elements	4	
Cloud and rain symbols (?)	4	
Series of chevrons	1	
Concentric circles	2	
Altar (?)	1	
Enclosure of dots	1	
Ladder-like elements	2	
Parallel zigzags	2	
Single zigzags	3	
Curvilinear	1	
Cross	1	52
	28	
Total	54	100

SITE NO. 89

Although little more than a mile from Site No. 88, the paintings at this location are of an entirely different type. They are on the wall of a slightly overhanging ledge, the floor of which is periodically flooded. Hence there remains no midden deposit. A few hundred yards distant is a large burnt-rock midden. Since, however, the paintings are historic it appears that the midden was built up long before the pictures were painted.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 89

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized Europeans	3	
Hand	1	31
	4	
<i>Human Workmanship:</i>		
Mission	1	
Pipe	1	
Lariat	1	23
	3	
<i>Lower Life:</i>		
Horses	2	
Longhorn cow	1	23
	3	
<i>Geometric and Symbolic:</i>		
Crosses	3	23
	3	
Total	13	100



PLATE CLXIX

UNUSUAL DESIGNS, SITE NO. 88, VAL VERDE COUNTY, TEXAS

A group of box-like elements with accompanying curvilinear designs in red, black and yellow. The box-like figures, about 12 inches square, are similar to those at Site No. 82.

SITE NO. 90

This is an outstanding pictograph site, differing in various respects from any other in Texas. The paintings cover the wall of a lengthy overhanging ledge, near the upper reaches of a picturesque canyon. A sluggish, fern-lined stream runs beneath the overhang, and within a few feet of the dim pictures.

Just across the stream to the south, with the bluff to break the winter winds, was a campsite. There remain burnt-rock middens, and a few mortar holes in adjacent rock ledges.

The eastern section of the bluff is dotted here and there with old paintings, not unlike many of those found in shelters of nearby canyons. But the west half of the wall, to a height of some eight feet, is covered over with a continuous band of realistic pictures. They appear to be more recent than the others, but there is no evidence of European contact. The paintings may belong to the late prehistoric period. Above some of the pictures are older ones of perhaps the same age as those to the east. All but a few are in a dull shade of red.

Other paintings at Site No. 90 are reproduced in natural colors in the frontispiece. Outstanding among the pictures is the deer, measuring 46 inches in height and 70 inches in length. The native artist indicated the heart and other internal organs by a novel technique of circle, dots and hatching. Such representation of animal viscera is unusual in Texas pictographs. Note that the animal's tongue is curved upward toward the man's hand, and a projectile point is nearby. The human figure is 62½ inches tall.

PLATE CLXXIII

VIEW OF OVERHANGING LEDGE AT SITE NO. 89, VAL VERDE COUNTY

PLATE CLXXIV

PICTOGRAPH SHOWING A MISSION SCENE, SITE NO. 89

Clustered about the mission are Europeans variously occupied. The cowboys have roped a longhorn cow. The officer in uniform holds a pipe in his hand. The positive print of the right hand frequently is found in historic sites.

PLATE CLXXV

A CANYON SCENE BELOW SITE NO. 90, VAL VERDE COUNTY

A rock shelter, containing pictographs, may be seen in the central rear. Nearby is a pool of permanent water.

PLATE CLXXVI

HUMAN FIGURES WITH ARMS IN OPPOSITE POSITIONS, SITE NO. 90

1. So-called square-shouldered type, unlike the actual square-shouldered figures of the Southwest. Height, 50 inches. Note the feather in hair. Color, black.
2. Arms upraised and feet outspread. Height, 30 inches. Color, yellowish-red.

PLATE CLXXVII

JACK RABBIT AND WILD TURKEY, SITE NO. 90

The turkey is 23 inches tall and 18 inches long from tail to breast. Color is red.



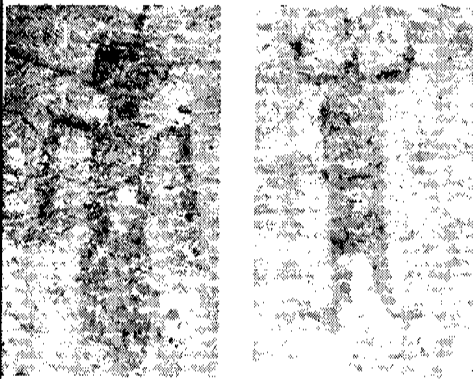
PLATE CLXXIII.



PLATE CLXXIV.



PLATE CLXXV.



1. PLATE CLXXVI. 2.



PLATE CLXXVII.

Another clear-cut case of the association of human and animal figures is pictured near the right of the group. This shows a comical-looking little fellow, in a sitting posture with feet turned upward, holding out one hand to the animal. The picture suggests that the animal is being fed from the child's hand and bespeaks a sense of humor on the part of the artist. The animal is 20½ inches tall and 26 inches from nose to base of tail. Just above the animal's neck is a dim, and apparently older, painting of an equal-armed cross in a circle.

A very realistic picture is that of the large catfish, measuring 27 inches in length. There is a second painting of a fish, in a much worse state of preservation, farther down the bluff. These are the best representations of fish the writer has seen in Texas picture-writings.

The bow and arrow appears in five of the pictures; but there is no evidence of the atlatl. This would seem to confirm other facts which tend to show that the paintings there have no great age.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 90

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	18	
Dancing figure	1	
Square-shouldered figure	1	
Projectile wound	1	
Arms:		
Upraised	16	
Outstretched	2	
Downward	1	
Arm decorations	4	
Feet outturned	1	
Legs upturned	1	
Leg decorations	4	
Feather headdresses	5	
Phallic	1	
Negative handprint, painted background	1	69
<hr/>		
<i>Human Workmanship:</i>		
Bows and arrows	4	
Projectile point	1	
Projectile	1	7
<hr/>		
<i>Lower Life:</i>		
Conventionalized animals	4	
Deer	1	
Jack rabbit	1	
Animal viscera	1	
Turkey	1	
Thunderbird	1	
Catfish	2	
Turtle	1	
Snake	1	15
<hr/>		
<i>Geometric and Symbolic:</i>		
Triangle	1	
Concentric circles	1	
Rayed disc	1	
Enclosure of dots	1	
Amoeboid figures	2	
Equal-armed cross	1	
Equal-armed cross in circle	1	
	8	9
<hr/>		
Total	84	100

SITE No. 91

About a mile down the canyon from Site No. 90 is a rock shelter with some red paintings on its wall. The shelter, first reported by W. E. McCarson, Jr., is inaccessible located in the steep west bank of the canyon. It has not been examined by a University of Texas representative.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 91

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	6	13
<i>Human Workmanship:</i>		
Projectile	1	
Sword-like element	1	
Ladders	3	
Pole ladder	1	6
	6	12
<i>Lower Life:</i>		
Conventionalized animals	2	
Snakes	2	
Fish	2	
Centipede	1	
Thunderbird (?)	1	
Trees	2	10
	10	21
<i>Geometric and Symbolic:</i>		
Horizontal hatching	1	
Horizontal band line.....	1	
Single circles	2	
Rayed semicircle	1	
Curvilinear	4	
Series of pendant triangles	1	
U-shaped elements	4	
Y-shaped elements	3	
Rake-like element	1	
Zigzags	4	
Cloud symbols	2	
Problematical	2	
	26	54
Total	48	100

SITE No. 92

A small shelter, along the Texas side of the Rio Grande, is reported to contain a few pictographs. The site is inaccessible except by boat.

SITE No. 93

The sheltered part of a large overhanging boulder, located at a water hole on a small creek, has a few dim paintings in red. Near the small shelter is an open campsite. The outstanding pictures are those of a square-shouldered man and a so-called buffalo, or other conventionalized animal.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 93

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	3	
Square-shouldered	1	
Arms upraised	2	
Phallic	1	
Feather headdress	1	
	8	47
<i>Lower Life:</i>		
Conventionalized animals:		
Buffalo (?)	1	
Other	1	
Snakes	2	
	4	23
<i>Geometric and Symbolic:</i>		
Zigzags	3	
Circle	1	
Rectangle	1	
	5	30
Total	17	100

SITES No. 94 AND 95

Rock shelters, with a few pictographs on their walls, have been reported at these sites. No one from The University of Texas has studied the paintings.

SITE No. 96

The pictographs at this site were first officially—but very briefly—mentioned by French⁶⁰ in 1849. In discussing the lower Devils River region he wrote:

“ . . . In a deep, rugged canyon the waters of the latter find an outlet into the Rio Grande. . . . The San Pedro is a stream about 60 yards wide, running over a level bed of solid limestone rock. . . . About two miles beyond,” (west), “water is found in a ravine; and nearby is the only encamping-ground in the vicinity. From some rude Indian paintings on the rocks it has been called the ‘Painted Caves.’ ”

The fact that the place was a favorite camping ground for the wagon trains of westward-moving emigrants resulted in the pictographs being vandalized at an early date. Even after the advent of the automobile, and up to within just a few years ago, the highway passed within 50 yards of the two shelters in which the paintings are located. Hence it is not surprising that most of the Indian pictures have been ruined by initial-writers.

⁶⁰French, Capt. S. G., Reports of the Secretary of War With Reconnaissances of Routes from San Antonio to El Paso, Senate Executive Document No. 64, Thirty-first Congress, First Session, Washington, July 24, 1850. (Report dated at San Antonio, December 21, 1849.)

PLATE CLXXVIII

VIEW OF A SHELTER AT SITE NO. 96, VAL VERDE COUNTY

The undergrowth almost obscures the entrance.

PLATE CLXXIX

CONVENTIONALIZED HUMAN FIGURES, SNAKES AND ZIGZAGS, SITE NO. 99,
VAL VERDE COUNTY

At the lower left probably is the representation of a diamond-back rattlesnake (*Crotalus atrox*). The two so-called "stick-men" seem to show phallic images. Height is about 4 feet. Colors, red and orange.

PLATE CLXXX

HUMANS, SNAKES, PARALLEL ZIGZAGS, ETC., SITE NO. 99

1. Human figure, in red, with black rectangular eyes in a square head, and a band down center of body. Dimensions, 84x12 inches.
2. Human figure and so-called "girls' puberty paintings." Color, red.
3. Club-like elements in red and black. Dimensions, 20x36 inches.

PLATE CLXXXII

PICTOGRAPHS DAMAGED BY SPALLING OF THE STONE, SITE NO. 103,
EDWARDS COUNTY

Note the conventional representation of a diamond-back rattlesnake near the upper center, and the white paint superimposed over designs in red.

PLATE CLXXXIII

ZIGZAGS AND SNAKE-LIKE DESIGNS AT SITE NO. 103



PLATE CLXXIX.

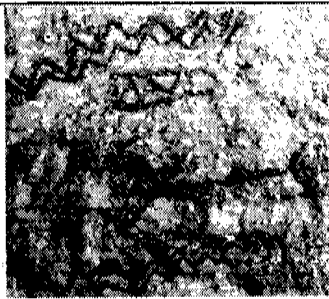


PLATE CLXXX.



PLATE CLXXXVIII.

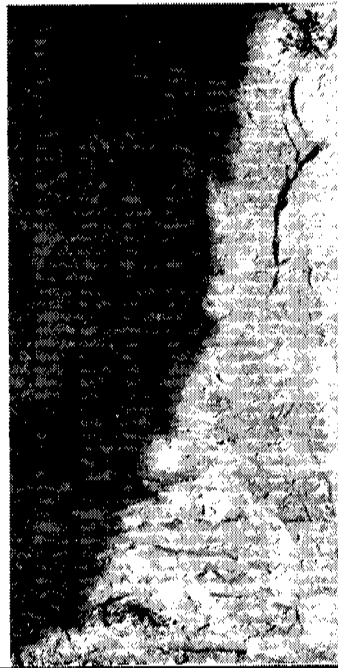


PLATE CLXXXII.



PLATE CLXXXIII.

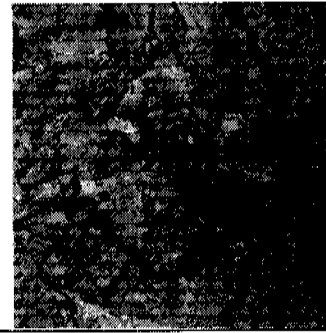


FIG. 194. CONVENTIONALIZED PAINTINGS IN RED, SITE NO. 91,
VAL. VERDE COUNTY

Nos. 6, 7 and 18 are human; 19 is a conventionalized animal; 2 and 3 are fish; 12, possibly a thunderbird.

FIG. 195. HUMAN, ANIMAL AND GEOMETRIC PAINTINGS, SITE NO. 93,
VAL. VERDE COUNTY

Color is red.

1. Square-shouldered, phallic symbol. Height, 42 inches and width 9 inches.
4. Conventionalized animal, supposed to represent a buffalo. Length, 20 inches; height, 10 inches.

FIG. 196. CONVENTIONALIZED PAINTINGS IN RED, SITE NO. 93

FIG. 197. UNUSUAL HUMAN REPRESENTATIONS, SITE NO. 96,
VAL. VERDE COUNTY

Dimensions: 1, $3\frac{1}{2} \times 4\frac{1}{2}$ inches; 2, $6 \times 4\frac{1}{2}$ inches. Color: red.

FIG. 198. PICTOGRAPHS SHOWING EUROPEAN CONTACT, SITE NO. 96

Colors: 3, black; 6, black outline with red interior; others red.

Dimensions: 3, 3×2 inches; 6, 10×4 inches.

Note the arms akimbo. Some of these paintings are suggestive of certain ones at Site No. 150, Concho County.

FIG. 199. UNUSUAL PAINTINGS IN BLACK, SITE NO. 96

1. Conventionalized animal. Dimensions: 12×9 inches.
2. Human representations, enclosed by heavy lines. Dimensions: $10\frac{3}{4} \times 5$ inches. Very dim and partly untraceable.

(Groupings by the author, except in Fig. 196.)

(Figs. 194 and 196, courtesy of Witte Memorial Museum.)

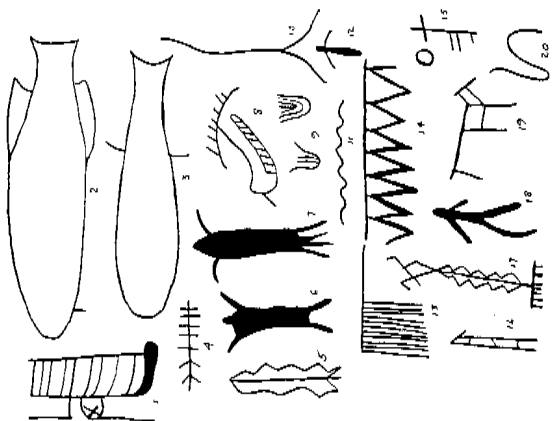


FIG. 194.

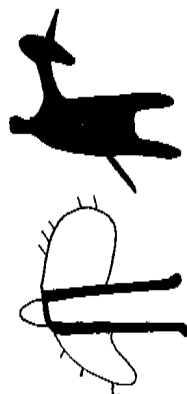


FIG. 197.

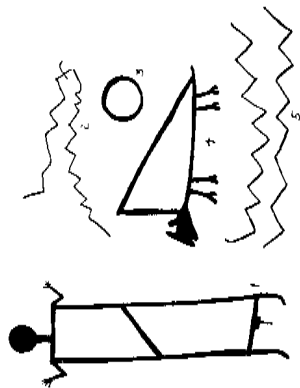


FIG. 195.



FIG. 196.

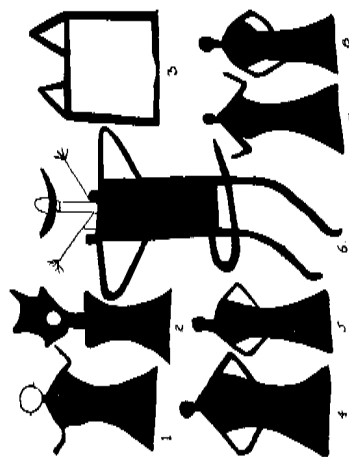


FIG. 198.

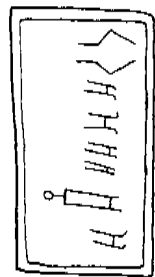


FIG. 199.

PLATE CLXXXI

LARGE CROTESQUE "BEAST OF PREY," SITE NO. 99, VAL VERDE COUNTY

Possibly symbolizes a mountain lion or panther. Body of the animal is red, with alternate red and black rays above. Dimensions of animal: length, 7 feet; height, 4 feet. Note the human figure beneath the animal. There may not have been any attempt to suggest relative size. Evidence of attempts to convey a sense of size is almost wholly lacking in all Texas pictographs.

FIG. 200. HUMAN, LOWER ANIMAL AND SYMBOLIC DESIGNS, SITE NO. 99

Colors: 3, 5, 6, red; 1, chain, red; and inner elements, orange; 7, crosshatch, red; and man, black; 2, red bordered with black; 4, alternate red and orange; 8, orange.

Dimensions: 1, 30x72 inches; 5, 38x15 inches; 7, 26x14 inches.

FIG. 201. UNUSUAL, HUMAN AND ANIMAL PAINTINGS, SITE NO. 99

1. Human form in black and red, with encircling loop suggestive of ones at Sites No. 38 and 43, Brewster County.

2. So-called animal pelt in red with black stripe down center. Numeration dots in red. Dimensions over all: 18x6 inches.

3. Ferocious-looking animal in red, with human beneath in red and black. Dimensions over all: 72x36 inches.

FIG. 202. PAINTINGS IN RED, WITH ADDITIONS IN ORANGE, SITE NO. 99

1. Originally a phallic human representation, with arms upraised. Later appendages were added in orange paint. Dimensions over all, 4½x2 feet.

2. Parallel club-like elements, suggestive of rabbit sticks. All originally in red; subsequent addition of a frog-like leg painted in orange color. Dimensions over all: 3½x2 feet.

FIG. 203. A CARNIVOROUS ANIMAL (PUMA?), SITE NO. 99

Dimensions, 7x2½ feet. Color: red. Note the details such as claws, bristles and teeth. From the mouth comes a row of dots, possibly representing the roar of the animal. (See Plate CLXXXI.)

FIG. 204. MAN HOLDING BOW AND RABBIT STICK, SITE NO. 105,
EDWARDS COUNTY

Height: 5½ inches. Color: black.

FIG. 205. HUMAN, ANIMAL, AND SYMBOLIC DESIGNS, SITE NO. 107,
EDWARDS COUNTY

(Groupings by the author)

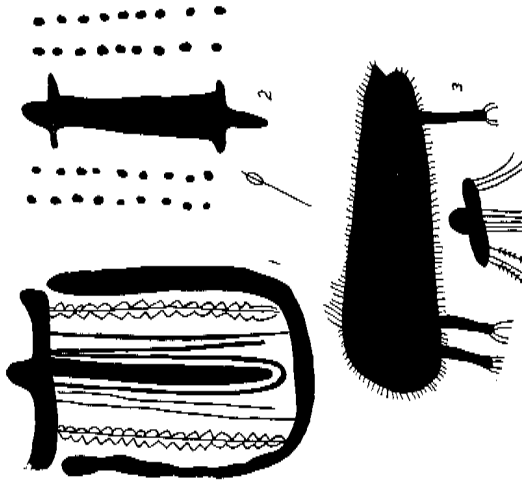


FIG. 201.

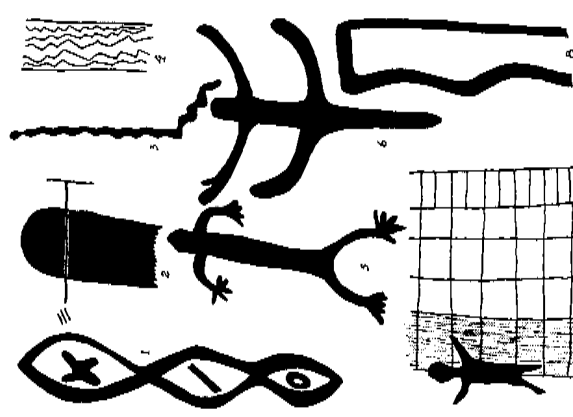


FIG. 200.

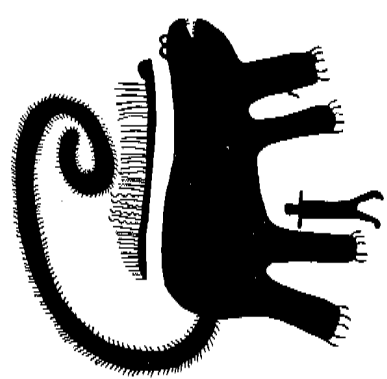


PLATE CLXXXI.

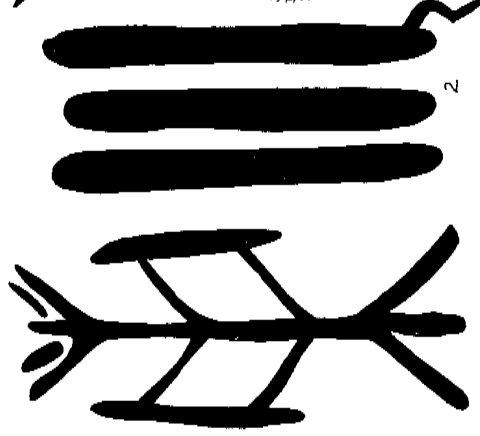


FIG. 202.

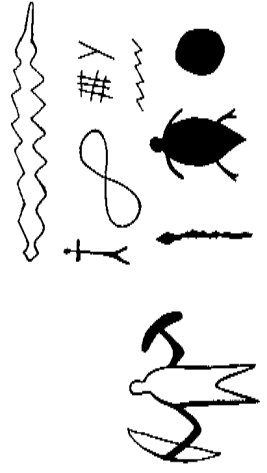


FIG. 204.

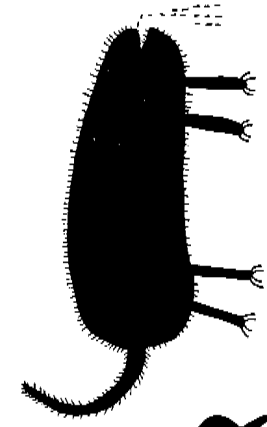


FIG. 203.

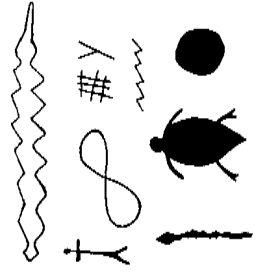


FIG. 205.

A large burnt-rock midden at the entrance to one of the shelters (Plate CLXXVIII), was leveled down and the shelter occupied in recent years by some one—perhaps a Mexican goat herder. Only two legible paintings of undoubted Indian origin now remain on the wall of this shelter. They appear to be prehistoric.

The second shelter, near the bank of the creek, has not been so badly damaged; with the result that a number of the paintings can be distinguished. Some of them show undoubted European contact and mission influence. The colors are black and red.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 96

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized Europeans:		
Man	1	
Women	6	
Other conventionalized figures.....	2	
Square-shouldered	1	
Incomplete figures (defaced).....	6	
Arms:		
Akimbo	4	
Upraised	2	
Armless	2	
One arm missing.....	1	
Leg decoration	1	
	26	87
<i>Human Workmanship:</i>		
Mission (?)	1	
Club	1	7
	2	7
<i>Lower Life:</i>		
Conventionalized animal	1	3
<i>Geometric and Symbolic:</i>		
Rectangular enclosure	1	3
	1	3
Total	30	100

SITE No. 97

The paintings are on the wall of a bluff in the rugged Devils River region. Outstanding among the pictures is that of a turkey. The pictographs have not been studied by a representative of The University of Texas.

SITE No. 98

Pictographs are reported in four small shelters along the Rio Grande. The site has not been visited by a representative of this department of The University of Texas.

SITE No. 99

The paintings here are very large. The size is accentuated by the location in small recesses.

The bluff at this point towers 313 feet above the river bed. The paintings, in three small shelters in the limestone, are about 200 feet above the water and are difficult of access.

The floors of the shelters are bare, sloping, solid rock and show no signs of human habitation other than the picture-writing. There is an open campsite in the vicinity.

The pictures consist of animal, human, zigzag, crosshatch and other design elements. The colors are red, black, and orange.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 99

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	12	
Arms:		
Downward	3	
Upraised	3	
Outstretched	6	
Arm decorations	2	
Legless	2	
Rectangular eye	1	
Phallic	3	32
<hr/>		
<i>Human Workmanship:</i>		
Rabbit sticks	9	
Clubs	3	
Projectile	1	13
<hr/>		
<i>Lower Life:</i>		
Conventionalized animal	1	
Carnivorous animals	3	
Pelts	2	
Snakes	3	
Frog	1	10
<hr/>		
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	1	
Oblique hatching	1	
Crosshatching	2	
Horizontal band line	1	
Enclosing band line	1	
Concentric circle	1	
Rectangle	1	
Pendant triangles	1	
Connected diamonds or lozenges	1	
Single zigzags	3	
Parallel zigzags	4	
Series of numeration dots	4	
Y-shaped element	1	
Ladder-like elements	2	
Chain-like element	1	
Equal-armed cross	1	26
<hr/>		
Total	81	100

SITES No. 100, 101, 102, AND 194

Various rock shelters, on and near the Devils River, have been reported as containing pictographs. Several of these have not been visited by a representative of this department, and so are not discussed in this report.

EDWARDS COUNTY

SITE No. 103

The site consists of a bluff about 150 feet in length, located near the headwaters of a perennial stream. The bluff has a slight overhang, forming a poorly protected shelter. Its floor is little more than ten feet above the stream channel; and overflows from time to time. Blowing rain sometimes enters. There is a deposit of burnt rocks and other midden material in the western half of the shelter.

There are many badly damaged paintings covering the wall for more than 100 feet. Most of them are in red, with a few in yellow and white. The latter colors are superimposed over red paintings; and are, therefore, more recent. Most of the damage

has resulted from spalling of the limestone wall. The paintings include human, animal, serpent, and various symbolic designs. The human and animal figures are small in comparison with those found at various sites in Val Verde County. As a whole, the pictures are more poorly done than those along the lower Pecos River. There appears no evidence of European contact.

The presence of the white paint is unusual in this region, and suggests a possible connection with sites farther west. Paintings in white are found at Sites No. 1 and 2, El Paso County; 11, Hudspeth County; 29 and 30, Jeff Davis County; 61, Terrell County; and 150, Concho County.

CLASSIFICATION OF RECOGNIZABLE DESIGN ELEMENTS, SITE NO. 103

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	6
<i>Human Workmanship:</i>		
Projectile	1	6
<i>Lower Life:</i>		
Snakes	4	
Spider	1	27
<i>Geometric and Symbolic:</i>		
Zigzags	5	
Connected circles	2	
Connected diamonds	1	
Cloud and rain symbol	1	
Sun symbol	1	
Perpendicular hatching ..	1	
	<hr/>	<hr/>
Total	18	100

SITE NO. 104

A local citizen reports a few dim paintings on the wall of a rock shelter in the southeastern part of the county. The pictures have not been examined by anyone from The University of Texas.

SITE NO. 105

The site, located at the head of a small creek, has a few dim paintings on the wall of a shelter. The only traceable painting in the group is that of a man holding a bow in one hand and a club, rabbit stick or possible shield in the other. The picture is in black, while the very dim ones are red.

CLASSIFICATION OF TRACEABLE DESIGN ELEMENTS, SITE NO. 105

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	
Arms upraised	1	50
<i>Human Workmanship:</i>		
Bow and arrow	1	
Rabbit stick	1	50
	<hr/>	<hr/>
Total	4	100

SITE No. 106

A few dim paintings have been reported on the wall of an overhanging bluff. They have not been examined by a representative of this department of The University of Texas.

SITE No. 107

A few pictographs on the shelter wall were reported by the late W. V. Huskey of Uvalde, Texas.

CLASSIFICATION OF DISCERNIBLE DESIGN ELEMENTS, SITE NO. 107

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	8
<i>Lower Life:</i>		
Conventionalized animal	1	
Snakes	2	
Turtle	1	33
<i>Geometric and Symbolic:</i>		
Crosshatch	1	
Disc	1	
Y-shaped element	1	
Figure eight element	1	
Zigzags	2	
Problematical	1	
	7	59
Total	12	100

SITE No. 108

The site consists of five rock shelters in a limestone bluff overlooking a creek. A few dim pictographs appear on the walls of two of the shelters. All the shelters were completely excavated by the Anthropology Department of The University of Texas in March and April, 1934.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 108

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered figures	2	10
<i>Human Workmanship:</i>		
Rabbit sticks	2	
Club	1	17
<i>Lower Life:</i>		
Bird track	1	
Centipede (?)	1	10
<i>Geometric and Symbolic:</i>		
Zigzags	3	
Figure eight elements	2	
Single circles	2	
Connected circles	2	
Horizontal band line	1	
Numeration dots, series of	1	
U-shaped element	1	
	12	63
Total	19	100

FIG. 206. PICTOGRAPHS IN RED AND ORANGE, SITE NO. 108,
EDWARDS COUNTY

1. So-called bird track, in red. Length: 6 inches.
3. Centipede or scorpion, 19 inches in length. The painting employs the pole-ladder and crescent or moon elements. Similar painting in white appears at Site No. 2, El Paso County.
4. Rabbit sticks, about 14 inches in length. Color: red.
- 5, 8. Variants of the figure eight element; one red, the others orange. A design identical with No. 8 appears on a painted pebble from the midden deposit of an adjoining shelter. (See Fig. 271, 4.)
- 6, 7. So-called square-shouldered human figures. Circular heads, apparently added at a later date, are in orange while the balance of the figures are in red. Height: 16 inches. These paintings are suggestive of a human figure at Site No. 82, Val Verde County.
9. U-shaped element in red; possibly a rabbit net set up.

FIG. 207. SMALL PICTOGRAPHS IN BLACK PAINT, SITE NO. 110,
EDWARDS COUNTY

1. Dimensions: 3x2 inches.
2. Unusual designs embodying ladder-like elements with a star or sun-disc above. Dimensions: 4¼x2½ inches.

FIG. 208. PENDANT TRIANGLES, PERPENDICULAR HATCHING AND CROSSHATCH,
SITE NO. 111, EDWARDS COUNTY

FIG. 209. UNUSUAL DESIGNS, SITE NO. 119, KINNEY COUNTY

1. Length: 2 feet.
2. Combination of ladder and projectile elements. Height: 3 feet.
3. So-called cloud and rain symbols, suggestive of certain paintings at Site No. 88, Val Verde County, Texas. Width: 4 feet.
Color: red.

PLATE CLXXXVI

SYMBOLIC PAINTINGS IN RED, SITE NO. 119

1. Intricate design, combining ladder, cloud and rain symbols.
2. Scroll and zigzag elements. Note that the scroll to the right is rayed, suggesting a sun symbol; an unusual combination. Width: 4 feet.
3. Cloud and rain symbol (?), sun-disc. Width: 3 feet. Lines are 1 inch wide.

(Groupings by the author, except in Fig. 208.)

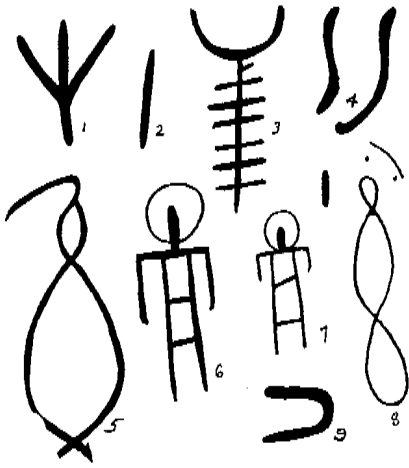


FIG. 206

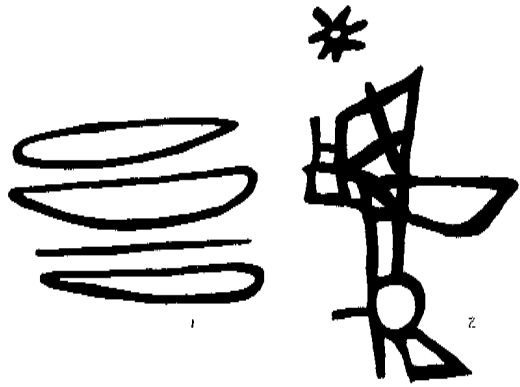


FIG. 207.

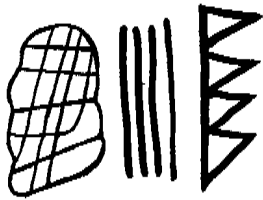


FIG. 208

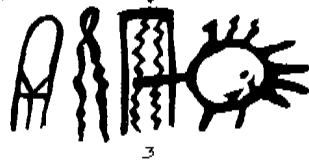
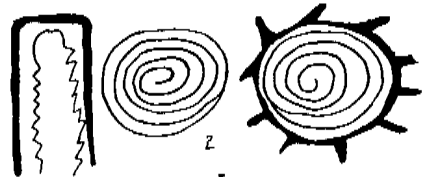
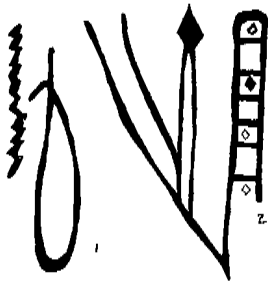
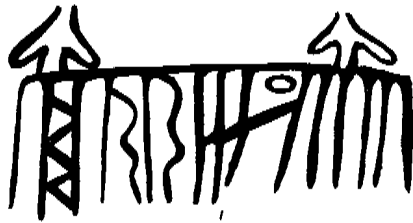


PLATE CLXXXVI.

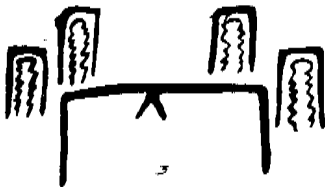


FIG. 209

SITE No. 109

The pictographs at this site, reported by W. V. Huskey, have not been examined by this department of The University of Texas.

SITE No. 110

At this site are a few paintings in red and black. The designs in red are large and dim; those in black, small and fairly clear. This fact tends to confirm that noted at Site No. 105, and indicates that the small black paintings are more recent than the red ones.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 110

	Number	Per Cent
<i>Geometric and Symbolic:</i>		
Sun symbol	1	
Curvilinear	3	
Single circle	1	
Triangles	3	
Rectangles	5	
Problematical	1	
	14	100
Total	14	100

SITE No. 111

A few pictographs are on the roof of a small shelter that measures 20x8x5 feet. In front of the shelter is a burnt-rock midden. The paintings, in red, are in a rather poor state of preservation.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 111

	Number	Per Cent
<i>Geometric and Symbolic:</i>		
Series of pendant triangles	1	
Perpendicular hatching	1	
Crosshatch	1	
	3	100
Total	3	100

SITES No. 112, 113, 114, 115, 116, 117

W. V. Huskey reported pictographs at a number of rock shelters that have not been examined by this department of The University of Texas.

KINNEY COUNTY

SITE No. 118

W. V. Huskey reported pictographs at this site, but they have not been examined by a representative of The University of Texas.

SITE No. 119

On about 60 feet of wall space, in a 100-foot shelter, are pictographs that have been damaged by floods in the adjacent creek. Spalling of the stone also has damaged the pictures. The designs consist of scrolls, sun-ray discs, cloud and rain symbols, etc.

In Fig. 209, 3 is a group of designs slightly suggestive of a Maya hieroglyph of the firmament.⁵¹ Here are shown "clouds from which falling rain is indicated by long zigzag lines."

CLASSIFICATION OF TRACEABLE DESIGN ELEMENTS, SITE NO. 119

	Number	Per Cent
<i>Human Workmanship:</i>		
Projectile	1	3
<i>Lower Life:</i>		
Snakes	2	7
<i>Geometric and Symbolic:</i>		
Triangles	2	
Series of rectangles.....	1	
Single circle.....	1	
Curvilinear	1	
Scrolls	2	
Ladder-like elements	2	
Rake-like element	1	
Single zigzag	1	
Parallel zigzags	1	
Sun symbols	3	
Cloud and rain symbols	8	
Water symbol	1	
Problematical	1	
	25	90
Total	28	100

⁵¹Brinton, D. G., *Essays of an Americanist*, Part III, *Graphic Systems and Literature*, David McKay, Publisher, Philadelphia, 1890, Figure I, p. 201.

PLATE CLXXXIV

VIEW OF ROCK SHELTERS AT SITE NO. 108, EDWARDS COUNTY

The second shelter from the right contains most of the pictographs.

PLATE CLXXXV

BADLY DAMAGED PICTOGRAPHS AT SITE NO. 119, KINNEY COUNTY

The condition of these paintings is typical of many of those in this region and eastward. It may be due in part to a greater rainfall, and consequent increased moisture in the air, compared with the Trans-Pecos region. (See Map II.)

PLATE CLXXXVIII

VIEWS OF ROCK SHELTER AT SITE NO. 140, GILLESPIE COUNTY

1. The bluff as seen from across the stream.
2. View of the shelter from the southwest. The shelter is flooded periodically, with the result that no perishable materials remained.

PLATE CLXXXIX

LONG "STRIP" PAINTINGS, SITE NO. 140

1. Zigzag line 32 feet in length and with a maximum width of zigzags of 32 inches. Color, red.
2. Series of connected pictures, possibly recording some happening. Dimensions: 26 feet 8 inches by 4 feet 6 inches. Color, red.



PLATE CLXXXV.



PLATE CLXXXIX.



PLATE CLXXXIV.

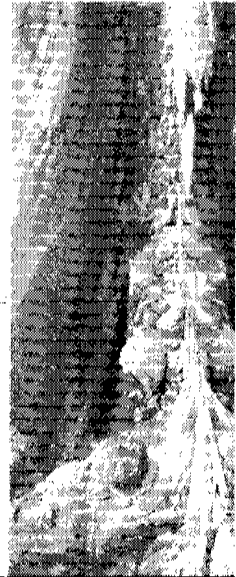


PLATE CLXXXVIII.

SITES No. 120 AND 121

Local ranchmen report paintings in two shelters that have not been visited by a representative of this department of The University of Texas.

UVALDE COUNTY

SITES No. 122, 123, 124, 125, 126, 127, 128, 129

Pictographs have been reported on the walls of a number of bluffs and shelters that have not been examined by this department of The University of Texas.

REAL COUNTY

SITE No. 131

The site embraces a long ledge, some ten feet above the channel of the Frio River. The cliff above protrudes sufficiently to protect the paintings from direct ravages of the weather. There are, however, several spots where seepage has damaged some of the pictures. Lichens cover others. The paintings are from three to five feet above the floor of the ledge. The rock is a hard limestone of fine texture and fairly durable. There is a burnt-rock midden nearby, but none beneath the overhang.

PLATE CLXXXVII

WHITE MAN HOLDING A GUN, SITE NO. 131, REAL COUNTY

Due to the man wearing a frock-tailed coat (overcoat?) and high-topped hat, the picture is locally known as the "fighting parson." Dimensions over all, $7\frac{1}{4} \times 3\frac{1}{4}$ inches. Color, black.

FIG. 210. CONVENTIONALIZED HUMANS, SITE NO. 131

1. Possibly a man wearing a mask and ceremonial attire. Very dim black paint. Dimensions over all: 36x30 inches.
2. Human with arms upraised; a typical Indian posture in picture-writing. Dim black paint. Dimensions: 12x11 inches.
3. Popularly known as "the man looking at the rainbow." Height of human figure, 10 inches. Paint, black. Note that the arms are akimbo and feathers are in the hair—a combination of a posture commonly ascribed to Europeans with the hairdress used by the Indians.
4. Headless human figure, measuring 34x16 inches. Lines 1 inch wide.

FIG. 211. PICTOGRAPHS AT SITE NO. 131

Dimensions: 1, 12x7 inches; 2, 4x3 inches; and 3, 26x24 inches.
Colors: 2, red; others black.
No. 3 is a so-called thunderbird.

FIG. 212. PICTOGRAPHS AT SITE NO. 133, REAL COUNTY

Colors: 3, orange; others black.

1. So-called pole-ladder, $2\frac{3}{4}$ inches in length.
2. Ladder, $4\frac{1}{2} \times 1\frac{1}{8}$ inches.
3. Variant of figure eight element; length, 15 inches. Enclosed in the loop at the top is a gouged pit 2 inches in diameter and 2 inches deep.
4. Conventionalized feather or tree branch. Length, $4\frac{1}{2}$ inches.
5. Plumed serpent, 20 inches in length.

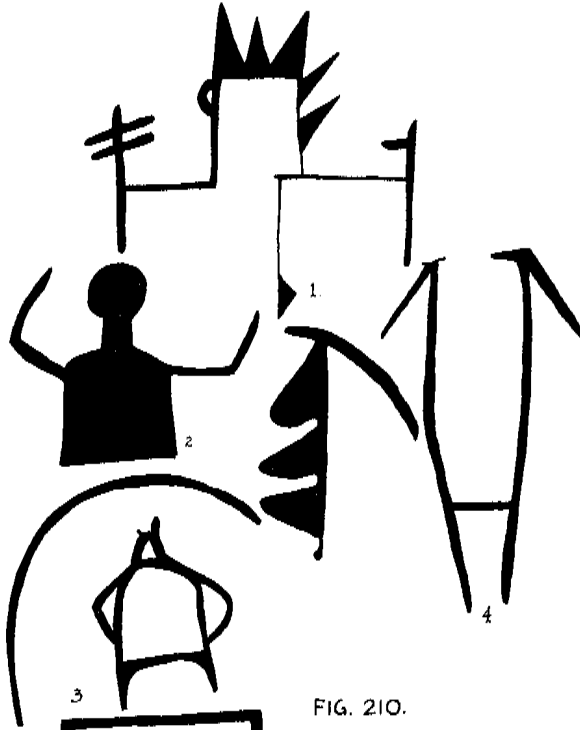


FIG. 210.



PLATE CLXXXVII.

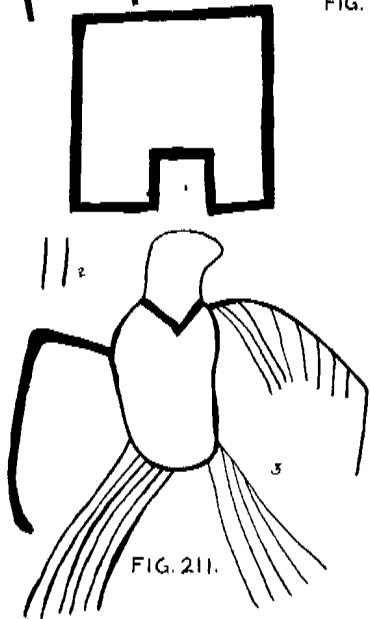


FIG. 211.

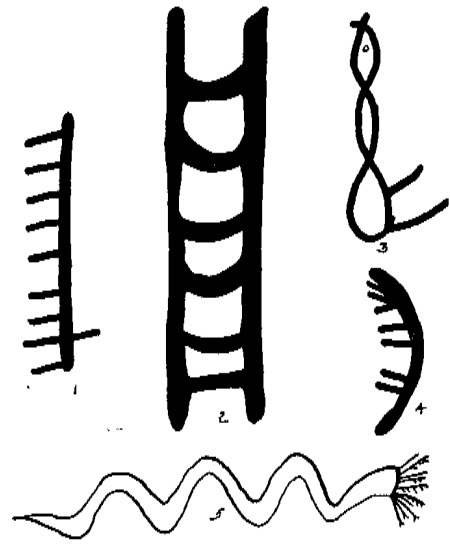


FIG. 212.

A hatched design in black paint was superimposed over a dim red figure, showing the black paint to be more recent.

The painting illustrated in Plate CLXXXVII is unusual in several respects. It is one of the two known Texas specimens depicting guns, and is the only one painted on stone. The other, shown in Plate CCXXXVIII, was on a buffalo scapula.

The surface of the painting is very smooth, while that of the adjacent rock is rough.

The fact that a picture featuring a gun is in black paint and of the miniature type—so often found where that color appears—lends strength to the conclusion that most, if not all, of these paintings regardless of theme belong to the historic period.

The technique of this painting is much like that of one at Site No. 89, Val Verde County, and another at No. 150, Concho County. Features worthy of note are the long coat and tall, round-topped hat. Since the painting at Site No. 89 appears to be that of an officer, the man holding the gun probably was intended to represent a soldier.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 131

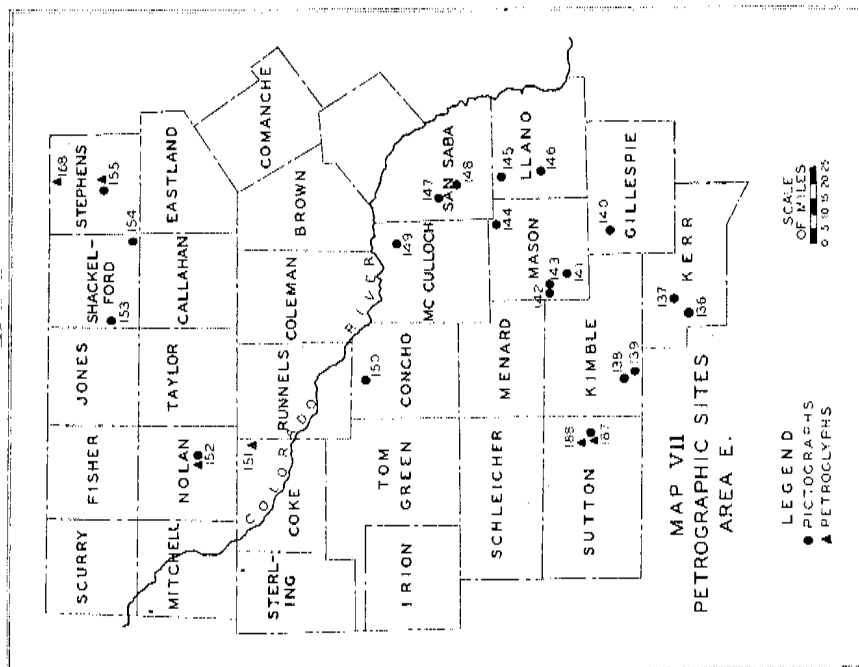
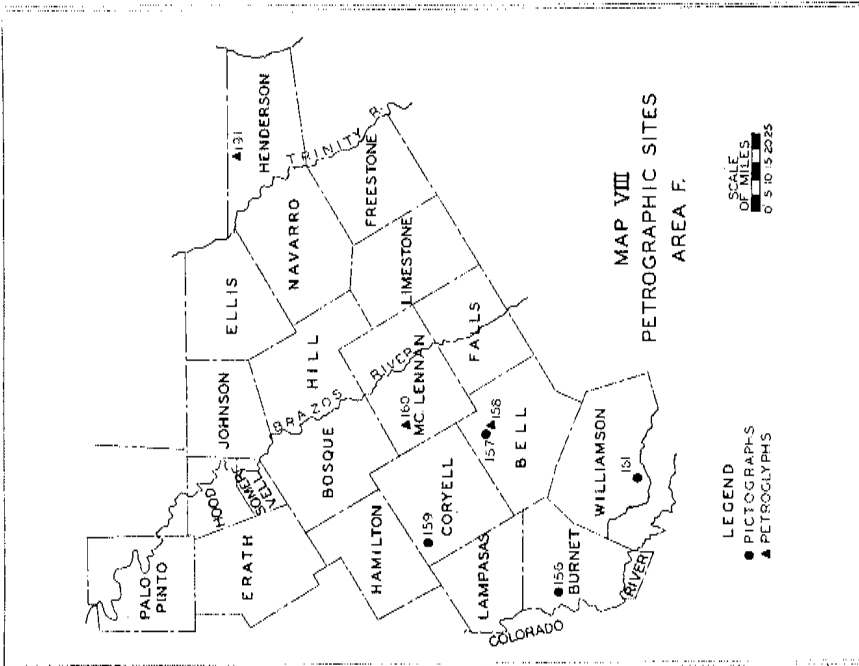
	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	4	
Arms:		
Upraised	1	
Akimbo	2	
Downward	1	
Legless	1	
Feather headdress	1	
Headless	1	
Masked head	1	
European	1	
	13	68
<i>Human Workmanship:</i>		
Pole-ladder	1	
Gun	1	
	2	11
<i>Lower Life:</i>		
Thunderbird	1	5
<i>Geometric and Symbolic:</i>		
Terraced design	1	
Curvilinear	1	
Perpendicular hatching	1	
	3	16
Total	19	100

SITE No. 132

W. V. Huskey reported pictographs in a shelter that has not been examined by a representative of The University of Texas.

SITE No. 133

In a shelter on the Nucces River are several pictographs in black and one in orange. The designs include a plumed serpent, ladder, figure eight, etc.



MAP VII. PETROGRAPHIC SITES, AREA E
MAP VIII. PETROGRAPHIC SITES, AREA F

Area E is the eastern limit of extensive pictograph sites in Texas.
Area F is peripheral and contains only small picture-writing sites.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 133

	Number	Per Cent
<i>Human Workmanship:</i>		
Pole-ladder	1	14
<i>Lower Life:</i>		
Plumed serpent	1	14
<i>Geometric and Symbolic:</i>		
Ladder-like element	1	
Chain-like element	1	
Rayed semicircle	1	
Figure eight element	1	
Perpendicular hatching	1	
	5	72
Total	7	100

SITES No. 134, 135, AND 189

Pictographs reported at these sites have not been studied by a representative of this department of The University of Texas.

KERR COUNTY

SITES No. 136 AND 137

Dim paintings on the wall of a bluff have been reported at Site No. 136, but have not been examined by a representative of The University of Texas.

At Site No. 137 is a small rock shelter with a burnt-rock midden in front. Traces of a few pictures, in red paint, may be seen on the shelter wall. Weathering has practically wiped them out.

KIMBLE COUNTY

SITE No. 138

Pictographs have been reported by a former resident of the region. The site has not been visited by a representative of The University of Texas.

SITE No. 139

Pictographs are on the walls of bluffs adjacent to a small spring on the south side of South Llano River. Flood waters may have destroyed some paintings. Those that remain are dim and may be late prehistoric or early historic. The paint is black. Due to an accessible location, the site has been badly vandalized and has, therefore, lost much of its value.

In addition to the paintings, there are a number of pictures carved into the weak limestone. The lines are small and indicate the use of sharp implements. There likewise are some recent carvings, made by white visitors. Where a picture is suspected of being very recent it is omitted. In cases where a part of the picture seems genuine, but some lines appear spurious, the entire picture is recorded with the proper notation.

FIG. 213. PICTOGRAPHS IN BLACK PAINT, SITE NO. 139, KIMBLE COUNTY

1. Plumed serpent. Dimensions: 8x3 inches.
2. Boot-like painting; 17x4½ inches.
3. Conventionalized human; 4x2½ inches.
- 4, 5. Tree-like elements.
6. Sun-disc; diameter, 10 inches.
7. Human head wearing horn headdress. Diameter, 5 inches.
8. Swastika; 4x4 inches.

FIG. 214. BOW AND ARROW IN USE, SITE NO. 139

Dim picture in black paint. Dimensions: 38x44 inches. Note the feather headdress and the unusual method of indicating the arms.

FIG. 215. ANIMALISTIC AND SYMBOLIC PAINTINGS, SITE NO. 139

Dimensions: 1, 14x8 inches; 3, diameter, 5 inches; 5, 23x13½ inches.
Color: black.

FIG. 216. CARVED DESIGNS AT SITE NO. 139

1. Conventionalized human, 2x1 inches. Very similar to a pictograph at Site No. 131.
2. So-called thunderbird, 3x3 inches.
- 3, 5. Conventionalized projectile points.
4. Variant of square-shouldered figure; 6x2 inches. Note the fringed garment and arm decoration. Eyes, nose and mouth are of questionable authenticity.
Lines carved with a sharp implement; historic petroglyphs.

FIG. 217. CARVINGS ON BOULDERS, SITE NO. 139

1. Dimensions: animal, 5x2½ inches; triangle, 4 inches long. Hatched and rayed triangle is like those on a painted buffalo robe captured from Comanches in North Texas in 1860.
2. Conventionalized animal; dimensions, 6x3 inches. The technique resembles that of pictographs at Site No. 31, Presidio County and a petroglyph at Site No. 162, Oldham County, Texas--both historic sites.

(Groupings by the author, except in Fig. 214.)

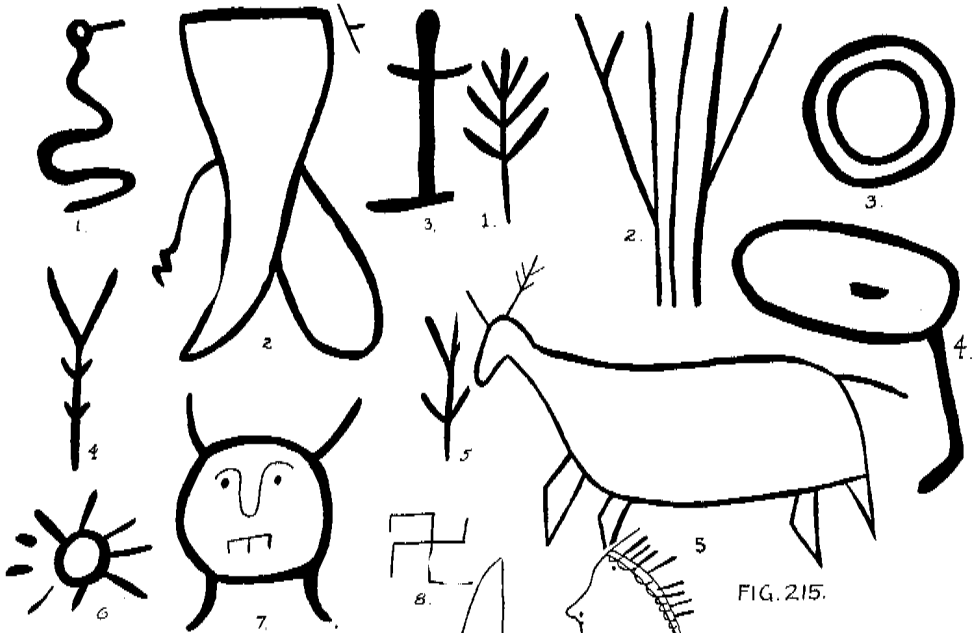


FIG. 213.

FIG. 215.

FIG. 214.

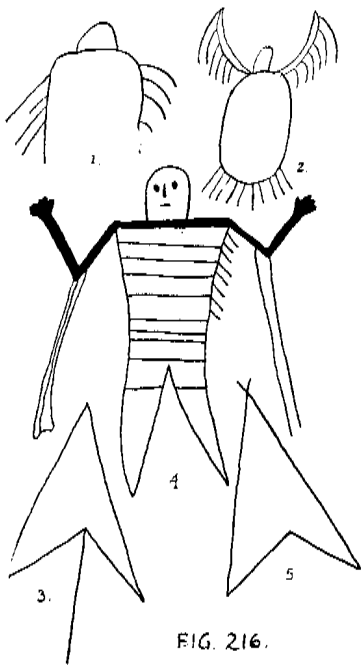


FIG. 216.

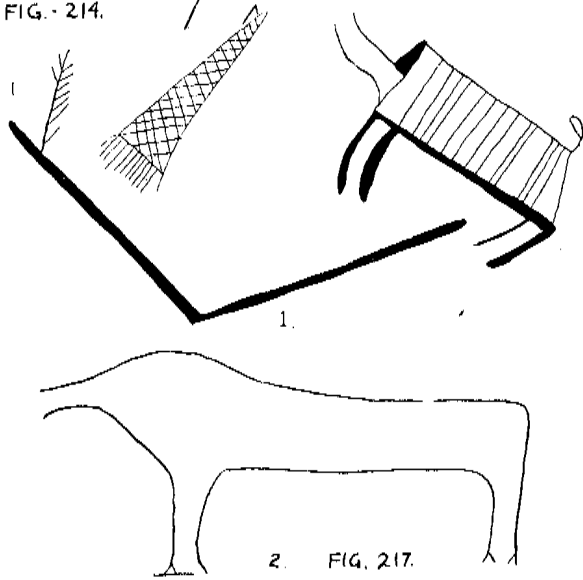


FIG. 217.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 139

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	2	
Arms:		
Outstretched	1	
Upraised	1	
Arm decoration	1	
Head	1	
Headdress:		
Horn	1	
Feather	1	
Torsos	2	33
<hr/>		
<i>Human Workmanship:</i>		
Projectile points	2	
Bow and arrow	1	
Boat	1	13
<hr/>		
<i>Lower Life:</i>		
Horse	1	
Deer	1	
Conventionalized animals	2	
Plumed serpent	1	
Trees	3	27
<hr/>		
<i>Geometric and Symbolic:</i>		
Disc enclosed by circle	1	
Sun symbol	1	
Concentric circles	1	
Swastika	1	
Herringbone element	1	
Rayed triangle	1	
Crosshatch	1	
Thunderbird	1	27
<hr/>		
Total	30	100

GILLESPIE COUNTY

SITE No. 140

Although small pictograph sites are found farther east, this one has the distinction of being the most eastern of the larger Texas sites. The paintings are on the wall and roof of a large shelter that faces south. It is located near the junction of two creeks. The midden deposit beneath the paintings was excavated by The University of Texas in January, 1936. Photographs and sketches of the pictographs were made by A. M. Woolsey of the Department of Anthropology, The University of Texas.

Red is the predominant color, but some of the best preserved pictures are in white, and a few are in black. Many of the paintings are almost obliterated by lichens that cover sections of the wall. Although the paintings do not appear to be extremely old, there is no evidence of European contact. It would thus seem that they may belong to the late prehistoric period.

For additional details reference is made to Miss Estill's⁵² paper on this site.

⁵²Estill, Julia, *Indian Pictographs Near Lange's Mill, Gillespie County, Texas*, Publication of Texas Folk-Lore Society, Vol. IV, Austin, 1925.

Story-Telling Pictures at Site No. 140

In Plate CLXXXIX, 2 is pictured one of the few groups of Texas paintings that clearly suggests a series of related incidents. There is no way of knowing what that story may have been. Since the pictures contain no evidence indicating white contact, it seems safe to assume that the work is prehistoric. The story possibly pertains to adventures that befell a hunting or a war party. Some 15 feet of zigzag line, generally taken to represent skyline or distance traveled, marks the beginning of the record. A projectile, enclosed on one side by a double row of dots and on the other by a single row of numeration marks (a total of 109), may have referred to a number of animals or enemies encountered.

Near the center of the group is a reclining human figure, located on the line or trail being traveled. Immediately beneath are seven human forms. The situation may symbolize a night attack of the enemy, made while the party slept. A disc a short distance above the line might be interpreted as recording the fact that the party fled and was a considerable distance away when the sun came up next morning. At night, suggested by a star, the party was out of danger and changed the course (as shown by the line) to return by a devious route to their camp.

Similarities to Other Sites

Similarities, some of which probably are not significant, may be noted between certain features at this site and others in various parts of West Texas. Rayed daubs, or amoeboid elements, show a close resemblance to many found in the lower Pecos River region, as typified by Site No. 84, Val Verde County. The use of white paint is a feature that shows up at Sites No. 1, 2, 11, 29, 30, 61, 103, and 150, El Paso, Hudspeth, Jeff Davis, Terrell, Edwards, and Concho Counties. The so-called story-telling pictures are suggestive of others at Sites No. 38 and 62, Brewster and Terrell Counties.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 140

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	17	
Dancing figures	4	
Arms:		
Outstretched	11	
Upraised	6	
Feet outspread	4	
One leg missing	2	
Legless	3	
Phallic	1	
	48	42
<i>Human Workmanship:</i>		
Shields	2	
Projectile	1	
	3	3
<i>Lower Life:</i>		
Conventionalized animals	2	
Deer (?)	1	
Pelt (?)	1	
Conventionalized bird	1	
Thunderbird (?)	1	
Snakes	2	
Insect (?)	1	
Plant	1	
	10	9

Geometric and Symbolic:

Perpendicular hatching	8		
Horizontal hatching	1		
Horizontal band line.....	1		
Square	1		
Single circles	13		
Concentric circles	1		
Bisected circle	1		
Discs	7		
Disc enclosed by circle.....	1		
Connected diamond-like figures.....	1		
Connected dots	1		
Equal-armed cross in circle	1		
Series of numeration dots	4		
Ladder-like element	1		
Rake-like element	1		
Zigzag	1		
Tepee	1		
Sun symbols	3		
Cloud and rain symbols.....	3		
Problematical	1	52	46
		<hr/>	<hr/>
Total		113	100

MASON COUNTY

SITE No. 141

Dim paintings reported at the site have not been examined for this publication.

SITE No. 142

A number of pictographs remain on the partly protected wall of an overhanging ledge on the east bank of a creek near its junction with the Llano River. The pictures are from five to seven feet above the stream channel, with the result that occasionally they are flooded. Due to weathering, the paint is quite dim. One painting is in black, the others are red. Most of them are human representations; but lower animal and geometric figures also appear. Of three positive handprints, all are of the right hand and one has the thumb missing.

PLATE CXC

HUMAN REPRESENTATIONS, SITE NO. 140, GILLESPIE COUNTY

1. White painting on roof of the shelter. Dimensions: 24x7 inches.
2. Dancing figures (?), painted in red. Heights range from 6 to 10¼ inches.

PLATE CXCI

ROOF PICTURES IN WHITE PAINT, SITE NO. 140

Dimensions: 1, 18½x3½ inches; 2, 19x3¾ inches; 3, 25x4¼ inches; 4, 5½x5 inches. Note the red sphere, in No. 3, over part of which one leg of the white painting was superimposed. No. 4 is suggestive of a "wild onion" plant, such as sometimes found in midden deposits in West Texas shelters.

PLATE CXCVI

HUMAN, ANIMAL AND SYMBOLIC PAINTINGS IN RED, SITE NO. 140

Dimensions: 1, 26x7½ inches; 2, diameter, 6 inches; 3, 17x7½ and 13x11 inches; 4, 35x12 inches; 5, 19x12 inches.



PLATE CXC.



PLATE CXCII

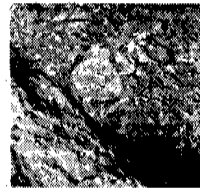
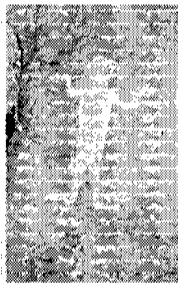


PLATE CXCI.

FIG. 218. DIM PICTOGRAPHS AT SITE NO. 140, GILLESPIE COUNTY

1. Tepee-like element, or possible projectile point; $4\frac{3}{4} \times 2\frac{1}{2}$ inches.
 2. Conventionalized bird; $21 \times 3\frac{1}{4}$ inches.
 3. Cloud and rain symbol, near roof of shelter; $29 \times 5\frac{1}{4}$ inches.
 4. Series of slightly curved lines, or possible rabbit sticks; $10 \times 3\frac{1}{2}$ inches.
 5. Series of connected diamond-shaped elements, possibly symbolizing the rattlesnake. Length is 30 inches.
 6. Conventionalized human, with arms upraised; $10 \times 2\frac{1}{2}$ inches.
 - 7, 9. Discs with diameters of 8 and 5 inches.
 8. Conventionalized human, or possible thunderbird; 28×6 inches. Grouped with it are Nos. 5, 7, and 9.
 10. Disc enclosed by a circle. Diameters: disc, 2 inches; circle, $11\frac{1}{4}$ inches.
- Color: red.

FIG. 219. LADDER, CIRCLES, RAYED DISCS, ETC., SITE NO. 140

- 1, 3. Dimensions: 15×3 feet. Red paint, giving the appearance of having been applied with the end of a finger. Six feet above floor.
2. Ladder with 12 rungs; $23 \times 2\frac{1}{2}$ inches. Red paint. Five feet above floor.
- 4, 5. Dimensions: $16 \times 4\frac{1}{2}$ feet. Colors, red and black; finger probably used as a brush. Paint very dim.
6. Dimensions over all: 11×11 inches. Red.
7. Dimensions: $8\frac{1}{4} \times 4$ inches. Red paint.

FIG. 220. PICTOGRAPHS AT SITE NO. 142, MASON COUNTY

Colors: 3, black; others, red.

Dimensions: 4, 9×6 inches; 5, height, 11 inches; 6, $13 \times 7\frac{1}{2}$ inches; 7, 8×5 inches; 8, 13×9 inches. Arm decoration in No. 4 is much like that in parts of Val Verde County. No. 5, with horn headdress (?), is like one at Site No. 2, El Paso County. No. 7 is strikingly like a painting at Site No. 147, San Saba County.

FIG. 221. PICTOGRAPHS AT SITE NO. 143, MASON COUNTY

1. Design suggestive of a boat-like element at Site No. 150, Concho County. Dimensions: 16×8 inches.
2. Human figure, 8 inches tall.
3. Pear-shaped element, possibly depicting a ham or "trophy of the chase." Height: $3\frac{1}{2}$ inches.

FIG. 222. HUMAN AND SYMBOLIC REPRESENTATIONS, SITE NO. 145,
LLANO COUNTY

Dimensions: 2, height, 12 inches; 4, height, $4\frac{1}{2}$ inches; 11, diameter, 6 inches. Paint is red.

(Groupings by the author)



FIG. 218.

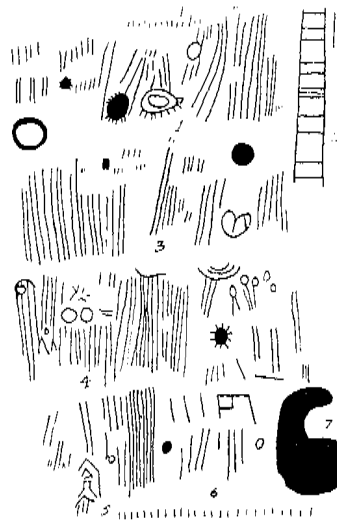


FIG. 219.

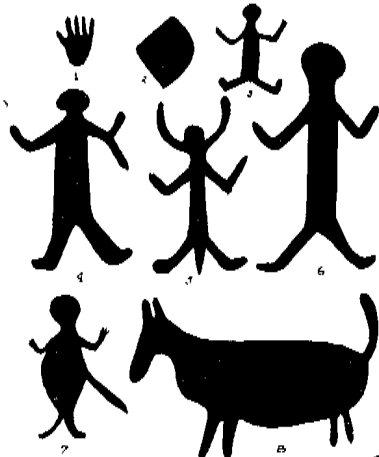


FIG. 220.

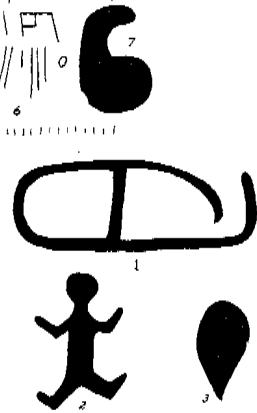


FIG. 221.

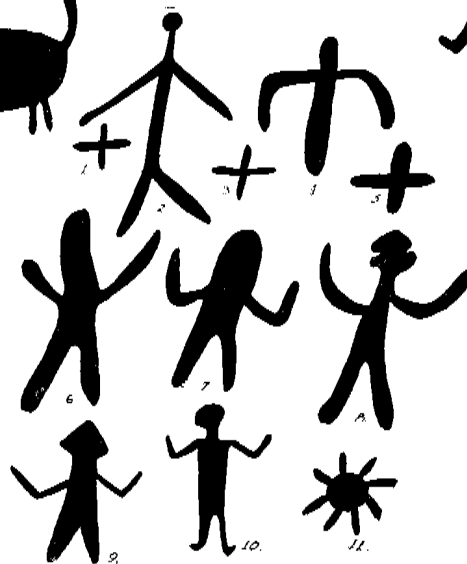


FIG. 222.

CLASSIFICATION OF DISCERNIBLE DESIGN ELEMENTS, SITE NO. 142

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	5	
Arms upraised.....	5	
Feet outward.....	5	
Arm decoration	1	
Horn headdress.....	1	
Body decoration.....	1	
Handprints, positive (right)	3	
Phallic (?).....	1	
	22	81
<i>Human Workmanship:</i>		
Projectile point (?).....	1	4
<i>Lower Life:</i>		
Conventionalized animal.....	1	4
<i>Geometric and Symbolic:</i>		
Square	1	
Boat-like element.....	1	
Problematical	1	
	3	11
Total	27	100

SITE No. 143

A few pictographs remain on the wall of a small shelter, on a creek two miles from the river. The fact that the rock is sandstone and subject to flood waters has resulted in the paintings being almost destroyed. They include two dim left handprints, a human figure and two problematical objects.

CLASSIFICATION OF TRACEABLE DESIGN ELEMENTS, SITE NO. 143

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	
Positive handprints (left)	2	
	3	60
<i>Geometric and Symbolic:</i>		
Boat-like element	1	
Ham, or trophy of chase (?).....	1	
	2	40
Total	5	100

SITE No. 144

Pictographs reported at this site have not been examined by the writer or anyone from The University of Texas.

PLATE CXCIII

VIEW OF LEDGE AT SITE NO. 142, MASON COUNTY

There are a number of dim paintings on the wall between the men. The small stream sometimes covers the paintings with flood waters.

PLATE CXCIV

BRUSH-COVERED ENTRANCE TO SHELTER AT SITE NO. 145, ILLANO COUNTY

PLATE CXCv

OUTSIDE AND INSIDE OF SHELTER AT SITE NO. 147, SAN SABA COUNTY

1. Entrance to the shelter, showing the limestone formation.
2. Negative handprint and other badly damaged paintings on shelter wall.



PLATE CXCIV.



PLATE CXCV.



PLATE CXCVI.

LLANO COUNTY

SITE No. 145

In the northwest part of the county is a small shelter, on the bank of a perennial creek. A spring is nearby. Pictures, painted in red, are in a fair state of preservation; but some have been damaged by scratching of initials by whites. The designs are chiefly human and symbolic.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 145

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	8	
<i>Arms:</i>		
Upraised	6	
Downward	2	
Torso	1	17
	—	77
<i>Geometric and Symbolic:</i>		
Crosses	4	
Sun symbol	1	5
	—	23
Total	22	100

SITE No. 146

There remain traces of a number of pictographs on a slightly overhanging rock in a huge pile of granite boulders near a creek, in the west central part of the county. Although now too dim to decipher, old residents of the region state that one of the outstanding pictures was that of a turkey. The paint is red.

There is a campsite nearby and a historic burial was found, a few years ago, in a crevice between two boulders. Accompanying the skeleton were small blue and white trade beads and crudely made metal finger rings. It probably was a Comanche burial. The pictographs may have been painted long before the burial was made. But the fact that even a trace of the paint remains, where it was partially exposed to the ravages of the weather, suggests that the pictures have no great age. Hence it seems probable that they may have been made by the historic Comanche or possibly the Lipan Apache Indians.

SAN SABA COUNTY

SITE No. 147

Pictographs are on the wall of a small overhanging ledge or rock shelter. It is located on the north side of a creek, about a mile from its junction with the San Saba River. The paintings are dim and a number have been damaged by spalling of the stone and by vandalism. All are in red paint. The pictures are historic, showing horses and mission influence. Negative handprints, with painted or splashed background, occupy a prominent place on the wall. Other pictures include buffalo, a large shield, conventionalized human figures with arms upraised, circles, etc.

The presence of a European wearing a hat and accompanied by a cross suggests influence from the San Saba Mission, located about 50 miles to the southwest. The mission was established in 1757 and abandoned in 1768, thus giving a close approach to the probable date of the paintings. The mission was founded for the Lipan Apaches. Shortly thereafter it was raided by Comanches and their allies. Many of the Lipans escaped at the time of the attack. It would thus seem that the origin of these historic paintings may be attributed either to the mission enemies or to the escaped mission inmates. The latter alternative appears more probable.

The site also was used in prehistoric times. The shelter, measuring some 15 feet in length by six feet in depth, shows considerable evidence of smoke blackening. Ashes and burnt rocks cover the floor. Stones have been piled in front, perhaps to assist in leveling the floor and thus afford more usable space. Flood water sometimes enters the shelter and covers the paintings. In front of a nearby bluff is a deep midden deposit almost destroyed by haphazard amateur digging.

Among the designs practically ruined is one that appears to have been a picture of three persons astride a horse. The animal has its head down as if drinking in a stream. Another picture shows traces that indicate a man with arms outstretched and wearing three feathers in his hair.

CLASSIFICATION OF TRACEABLE DESIGN ELEMENTS, SITE NO. 147

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	8	
European figures	3	
Handprints:		
Negative	2	
Positive	1	
Arms:		
Upraised	4	
Outstretched	1	
Body decoration	1	
Feet outspread	2	48
<hr/>		
<i>Human Workmanship:</i>		
Projectile	1	
Shield	1	4
<hr/>		
<i>Lower Life:</i>		
Conventionalized animals.....	3	
Horses	4	
Buffalo or cow.....	1	17
<hr/>		
<i>Geometric and Symbolic:</i>		
Dises	8	
Circles	4	
Parallel zigzags	1	
Cross	1	31
<hr/>		
Total	46	100

SITE NO. 148

The site, locally known as "Bloody Handprint Bluff," is located in the southwestern part of the county. The bluff, on the north side of a small stream, has a slight overhang and on its partially protected wall are the remains of two positive handprints. No other paintings are now visible on the bluff.

On the opposite side of the stream, at a distance of about 100 yards, are two burnt-rock middens. A small amount of flintwork and fragments of mussel shells are intermixed with the angular pieces of burnt limestone.

The handprints have been greatly damaged by spalling of the stone and the chipping away by sightseers. J. A. Sloan, who accompanied the writer to the site, states that when he first saw the place some 25 years ago the prints were in a good state of preservation, and appeared to have been made by the crossed hands.

He then related a legend explaining the presence of the handprints. The legend has been welded to an actual historical incident. Since it seems not inappropriate that at least one legend pertaining to Texas pictographs be recounted in this work, this one has been selected as perhaps the most unique of those available. The story, as Mr. Sloan remembered it, will first be given; then the factual part will be noted.

"About 1860 Alice Todd was captured by the Indians near Spicerock in Mason County, Texas. Her wrists were lashed together with buckskin thongs. She was then placed on a horse in front of an Indian man. The savages fled and, although pursued immediately by the white settlers, were never overtaken. That night the marauders camped at the bluff on this creek.

"During the flight the white girl had struggled to free her hands. The thongs cut into the flesh and the blood trickled down her wrists and over the palms of her hands.

FIG. 223. PICTOGRAPHS AT SITE NO. 147, SAN SABA COUNTY

Dimensions: 3, 3¼ inches tall; 5, 2 inches tall. Color: red. The little fellow represented in No. 5 is much like a painting at Site No. 142, Mason County. It may be prehistoric.

FIG. 224. MEN, HORSES AND COW OR BUFFALO, SITE NO. 147

1. Dimensions: 3 inches tall and 3¾ inches long. Note the hat.
2. Buffalo; length, 7 inches; height, 3 inches.
3. Man with arms upraised; height, 6 inches; width, 3 inches.
4. Mounted Indian with a spear in hand. Dimensions: 5¾x4¼ inches. Color is red.

FIG. 225. "SUN-DANCE SHIELD," CIRCLES AND DISCS, SITE NO. 147.

Paint is red.

FIG. 226. HUMAN, ANIMAL AND SYMBOLIC PAINTINGS, SITE NO. 150,
CONCHO COUNTY

Color: red. Dimensions over all: 44x22 inches. Lines half an inch wide. Note the phallic symbols and the picture resembling an earthenware bottle or gourd vessel.

FIG. 227. PICTURES SHOWING ACTION, ETC., SITE NO. 150

1. The group consists of five humans painted in red, with the small torso and curvilinear designs in black. In this case the black paint appears to be older than the red. Maximum height, 17 inches. Note bows and arrows.

2, 4. Man in stooping posture, club-like elements, and crosshatch design. Color: red.

3. Animal painted in black and red. Length, 8 inches; height, 5 inches. Legs, nose, and tail in black; body in red. On roof of a small shelter in cliff.

(Groupings by the author, except in Fig. 226)

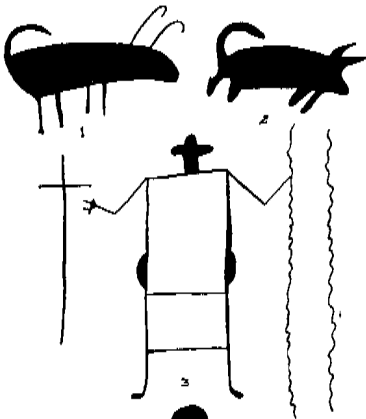


FIG 223

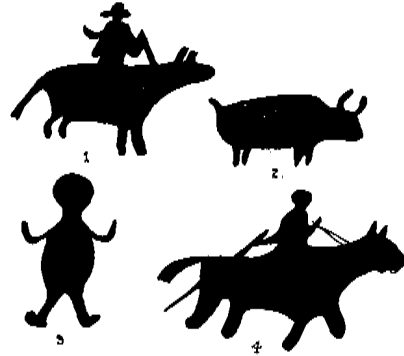


FIG. 224.

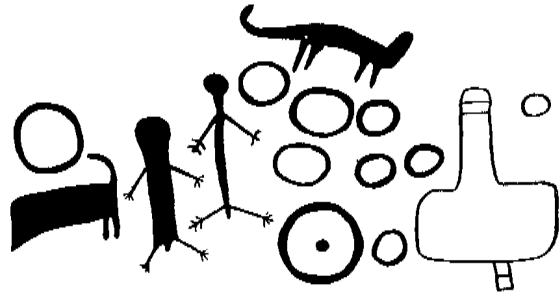


FIG 226.

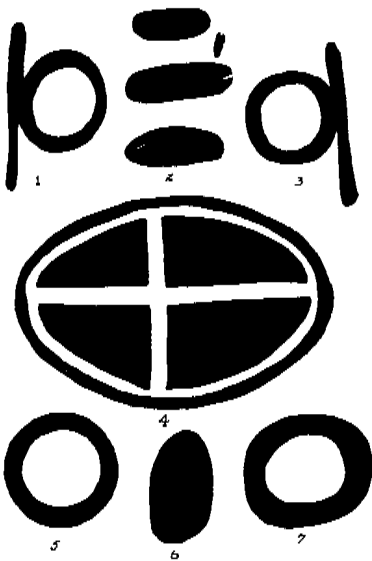


FIG. 225

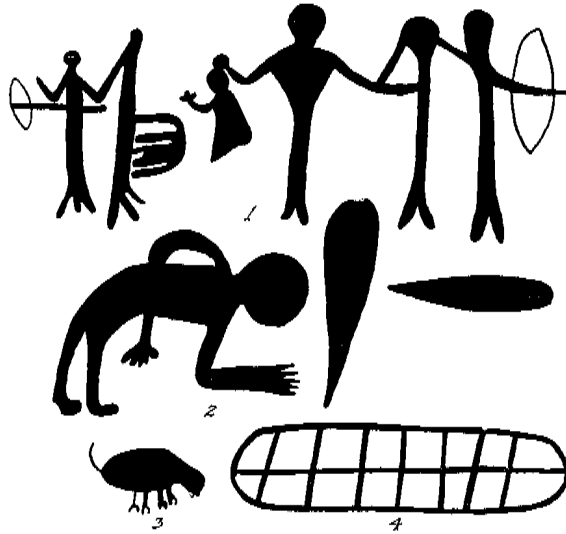


FIG. 227.

On dismounting beside the bluff she dizzily staggered and would have fallen had she not thrown out her hands and steadied herself against the cliff. Her bloody palms and fingers pressed firmly against the cold stone and left the red prints. The following day her would-be rescuers saw the handprints and interpreted them as sealing her fate. They returned home and she was never again heard of."

J. Marvin Hunter, of Bandera, editor of *Frontier Times* and formerly a resident of Mason County, furnished the following facts regarding the capture of Alice Todd: She was 14 or 15 years of age at the time of her capture, in the latter part of 1865. The place where she was supposed to have been captured—Spicerock—should be Spyrock. But the capture did not take place there; it was near Todd Mountain, about six miles southeast of Mason, Mason County, Texas. Hunter⁵³ writes as follows:

"It was during the latter part of 1865 that the Indians on one of their raids killed Mrs. G. W. Todd and a negro girl belonging to the Todd family, and captured and carried away Miss Alice Todd, daughter of G. W. Todd. It seems that G. W. Todd, who was the first county clerk of Mason County, and Mrs. Todd were coming from their home about four miles south of Mason, their daughter riding behind her father and the negro girl riding behind Mrs. Todd, when they were attacked by a band of Indians. Mrs. Todd was badly wounded and lived only a few days; the negro girl was killed instantly, and the white girl was captured. Todd made his escape and notified the community of what had happened. A searching party was quickly organized and started in pursuit of the Indians, whom they trailed to the Bover Crossing. Here they met parties who had seen the Indians pass; and these parties were sure, as they had watched the Indians closely from a hiding place, that there was no white girl in the party. The pursuing party then returned to the place where the attack had been made on the Todd family. There they discovered the tracks of a mule and horse that had left the main party of Indians and traveled west. Confident that these tracks was the trail of the Indians that had left the main body of the raiding party and taken the girl to the main Indian camp, it was followed for many miles. But it was winter time, bitter cold, and snow of several inches covered the ground, and fresh falling snow frequently obliterated the trail; so the chase was abandoned."

The handprints are close together and point in different directions. But, in their present condition, one cannot be certain whether they are prints of the right and left hands. They are not large, the one to the left measuring about six inches in length and three inches in width. While handprints are fairly common among pictographs, the positions of these two are unusual. It is, of course, unnecessary to state that the pigment used is red paint and not human blood.

MCCULLOCH COUNTY

SITE No. 149

A slightly overhanging bluff, in the northeastern part of the county, has dim traces of a few pictographs. Their almost complete defacement probably is due less to age than to the ravages of nature.

⁵³Hunter, J. Marvin, Brief History of the Early Days in Mason County, *Frontier Times*, Vol. 6, No. 3, Bandera, December, 1928, pp. 116-117.

CONCHO COUNTY

SITE No. 150

This is one of the outstanding pictograph sites in Texas. It is not confined to a single shelter, but scattered along the limestone bluff on the north side of the Concho River for a distance of some half mile. The bluff is about 200 yards north of the river channel. The lowland between occasionally is inundated, but flood waters never cover the pictographs.

Many of the paintings may have been made by roving bands of Indians; but there is evidence that the site was occupied at various times by considerable numbers. Several burnt-rock middens and a few mortar holes are in the vicinity. Some camp refuse remains in three small rock shelters in the bluff.

In addition to game, mussels and fish, food probably consisted of pecans, acorns, mesquite beans, hackberries, agarita berries, and tunas or fruit of the prickly pear. Several paintings of stalks of corn suggest either that the early Indians grew small patches of corn, or later ones had seen it growing.

The paintings are on sheltered slabs. Some are in groups, others single pictures. In size they vary from $2 \times 2\frac{1}{2}$ inches to 64×18 inches. Many are about half as wide as long. That seems to have been a convenient proportion for the native artist.

Most of the paintings are in red, but some are black and a few orange and white. A combination of red and black occurs with some frequency, but is not as common as in the Pecos-Rio Grande section. White occasionally appears in combination with red. It is doubtful whether any significance was attached to the colors used in most pictures. In some cases black was considered a symbol of death or bravery.⁵⁴ Such meaning, however, probably was not intended for all black paintings. Black from charcoal was most easily secured. But red was preferred, perhaps because it suggested blood or life. Other colors, being less easily obtainable, were used more sparingly. Usually the black pictures are smaller than those painted in red.

The paintings appear to be of various ages. Some, quite bright, are superimposed over dim ones. Among cases of superimposed pictures is one showing a longhorn cow over a buffalo. Both are in red, but the buffalo is very dim. One human figure is painted over another, giving the impression of one person with four arms. The last picture is slightly larger than the older one. In many cases the first paintings have been so covered as to be no longer traceable.

There is little doubt that some of the older paintings are prehistoric, while many of the later ones represent the work of historic Indians. Among the latter are men on horses, a mission, a devil with barbed tail and pitchfork, flags, men wearing hats, boots, etc. The pictures showing mission influence probably resulted—as mentioned in the discussion of Site No. 147—from contact with the San Saba Mission, about 40 miles to the south. The mission was in operation only 12 years, beginning in 1756. Some of the most recent pictographs may owe their origin to temporary stop-overs of bands of Lipan Apaches or Comanches going on, and returning from, raids into the white settlements in Mason, Llano and adjoining counties.

⁵⁴Hunter, J. Marvin, *The Boy Captives*, *Frontier Times*, Bandera, 1927, pp. 40, 47, 66, and 129. (Story of Clinton L. Smith, a Comanche captive.)

About 200 of the paintings are either too dim from weathering or too badly damaged by thoughtless sightseers to be longer traceable. Many have been ruined in the past 20 years. Those best protected and most inaccessible are in a fair state of preservation. At the time of the writer's last visit, in 1934, there remained about 300 complete pictures.

Thirty-two fairly definite representations of human hands remain at this site. Three are hand-like drawings; the others are actual handprints. One print illustrates an unusual combination of techniques, being a positive imprint in orange color with a painted outline in red. There are eight negative prints with painted outlines or backgrounds. All are in red, except the orange mentioned above and one positive impression in white paint.

The hands seem to be those of adults. The measurements range from seven to nine inches in length and $3\frac{1}{2}$ to five inches in width. The index finger varies in length from three to $3\frac{1}{2}$ inches. It is interesting to note that most of the prints are of the left hand.

PLATE CXCVI

VIEWS AT SITE NO. 150, CONCHO COUNTY

1. Concho River with the bluff in the background.
2. A close-up of the bluff, on sheltered portions of which paintings occur.

PLATE CXCVII

VARIOUS REPRESENTATIONS OF THE HUMAN HAND, SITE NO. 150

1. Anthropomorphic figure, resembling a petroglyph at Site No. 81, Val Verde County. Height, 12 inches; maximum width, $11\frac{1}{2}$ inches. Note size of hands in proportion to body. Appendages from shoulders almost obliterated.
2. A positive imprint of the left hand, showing portion of second finger and thumb missing.
3. A typical conventionalized human figure, with fingers not indicated. A phallic representation.
4. Positive handprint (right), with thumb missing.

PLATE CXCIX

STORY-TELLING AND OTHER PICTURES, SITE NO. 150

1. A stalk of corn, sun symbol and huge grasshopper (?). The corn is superimposed over a human figure. Dimensions: 32x18 inches; color: red. A possible interpretation is that the sun causes the corn to grow, but the grasshoppers may devour the crop. The rayed sun-disc is almost identical with certain designs on pottery, from East Texas graves, in The University of Texas Anthropology Museum.
2. A group of star or sun symbols. An unusual feature is that the centers are painted white and outlined with black, while the radiant triangles are red. Dimensions over all: 45x13 inches.



PLATE CXCVI.

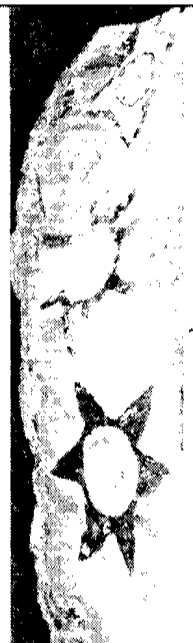


PLATE CXCIX

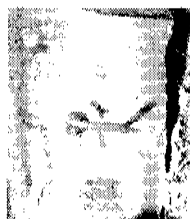


PLATE CXCVII.



PLATE CXCVIII

THE DEVIL, ARMED WITH A PITCHFORK, SITE NO. 150, CONCHO COUNTY

The painting, in red, appears to be genuine Indian work and probably represents mission influence. Perhaps painted between 1756 and 1768, dates of the San Saba Mission. The figure is $6\frac{7}{8}$ inches tall.

This painting of the devil calls to mind an early Spanish account⁵⁵ of mission Indians in East Texas, in which the statement is made that they painted the devil with horns, etc.

⁵⁵Hatcher, M. A., Description of the Tejas or Asinai Indians, 1691-1722; Fray Francisco Hidalgo to the Viceroy, November 4, 1716, translated by M. A. Hatcher, *Southwestern Historical Quarterly*, Vol. XXXI, No. 1, Austin, July, 1927, p. 56.

CLASSIFICATION OF TRACEABLE DESIGN ELEMENTS, SITE NO. 150

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	41	
Square-shouldered	2	
Dancing figures	2	
European figures	11	
Devil	1	
Phallic	9	
Headless	4	
Masked head	1	
Feather headdresses	3	
Arms:		
Akimbo	1	
Downward	15	
Outstretched	4	
Upraised	25	
Armless	3	
Arm across body	2	
Arm decorations	2	
Handprints:		
Limned	3	
Negative	8	
Positive	21	
Missing:		
One hand	1	
One arm	5	
One leg	6	
Legless	3	
Feet turned outward	1	
	174	35
<i>Human Workmanship:</i>		
Projectiles	10	
Bows and arrows	4	
Possible atlatls	14	
Rabbit sticks	4	
Clubs	19	
Hafted axes	2	
Other hafted stones (?)	3	
Shields	3	
Boats (?)	2	
Pole ladders	3	
Possible pipe	1	
Earthenware bottles (?)	2	
Ornaments (?)	2	
Mission buildings	2	
	71	15
<i>Lower Life:</i>		
Conventionalized or distorted animals ..	10	
Horses	11	
Deer	1	
Animal heads	2	
Buffaloes	2	
Buffalo heads	2	
Turkey	1	
Birds	6	
Bird tracks (?)	3	
Conventionalized bird	1	
Turtles	2	
Snakes	2	
Plumed serpent (?)	1	
Grasshopper (?)	1	
Insects	4	
Tree	1	
Stalks of corn	2	
	52	11

PLATE CC

UNUSUAL PAINTINGS DAMAGED BY VANDALS, SITE NO. 150, CONCHO COUNTY

1. One of the most artistic paintings at this site, badly mutilated by the writing of names and dates. Dimensions: 14x17½ inches. Red paint.

2. A problematical design, painted in red and black. Some call it a gourd dipper; others think it represents a war club, with a thong attached to the end of the handle. The main picture is red; the dim black semicircle to the right seems to be an earlier picture over which the red one was painted. Dimensions over all: 29½x12 inches.

PLATE CCI

TURTLE, SUN DISCS AND GEOMETRIC DESIGNS, SITE NO. 150

1. Enclosed in a circle is a realistic turtle. All designs are in red. Dimensions over all: 30x13 inches. Lines ¼ to ⅝ inch wide.

2. An artistic group of paintings greatly damaged by spalling of the stone. An equal-armed cross in red is enclosed in a black circle. Black zigzags appear between the pendant triangles. The very dim design is outlined in black.

PLATE CCII

CONVENTIONALIZED AND SYMBOLIC DESIGNS, SITE NO. 150

1. A group of closely spaced paintings, with a band line beneath. The two central figures seem to represent birds in flight. The short lines may be numeration marks. The hook-shaped lines are suggestive of ones at Sites No. 56 and 64, Terrell and Val Verde Counties. Note overhanging ledge. The paint is red.

2. An unusual combination of pictographs. The picture at left probably represents an animal head and horns. The fork-shaped design is similar to one at Site No. 156, Burnet County. Dimensions: 32x16 inches. The paint is red.

PLATE CCIII

DIM SUPERIMPOSED PICTOGRAPHS, SITE NO. 150

1. Reclining human figure superimposed on a smaller one. Dimensions of figure: 20x9¾ inches. Paint: red.

2. Among the dim paintings are three positive imprints of the left hand. Red.



PLATE CCII.



PLATE CCI.



PLATE CC.



2.

PLATE CCIII.



1.

PLATE CCIV

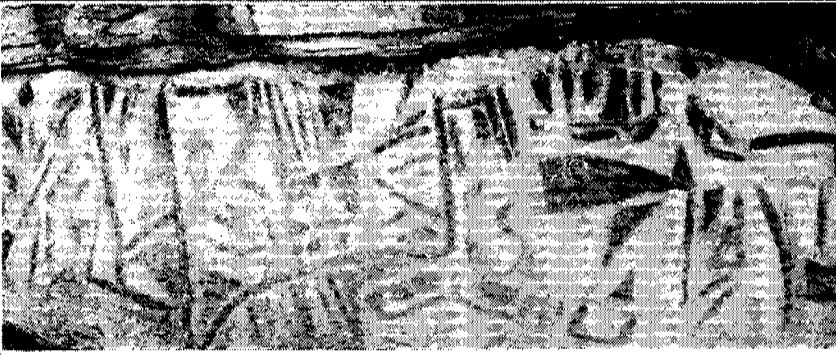
PROBLEMATICAL PAINTINGS IN RED, SITE NO. 150, CONCHO COUNTY

1. One of the most intricate groups at this site. Dimensions: 42x14 inches. Note the boot-like element near the right center.
2. A canoe-shaped picture superimposed on a dim painting. Some interpret it as representing a West Texas rock shelter, access to which is gained by means of a pole ladder. Another thinks a nomadic artist had seen canoe burials of the Northwest Coast and pictured a canoe between posts or trees.

PLATE CCV

REALISTIC AND CONVENTIONALIZED PAINTINGS, SITE NO. 150

1. A group of so-called dancing figures. Note the upraised arms, and that one of the figures is inverted. Dimensions: 23x7 inches.
2. An hourglass element enclosed in a circle. Note that the hourglass element or double triangle was employed in drawing the human figures above. Dimensions: 8x10 inches.
3. A group of problematical designs. One seems to be a vague human figure and another a bird; a third may be a hafted stone implement. One is much like a ham and may possibly represent a piece of meat or "trophy of the chase." Dimensions: 24x18 inches. All in red.



1.



PLATE² CCIV.



1.



2.



3.

PLATE CCV.

PLATE CCVI

SYMBOLIC PAINTINGS IN RED, SITE NO. 150, CONCHO COUNTY

1. Bisected circle, sun disc, etc. Dimensions: 66x30 inches.
2. Human-like head with horns and ears suggestive of a buffalo horn headdress.
3. A problematical design. Dimensions: 11x8½ inches.

PLATE CCVII

HISTORIC AND PREHISTORIC PAINTINGS, SITE NO. 150

1. A horse superimposed on other paintings. Dimensions: 11x5 inches. This long, slim-bodied representation of a horse is much like carvings at Sites No. 139 and 162, Kimble and Oldham Counties. Color: red.
2. A badly damaged painting of a flag, superimposed over part of a small animal (right). Colors: red and yellow. Dimensions: 15x9 inches.
3. Equal-armed cross in circle, a possible bird and so-called rabbit stick. Red. Dimensions: 16x7 inches.
4. A problematical design—possibly a cloud and rain symbol. Similar to a pictograph at Site No. 156, Burnet County, and a petroglyph at Site No. 81, Val Verde County. Dimensions: 10x7 inches. Paint is red.

PLATE CCVIII

GEOMETRIC AND SYMBOLIC DESIGNS, SITE NO. 150

1. Crosshatch, superimposed disc, etc., in red paint. Dimensions: 20x12 inches.
2. A group of red paintings composed of lines and dots. Some may be numeration marks. Dimensions: 24x16 inches.
3. Unusual, problematical pictures. Dimensions: 36x8 inches. Color is red.
4. A club-like or gourd-like element painted in red. Dimensions: 13x4 inches.



PLATE CCVI.

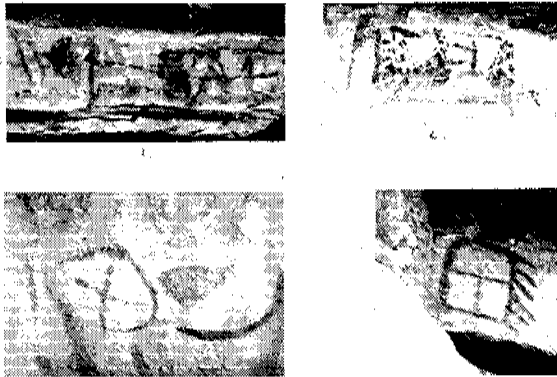


PLATE CCVII.



PLATE CCVIII.

FIG. 228. PICTOGRAPHS COMBINING RED AND BLACK, SITE NO. 150,
CONCHO COUNTY

1. Man at left, holding snake, solid red; other two human figures and sun-disc combine red and black.
2. Body of animal and central human in red; other three pictures, as well as legs and tail of animal, are in black. Insect-like figure is superimposed on neck of the animal.

FIG. 229. PICTOGRAPHS IN RED AT SITE NO. 150

1. Inverted human representation; height, 13½ inches.
2. Human figure with arms akimbo and ear ornament or feather in the hair showing.
3. Conventionalized human, with one leg shorter than the other.
4. Group of unusual paintings; dimensions: 48x14 inches.

FIG. 230. UNUSUAL PICTURES IN RED, SITE NO. 150

1. White man, horse and square-shouldered Indian. Apparently the square-shouldered figure was an early painting; later the horse was added; and last of all the man wearing a hat. Dimensions: 12½x13 inches.
2. A nondescript design combining human and animal features. 17x14 inches.

FIG. 231. GEOMETRIC, SYMBOLIC AND ANIMALISTIC PAINTINGS, SITE NO. 150

- Group 1. Dimensions: 32x22 inches. Elements at upper right may represent snakes.
- Group 2. Sun symbol and conventionalized animal. Dimensions: 32x15 inches. Hatched concentric circles like this are incised on certain pottery vessels from graves in Northeast Texas.

FIG. 232. HUMAN REPRESENTATIONS, GEOMETRIC AND SYMBOLIC DESIGNS,
SITE NO. 150

1. Positive print of left hand, in orange color, with background in red paint. Dimensions: 9x5 inches.
2. Human figure with red center and balance black. Dimensions: 5x3½ inches.
- 3, 6. Circle and connected concentric circles, with lines and disc in center.
4. Conventionalized human figures in red paint.
5. Five-pointed star with white paint in center and around outer edge; balance red. Diameter: 15 inches.
7. So-called stalk of corn. Paint: red.

(Groupings by the author.)

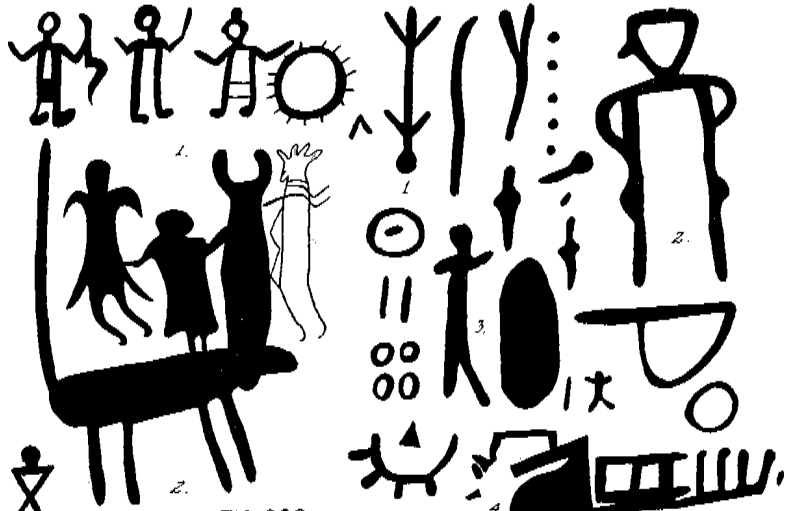


FIG. 228.

FIG. 229.

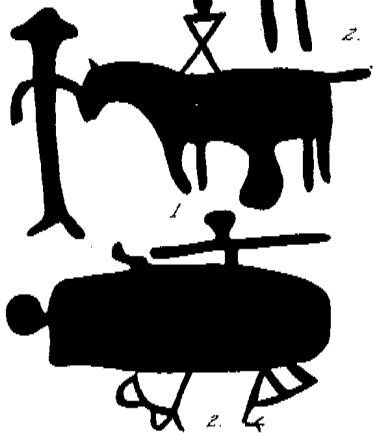


FIG. 230.

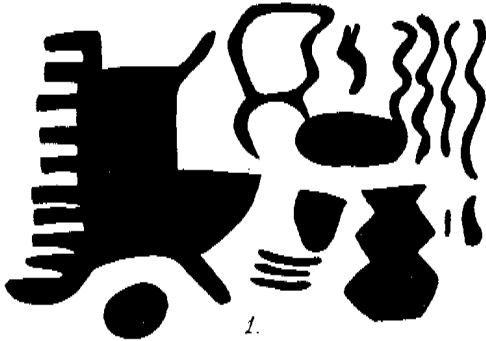


FIG. 231.

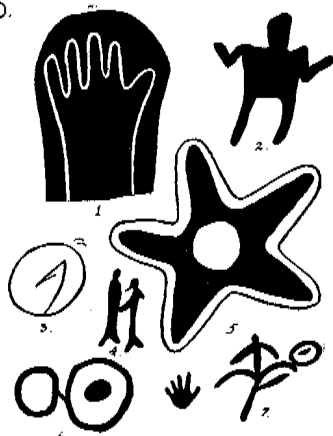


FIG. 232.

FIG. 233. PICTOGRAPHS IN RED, SITE NO. 150, CONCHO COUNTY

Dimensions: 1, 35x21 inches; 2, 36x18 inches.

The human in group 1 has a four-fingered hand and is a phallic representation. Note the pendant triangles and series of numeration marks in group 2.

In certain cases a broad portion of a line may have been due to running of the paint, while being applied.

FIG. 234. SYMBOLIC PAINTINGS, SITE NO. 150

Colors: 1, 2, 3, 4, red; 5, projectile and flag, black; others red.

Dimensions: 2, 64x18 inches; 3, 15½x19½ inches; 4, 34x15 inches.

The left figure in group 1 appears to be a bird in flight. The central one in group 2 suggests a horse and rider. Group 3 may record the fact that 5 enemies were killed with a spear, the rake-like element being considered a "death count." No. 4 somewhat resembles a painted earthenware bottle. The association of a spear and flag in group 5 suggests an encounter with soldiers.

FIG. 235. MISSION, EUROPEANS, ETC., SITE NO. 150

- 1, 4. Color, red.
2. Mission with three crosses. Color is red. Dimensions: 17x15 inches.
3. Rayed sun-disc. Center, black; rays of alternate red and black. Diameter: 12 inches.
5. Disc enclosed by circle. Red.
6. Europeans, with heads destroyed by spalling of stone. Dimensions: 20x9 inches.
7. U-shaped and crescent elements. Red.
8. Conventionalized projectile point. Red with black center. Dimensions: 23½x9 inches.

FIG. 236. ANIMAL, BIRDS, TURTLE, ETC., SITE NO. 150

Dimensions: 1, 29x4¾ inches; 2, 8x7½ inches; 4, 5, 9¼x7 inches; 6, 11x7 inches; 7, 5¼x8 inches; 8, diameter, 12 inches; 9, 10¾ inches long.

Colors: 4, 5, 9, black; others red.

FIG. 237. THE CHASE, SITE NO. 150

Height of man is 6½ inches. Color, red.

(Groupings by the author.)

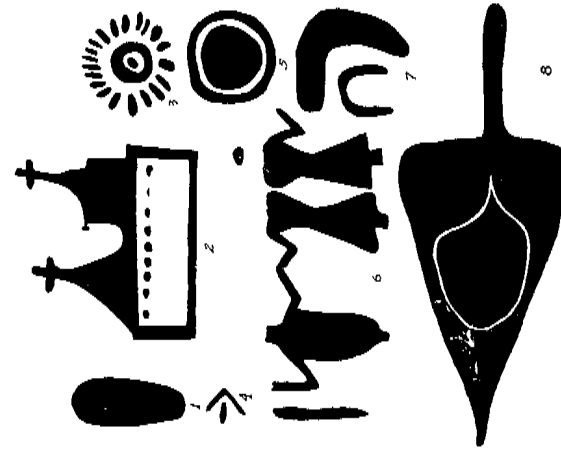


FIG. 235.

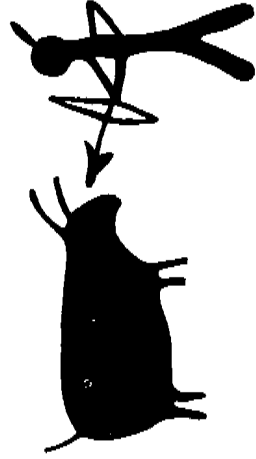


FIG. 237.



FIG. 234.

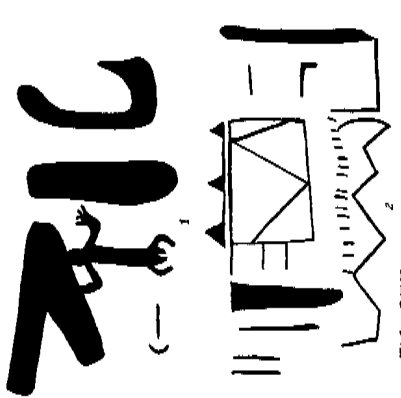


FIG. 233.

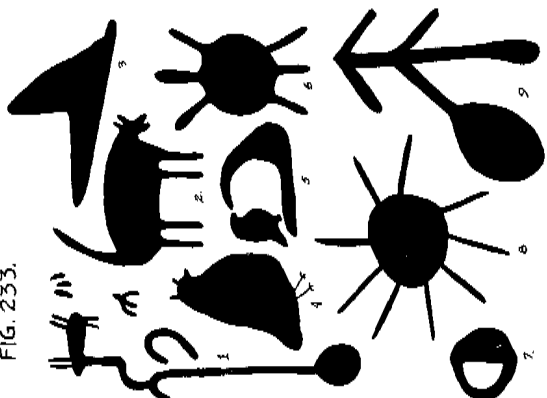


FIG. 236.

FIG. 238. ELABORATE, ARTISTIC RAYED SUN-DISC, SITE NO. 150,
CONCHO COUNTY

Diameter: 16 inches. Color: red.

FIG. 239. HUMANS, WEAPONS AND FLAG, SITE NO. 150

- 1, 2. Reclining human forms, possibly representing dead men. Color: black. Dimensions: $4 \times 2\frac{1}{2}$ inches.
3. Man with bow, arrow and rabbit stick. Phallic. Note feather in hair. Color: red. Height: $11\frac{1}{2}$ inches.
4. Possibly a variant of the spear symbol. Color: red. Dimensions: $18 \times 6\frac{1}{2}$ inches.
5. Guidon in red. Dimensions: $5 \times 2\frac{1}{2}$ inches.
6. Distorted projectile. Color: black. Length: $2\frac{3}{4}$ inches.

FIG. 240. HUMAN AND ANIMAL REPRESENTATIONS, SITE NO. 150

1. Human form, with exaggerated hands and feet. Color: red. Height: 17 inches.
2. Buffalo, on a ledge near top of cliff. Color: red. Dimensions: $10 \times 8\frac{3}{4}$ inches.
3. Superimposed human figure. Color: red. 12×5 inches.
4. Head of a typical longhorn. Spread of horns is 16 inches; length of head, 12 inches. Colors are red and orange.

FIG. 241. TURKEY, SERPENTS AND "DEATH COUNT," SITE NO. 150

1. Rake-like element, or so-called "death count." Color: red. Length: 15 inches.
2. So-called plumed serpent, or possibly a conventionalized hand. Color: red.
3. Wild turkey painted in red. Height: 6 inches; length: $8\frac{1}{2}$ inches. It is interesting to compare this picture with a turkey at Site No. 90, Val Verde County, Texas. (See Plate CLXXVII.)
4. Snake-like element. Color: red. Dimensions: $10 \times 1\frac{1}{2}$ inches.

FIG. 242. UNUSUAL PICTOGRAPHS, SITE NO. 150

1. Problematical painting. Color: red. Dimensions: $8\frac{1}{2} \times 2\frac{1}{4}$ inches.
2. Possible variant of rayed sun-disc. Color: black. Dimensions: 17×11 inches.
3. So-called double-bowl pipe. Color: red. Dimensions: $9\frac{1}{2} \times 2$ inches.

FIG. 243. GEOMETRIC AND SYMBOLIC DESIGNS, IN RED, SITE NO. 150

1. A possible cloud and rain symbol. Dimensions: 12×9 inches.
2. A possible variant of the sun symbol, or a shield with appendages. Dimensions: 17×11 inches.
3. Rake-like element, or "death count." Dimensions: $5\frac{1}{2} \times 2\frac{1}{4}$ inches.

(Groupings by the author.)

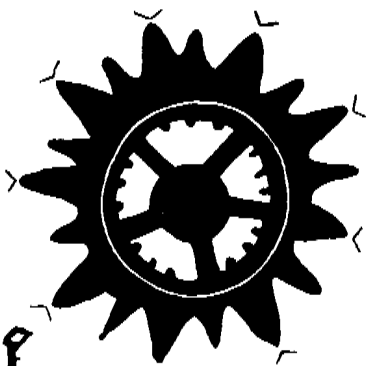


FIG. 238.

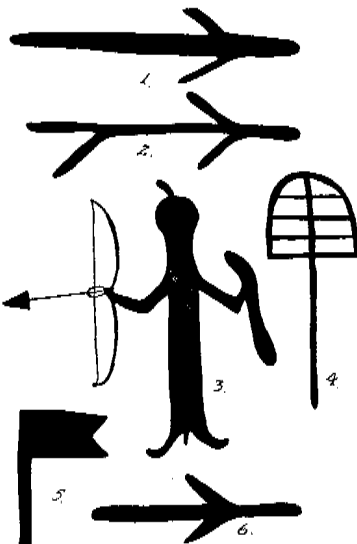


FIG. 239.



FIG. 240

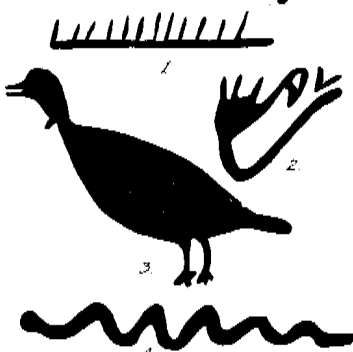


FIG. 241.

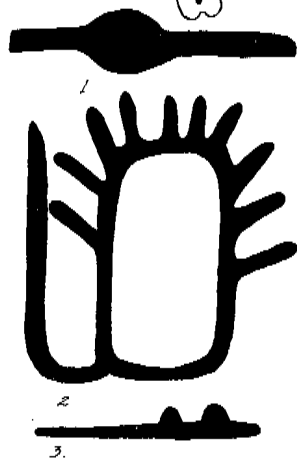


FIG. 242.

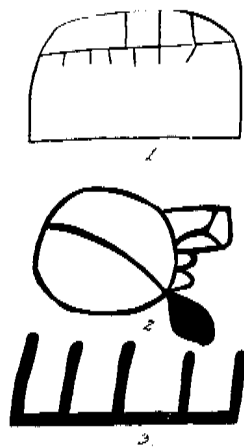


FIG. 243.

FIG. 244. PICTOGRAPHS AT SITE NO. 150, CONCHO COUNTY

Dimensions: 1, 28x11 inches; 2, $3\frac{1}{2} \times 2\frac{1}{2}$ inches; 3, 33x19 inches; 4, 18x8 inches.
Colors: 4, red, orange and black; others red.

FIG. 245. HUMAN AND ANIMAL FORMS, ETC., SITE NO. 150

Color: red.

Dimensions: 4, 10x7 inches; 6, $7\frac{1}{2} \times 9$ inches; 7, $5\frac{3}{4} \times 3\frac{1}{2}$ inches; 8, $6\frac{1}{2} \times 4\frac{1}{2}$ inches; 9, $10\frac{3}{4} \times 6\frac{3}{4}$ inches.

FIG. 246. RAIN SYMBOLS AND PLANTS, SITE NO. 150

Color is red.

Dimensions: 1, $16\frac{1}{2} \times 11\frac{1}{2}$ inches; 2, 15x9 inches; 3, $10\frac{3}{4} \times 7\frac{1}{4}$ inches; 4, $10\frac{1}{2} \times 5\frac{1}{2}$ inches.
No. 4, a so-called stalk of corn, may represent a distorted animal or horned lizard.

FIG. 247. GEOMETRIC AND SYMBOLIC ELEMENTS, SITE NO. 150

Colors: 1, 3, red lines with black interiors; others, red.

Dimensions: 1, $28\frac{1}{2} \times 6$ inches; 2, $27\frac{1}{2} \times 11\frac{1}{4}$ inches; 3, $10\frac{1}{2} \times 2\frac{1}{4}$ inches; 4, 16x10 inches; 5, $14\frac{1}{2} \times 5\frac{1}{2}$ inches; 6, 11x3 inches.

FIG. 248. GEOMETRIC DESIGNS, SITE NO. 150

Color: red.

FIG. 249. HUMAN, GEOMETRIC AND SYMBOLIC DESIGNS, SITE NO. 150

Colors: 1, 3, 4, 5, 7, 8, 9, red; 2 and 6, red and black.

Dimensions: 1, 8x4 inches; 3, 37x15 inches; 7, $8\frac{1}{2}$ inches long; 9, 42x22 inches.

No. 5, a human torso, features a four-fingered hand. No. 6 is suggestive of the South American bolas, consisting of stones encased in skin and attached by thongs. The large crescent in No. 9 may be a moon symbol. The spider-like elements in Nos. 2, 8, and 9 may be rayed sun-discs.

(Groups not in original order, Figs. 244, 247.)

(Other groupings by the author.)

(Figs. 245-248, Courtesy of C. R. Granberry, The University of Texas.)

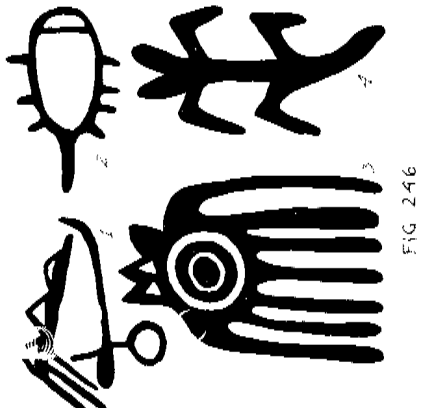


FIG. 246

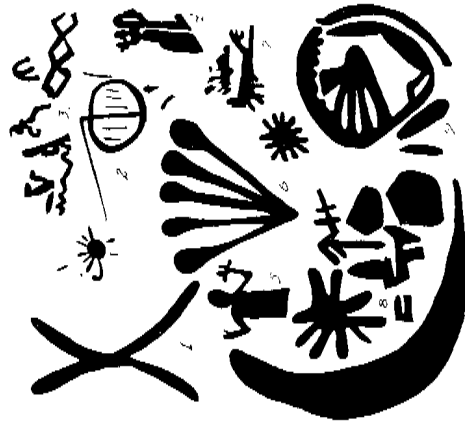


FIG. 249



FIG. 245

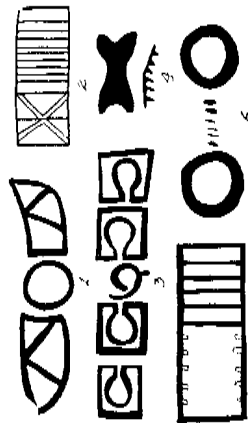


FIG. 247



FIG. 244

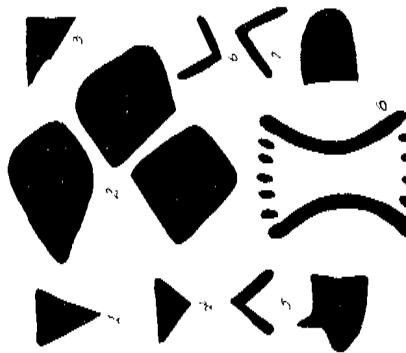


FIG. 248

	Number	Per Cent
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	3	
Horizontal hatching	1	
Crosshatch	4	
Horizontal band line.....	1	
Enclosing band lines.....	2	
Squares	3	
Rectangles	6	
Triangles	9	
Single circles	26	
Concentric circles	2	
Bisected circles	5	
Discs enclosed by circles.....	3	
Connected circles	3	
Hourglass element in circle.....	1	
Equal-armed crosses in circles.....	2	
Rayed semicircle	1	
Scroll variants	5	
Series of pendant triangles.....	8	
Series of numeration dots	10	
Series of numeration lines.....	2	
Single zigzag	1	
Parallel zigzags	1	
U-shaped elements	5	
V-shaped elements	8	
Y-shaped elements	6	
Ladder-like element	1	
Pitchfork-like element	1	
Rake-like elements	9	
Hourglass-like elements	2	
Flag- or banner-like elements.....	3	
Guidon-like element	1	
Crosses	4	
Equal-armed cross	1	
Crescent moon (?).....	1	
Ham or "trophy of the chase" (?).....	1	
Sun symbols	26	
Cloud and rain symbols.....	7	
Discs	3	
Amoeboid figures	2	
Curvilinear	5	
Problematical	6	
	191	39
Total	488	100

COKE COUNTY

SITE No. 151

Located in a sandstone ledge, along a stream in the northeast corner of the county, is a small shelter that has some petroglyphs and abrading marks on its wall and roof. The shelter, which faces north, measures 13x11x8 feet.

The midden deposit at this site was excavated and report thereon published by E. B. Sayles.⁵⁰ Reference is made to that report for further details.

Some of the lines have rounded bottoms about the size of the forefinger. Their depth varies from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch. Other lines, narrower and shallower, apparently were carved with a sharp implement.

The fact that the shelter is located near an old army post—established in 1852 and abandoned in 1867—and that glass was found in the upper level of the midden deposit, does not prove that the petroglyphs are historic. They show no evidence of white contact, or modification; neither do the lower levels of the midden deposit. It seems, therefore, that the abrading marks and carvings are prehistoric.

⁵⁰Sayles, E. B., A Rock Shelter in Coke County, Texas, Archaeological and Paleontological Society, Abilene, September, 1930, Vol. II, pp. 33-40, Pls. 4 and 5.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 151

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	6
<i>Geometric and Symbolic:</i>		
Equal-armed crosses	4	
Series of numeration marks	3	
Anchor-like element	1	
Ladder-like elements	2	
X-shaped elements	7	
	17	94
Total	18	100

NOLAN COUNTY

SITE No. 152

The site here consists of a rock shelter, located near the headwaters of a creek, in the south central part of the county. Dr. Cyrus N. Ray and others accompanied the writer to the site. On the walls are a few carved figures and a number of negative handprints with the background painted in red.

The low limestone shelter was long occupied by man, as shown by the extensive midden deposit. The paintings and carvings have been almost destroyed by vandalism. Only a few remain recognizable.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 152

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered	2	
Negative handprints	7	
Arms upraised	2	
Arm decoration	1	
Feather headdress	1	
Projectile wound	1	
	14	48
<i>Human Workmanship:</i>		
Projectiles	4	
Tepee (?)	1	
Gourd (?), dipper or bag	1	
	6	21
<i>Lower Life:</i>		
Conventionalized birds	2	7
<i>Geometric and Symbolic:</i>		
Crosshatch	2	
U-shaped element	1	
X-shaped element	1	
Figure eight	1	
Bisected circle or shield	1	
Rain symbol	1	
	7	24
Total	29	100

SHACKELFORD COUNTY

SITE No. 153

The site consists of a small rock shelter, located in the southwestern part of the county near the Jones County line. Dr. Cyrus N. Ray reported the site and accompanied the writer to it. The shelter has a length of about 18 feet and an overhang of five feet. On the limestone wall are a number of red paintings, of a shade closely resembling English Venetian red. The paintings show no evidence of European contact and probably belong to the late prehistoric period.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 153

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	2	
Arms downward	2	44
<i>Human Workmanship:</i>		
Projectile	1	12
<i>Lower Life:</i>		
Conventionalized animals	2	22
<i>Geometric and Symbolic:</i>		
Sun-ray disc	1	
Problematical	1	22
Total	9	100

FIG. 250. PETROGLYPHS ON ROOF OF SHELTER, SITE NO. 151, COKE COUNTY

The designs consist of equal-armed crosses, so-called ladder, and inverted anchor-like elements.

(Courtesy of E. B. Sayles.)

PLATE CCJX

VIEWS AT SITE NO. 152, NOLAN COUNTY

1. Shelter on wall and roof of which are carvings and negative handprints.

(Photograph by E. B. Sayles.)

2. Negative handprint with painted or splashed background.

PLATE CCX

SMALL SHELTER AT SITE NO. 153, SHACKELFORD COUNTY

A few pictographs are protected by the overhang.

PLATE CCXIII

BLUFF ON WHICH PICTURE-WRITINGS OCCUR, SITE NO. 155, STEPHENS COUNTY

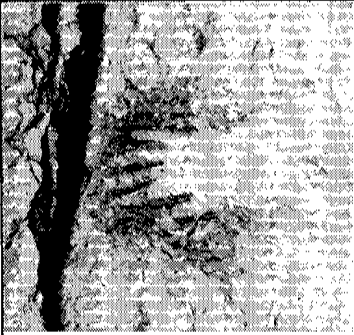


PLATE CCIX.

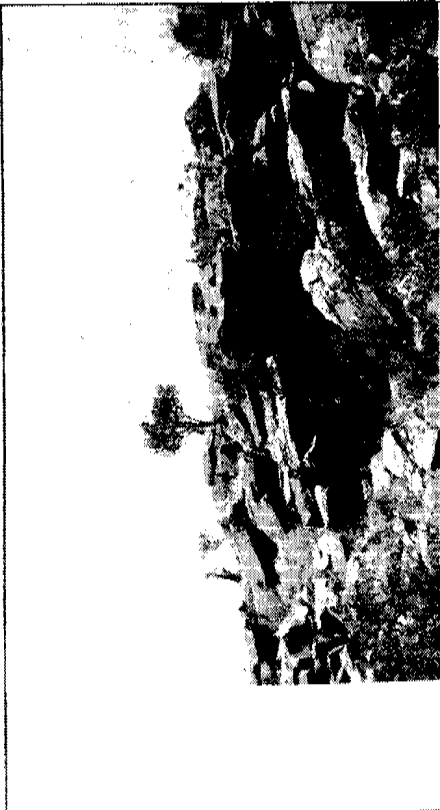


PLATE CCXIII.



FIG. 250.



PLATE CCX.

FIG. 251. SQUARE-SHOULDERED HUMAN, GEOMETRIC AND SYMBOLIC DESIGNS,
SITE NO. 152, NOLAN COUNTY

1. Bisected oval-shaped element, possibly a shield. Black paint, very dim. Dimensions: $4\frac{1}{2} \times 4$ inches. Lines $\frac{1}{4}$ to $\frac{1}{2}$ inch wide.
2. Woman with upraised arms, holding what appears to be a dipper, or skin bag. The lines above the dipper suggest rainfall. Carved with a sharp implement. Now almost destroyed by vandalism.
3. Tepeco-like element; lightly carved. Note the bird-like object at the top.
4. One of seven negative handprints, splashed around with red paint.
5. Square-shouldered human figure, pierced by two projectiles. Note the headdress, arm decoration and projectiles in the hands. This type of human representation is suggestive of the Basket Maker culture.
6. Figure eight element carved with sharp implement. Dimensions: $2\frac{1}{4} \times 1$ inches.

PLATE CCXI

HUMAN, ANIMAL AND GEOMETRIC PAINTINGS, SITE NO. 153,
SHACKELFORD COUNTY

Dimensions: 1, 11 inches; 2, 7 inches; 3, 5×4 inches; 4, $4\frac{3}{4} \times 11$ inches; 5, $8\frac{1}{2} \times 3\frac{1}{4}$ inches; 6, 9×5 inches; 7, $8 \times 5\frac{1}{2}$ inches.

No. 1 is a typical conventionalized human figure. No. 5, an unusual human representation, is suggestive of certain round-bodied petroglyphs at Site No. 168, Stephens County. Nos. 6 and 7 are suggestive of herbivorous, or horned, and carnivorous animals.

PLATE CCXII

PICTOGRAPHS AT SITE NO. 154, SHACKELFORD COUNTY

An outstanding feature is the representation of the head by a circle. No. 4 shows a feather headdress; 9, shows what appears to be a rabbit stick in one hand and a club-like implement in the other. Nos. 11, 12, and 13 are phallic representations.

Dimensions: 4, $15\frac{1}{2} \times 8\frac{1}{2}$ inches; 5, 12×10 inches; 7, 33×13 inches; 9, 36×17 inches; 10, 38×23 inches; 12, 17×12 inches. Color: red.

FIG. 252. PICTOGRAPHS AT SITE NO. 155, STEPHENS COUNTY

Colors: 1, 2, 3, 8, 9, red; 4, 5, 6, 7, black.

Dimensions: 1, 2, $6\frac{1}{2} \times 6$ inches; 3, 5 inches diameter; 4, 9 inches long; 5, $9\frac{1}{2} \times 2\frac{3}{4}$ inches; 6, $5\frac{1}{2}$ inches long; 7, $12 \times 2\frac{3}{4}$ inches; 8, 7×2 inches; 9, $4\frac{1}{2}$ inches tall.

No. 7 shows a figure much like one at Site No. 99, Val Verde County, and similar to one at Site No. 140, Gillespie County.

FIG. 253. HUMAN AND SYMBOLIC REPRESENTATIONS, SITE NO. 155

Colors: No. 2, red with black legs; others, red.

Dimensions: 1, 4×5 inches; 2, 28×11 inches; 3, $24 \times 11\frac{1}{2}$ inches; 4, 5, and 6, 21×13 inches over all.

No. 3 is a problematical figure, perhaps a conventionalized animal or lizard; 5, shows a feather headdress; 6 is unusual in that it apparently represents a broken projectile shaft.

(Groupings by the author.)

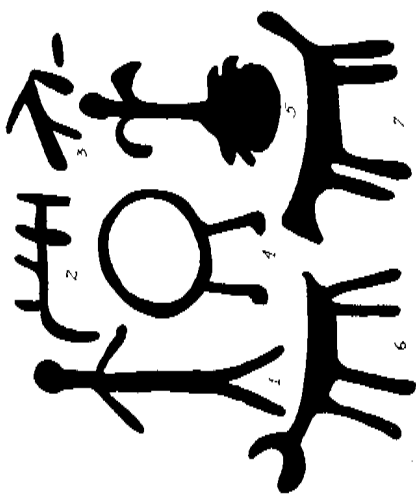


PLATE CCXI.

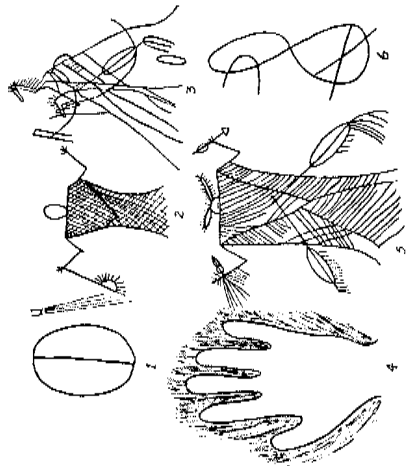


FIG. 251.

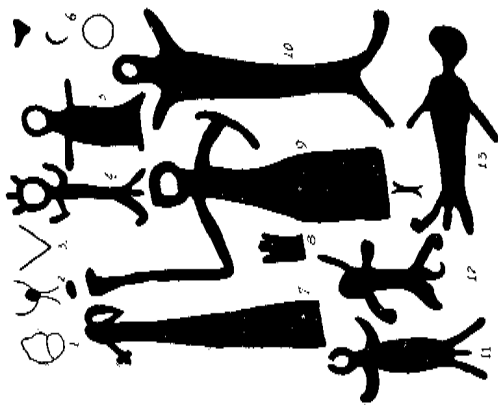


PLATE CCXII.

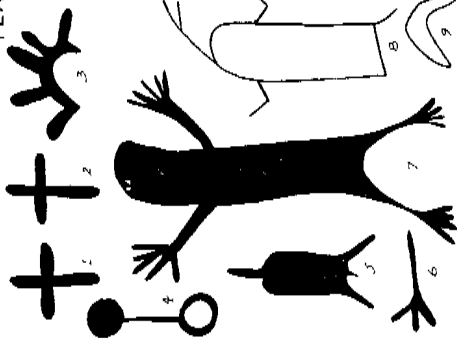


FIG. 252.



FIG. 253.

SITE No. 154

Pictographs at this site appear on the wall of a shelter, located about a quarter of a mile from a creek in the southeast corner of the county. The shelter, which faces west, measures about 22x10 feet. All the paintings are in red and appear to represent different periods. The older ones are very dim, while the others are quite clear. There is no evidence of European contact; hence it would seem that the clear paintings may belong to the late, and the older ones to the early, prehistoric period. An outstanding feature of the paintings is the presence of the human head formed by a circle. These are suggestive of circle-heads at Sites No. 82 and 108, Val Verde and Edwards Counties.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 154

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	9	
Torsos	2	
Ring or circle heads	6	
Headdress:		
Horn	2	
Feather	1	
Arms:		
Outstretched	2	
Downward	3	
Upraised	3	
Phallic	4	80
<hr/>		
<i>Human Workmanship:</i>		
Rabbit stick	1	
Hafted stone or "war club" (?)	1	5
<hr/>		
<i>Geometric and Symbolic:</i>		
Single circle	1	
Connected circles	1	
Semicircle	1	
V-shaped element	1	
Spider-like element	1	
Ham or "trophy of the chase" (?)	1	
	6	15
<hr/>		
Total	40	100

STEPHENS COUNTY

SITE No. 155

Pictographs, petroglyphs and abrading marks are on the sheltered faces of several overhanging ledges and boulders, along a sandstone bluff, in the south central part of the county. The bluff ranges from 50 to 75 feet above the surrounding valley to the south and east. Several of the small shelters contain midden material. To the east are some oval mortar holes and deposits of camp refuse.

The pictographs, in red and black paint, are in a poor state of preservation. Many have been ruined by the vandalism of oilfield workers and others. In addition to the writing of names and dates, pictures in various colors recently have been painted over some of the works of the native artists.

Another source of damage to the paintings is an accumulation of soot from a nearby carbon black plant. An indication of how it collects on the rocks may be gained from the fact that recent carvings contain much soot and appear as black and aged as the Indian carvings and abrading marks.

CLASSIFICATION OF LEGIBLE DESIGN ELEMENTS, SITE NO. 155

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	6	
Phallic	1	
Torso	1	
Arms upraised	3	
Armless	1	
Headless	1	
Feather headdresses	2	
One leg missing	1	
Positive handprint	1	
	17	44
<i>Human Workmanship:</i>		
Shields	2	
Projectile shaft (broken)	1	
Club	1	
Tepee	1	
Ornament (?)	1	
	6	15
<i>Lower Life:</i>		
Conventionalized animal	1	
Lizard (?)	1	
Bird tracks (?)	3	
Tree	1	
	6	15
<i>Geometric and Symbolic:</i>		
Crosshatch	1	
Curvilinear	2	
Connected circles	1	
X-shaped elements	2	
Crosses	2	
Rayed sun-discs	2	
	10	26
Total	39	100

SITE NO. 168

Near the northern edge of the county are two large sandstone boulders on which are petroglyphs pecked with a hammerstone. Most of them are of human figures, highly conventionalized, and of a type rarely found in Texas. The distinctive features are narrow bodies with oval-shaped enlargements near the center. The figures are pecked to a depth of about $\frac{1}{8}$ of an inch. These are not abrading marks, but are the result of much purposeful pecking. A much used quartzite hammerstone, about $4 \times 2 \times 1\frac{1}{2}$ inches in size, was picked up at the foot of the boulder on which most of the petroglyphs occur. The pictures range in height from nine to 23 inches, the average being 12 to 15 inches.

C. L. Baker, who examined a sample of the stone from these boulders, reported as follows: "This sandstone is poorly cemented and will crumble in 50 to 100 years." This suggests that the petroglyphs are not very old.

Adjacent to, and on, the hill where the petroglyphs are located is an extensive campsite.

It is reported by Lester B. Wood, of Breckenridge, that in 1934 a skeleton was found by some hunters beneath the slightly overhanging edge of one of these boulders. The burial was in a flexed position, on the left side, and accompanied by a few artifacts, none of which showed white contact. They included a bone awl, projectile point, and stone hammer. The skull was in a good state of preservation.

A careful examination of the petroglyphs reveals several points of interest:

1. The central enlargement in the human figures is unique in Texas picture-writing.
2. These rotund figures are similar to a pictograph at Site No. 153, Shackelford County.
3. Most of the figures are in an inverted position.
4. Most of the arms are outstretched.
5. Hands are not indicated.
6. Only one leg is shown for each figure.
7. The cross-like elements also appear to represent human forms.
8. There are two possible bird tracks.
9. No animals are represented.
10. The petroglyphs show no evidence of European contact, unless certain of the head enlargements represent hats.
11. The figures are crudely pecked and the weathering is such that they look as old as the surrounding stone.
12. Several of the petroglyphs on the exposed upper surface have weathered until they are almost destroyed. Apparently this does not indicate any great age, but merely is the result of rapid weathering of the sandstone.

The absence of legs might indicate that these figures are not human representations. Other features, however, make it seem probable that they were so intended.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 168

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized (?)	20	
<i>Arms:</i>		
Outstretched	15	
Downward	5	40
<i>Lower Life:</i>		
Tree or plant	1	
Bird track	1	2
<i>Geometric and Symbolic:</i>		
Equal-armed crosses	4	
Anchor-like element	1	
Y-shaped element	1	6
Total	48	100

PLATE CCXIV

PETROGLYPHS AND ABRADING MARKS, SITE NO. 155,
STEPHENS COUNTY

Note the mutilations and damage by vandals.

PLATE CCXV

UNUSUAL PETROGLYPHS AT SITE NO. 168, STEPHENS COUNTY

Note that most of the so-called human figures are in an inverted position.
Lester B. Wood, of Breckenridge, is examining the pecked designs.

PLATE CCXVI

PETROGLYPHS AND ABRADING LINES AT SITE NO. 160,
McLENNAN COUNTY

Group 1. So-called "map" showing main stream and tributaries.

Group 2. Possible abrading lines. Lines $\frac{1}{2}$ to $\frac{3}{4}$ inch deep.

(Courtesy of Frank H. Watt.)



2.

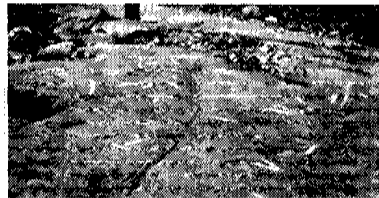
PLATE CCXIV.



PLATE CCXV.



1.



2.

PLATE CCXVI.

BURNET COUNTY

SITE No. 156

Pictographs at this place are on the wall of a rock shelter, located at the junction of two creeks a few miles east of the Colorado River. The red paintings are dim, due to occasional flood action as well as to age. The outstanding picture is what appears to be a hafted stone ax, or club, with thongs hanging from the handle.

Midden deposit in the shelter evidences occupation over a considerable period of time. The paintings show no signs of European contact.

FIG. 254. GEOMETRIC AND SYMBOLIC DESIGNS, SITE NO. 155,
STEPHENS COUNTY

Colors: 1, black; others red.

Dimensions: 1, 12x6 inches; 2, 8 inches tall; 3, 22 inches in diameter; 4, 14 inches in diameter.

No. 2 is suggestive of a tepee, and No. 4 a shell gorget. The latter, however, may have been intended to represent a shield. No. 3 apparently is a shield with a rayed sun-disc in the center.

FIG. 255. PICTOGRAPHS AT SITE NO. 156, BURNET COUNTY

Color is red.

Dimensions: 2, 7¾ inches long; 3, 6¾ inches long; 9, 17½x4½ inches; 10, 16x3½ inches.

No. 9 probably represents a hafted stone ax. It is suggestive of a painting at Site No. 150, Concho County. Nos. 7 and 8, realistic projectile points, are unusual in Texas picture-writings.

FIG. 256. PETROGLYPHS AT SITE NO. 158, BELL COUNTY

1. Carved human head showing headdress. Diameter: 5 inches.
2. Conventionalized human representation.
3. Man carved on an exposed boulder. Height about 3 feet.

FIG. 257. PICTOGRAPHS IN SHELTER, SITE NO. 187, SUTTON COUNTY

Color is red.

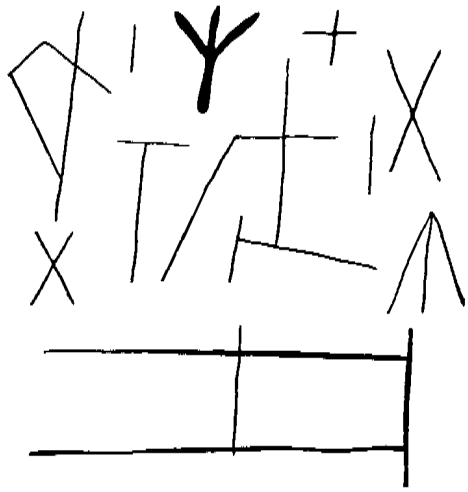
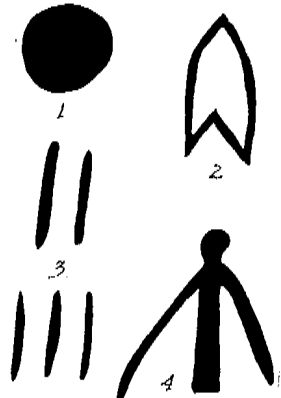
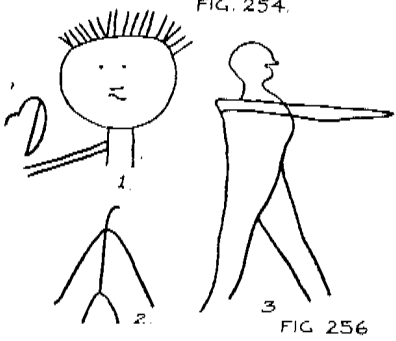
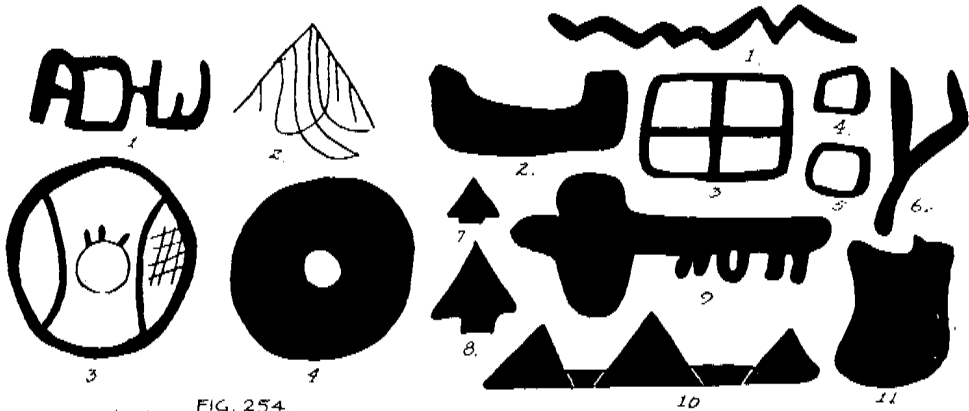
Dimensions: 2, 5x2 inches; 3, 3x2½ inches; 4, 4x3 inches.

No. 2 may be a large projectile point or a highly conventionalized human form. No. 4 is a human torso, with arms downward.

FIG. 258. PETROGLYPHS CARVED ON LIMESTONE BOULDER, SITE NO. 187

The lines appear to have been cut with a sharp implement.

(Groupings by the author.)



CLASSIFICATION OF TRACEABLE DESIGN ELEMENTS, SITE NO. 156

	Number	Per Cent
<i>Human Workmanship:</i>		
Projectile points	2	
Hafted ax	1	3
		18
<i>Lower Life:</i>		
Snake	1	6
<i>Geometric and Symbolic:</i>		
Tepees	3	
Rectangles	3	
Curvilinear	1	
Circles	2	
Equal-armed cross in circle	1	
Zigzag	1	
Series of pendant triangles	1	
Y-shaped element	1	
	13	76
Total	17	100

BELL COUNTY

SITE No. 157

On a cliff in the northern part of the county are reported to be a few dim pictographs. Frank H. Watt⁵⁷ mentioned them as follows:

"There is still dimly discernible, high on the cliffs above the Leon at a point known as 'The Narrows,' a painting of an Indian with bow and arrow in mortal combat with a large bear. The thought occurs that the Indian emerged as victor from this combat and later returned and proudly recorded the incident."

SITE No. 158

At this site, near No. 157, are a few petroglyphs. One of the figures is a human representation, carved and pecked into the exposed surface of a large limestone slab. The technique of the leg delineation is much like a carved design at Site No. 152, Nolan County. Near the human figure is a carved snake.

Very near the above mentioned petroglyphs is a crevice-like entrance to a so-called cave. Just inside the narrow entrance is a carving of a human head, wearing a feather headdress, and another of a small conventionalized human.

Adjacent to the petroglyphs, and not far from a spring, is a burnt-rock midden.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 158

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	2	
Head	1	
Feather headdress	1	
Arms: Downward	1	
Across body	1	6
		86
<i>Lower Life:</i>		
Serpent	1	14
Total	7	100

⁵⁷Watt, Frank H., A Prehistoric Shelter Burial in Bell County, Texas, Central Texas Archeological Society, Vol. 2, Waco, March, 1936, p. 22.

CORYELL COUNTY

SITE No. 159

In the western part of the county is a rock shelter with an adjacent flint quarry, extensive workshop and campsite. On the wall of the shelter are the remains of several very dim red paintings; so dim, in fact, that it is impossible to report them in detail.

MCLENNAN COUNTY

SITE No. 160

Carved into the table-like surface of the Edwards limestone of the region are a number of petroglyphs and abrading lines. The carvings are located near a rock shelter in the western part of the county. In one of the groups are a number of connected lines, suggestive of a map showing a stream and its tributaries. A report on the site was written by Sam Horne and illustrated by Frank H. Watt.⁵⁸

HENDERSON COUNTY

SITE No. 191

This site is the only one of its kind in East Texas of which the writer knows. It consists of a rock shelter, on the walls of which are numerous deeply rubbed lines and a few shallower petroglyphs and abrading marks. The shelter is some 25 feet in length with an overhang of about 15 feet. On the floor, and outside the overhang, is a midden deposit.

The overhanging rock is a huge block of ferruginous sandstone that is cemented with hydrogenous iron oxide (turgite). The stone is very weak, of a deep red color and could have been used for paint. Many of the deep lines may have been made in securing powder for paint. Some of the markings appear to be much older than others, but none of the petroglyphs shows evidence of white contact.

A distinctive feature of many of the marks is a round, smooth bottom. This implies the use of round-ended implements.

Aside from marks probably caused by scraping of paint material, or sharpening bone and wooden implements, there are some arranged in patterns that show purposeful execution. These are distinguished from the others by shallow lines, triangular in cross-section, and apparently carved with a sharp implement. Some of the petroglyphs are suggestive of ones at Sites No. 151 and 155, Coke and Stephens Counties, and various other West Texas sites.

⁵⁸Horne, Sam, *Petroglyphs Tonk Creek*, Central Texas Archeological Society, Vol. 1, Waco, 1935, pp. 30-31.

PLATE CCXVII

VIEWS AT SITE NO. 191, HENDERSON COUNTY

1. Shelter of ferruginous sandstone in which are petroglyphs and worn lines.
- 2, 3. Petroglyphs carved with a sharp implement. Crosshatch, tepee, and herringbone elements. No. 3, 9 inches in width.

PLATE CCXVIII

PETROGLYPHS AT SITE NO. 191

1. Conventionalized human, so-called bird tracks, rectangles, triangles, etc. At upper left is an equal-armed cross in a circle. Note the two square-shouldered figures at upper center. (See Plate CCLVIII, 16.) These are similar to a pictograph at Site No. 38, Brewster County, and a petroglyph at Site No. 188, Sutton County. There also may be seen a conventionalized human with a pit for a head.
2. At upper center is a so-called bird track; near center a conventionalized animal; and beneath it a rain symbol.

PLATE CCXIX

PETROGLYPHS, ABRADING MARKS AND PITS, SITE NO. 191

1. Most of the lines appear to be abrading marks; but near center are lightly carved crosshatch and bird track elements. The lines of the crosshatch are only $\frac{1}{8}$ inch deep, while the abrading marks are $\frac{1}{2}$ to $\frac{3}{4}$ inch in depth.
2. Round-bottomed lines, series of pits, and petroglyphs. At the lower center is a rake-like element, or so-called "death count." At the upper center is a circular design, formed by a row of pits, enclosing an equal-armed cross. The orderly arrangement of the pits is suggestive of those at petroglyph Site No. 190, Loving County; pictograph and petroglyph Site No. 20, Culberson County; pictograph and abrading mark Site No. 133, Real County; and petroglyph Site No. 188, Sutton County.

PLATE CCXX

SCRAPING GROOVES, ABRADING MARKS AND PETROGLYPHS, SITE NO. 191

1. Deeply carved "bird tracks," and grooves rubbed with a round-pointed implement. High on wall of shelter.
2. The petroglyphs include the equal-armed cross, tepee elements, and crosshatch.

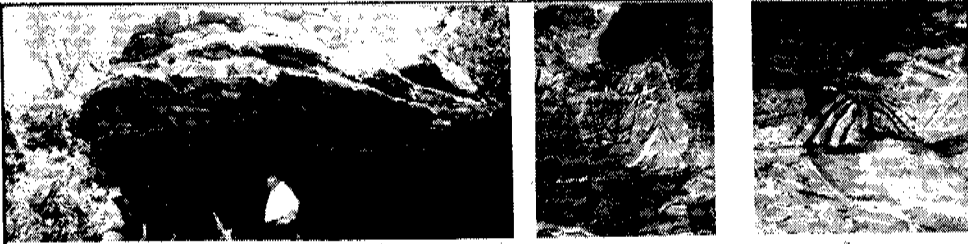


PLATE CCXVII

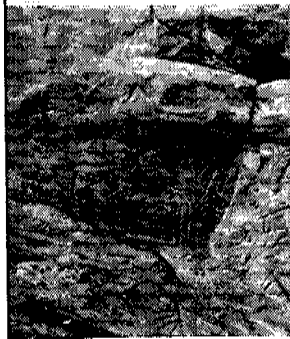
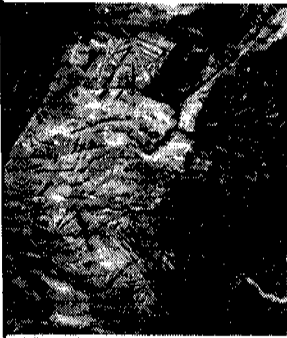


PLATE CCXVIII

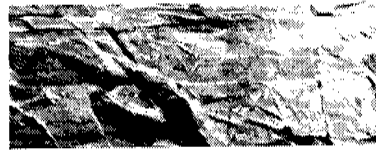


PLATE CCXIX



PLATE CCXX

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 191

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered	3	
Conventionalized figures	2	
Conventionalized hands	2	7
		15
<i>Human Workmanship:</i>		
Tepees	3	
Projectiles	3	6
		14
<i>Lower Life:</i>		
Conventionalized animal	1	
Bird tracks	5	6
		14
<i>Geometric and Symbolic:</i>		
Crosshatch	2	
Horizontal hatching	1	
Perpendicular hatching	1	
Oblique hatching	1	
Equal-armed cross in circle	2	
Equal-armed cross	1	
Rake-like elements	4	
Herringbone elements	3	
Rain symbol	1	
Chevron-like elements	2	
X-shaped elements	5	
Circle of pits	1	
Rectangle	1	25
		57
Total	44	100

PLATE CCXXI

ABRADING MARKS AND CARVED PETROGLYPHS, SITE NO. 187,
SUTTON COUNTY

PLATE CCXXII

VIEWS AT SITE NO. 188, SUTTON COUNTY

1. Entrance to the shelter. The floor proper is on a level with the man's head.
2. A section of the shelter wall showing deeply carved lines.
3. Abrading marks and possible petroglyphs. Intermixed with the grooves are a few carvings suggestive of conventionalized men, etc.

PLATE CCXXIV

HUMAN FIGURE PAINTED IN RED AND BLACK, AND LATER CHALKED,
SITE NO. 162, OLDHAM COUNTY

The painting was chalked prior to the writer's visit, but after color sketches had been made by other observers. According to such sketches, the entire figure was red except for the sash-like object, extending from the waist to the knees, and the fringed headdress. These were in black.

PLATE CCXXV

HUMAN AND ANIMAL CARVINGS IN SANDSTONE, SITE NO. 162

1. Conventionalized human figure with arms upraised, showing five- and three-fingered hands. Dimensions: 10x7½ inches.
2. A headless animal, with triangles suspended from the tail. The head appears to have been destroyed by breaking away a piece of the stone. Dimensions over all: 21¼x6½ inches.

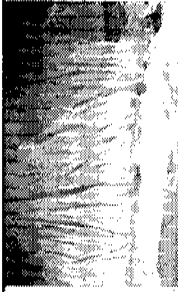


PLATE CCXXII.

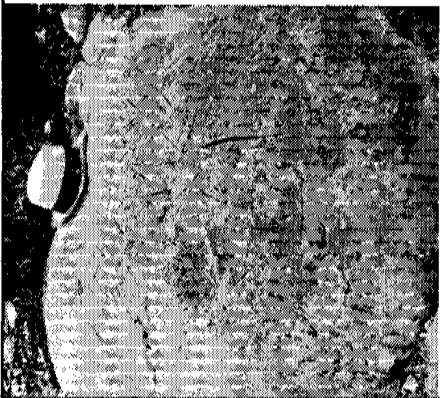


PLATE CCXXI.



PLATE CCXXIV



PLATE CCXXV.

WILLIAMSON COUNTY

SITE No. 161

On the slightly protected face of a boulder—beside a spring on a perennial stream in the southern part of the county—is a trace of an orange colored rayed sun-disc. No other pictographs remain.

SUTTON COUNTY

SITE No. 187

The site consists of a small, somewhat inaccessible shelter containing four dim paintings. Three limestone boulders, located on top of the peak, have on them a number of abrading marks, together with a few carved design elements. There is a camp-site and permanent water nearby. The site appears to be prehistoric.

FIG. 259. PETROGLYPHS AT SITE NO. 188, SUTTON COUNTY

Dimensions: 1, 4x3 inches; 2, 3x2½ inches; 4, 3½x3 inches; 5, 2½x5 inches; 6, 5x6 inches; 7, 8x3 inches.

Outstanding among the carvings are the so-called square-shouldered human figures, the tepee-like element and the series of conical pits. There likewise is a petroglyph of a conventionalized human figure with one arm missing.

(Groupings by the author.)

PLATE CCXXVI

PICTURE-WRITING AS REPORTED IN 1854, SITE NO. 162, OLDHAM COUNTY

Nos. 5, 6, 7 are petroglyphs; others, pictographs.

(After Whipple, Ewbank and Turner. Not original grouping.)

FIG. 260. HISTORIC PAINTINGS AT SITE NO. 162

1. Sun-disc and triangles. Colors, red and black.
4. Conventionalized horned animal, possibly a representation of a buffalo. Color, red.
5. Positive handprint, and pendant triangles. Colors, red and black.
6. Human representations showing white contact. Colors, red and black.
7. Man on horse with pack animal following. Man and horse, red; pack animal, black.

(Sketched from photographs. Grouping by the author.)



FIG. 260

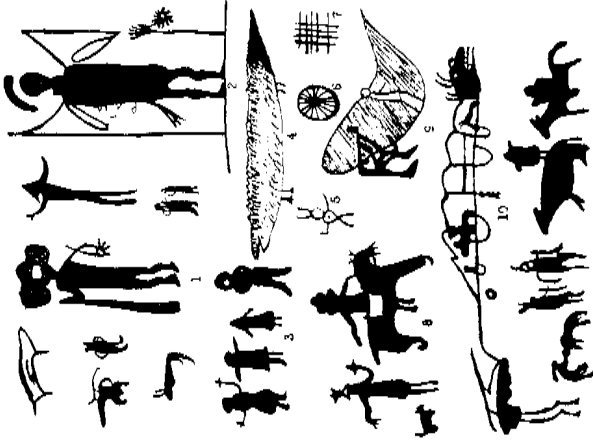


PLATE CCXXVI.

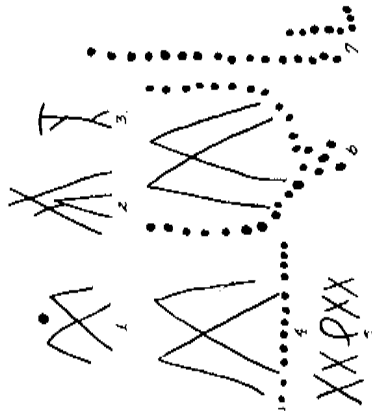


FIG 259

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 187

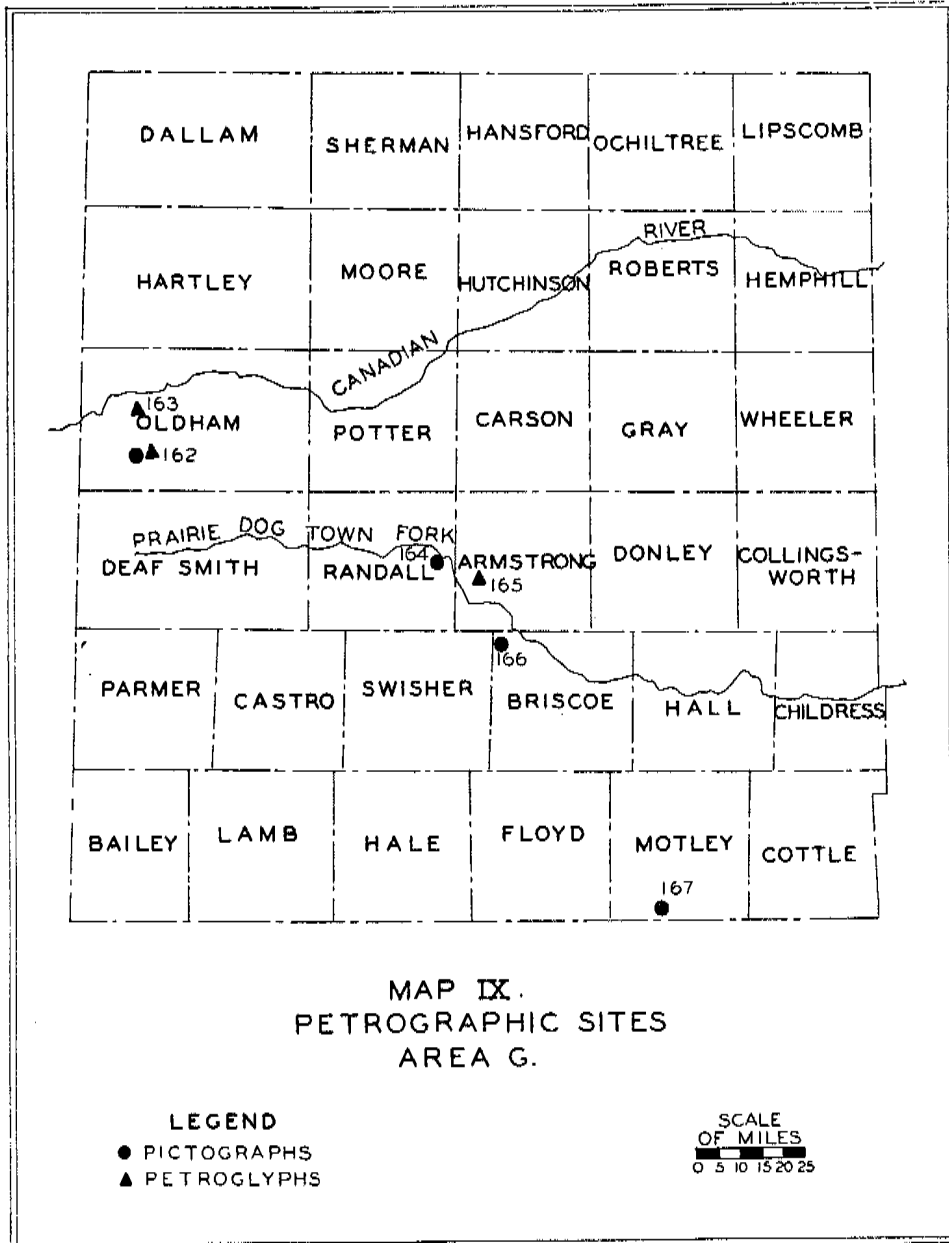
	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	1	
Torso	1	
Arms downward	1	
Armless	1	24
	4	24
<i>Human Workmanship:</i>		
Projectile points	2	12
<i>Lower Life:</i>		
Bird track (?)	1	6
<i>Geometric and Symbolic:</i>		
Perpendicular hatching	1	
Disc	1	
Equal-armed cross	1	
X-shaped elements	3	
T-shaped elements	2	
Y-shaped element	1	
Rectangle	1	58
	10	58
Total	17	100

SITE NO. 188

Petroglyphs and abrading marks are located on the wall and roof of a small rock shelter. According to C. L. Baker, the rock is a "fine grained, limy sandstone, quite porous but fairly durable." There is some evidence of camp life at this place, but little in the way of midden material remains.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 188

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered	3	
Headless	2	
Conventionalized	1	
<i>Arms:</i>		
Upraised	1	
Downward	3	
One arm missing	1	52
	11	52
<i>Geometric and Symbolic:</i>		
Enclosure of pits	1	
Curvilinear	1	
Band lines of pits	3	
Tepee	1	
X-shaped elements	4	48
	10	48
Total	21	100



MAP IX. PETROGRAPHIC SITES, AREA G

The sites are confined to localities with shelters or other suitable rock surfaces.

OLDHAM COUNTY

SITE No. 162

According to Floyd V. Studer, of Amarillo, who accompanied the writer to the site, it perhaps is the most important pictograph and petroglyph location in the Texas Panhandle. He briefly mentioned it in a survey of the region in 1931.⁵⁹

The site consists of a large rock shelter, on the sandstone wall of which are many paintings and carvings. Footprints also are carved on the stone floor of the shelter. One of these is much like a pictograph at Site No. 82, Val Verde County. Another slightly overhanging ledge has on it a few petroglyphs. Evidences of European contact appear in the picture-writings at both of these locations. This is one of the few petroglyph sites in Texas that include carvings of horses.

Adjacent to the shelter and bluff is an extensive open campsite, accompanied by several mortar holes in the bedrock. The site is well located on a small tributary of the Canadian River and appears to have been occupied in both prehistoric and historic times.

R. A. Prentice, of Tucumcari, New Mexico, first called attention to the fact that this site is the same as one described in the report of the Pacific Survey of 1853-54,⁶⁰ and is mentioned by Mallery,⁶¹ as follows:

"Among the many colored etchings and paintings on rock, discovered by the Pacific Railroad Expedition in 1853-54, may be mentioned those at Rocky Dell Creek, New Mexico, which were found 'between the edge of the Llano Estacado and the Canadian River. The stream flows through a gorge, upon one side of which a shelving sandstone rock forms a sort of cave. The roof is covered with paintings, some evidently ancient, and beneath are innumerable carvings of footprints, animals, and symmetrical lines.'"

In regard to the above quotation Prentice⁶² states:

"This description agrees with the Texas location, which is but a very short distance under the cap rock of the Llano Estacado; and at the date mentioned it probably was considered to be in New Mexico, as the New Mexico line has been moved a considerable distance west by surveys within comparatively recent years."

Whipple did not state that the picture-writings in question were in New Mexico. But the fact that he discussed them in connection with others from that state apparently led Mallery to assume that they too were in New Mexico.

A careful examination of the plates and text, in the original record, proves that the place is the same as our Texas Site No. 162. There are, however, several outstanding pictures included in the first report that no longer are discernible; also, certain facts and legends worth noting.

⁵⁹Studer, Floyd V., *Archaeological Survey of the North Panhandle of Texas*, Texas Archaeological and Paleontological Society, Vol. III, Abilene, September, 1931, p. 75.

⁶⁰Whipple, A. W., Ewbank, Thomas, and Turner, W. W., *Report Upon the Indian Tribes (Indian Traditions, Superstitions, and Pictographs)*, Included in *Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route for a Railroad from the Mississippi River to the Pacific Ocean, Made Under the Direction of the Secretary of War in 1853-54*, Thirty-third Congress, Second Session, House of Representatives, Ex. Doc. No. 91, Vol. XI, Part III, Washington, 1856, pp. 35-37, Plates 28, 29, and 30.

⁶¹Mallery, Garrick, *Fourth Annual Report*, p. 33.

⁶²Letter of R. A. Prentice to J. E. Pearce, March 22, 1935.



PLATE CCXXIII
SO-CALLED PLUMED SERPENT, HANDPRINTS, ETC., SITE NO. 162,
OLDHAM COUNTY, TEXAS

The serpent-like creature, 13½ feet long, is painted in red and black, with gradations of yellow and brown. It is suggestive of the "great crested serpent."

With reference to our Plate CCXXVI, 1, Whipple described the corresponding figure as follows: . . . "Much defaced and appears to be very old. It occupies a conspicuous part of the rock. The figure is naked, and to the head are appended circles, as if to represent enormous ears. In one hand is a huge club, and in the other a sword. The colors are red, black, and white."

If the object to which he refers is a sword, it would label the painting as historic. One can easily understand why an army lieutenant might interpret the curved line as a sword; but the present writer doubts if it was intended as such. If it represents a sword, then the other object might well be a gun, rather than a club. A seemingly significant point overlooked by him is that the hairdress, which he describes as "appended circles," is strikingly like the whorls worn by Hopi girls on reaching the marriageable age.

No. 2 "is of the same period," he continues; "a representation of some superior being, with wings, perhaps to denote spirituality; and a hand signifying that he is the creator of the sun, which appears issuing from it. He stands upon the back of an alligator, but the latter appears to be of later origin." The so-called alligator probably is a conventionalized animal.

"We were here visited by Pueblo Indians from New Mexico," he relates, "and copies of the inscriptions were shown to them. They recognized them, and said that this place was once a favorite buffalo range, and here their fathers hunted, feasted, and danced; and then, sitting by the water-side, recorded their thoughts and deeds upon the rocks. Figures 1 and 2 they decided to be representations of Montezuma, placed there to sanctify the spot, and secure a perpetual supply of water. They confirmed what the others had said in regard to the power of Montezuma, and his expected advent from the east. An explanation was asked regarding the singular animal" . . . (Plate CCXXVI,10). "They said it was the great water-snake, created by Montezuma to give rain and preserve the lives of those who should pray to him. They described it as being as large round as a man's body and of exceeding great length, slowly gliding upon the water, with long wavy folds, reminding one of the accounts of the Nahant sea serpent. . . Turning to the inscriptions, and pointing to the horned men, they said that this was a representation of the buffalo dance, from time immemorial a national festivity, at which they crowned themselves with horns and corn-shucks."

In referring to certain paintings at this site—sketches of which he made but subsequently lost—Whipple writes:

". . . This series, more than the others, seems to represent a chain of historical events, being embraced by serpentine lines. First is a rude sketch resembling a ship with sails; then comes a horse, with gay trappings, a man with a long speaking-trumpet being mounted upon him, while a little bare-legged Indian stands in wonder behind. Below this group are several singular looking figures; men, with horns of an ox, with arms, hands, and fingers extended as if in astonishment, and with clawed feet. Following the curved line, we come to the circle, enclosing a Spanish caballero, who extends his hands in amity to the naked Indian standing without. Next appears a group with an officer and a priest bearing the emblem of Christianity."

The paintings mentioned immediately above are not now identifiable. Studer, in a letter to the author dated January 29, 1937, suggests that such pictographs may have recorded the passing of Coronado and his band across the Texas Panhandle in 1541.

In discussing the petroglyphs at this site, Whipple adds:

"The carvings are of horses and men, with combinations of right lines and curves, producing various hieroglyphic figures. A favorite symbol is the track of a moccasin. Systems of lines, like tallies, are also numerous. Seven is the number most frequently noted." . . .

An interesting detail is the manner in which the saddle is represented in Plate CCXXVI, 8.

FIG. 261. UNUSUAL PETROGLYPHS AT SITE NO. 162, OLDHAM COUNTY

1. Square-shouldered human figure, pierced by a projectile, carved on roof of the shelter. Note the triangular head suggesting a mask, the arm decoration, or objects carried, and unusual position of legs. Height: about 12 inches.
2. Highly conventionalized human figure with masked head and upraised arm.
3. An action picture showing a man on a galloping horse. Length of horse, about 10 inches. Note the long, narrow body and neck of the animal. This technique is much like that of a carving at Site No. 139, Kimble County, and pictographs at Sites No. 31 and 150, Presidio and Comcho Counties.

(Sketched from photographs. Grouping by the author.)

FIG. 262. PETROGLYPHS AT SITE NO. 163, OLDHAM COUNTY

The central design is suggestive of a square-shouldered human figure. The animal at the upper right appears to be a mountain sheep. Note the crosses.

FIG. 263. PETROGLYPHS AT SITE NO. 165, ARMSTRONG COUNTY

Note the forms of the conventionalized human figures.

FIG. 264. UNUSUAL PICTOGRAPHS AT SITE NO. 166, BRISCOE COUNTY

Note the human-like appearance of design No. 3.

(Figs. 262, 263 and 264, 1-4, are by courtesy of Floyd V. Studer; Fig. 264, 5 courtesy of E. B. Sayles.)

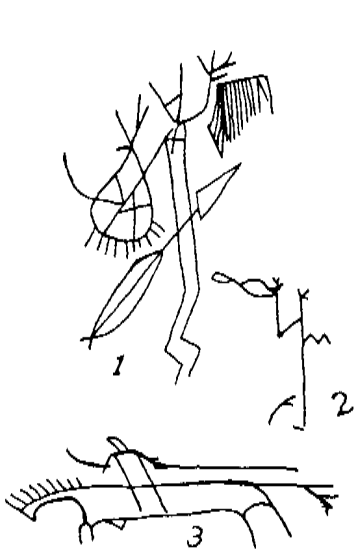


FIG. 261

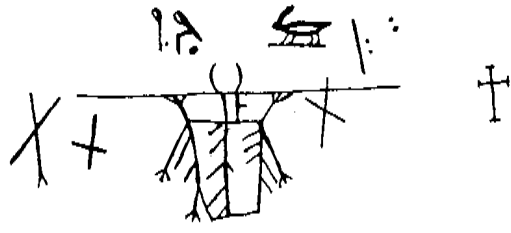


FIG. 262.



FIG. 263



FIG. 264

CLASSIFICATION OF LEGIBLE DESIGN ELEMENTS, SITE NO. 162

	Number	Per Cent
<i>Human Representations:</i>		
Conventionalized	11	
European figures	4	
Square-shouldered figure	1	
Masked heads	2	
Feather headdress	1	
Projectile wound	1	
Arm decoration	1	
Footprints	3	
Arms upraised	7	
Positive handprints ..	2	
Three-fingered hands	2	35
		49
<i>Human Workmanship:</i>		
Projectiles	3	
Projectile point	1	4
		6
<i>Lower Life:</i>		
Conventionalized animals	7	
Horses	3	
Pack animal	1	
Plumed serpent	1	12
		17
<i>Geometric and Symbolic:</i>		
Sun-ray discs	3	
Circles	3	
Series of numeration marks	2	
Series of numeration dots	1	
Series of pendent triangles	4	
Enclosure of band lines	1	
Ladder-like element	1	
Crescent-shaped element	1	
Figure eight	1	
Rake-like element	1	
Rectangle	1	
Crosshatch	1	20
		28
Total		71
		100

SITE No. 163

Floyd V. Studer reports petroglyphs at this site carved on the vertical side of a huge boulder. The location is near the Canadian River in the western part of the county.

RANDALL COUNTY

SITE No. 164

Dim pictographs in the Palo Duro Canyon State Park are reported by Floyd V. Studer. The paintings have not been examined by anyone from The University of Texas.

ARMSTRONG COUNTY

SITE No. 165

Petroglyphs at this site, located on a tributary of the Palo Duro Canyon, are reported by Floyd V. Studer. The designs appear to have been carved with a sharp implement.

BRISCOE COUNTY

SITE No. 166

A rock shelter, located on a draw in the northwestern part of the county, contains a few pictographs. The site was reported by Floyd V. Studer and E. B. Sayles. Among the pictographs are handprints—one of which is outlined in red—an animal, projectile, etc.

MOTLEY COUNTY

SITE No. 167

On a bluff, in the southwestern part of the county, remains a dim trace of a red pictograph.

POTTER COUNTY

SITE No. 195

Located near a Puebloid ruin, on a small stream tributary to the Canadian River, are a number of petroglyphs carved on the face of a ledge. The site was reported by Floyd V. Studer, who kindly furnished photographs of the carvings.

CLASSIFICATION OF DESIGN ELEMENTS, SITE NO. 195

	Number	Per Cent
<i>Human Representations:</i>		
Square-shouldered	1	
Round-shouldered	1	
Torso	1	
Conventionalized	5	
Armless	4	
Arms upraised	7	
Arms downward	1	
	27	51
<i>Human Workmanship:</i>		
Projectile	1	
Shields	2	
Bow	1	
	4	8
<i>Lower Life:</i>		
Longhorn cow	1	
Conventionalized animals	4	
	5	9
<i>Geometric and Symbolic:</i>		
X-shaped elements	2	
Y-shaped element	1	
V-shaped elements	4	
Crosshatching	2	
Perpendicular hatching	2	
Sun-ray disc	1	
Triangle	1	
Rectangle	1	
Curvilinear	2	
Problematical	1	
	17	32
Total	53	100

PLATE CCXXVII

SCENES AT SITE NO. 195, POTTER COUNTY

1. Panhandle Pueblo ruin.
- 2, 3. Conventionalized petroglyphs.

PLATE CCXXVIII

PETROGLYPHS AT SITE NO. 195

Realistic and conventionalized animals.

PLATE CCXXIX

HUMAN, ANIMAL AND GEOMETRIC CARVINGS, SITE NO. 195

1. Conventionalized human and animal figures, rayed sun-disc, crosshatch, etc. Note the projectile pointing toward the person with upraised arms.
2. Square-shouldered dancing figures, circle and perpendicular hatching. Note that the figure to the left holds a bow in the hand, while the circle beside the figure at the right may represent a shield. To the left of Hon. H. C. Pipkin, the man in the picture, is another carved human figure.
3. Three highly conventionalized human representations.
4. Outline of a portion of a human figure.

PLATE CCXXX

CONVENTIONALIZED HUMANS AND OTHER PETROGLYPHS, SITE NO. 195

FIG. 265. ABRADING MARKS ON A LIMESTONE BOULDER, EDWARDS COUNTY

The rock is at the entrance to an occupied shelter.

(All by courtesy of Floyd V. Studer, except Fig. 265.)

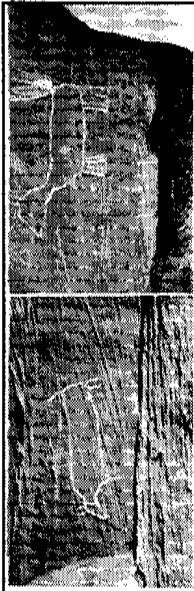


PLATE CCXXVIII.

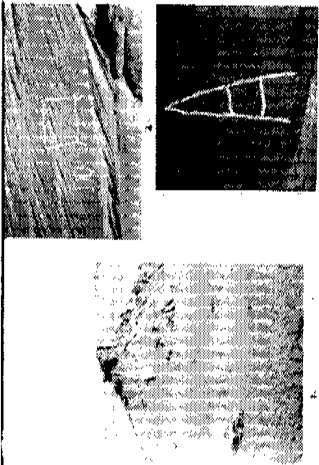


PLATE CCXXVII.

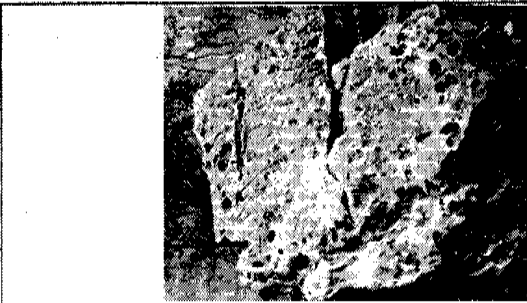


FIG. 265.

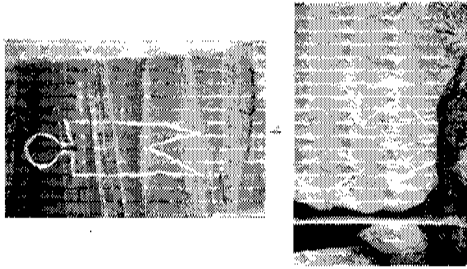


PLATE CCXXX.

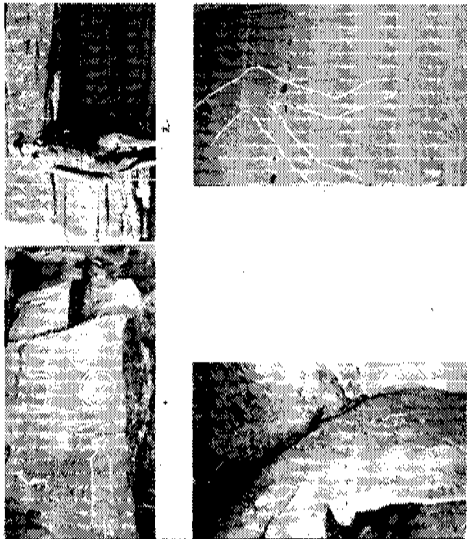


PLATE CCXXIX.

ABRADING MARKS AT VARIOUS TEXAS SITES

In addition to the petroglyph sites, herein reported, there are a number of other archaeological sites in the state where grooves and lines, without any apparent design, have been worn into the stone. Examples of such markings appear in Edwards, Taylor, Palo Pinto, and various other counties. Such sites are not fully discussed because the markings do not properly come under the head of picture-writing.

SUMMARY OF DESIGN ELEMENTS

At the end of each site appears a classification of design elements, grouped into four main divisions. In order to secure a grasp of the entire situation, the following summary by counties is appended.

County	Human Representations	Human Workmanship	Lower Life	Geometric and Symbolic	Total
El Paso	141		70	118	329
Hudspeth	64	49	119	156	388
Otero Co., N.M.	55	5	33	86	179
Culberson	63	15	107	348	533
Reeves	34	6	16	89	145
Jeff Davis	47	8	25	78	158
Presidio	70	18	18	110	216
Chihuahua, Mexico	34		16	70	120
Brewster	56	19	37	152	264
Ward	25	8	35	146	214
Loving	11	1	9	40	61
Winkler	6	4	4	21	35
Crockett	1			2	3
Terrell	202	32	42	139	415
Val Verde	843	199	353	799	2194
Edwards	6	6	11	47	70
Kinney	1		2	25	28
Real	14	2	2	8	26
Kimble	10	4	8	8	30
Gillespie	48	3	10	52	113
Mason	25	1	1	5	32
Llano	17			5	22
San Saba	24	2	8	14	48
Concho	174	71	52	191	488
Coke	1			17	18
Nolan	14	6	2	7	29
Shackelford	36	3	2	8	49
Stephens	57	6	8	16	87
Burnet	3		1	13	17
Bell	6		1		7
Henderson	7	6	6	25	44
Williamson				1	1
Sutton	15	2	1	20	38
Armstrong	6			4	10
Briscoe	3	2	2	3	10
Oldham	38	4	13	28	83
Potter	27	4	5	17	53
Grand Total	2184	486	1019	2868	6557
Per Cent	33	7	16	44	100

USE OF VARIOUS COLORS

The number of individual locations at which paints of various colors were used is as follows:

<i>Color</i>	Number Places at Which Used	Per Cent
Red (various shades)	110	51
Black	54	25
Orange and yellow	32	15
White	11	5
Green	4	2
Soot (etched or scraped out- line)	4	2
	215*	100

*A given site number may include several adjacent shelters or ledges. Each of these is included in the "number of places" column. Also, several colors frequently occur in the same shelter. Hence the total does not agree with the numbered sites.

It will thus be seen that red paint occurs at 51 per cent of all the pictograph locations, while black appears at 25 per cent of them.

PART II

TREE PICTURES

There remain in Texas no known authentic cases of Indian paintings or carvings on trees. In the past ten years 20 or more carved trees have been examined by the writer; but the carvings either proved to be un-Indian or were not sufficiently old to date back to the period of Indian occupancy. But there seems to be little doubt that some genuine Indian picture-writings were placed on trees in certain parts of the state.

In certain regions—such as Northeast Texas—the Indians probably resorted to trees as a medium on which to draw pictures, or leave messages, because of the absence of large rock surfaces. Even though rock shelters were available in a vicinity—as in Edwards County—trees may have been selected in certain cases due to their standing position causing the drawings to be easily seen by other Indians.

Accounts of several pioneer Texans tell of having seen Indian paintings and carvings on trees. One of the earliest of these references was by Smithwick⁶³ and referred to observations, among the Comanche, made in 1836 or 1837.

⁶³Smithwick, Noah, *op. cit.*, p. 177.

References to tree pictures in other states have been made by Dodge,⁶⁴ Jones,⁶⁵ Hunter⁶⁶ and other early writers.

From the available information it seems that such paintings and carvings differed little from those appearing on the walls of caves and shelters. There also is a similarity between the accounts of these Indian tree drawings and those reported by Mathews⁶⁷ in Australia.

By way of having data available with which to compare statements that are to follow, brief excerpts are given from Mathews' paper:

" . . . The whole of the bark within the outline of both fish has been removed and the surface of the wood painted blue. My aboriginal guide told me the blue color here used was obtained from white people, and is that used in washing clothes.

" . . . Some of the marked trees are found at those camps where the initiation ceremonies are performed. The graves of the natives, the scenes of some of their fights, and remarkable events in their daily life are likewise commemorated by curious symbols marked on the trees standing around the spot.

" . . . The specimens of native art found upon trees are executed in various ways. (1) The mode of drawing most generally adopted is to outline the object by a nick cut with the tomahawk into the bark of the tree. (2) In other cases the whole of the bark within the outline of the figure is removed. (3) In some cases a portion of the bark is first removed from the tree and the designs are then cut into the wood. . . . (4) Some of these native drawings are merely scratched upon the bark of the tree. . . . (5) Others again are painted on the tree with ocher or charcoal. . . ."

EDWARDS COUNTY

L. A. Fields, who came to Edwards County about 1876, recalls having seen oak trees, on Pulliam Creek, that were decorated with Indian paintings. He states that, in most cases, the outer bark had been scaled off. In some instances, however, the paint had been applied over the rough bark. The paint, he says, was red and blue. The designs were similar to certain ones appearing on the walls of rockshelters in that region. Later the trees were felled in clearing a field.

Jim Hill, who has been a resident in the county for more than 60 years, states that in his boyhood he saw three or four large oak trees on which were Indian paintings. His account located the trees less than a mile from that given by Fields. They probably were referring to the same trees. The designs included "all sorts of zigzag lines and curliques."

On being questioned about the colors, Hill answered: "I know a lot of them were red, and some were blue. I don't remember any other colors. The Comanches painted the trees. They brought the paint in here with them. I never saw any blue paint on the walls of the caves. The trees that had the painting on them," he concluded, "have been gone a long time."

⁶⁴Dodge, R. I., *Our Wild Indians: Thirty-three Years' Personal Experience Among the Red Men of the Great West*, A. D. Worthington and Company, Hartford, Conn., 1883, p. 163.

⁶⁵Jones, C. C., *Antiquities of the Southern Indians*, D. Appleton and Company, New York, 1873, pp. 62-63.

⁶⁶Hunter, J. D., *op. cit.*, pp. 184-187.

⁶⁷Mathews, R. H., *Australian Ground and Tree Drawings*, *American Anthropologist* (O.S.), Vol. IX, No. 2, Washington, February, 1896, pp. 33-49.

Jim Brown, another early settler, was located in the county as a Ranger for a number of years. In that time he saw several painted trees, but declares he never saw any blue paint on them. He recalled a white oak tree on which was painted an Indian head, wearing a feather headdress in red trimmed with black and yellow. The painting was on the south side of the tree that had a diameter of about three feet. He states that the painting was chopped off soon after he saw it but that the tree still stands. "The other paintings were located from three to five feet above the ground and some of them covered the entire circumference of the tree for a space of a few feet."

PALO PINTO COUNTY

William J. Hale,⁶⁸ an early Texas Ranger who had several skirmishes with the Indians in the region now known as Palo Pinto County, gives an interesting account of paintings on a group of large cedar trees in that county. According to his statement, there was a place near Turkey Creek known as Painted Camp. The name was derived from the fact that hundreds of paintings adorned cedar trees in the vicinity.

The trees ranged from eight to 24 inches in diameter and covered an area of about four acres. The painted trees were scattered among the others. The paintings were on the smooth inner bark, secured by peeling away the outer bark. They were four to five feet above the ground, and varied from four to 12 inches in length. In some cases the designs formed a band completely encircling the tree.

Hale says he saw the paintings many times in those early days; that they were in various bright colors—red and blue being most common; and that the designs were quite intricate. But the painted trees soon were cut.

SAN SABA COUNTY

J. M. Henderson, a ranchman of Llano County, states that some 30 years ago he heard old settlers at McAnally's Bend on the Colorado River tell of a group of large cedar trees that formerly had on them Indian paintings. As he recalls, the paintings were in red; but he knows no further details.

WOOD COUNTY

The late G. W. Cowan,⁶⁹ one of the first surveyors in Wood County, spent 50 years surveying land in that region. He thus became familiar with all landmarks. A few years ago he told the writer that in the "early days" he saw a number of virgin trees on which were old carvings, said to be the work of the Comanche Indians. The drawings were located on what is known in the deed records of the county as the Comanche Trail. The trail was used by these Indians in visiting the Caddo, Asinai and other tribes for trade purposes.

Cowan stated that certain old surveys used the tree carvings as guide points in field notes, and that a number of the land records refer to them. In making later surveys he was able to locate most of the Indian carvings. But, so far as he knew,

⁶⁸Hale, William J., Interview with A. T. Jackson at Palo Pinto, Texas, June 21, 1929.

⁶⁹Cowan, G. W., Interview with A. T. Jackson at Mincola, Texas, August 8, 1928.

all the trees had been cut for lumber. His recollection was that the carved designs included circles, turtles, snakes, and zigzag lines. They were well executed and in fair condition. Small figures were cut vertically on the trees; long designs, such as snakes, were horizontal. All were in outline only. Their average length was about 12 inches.

Cowan also told of seeing "Comanche tree carvings" in Smith and Van Zandt Counties and other Sabine River bottom sections.

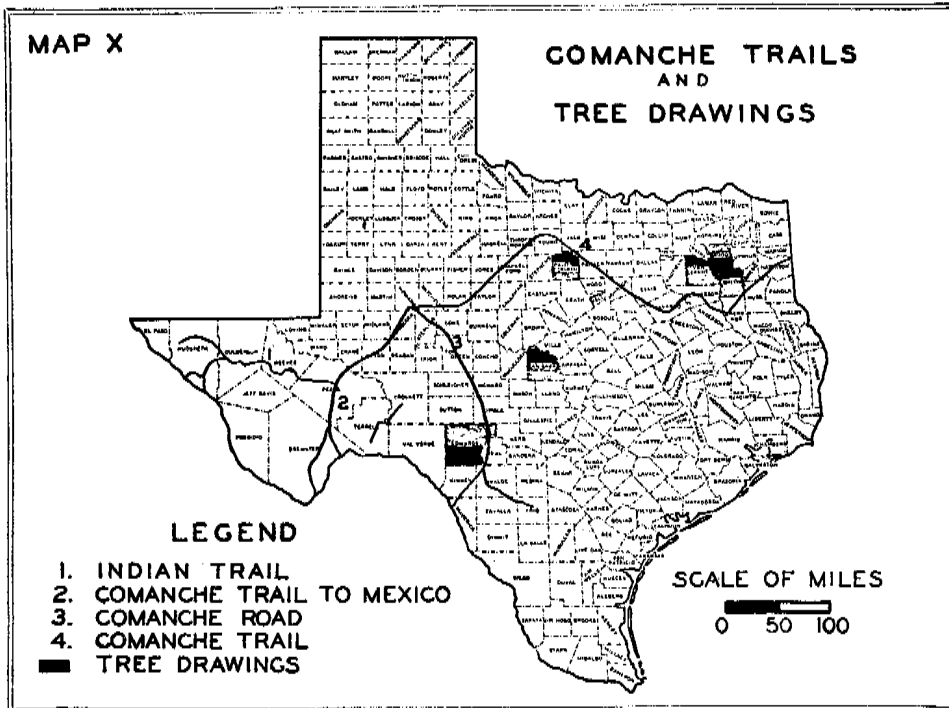
OLD MAPS SHOW COMANCHE TRAIL

The "northern route of the Comanche Trail into Northeast Texas," to which Cowan referred, is authenticated by various old maps issued prior to 1850. One of these, with the caption "Map of Texas Compiled from Surveys Recorded in the Land Office of Texas and other Official Surveys," was included in Kennedy's⁷⁰ book on Texas. On the map is shown the Comanche Trail, extending from West Texas into Northeast Texas. When transferred to a present-day map, the trail traverses North Texas near the northern part of Palo Pinto County and the southern part of Smith County. That places it near the reported tree drawings in those two sections of the state. The Comanche Road (see Map X) likewise passes near the former tree drawings in Edwards County.

Well up into the nineteenth century the Comanches made raids into Mexico, returned through the Big Bend, followed the trail to the noted watering places at the present towns of Fort Stockton and Big Spring; or came out of Mexico through Maverick County and went north to Howard County; thence proceeded into Northeast Texas—disposing of their stolen goods. Hence it would seem that the pioneer accounts of Comanche tree drawings, along the routes these Indians traveled, are deserving of real consideration.

There must, however, be a clear-cut line of demarcation between Indian drawings and the tree carvings made in the past 50 years by white men and Mexicans. Most, if not all, of the former have long since disappeared.

⁷⁰Kennedy, William, *Texas: The Rise, Progress and Prospects of the Republic of Texas*, London, 1841, Reprinted by Molyneux Craftsman, Inc., Fort Worth, Texas, 1925.



MAP X. MAP SHOWING PROXIMITY OF TREE DRAWINGS TO COMANCHE TRAILS

No. 4, the Comanche Trail into Northeast Texas, entered Northwest Louisiana at a point south of Caddo Lake. The location of the trails is only approximate.

PART III
 PICTURES ON MOVABLE OBJECTS
 PAINTED PEBBLES

Painted pebbles represent an important culture trait along the lower Pecos River, and adjacent Rio Grande, and in a part of the Big Bend region. But they are restricted to a smaller area, and therefore are not as representative of West Texas picture-writing as are the pictographs on the cave and shelter walls.

The subject has been dealt with, in part, by various writers. The first extended account was the work of Martin and Woolford.⁷¹ The next was by Pearce and Jackson.⁷² Briefer discussions were made by Coffin,⁷³ Setzler⁷⁴ and Sayles.⁷⁵

An exhaustive treatment of the subject cannot be made until more archaeological work has been done in the region of their occurrence. It is thought advisable, however, to illustrate certain typical specimens that have not been reported, and call attention to the probable eastern limit of the trait.

⁷¹Martin, G. C., and Woolford, Samuel, Painted Pebbles of the Texas Big Bend, Texas Archaeological and Paleontological Society, Vol. IV, Abilene, 1932, pp. 20-24.

⁷²Pearce, J. E., and Jackson, A. T., *op. cit.*, pp. 79-87.

⁷³Coffin, E. F., *op. cit.*, pp. 5, 12, 16, 27, 31.

⁷⁴Setzler, F. M., Prehistoric Cave Dwellers of Texas, Explorations and Field-work of the Smithsonian Institution in 1932, Washington, 1933, p. 56.

⁷⁵Sayles, E. B., An Archaeological Survey of Texas, Medallion Papers No. XVII, Gila Pueblo, Globe, Arizona, May, 1935, pp. 68-69, Pl. XVIII, Table 6.

PLATE CCXXXI

PAINTED PEBBLES FROM MIDDEN DEPOSIT OF A LARGE ROCK SHELTER,
 VAL VERDE COUNTY, TEXAS

Designs are painted in black.

1. Length of lower stone, 4½ inches.
2. Length, 3½ inches.

(*Specimens in The University of Texas Anthropology Museum.*)

PLATE CCXXXII

SMALL WATER-WORN STONES WITH DESIGNS PAINTED IN BLACK

- 1, 2. Obverse and reverse sides of specimen. Length, 2¾ inches.
3. Painted one side only. Note superimposed lines. Length, 2¾ inches.
4. Obverse and reverse sides of the stone. Length, 2 inches.

PLATE CCXXXIII

PEBBLES WITH CHEVRON-LIKE AND PARALLEL LINES PAINTED IN BLACK

Length: 1, 4¾ inches; 2, 4 inches.

(*Plates CCXXXII and CCXXXIII, E. F. McNutt Collection, from rock shelters on lower Pecos and Rio Grande.*)

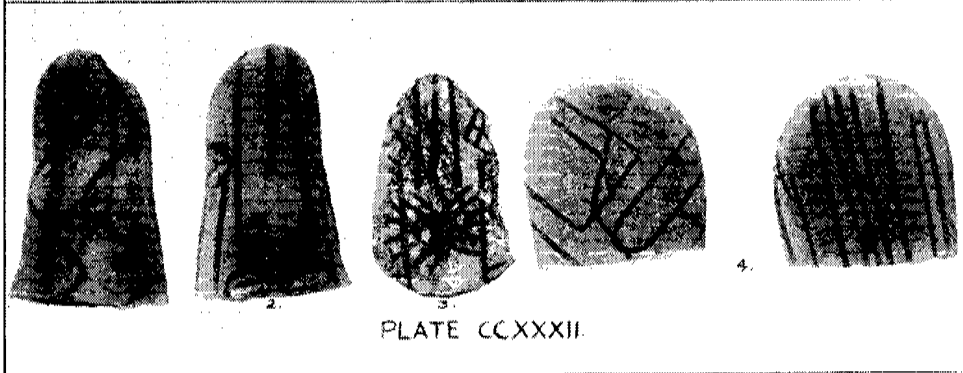
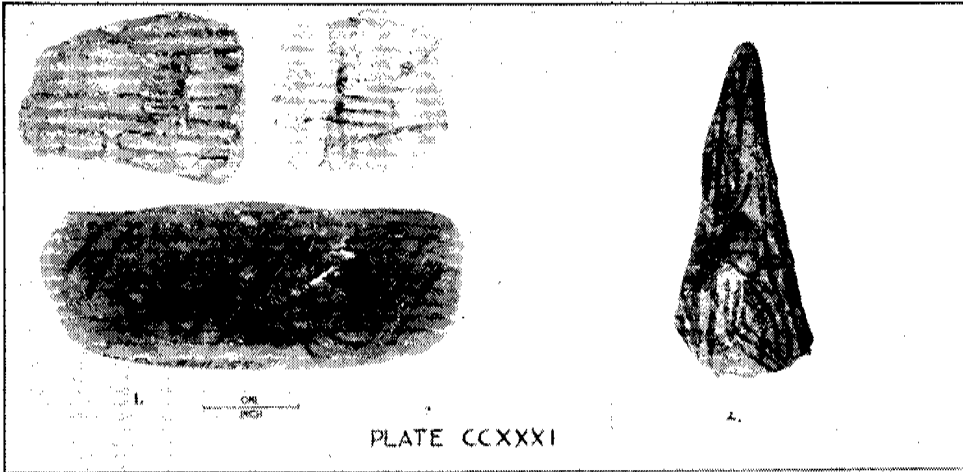


FIG. 266. PEBBLES WITH DESIGNS IN BLACK

From rock shelters in the lower Pecos River region.

No. 1 has a length of $2\frac{1}{2}$ inches. Nos. 2, 3 and 5 show obverse and reverse sides of the stones.

(Specimens in The University of Texas Anthropology Museum.)

FIG. 267. UNUSUAL DESIGNS ON PAINTED PEBBLES, SITE NO. 72,
VAL VERDE COUNTY, TEXAS

1. The outstanding features are the bows and arrow. Note also the hourglass-shaped element. Paint, black.

2, 3. Obverse and reverse sides of a water-worn stone. The eyes suggest that the design on the obverse is that of a conventionalized human face. Dimensions: $3\frac{1}{2} \times 2$ inches. Black paint. The face is suggestive of one painted on a mano found by J. L. Nusbaum in a Basket Maker cave in Kane County, Utah.

(Courtesy of Clay Garner and Glen Brown.)

FIG. 268. INTRICATE DESIGNS PAINTED ON PEBBLES

Found in shelters along the Rio Grande and lower Pecos River.

Lengths: 1, $3\frac{1}{2}$ inches; 2, 2 inches; 3, $3\frac{1}{2}$ inches; 4, $2\frac{11}{16}$ inches; 5, $2\frac{3}{16}$ inches; 7, $2\frac{1}{2}$ inches. Color: No. 3, orange; others, black.

(Specimens in The University of Texas Anthropology Museum.)

FIG. 269. PAINTED PEBBLES FROM A SMALL SHELTER, JUST SOUTH OF
RIO GRANDE, NEAR MOUTH OF PECOS RIVER

1, 2. Reverse and obverse sides of a piece of "yellow limestone, ground into shape and polished."⁷⁶ Length, $2\frac{1}{2}$ inches. Color of paint, black.

3. River pebble, painted in black on one side only.

(Courtesy of W. E. McC Carson, Jr.)

FIG. 270. PAINTED PEBBLES FROM ROCK SHELTERS IN EDWARDS COUNTY

1. Painted on one side only. Black paint. Dimensions: $3 \times 3\frac{1}{2}$ inches.
2. Painted on both sides. Orange paint. Dimensions: $2\frac{1}{8} \times 1$ inch.
3. Painted on one side only. Black paint. Dimensions: $1\frac{1}{2} \times 1\frac{1}{8}$ inch.
4. Painted on one side only. Black paint. Dimensions: $1\frac{1}{4} \times 2\frac{3}{4}$ inches.
5. Black paint. Dimensions: $1\frac{3}{4} \times 1\frac{1}{4}$ inch.

FIG. 271. PAINTED PEBBLES FROM SHELTERS IN NUECES VALLEY
AND OPEN CAMP SITE ON THE COLORADO RIVER

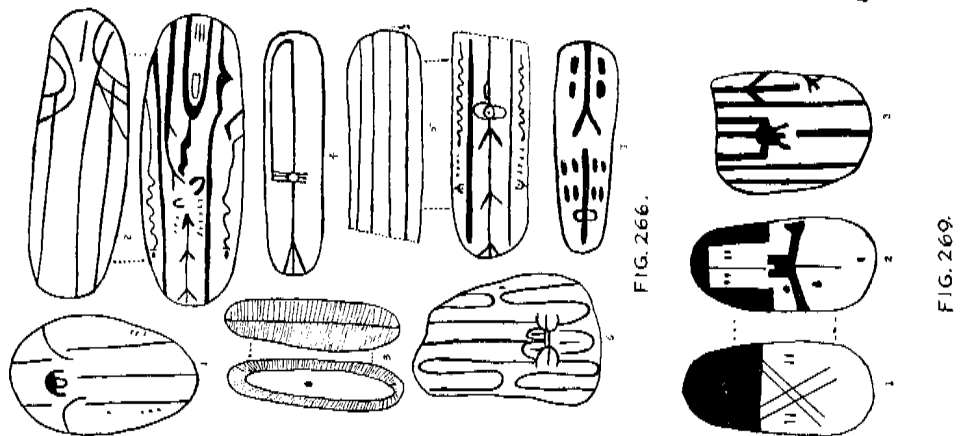
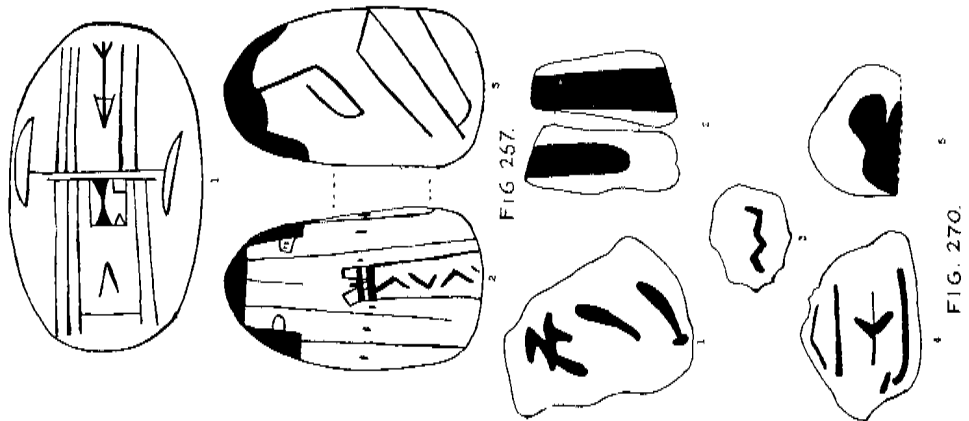
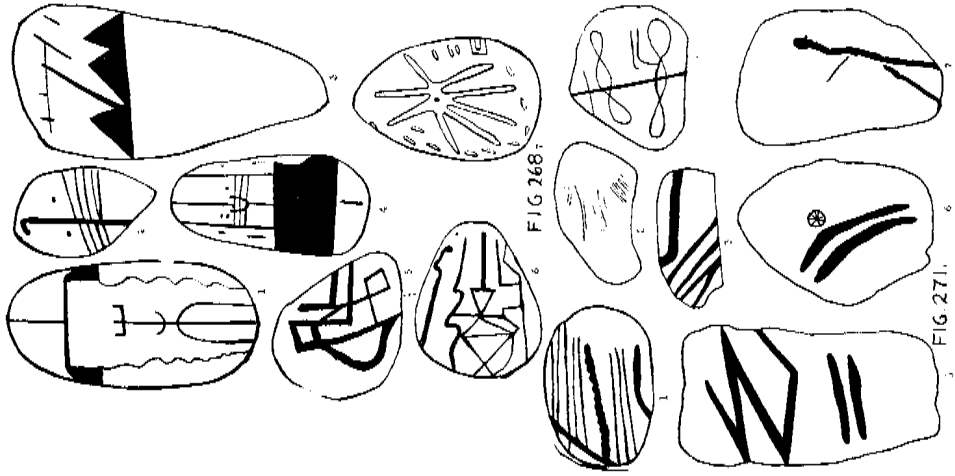
Colors: 2 and 3, red; others, black.

Dimensions: 1, $4\frac{1}{2} \times 2\frac{3}{4}$ inches; 2, 2×1 inches; 3, $2 \times 1\frac{1}{2}$ inches; 4, $2\frac{3}{4} \times 1\frac{1}{4}$ inches; 5, $5 \times 2\frac{3}{4}$ inches; 6, $3\frac{3}{4} \times 3$ inches; 7, $2\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{2}$ inches.

No. 1 came from surface of a shelter in Kinney County; 2 to 6, from midden deposits in shelters at Site No. 108, Edwards County; 7, from midden deposit in the open, at northeast corner of Llano County. The latter design is suggestive of a human figure.

Depths: 2, 7 inches; 3, in a burial at a depth of 14 inches; 4, surface; 5, depth of 11 inches; 6, 65 inches; and 7, 20 inches.

⁷⁶McC Carson, W. E., Jr., letter to A. T. Jackson, March 23, 1936.



The finding of painted pebbles in Kinney and Edwards Counties extended some 75 miles eastward this culture trait—formerly considered as confined to the region west of Devils River.

In the burnt-rock middens along the upper Nueces River and its tributaries have been found numbers of small water-worn stones identical with those on which paintings occur in the nearby shelters. The question thus arose, in the writer's mind, as to whether these pebbles from middens in the open originally were painted. It seemed possible that extensive work might bring to light a pebble buried under conditions favorable to preservation of the paint.

Three years later—March, 1937—A. M. Woolsey made a discovery in Llano County that seems to answer the question in the affirmative. The find was made while working in the basin of Lake Buchanan, on the Colorado River, under a WPA project sponsored by The University of Texas. At a depth of 20 inches, in a midden deposit in the open, was found a small water-worn pebble with lines in black paint on one side. (See Fig. 271, 7.) The painted side was down. The stone was not among burnt rocks, but in brownish-black midden soil that contained a small amount of ash. The paint is well preserved, and suggestive of the asphalt-paint found on certain potsherds from Texas coastal sites. It also resembles some of the manganese paint from West Texas. A chemical analysis has not been made.

The above mentioned discovery thus seems to extend this distinctive culture trait an additional 125 miles to the northeast. Other evidence—to be discussed in a later publication—tends to confirm a relationship between the cultures of the lower Pecos and Colorado Rivers. But additional work needs to be done to develop the details.

Mention has been made, in the discussion of Site No. 21 northeast part of Culbertson County, of certain small limestone flakes with painted designs on them. The flakes appear to be from the cave wall; but, if painted subsequent to spalling off, they might be classed with painted pebbles.

A problem to be worked out, when more specimens—from the entire area—are available for study, is the extent to which designs on the painted pebbles show influence from the motivation back of the picture-writings on cave walls. While a few similarities may now be noted, there is a marked absence of realistic human and animal paintings on the pebbles. This suggests that—in many cases at least—they were prompted by different motives.

It is interesting to note certain resemblances between these painted pebbles of West Texas and ones reported from Mas d'Azil in southern France, and elsewhere in Europe. (See Mallery, 10th Ann. Rep. BAE, pp. 549–550.) The Texas specimens likewise are suggestive of Australian churingas, or totem paintings.

There is no intention of implying a diffusion of this interesting culture element from any one of these areas to another; but the objects under discussion are so nearly identical in the patterns of the drawings as to suggest strongly a common psychological basis as explaining their genesis.

PAINTED STICKS

Occasionally a painted stick is found; but rarely does it consist of a definite design to justify the designation of picture-writing. The writer has discovered only one stick with a painted design. It is illustrated and described in the discussion of Site No. 16, Culberson County, Texas. (Fig. 38.)

PAINTED GOURD

Gourd fragments sometimes appear in midden deposits. Very seldom, however, do they show any evidence of paint. A complete gourd, 18 inches long and decorated with painted designs, was found in a cave by a local citizen in the Big Bend region. Its discovery has been authenticated, but the specimen is not now available for reproduction or study.

PAINTED MATTING AND BASKETRY

Painted designs on matting are not numerous, but occasionally have been found. They are usually in red—rarely black—and consist of crosshatch, triangular, terraced and other geometric elements. The writer has seen no human or animal figures painted on matting or basketry from Texas caves. A study of the subject is hardly justified until further archaeological work makes available additional specimens.

SMALL CARVED STONES

In areas where few or no pictographs remain, there occasionally are found small stones with carved designs. The design elements carved on these stones frequently show striking resemblances to some of the pictographs and petroglyphs found farther west.

EDWARDS COUNTY

A few carved pebbles were found in the upper level of the midden deposit in one of the shelters at Site No. 108. While not of intricate workmanship, the designs, no doubt, were purposely carved. The lines are scarcely $\frac{1}{8}$ of an inch deep. (See Fig. 272.)

WILLIAMSON COUNTY

While digging in a burnt-rock midden, in the central part of the county, an amateur uncovered a small, flat piece of limestone, on one side of which were carved a number of intricate designs. The stone is approximately five inches in length, $\frac{1}{2}$ to $\frac{1}{4}$ inch thick, and varies in width from $2\frac{1}{2}$ to $4\frac{1}{4}$ inches. The linework is shallow and apparently was executed with a fine pointed implement. (Fig. 273.) Prominent in the carvings are the ladder-like elements, some of which resemble specimens in the West Texas pictographs.

From the surface of another midden, in the western part of the county, is reported to have come a small stone with one side roughly carved to represent some animal; while the flat bottom has two deeply incised, square-shouldered human figures much like certain West Texas petroglyphs. The stone is $3\frac{1}{2} \times 2$ inches.

FIG. 272. CARVED PEBBLES FROM MIDDEN DEPOSIT, SITE NO. 108,
EDWARDS COUNTY

Dimensions of No. 4, $4\frac{5}{8} \times 2\frac{3}{4}$ inches.

(Specimens in The University of Texas Anthropology Museum.)

FIG. 273. DESIGN CARVED ON A SMALL, THIN PIECE OF LIMESTONE

Found in a burnt-rock midden in Williamson County, Texas. The lines are very shallow, some being little more than scratches. The ladder-like elements predominate in the design.

(Courtesy of Gordon Anderson, Williamson County.)

PLATE CCXXXV

DESIGNS CARVED IN STONE, LLANO COUNTY

1, 2. Views of tubular stone pipe; plowed up in a campsite, northwest part of county, in 1891. Length, $6\frac{7}{8}$ inches. Rayed sun-disc, projectiles and pole-ladder elements are deeply incised.

(Original in Texas State Library.)

3, 4. Obverse and reverse sides of a pebble found in midden deposit, depth 14 inches, Fall Creek, northeast corner of county. Faintly carved lines form double chevrons, herringbone and tree-like elements. Length, $3\frac{5}{8}$ inches.

(Specimen in The University of Texas Anthropology Museum.)

FIG. 275. DESIGNS CARVED ON SMALL STONES, JOHNSON COUNTY

1. Obverse side of a stone, $6 \times 5 \times 2\frac{1}{2}$ inches, showing a carved human figure.

2, 3. Reverse side of the same stone.

4. Herringbone, tree-like design on a piece of sandstone, $6\frac{1}{2} \times 4 \times 3$ inches. Pit on reverse side of stone.

(Courtesy of W. J. Layland of Cleburne.)

FIG. 276. CARVED STONE PLAQUE FROM CAMPSITE IN CASS COUNTY

Dimensions: $3\frac{1}{4} \times 1\frac{3}{4}$ inches. Note the similarity to certain designs in Fig. 273.

(Courtesy of I. B. Price, Jr., Atlanta, Texas.)

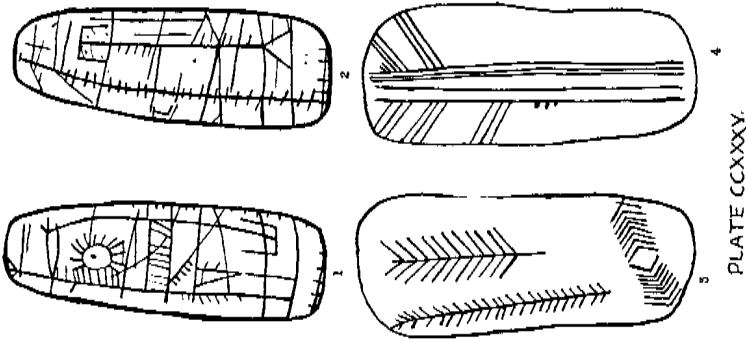


PLATE CCXXXV.

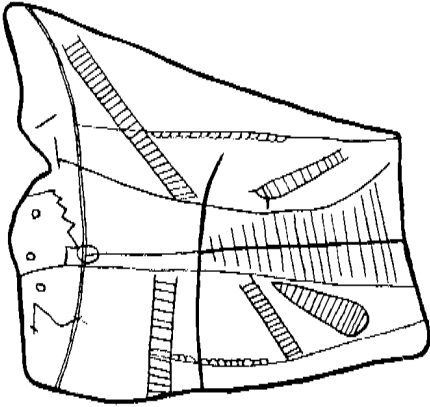


FIG. 273.

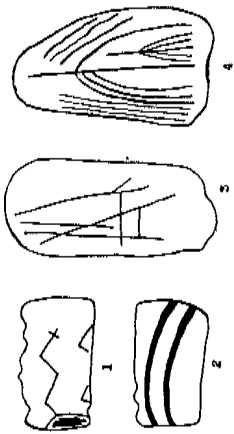


FIG. 272.

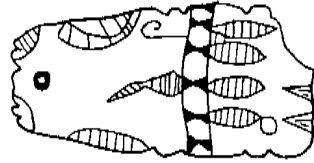


FIG. 276.

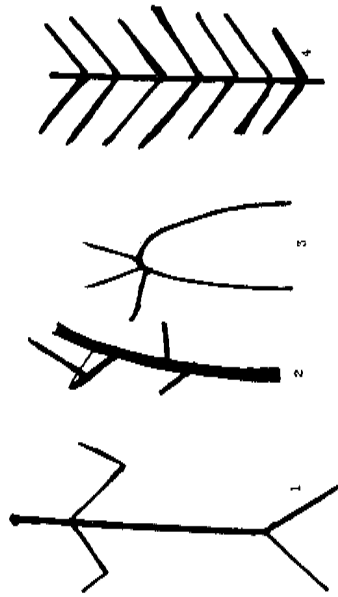


FIG. 275

PLATE CCXXXIV

PAINTED PEBBLES FROM SHELTERS ALONG TRIBUTARIES
OF NUECES RIVER

1. Obverse and reverse sides of the stone. Length, 3 inches. From Kinney County.
2. Length, $2\frac{7}{8}$ inches. From Edwards County.

FIG. 274. FINELY CARVED STONE FOUND IN MIDDEN DEPOSIT,
SOUTHWESTERN PART OF BELL COUNTY

Dimensions: $6 \times 4\frac{1}{2} \times 3\frac{3}{4}$ inches.

(Courtesy of A. M. Wilson of Austin.)

PLATE CCXXXVI

CARVED METATE FOUND IN INDIAN CAMPSITE, COLEMAN COUNTY

Dimensions: $16 \times 9\frac{3}{4} \times 1$ inches.

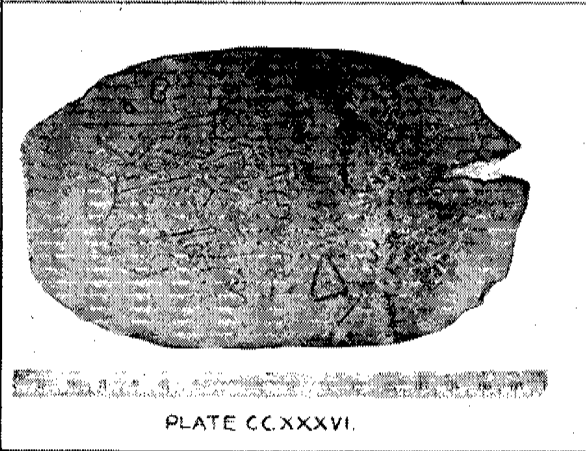
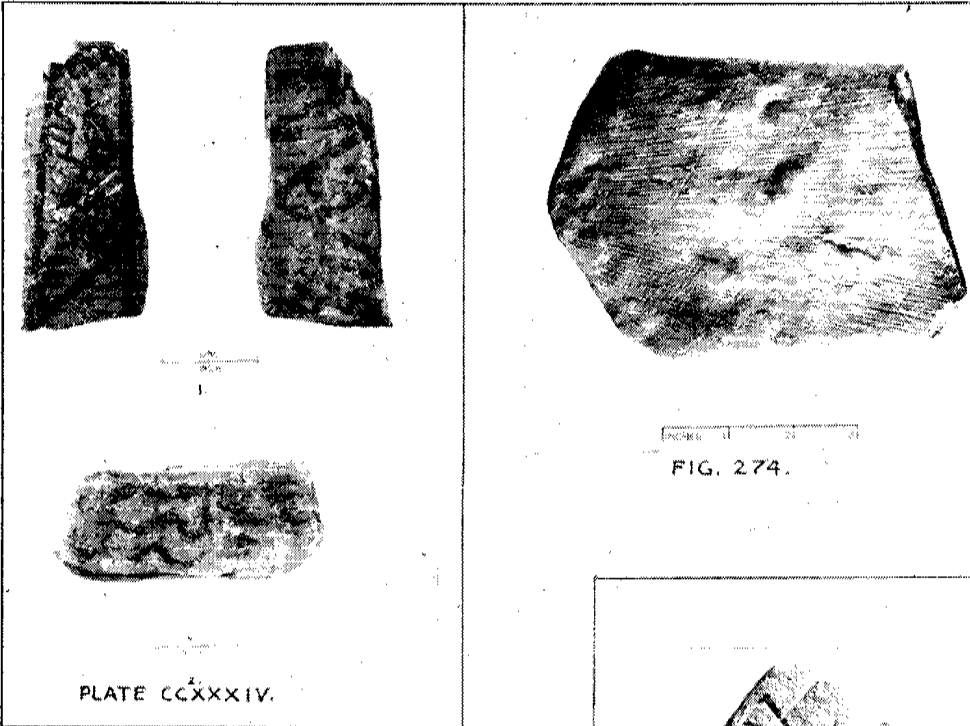
(Courtesy of C. E. Jordan.)

PLATE CCXXXVII

A SMOKING SCENE CARVED IN STONE, HOPKINS COUNTY

Note the cross.

Dimensions: $6\frac{1}{2} \times 4\frac{1}{2}$ inches.



BELL COUNTY

A small limestone slab, $6 \times 4\frac{1}{2} \times 3\frac{3}{4}$ inches, was found by A. M. Wilson in a burnt-rock midden, at the southwest edge of the county very near the Williamson County line. The obverse side of the stone is covered with finely drawn parallel lines, with superimposed cross-hatching consisting of double lines. (Fig. 274.) The reverse side has fewer marks but of the same general nature.

LLANO COUNTY

On April 23, 1937, a workman on the WPA crew sponsored by The University of Texas uncovered an unusual carved pebble. It came from a depth of 14 inches in camp refuse just south of the junction of Fall Creek and the Colorado River, in the northeast corner of the county. The writer was present and saw the stone removed from the black midden material near the bluff, at a point eight feet east of the overhang of a small rock shelter.

Although very lightly carved—the lines being scarcely $1/32$ of an inch deep—there can be no question that the work represents purposeful design and not mere haphazard scratches. The stone measures $3\frac{5}{8} \times 1\frac{1}{2}$ inches and varies in thickness from $\frac{1}{4}$ to $\frac{1}{2}$ inch. It is yellowish-brown in color and comparatively soft. The carvings, presumably made with a graver, show some effects of weathering. There are no holes drilled in the stone for suspension.

It seems that this carved pebble (Plate CCXXXV, 3-4) together with a painted one from an adjacent midden (Fig. 271, 7), indicate a close relation to the unique culture complex of the Rio Grande and lower Pecos River region in Southwest Texas.

An intricate group of carved designs decorate the entire outer surface of a large tubular stone pipe, or so-called "cloud-blower," found in Llano County. The specimen was plowed up, in 1891, at a campsite in the northwest part of the county, only a few hundred yards from pictograph Site No. 145.

The pipe, now in the Texas State Library in Austin, has a length of $6\frac{7}{8}$ inches and a maximum diameter of $1\frac{7}{8}$ inches. Inserted in the small end when found was a short mouthpiece, or stem, made of bone.

Carved in the steatite, to an average depth of about $1/16$ inch, are a rayed sun-disc, four possible projectiles, three so-called pole-ladder and several triangular elements. (Plate CCXXXV, 1-2.) The projectiles are remarkably like certain designs on painted pebbles from Val Verde County. The sun symbol is almost identical with some incised designs on pottery, in The University of Texas Anthropology Museum, from Titus, Wood and other East Texas counties.

SAN SABA COUNTY

The week following the finding of a carved pebble on the Llano County side of Fall Creek, another was uncovered in a midden just north of the junction of the stream with the river in the southeast edge of San Saba County. The stone came from a depth of ten inches and measures $7\frac{3}{16} \times 1\frac{3}{4} \times \frac{7}{8}$ inches. It is Pennsylvanian limestone, with a reddish exterior.

On the obverse side are six parallel lines, spaced approximately half an inch apart; nine lines of varying lengths, arranged in such manner as to form X- and Y-shaped elements. Some of the latter cross the parallel lines, thus forming an

incomplete crosshatch design. The small rounded end of the stone has numerous fine parallel striations, suggestive of abrasion; the other lines are definitely carved, as if with a graver, but are scarcely $1/32$ of an inch in depth. The carving is similar to a design on a painted pebble from a shelter in Val Verde County. On the reverse side are a few parallel lines and triangular elements. On one edge is a carved Y-shaped element.

Not far removed from the carved stone, and at exactly the same depth, were three potsherds—rare in this region of Texas. In the same midden, and at depths ranging from six to 14 inches, were found 33 potsherds. These sherds show a close resemblance to pottery from the East Texas region. From this evidence of communication and trade relations, it is not surprising that the carved pebble trait likewise shows up in the latter area.

COLEMAN COUNTY

A slab of sandstone measuring $16 \times 9\frac{3}{4} \times 1$ inches was found in an Indian campsite in the northwestern part of the county. One side of the stone had been used as a metate. The reverse side is in its original rough state. Over the used face of the stone has been carved a group of intricate designs. A close examination indicates that a majority of the carvings are of Indian workmanship; but a few seem to be of recent origin. Perhaps the first finder of the stone tried to improve on the work of the Indian artist.

JOHNSON COUNTY

Several small carved stones have been found in campsites of this county. The carving represents conventionalized human figures, trees, ladder-like elements, and geometric designs. (Fig. 275.) There is a noticeable resemblance between the carvings on these stones and certain petroglyphs of West Texas.

HOPKINS COUNTY

A stone of iron ore, measuring $6\frac{1}{2} \times 4\frac{1}{2}$ inches and carved on one side, was plowed up in an Indian village site in the southeastern part of the county. The carvings represent a human head wearing a headdress and with a pipe in the mouth. Suspended beneath the bowl of the pipe are three feathers; rising from it are faint lines suggesting smoke. On the reverse side of the stone are two pits about $1\frac{1}{2}$ inches in diameter and $\frac{1}{2}$ inch deep. They are such as commonly found on stones in campsites of the region, and unquestionably are of Indian origin. The carving of the smoking scene has the appearance of being old, yet it is so unlike anything else found in that region as to justify suspicion. It was, however, found under circumstances which seem to preclude the possibility of its being a fraud. It may be the work of a late historic Indian.

CASS COUNTY

From a campsite in the central part of the county came a stone gorget, or plaque of brown hematite, on which are carved designs. There is in it a suggestion of the scroll, triangular and ladder-like elements found in East Texas pottery decorations, and in West Texas picture-writings.

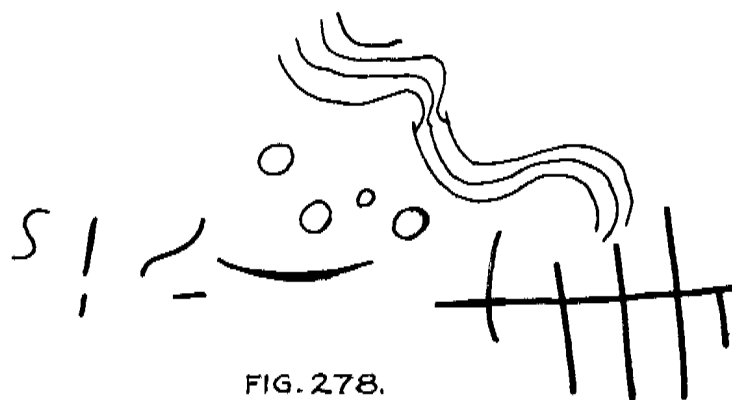
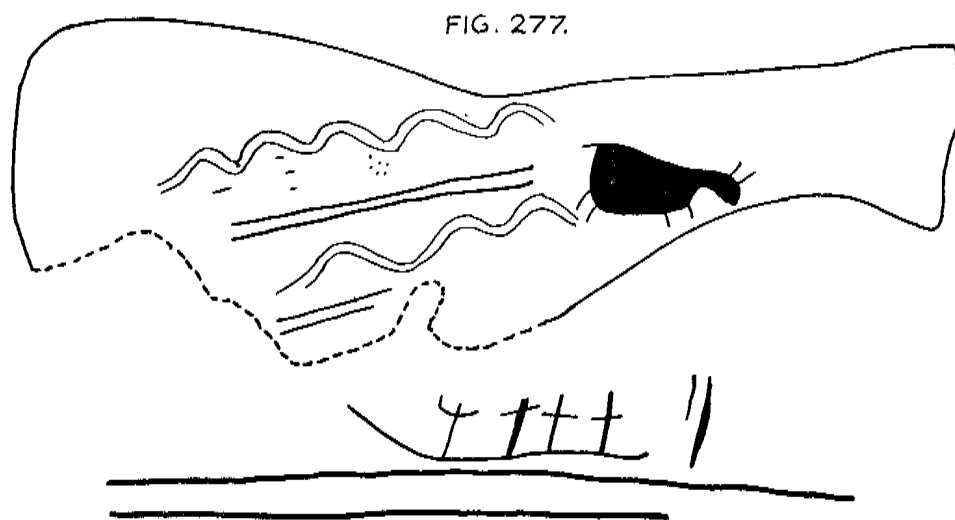


FIG. 277. OBERSE SIDE OF PAINTED DEER SCAPULA

The animal pictured may have been a deer or mountain sheep. Length of scapula, 7 inches.

FIG. 278. DESIGNS ON EDGE AND REVERSE SIDE OF DEER SCAPULA

From rock shelter at Site No. 30, Jeff Davis County.

(Courtesy of Victor J. Smith.)

PICTURE-WRITING ON BONES

PAINTINGS ON DEER SCAPULA

Very few specimens of picture-writing on bones remain in Texas. Prominent among those now in existence is one in the collection of the Sul Ross State Teachers College at Alpine. It is a deer scapula, on both sides and edge of which are painted conventionalized designs.

The specimen was found by Professor Victor J. Smith in the camp debris of a rock shelter, listed in this report as pictograph Site No. 30, Jeff Davis County.

In 1931 he briefly mentioned the find, without illustrating it.⁷⁷ The bone is in a fair state of preservation, and the paint is quite clear.

PAINTINGS ON BUFFALO SCAPULA

In 1889 Mallery described and illustrated a buffalo scapula on which were various designs painted by a Comanche. The painting formerly had been reported by Schoolcraft.⁷⁸ Since it is an unusual specimen and the reports in which it was described are not available to many interested persons, brief quotations therefrom are inserted here. The specimen was found on the plains in the Comanche range in Texas. Schoolcraft described it as follows:

"It is a symbol showing the strife for the buffalo existing between the Indian and white races. The Indian (1) presented on horseback protected by his ornamented shield and armed with a lance, (2) kills a Spaniard (3) after a circuitous chase (6), the latter being armed with a gun. His companion (4), armed with a lance, shares the same fate."

Mallery comments thus:

"It may be questioned whether Mr. Schoolcraft was not too active in the search for symbols in his explanation of (6) as a circuitous chase. The device is either a lasso or a lariat, and relates to the possession or attempt to take possession of the buffalo. The design (5), however, well expresses ideographically the fact that the buffalo at the time was in contention, and therefore was the property half of the Indians and half of the whites."

UTILITARIAN PAINTINGS ON BUFFALO BONES

That Indian paintings sometimes were made for specific purposes and conveyed information is clearly illustrated by a statement of Herman Lehmann⁷⁹ in his account of captivity among the Indians. The incident which he describes took place on the Texas plains somewhere to the west of the Concho River. The date was about 1875. With a small raiding band of Apaches he had left the main group and gone into Mason and Llano Counties, where the raiders stole horses and secured several scalps. On their return they were overtaken by the Rangers near the Concho River and a battle followed. The Indians had several casualties and lost their loose horses, but the men escaped. Lehmann states:

"We went on to where we had left our people in camp; but when we reached there, we found that they had moved. We found buffalo bones and on them pictures representing a fight with the white people. On some bones, properly arranged, were the pictures of seven men pierced with arrows, also a wagon burning up. The bones pointed northward. Twelve bones, peculiarly arranged, represented twelve days' journey. . . ."

⁷⁷Smith, Victor J., *Archaeological Notes of the Big Bend Region*, Texas Archaeological and Paleontological Society, Vol. III, Abilene, September, 1931, p. 68.

⁷⁸Mallery, Garrick, *Tenth Annual Report*, *op. cit.*, p. 206, fig. 157; quotation from Schoolcraft, Henry R., *Historical and Statistical Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States*; collected and prepared under the direction of the Bureau of Indian Affairs, per act of Congress of March 3, 1847; illustrated by S. Eastman, Capt. U.S. Army; published by authority of Congress; Philadelphia, 1851-1857 (6 Volumes), Vol. IV, p. 253, Pl. 32.

⁷⁹Lehmann, Herman, *Nine Years With the Indians, 1870-1879* (edited by J. Marvin Hunter), Von Boeckmann-Jones Company, Austin, 1927, pp. 119-120.

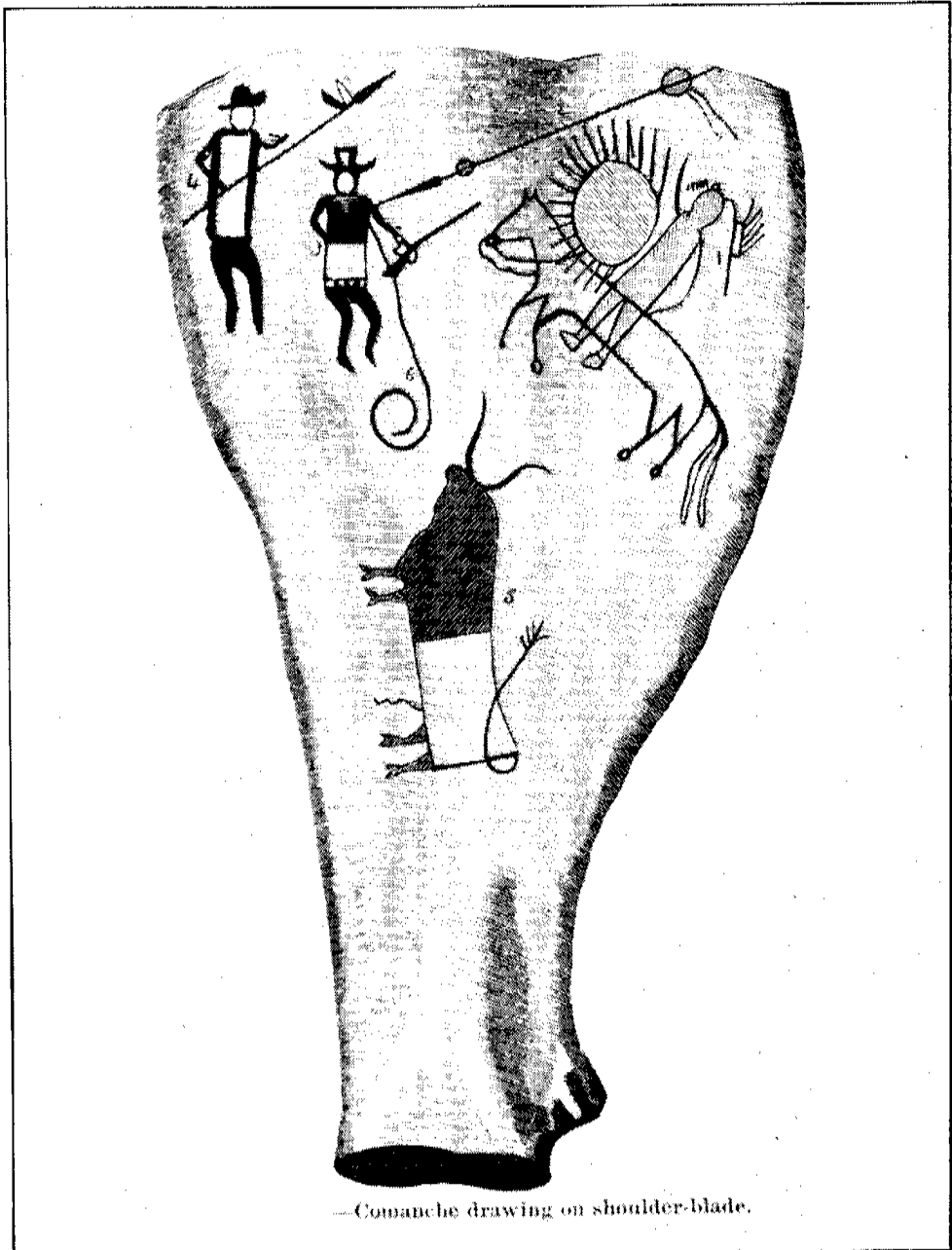


PLATE CCXXXVIII

COMANCHE PICTOGRAPHI ON BUFFALO SCAPULA

Found on the Texas plains.

(Courtesy Bureau of American Ethnology and Smithsonian Institution.)

PICTURE-WRITING ON HIDES

Paintings on hides are almost as rare in Texas at the present time as are those on bone. The writer has, however, had the good fortune to examine paintings on a buffalo robe and four shields. All of these were the work of Texas Indians.

PAINTED BUFFALO ROBE

G. A. Holland, of Weatherford, has in his Log Cabin Museum a buffalo robe, on the flesh side of which are many intricate paintings. The specimen was taken from the Comanche Indians at the time of the recapture of Cynthia Ann Parker on the Pease River in 1860.

It will be recalled that Governor Houston sent Captain Sul Ross, at the head of a body of Rangers, soldiers and citizens, to hunt down and destroy the marauding Indians under Chief Nocona. The Indians were overtaken and attacked by the Rangers and soldiers.

Captain Ross, according to Mr. Holland,⁸⁰ personally chased an "Indian with a girl behind him holding a large buffalo robe around them. In the running fight the girl received a death shot, and in falling dragged the big Indian from the horse." After much resistance, the Indian was killed. At that time he was thought to be Chief Nocona, but later developments proved him to have been a sub-chief named No-bah. Nocona and his two sons had escaped. The buffalo robe mentioned above is the one in Mr. Holland's collection.

There is, however, another version of the story, to the effect that the robe was with Cynthia Ann Parker, who was recaptured by Tom Killiher, first lieutenant under Ross. While chasing her, Killiher supposed that she was a squaw, since a papoose was strapped on her back; but, on taking her to Captain Ross, it was discovered that she was a white woman, who turned out to be Cynthia Ann Parker.

It is reported that Killiher, not caring for the buffalo robe, gave it to F. M. Pevler, an 18-year-old boy who accompanied the expedition. Seventy-five years later, Mr. Pevler turned the buffalo robe over to Mr. Holland, in whose possession it has remained.

The buffalo hide is approximately six feet square. The outer side is partly bare, with some hair coming off each time it is handled. The flesh side is decorated with painted designs, the central one being 32x31 inches. The inner circle is six inches in diameter. While fairly symmetrical, there are slight variations in the sizes and locations of the various design elements.

⁸⁰Holland, G. A., *The Double Log Cabin*, Weatherford, Texas, March, 1931, p. 27.

The designs on this skin are quite intricate and well executed. The central figure is that of a rayed sun-disc. The inner circle encloses an equal-armed cross. Surrounding the circle, and forming four segments, are groups of radiating lines painted in various colors. Dividing the segments are four long triangular crosshatched elements, each terminating in vari-colored hatching and a zigzag line. Equally spaced between these large projectile-point-shaped elements are four smaller ones, similar in shape but without the hatching and zigzag at the end. On the four sides are curved lines bounded by triangular elements, each enclosing an unpainted circle. Immediately above, below and in the four corners are long, triangular, crosshatched elements identical with the four large ones in the central design.

It is interesting to note the prominence of the number four in the decoration of this hide. Four colors—red, blue, green and orange are employed. The central figure is divided into four parts. The elements at each side consist of four alternate green and orange triangles. At the top are two groups of four triangles each. At the bottom, however, are two groups of five triangles each.

PLATE CCXXXIX

PAINTED BUFFALO ROBE CAPTURED FROM THE COMANCHE INDIANS
IN 1860

The painted designs are very dim, and there are a number of small holes in various parts of the skin. Mr. Holland stands beside the tree.

(Courtesy of G. A. Holland of Weatherford.)

PLATE CCXL

A CLOSE-UP VIEW OF PART OF THE BUFFALO ROBE

In the center may be seen the painted sun-disc.

PLATE CCXLI

COMANCHE DRAWINGS ON THE HOLLAND BUFFALO ROBE

Photograph of a color sketch, reproduced to render the designs clearly discernible.

PLATE CCXLII

PAINTING ON COMANCHE SHIELD CAPTURED AT BATTLE OF
PACKSADDLE MOUNTAIN, 1873

- A. Design on buffalo hide shield proper.
- B. Design on deerskin shield cover. The elements at each side of the rayed sun-disc may symbolize the thunderbird.

(Courtesy of Mrs. Alex. Casparis of Austin.)

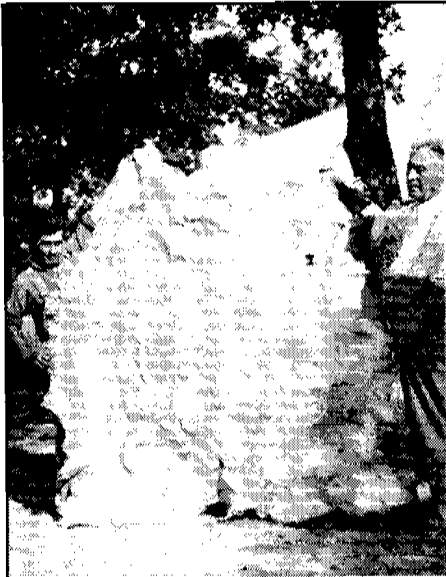


PLATE CCXXX IX

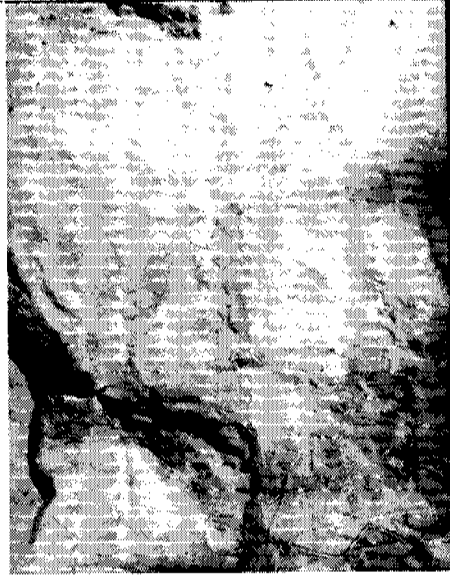


PLATE CCXL.

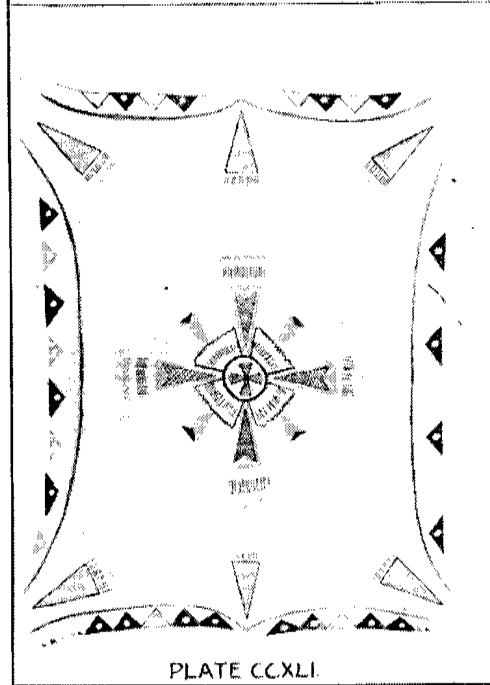
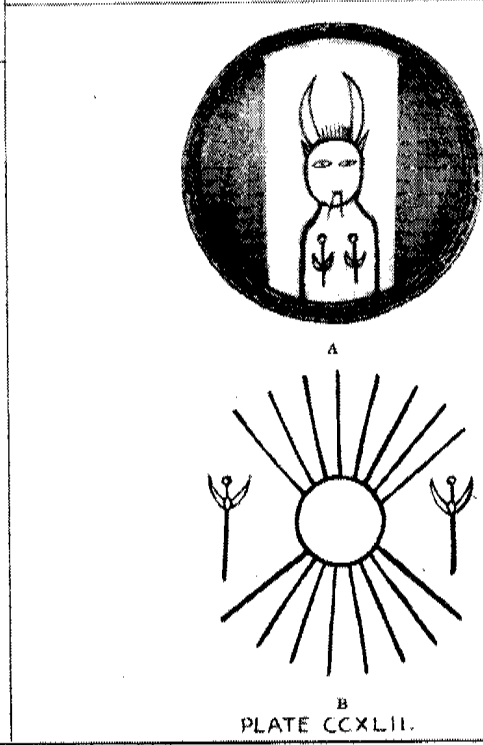


PLATE CCXLI.



B
PLATE CCXLII.

As throwing additional light on the manner in which the paintings may have been executed, the following is quoted from Smithwick:⁸¹

Among the Comanches, "the women, of course, performed all the labor (aside from killing and bringing in the game), stripping the skins from the animals, dressing and ornamenting them with beads or paint, a process which interested me very much. The skins were first staked down to the ground flesh side up. With a sharp bone the squaw then scraped off every particle of flesh; next the scraped surface was spread with lime to absorb the grease, after which the surface was spread with the brains of the animal, (the skin-dresser) rubbing it in and working it over till the skin became soft and pliable, the process requiring days of hard work.

"Then with paint, which they manufactured from colored chalks, and brushes made of tufts of hair, the artist, with the earth for an easel, beginning in the center, drew symbolic designs, the most conspicuous of which was the sun, executed with a skill truly remarkable.

"A multitude of different colored rays, commingling in a common center, and radiating out in finely drawn lines, the spaces made by the divergence again and again filled in, taking as much time as a work by the old masters. Time was no object, life having nothing to offer beyond the gratification of this single vanity.

"These painted robes were worn over the shoulders like shawls, the fur side underneath."

This historic Indian painting is interesting from several standpoints:

1. Although painted at an apparently late date, the design shows no indication of white influence.
2. The central sun symbol, or rayed sun-disc, varies only in minor details from those found in certain prehistoric pictographs on the walls of caves and rock shelters in West Texas; and resembles in motif the incised sun symbols on earthenware vessels from old graves in East Texas.
3. A study of this sun symbol, together with a similar historic rock picture at Site No. 56, Terrell County, seems to show that Indian art did not always degenerate in historic times. Both are Indian work, yet better executed than many prehistoric designs.
4. The use of four as a magic number, involving four sacred colors and deriving, doubtless, from the cardinal points of direction, is found to prevail in this as in many other cases of Indian design.
5. There is a striking resemblance—no doubt a coincidence—between the cross-hatched arrowpoint-shaped design elements embodied in this historic painting and certain ones incised on pottery in Upshur County, Texas. It also is suggestive of a type of small finely made arrowpoint common in prehistoric graves in Northeast Texas.
6. The triangular designs enclosing circles also resemble pottery designs in East Texas.
7. A notable difference in this specimen and the Texas rock pictures is the employment of blue and green, these colors rarely being found in the rock paintings. It seems, however, that most of the historic paintings on skins used blue and some combined green.

⁸¹Smithwick, Noah, *op. cit.*, pp. 183-184.

COMPARISON WITH OTHER PAINTED SKINS

Although unusual, this painted buffalo hide is not in a class by itself. Several such painted skins have been reported, and throw some light on the possible significance of the elements in the paintings in question.

Krieger⁸² pictures a "painted altar of tanned doeskin, symbolizing the Indian's prayer for more buffalo." Although the painting was the work of Pueblo Indians of New Mexico, he calls attention to the fact that "it resembles in structure and details of design a painted symbol of Comanche origin." The Pueblo painting—collected in 1877—embodies a central design with the four triangular, rayed elements and the enclosing band strikingly like that on the Texas specimen.

Mallery⁸³ pictures a painted deerskin made and used by the Apaches as a "mantle of invisibility; that is, a charmed cover for spies, which would enable them to pass with impunity through the country and even through the camp of their enemies (without being discovered). In this instance the fetishistic power depends upon the devices drawn. . . ."

If the Comanche paintings of the Texas specimen had any special significance, such as attributed to those of the Pueblo and Apache in the above-mentioned cases, it seems more likely to be either a symbol having to do with sun worship or a "prayer for more buffalo."

PAINTINGS ON SHIELDS

In August, 1873, eight local white men defeated 21 Indians in a fight on Packsaddle Mountain, Llano County. A shield was taken from one of the Indians killed in the engagement. It was given by Captain Dan W. Roberts of the Texas Rangers to Alex. Casparis of Austin. The specimen is in a somewhat poor state of preservation; and has blood stains over a space some six inches in diameter, indicating that it, for some reason, failed to serve its purpose.

There has been some question as to whether the Indians were Comanche or Apache. J. W. Wilbarger, in his book "Indian Depredations in Texas," quotes from an old frontiersman who was in the vicinity at the time of the Packsaddle fight. He tells of the whites capturing from the Indians "some fine Navajo blankets, silver-mounted saddles and bridles, Winchester and Henry rifles and revolvers. . . . Among the saddles was one marked with the name of the maker and 'Tucson, Arizona.' From this fact, as well as the fact that these Indians were much better armed and equipped than Comanches, it is supposed that they were Apaches from Arizona. . . ."

Captain Roberts, in his book "Rangers and Sovereignty," copied the account of James R. Moss, one of the participants. It refers to them as "a party of redskins, supposed to be Comanches."

Herman Lehmann in the book "Nine Years Among the Indians" has a chapter with the title "My First Raid With the Comanches." In it he relates: "Down near Packsaddle, in Llano County, we came upon a party of white men, who hid under a bluff and rock and gave us a hard fight. Three of our men were killed outright and several were wounded. . . ."

⁸²Krieger, Herbert W., *Aspects of Aboriginal Decorative Art in America, Based on Specimens in the United States National Museum, Smithsonian Institution Report for 1930, Publication 3102, Washington, 1931, p. 554, pl. XXV.*

⁸³Mallery, Garrick, *op. cit.*, Tenth Annual Report, p. 503, pl. 33.

The designs painted on the shield captured at Packsaddle Mountain are strikingly like those on two shields known to have been owned by a Comanche Indian of the same period. This fact seems to confirm the accounts of Roberts and Lehmann. The writer feels that, in any event, the shield in question may be considered of Comanche origin.

The shield, 21 inches in diameter, has its inner portion made of buffalo hide $\frac{3}{8}$ inch thick. The tanned portion is inside with the hair side out. This is the opposite of the usual procedure in making shields. Over the buffalo hide foundation is a cover of deerskin.

On the outer side of the buffalo skin appear painted designs. The central part is a turquoise color, while the outer edges are painted a dark blue. The central design, apparently that of a human wearing a buffalo headdress, occupies the greater part of the turquoise colored section of the skin. A circle, painted in blue, bounds the outer edge of the skin.

Sewed around the shield, just outside of this blue line, is a strip of red flannel some three inches in width. The stitches which hold the flannel also originally attached 91 feathers. At the bottom of the shield remains one of the two original horsetail tassels.

At the top of the shield, on the reverse side, are two clusters of pieces of animal hoofs (probably deer or antelope) that form rattles. These are attached by buckskin thongs that likewise hold a detachable deerskin cover. The cover was intended to protect the design on the shield when not in use. Two hand grips, on the back of the shield, are spaced four inches apart. On the detachable cover is a painting, in black, of a rayed sun-disc.

SHIELDS OF COMANCHE JACK

The Field Artillery Museum, Fort Sill, Oklahoma, includes among its specimens several shields formerly owned and used by Comanche Jack, a well-known Indian of some 50 years ago. The following information with regard to the shields was secured from First Lieutenant Alexander G. Stone,⁸⁴ curator of the museum:

"They were all at one time or another his personal property, used on his raids. Comanche Jack lived in Oklahoma, but like many other Comanches raided the white settlements in Texas as far south as the Rio Grande. In the late 1880's, after several brushes with the Texas Rangers—in one of which he was lucky to escape with his life—and hearing of the determination of the troops to stamp out the raids of wandering Indians, Comanche Jack wisely made his peace with the Government forces, and enlisted in the Indian Scouts Service, a troop of which was stationed at Fort Sill. He died in the service early in this century."

The most outstanding of the designs on these shields is that embodying a human head wearing a buffalo horn headdress and forming the center of a rayed sun-disc. The colors are blue, red, green and orange. The inner circle and its enclosed portion, most of right horn, four long lines below, small sun-disc near tip of horn, and body of the thunderbird are in green. The base of the horns, three long lines above, short rays around head, outer circle forming head, central line of oblique hatching in each group, equal-armed cross between horn tips, wings and tail of the

⁸⁴Stone, Alexander G., Letter to A. T. Jackson, October 14, 1936.

thunderbird are in blue. Most of the left horn, outer line of each group of oblique hatching, and a narrow band representing the lower beak of the thunderbird are in red. The middle concentric circles, rays of medium length about head, and inner line in each group of oblique hatching are in orange.

The tattered outer edge of the painted skin shows traces of what seems to have been an enclosing circle. Since, however, there is some doubt, it has been omitted from the sketch.

On August 4, 1936, the writer discussed the matter of Texas pictographs with a young Comanche, Wah-chi-tah-ker (George L. Smith), of Lawton, Oklahoma. He is a grandson of Comanches who formerly roamed over Texas. His explanation of the complicated design painted on the shield just discussed may be of some value.

The equal-armed cross at the upper center of the design represents, according to his statement, the Great Spirit. The face in the center of the shield symbolizes the sun. The buffalo horns stand for the entire animal. The spider-like element at the lower center signifies stars. The oblique hatching at either side denotes clouds. The medium-length lines radiating from the head represent rain. The bird at the left symbolizes the thunderbird. As a whole, the picture conveys a prayer to the Great Spirit for rain to make better grass so there will be more buffalo for the Indians.

Another of Comanche Jack's shields has a series of vari-colored concentric circles above and two buffalo or longhorn cattle beneath.

The diameter of the shield cover is approximately 18 inches. The complete animal is about five inches long and $1\frac{3}{4}$ inches wide. The smallest of the concentric circles is about $2\frac{1}{2}$ inches in diameter.

The colors used in the target-like device consist of red, orange, and blue. There are 11 of these colored bands, in which red appears four times, orange five, and blue twice. The interior of the smallest circle is painted a faint orange.

The animal drawings are unusual in several respects. The complete animal is extremely long and thin. The animal in the rear is almost hid, only a portion of its head and neck showing. It has no horns. The front parts of the animals are painted solid blue, while the remainder is merely outlined in that color. This technique appears in pictographs on the walls of rock shelters in various parts of West Texas. (See Map XXVI.) Some of the paintings of this type are in pre-historic sites, while a few are historic.

Still another shield has on it a rayed sun-disc and two thunderbirds painted in blue. This Comanche war shield is about 22 inches in diameter. The remains of red flannel cloth and feathers may be seen around its edge.

SHIELD IN SUL ROSS MUSEUM

In the museum of the Sul Ross State Teachers College at Alpine is an interesting shield decorated with painted designs of a rayed sun-disc and conventionalized thunderbirds. A sketch of the designs was first published in Bulletin 44, West Texas Historical and Scientific Society, December 1, 1932. The accompanying sketch is from that source, by courtesy of Professor Victor J. Smith.

The shield, which was taken from the body of an Indian after battle, is about 20 inches in diameter. The cover is soft deerskin, under which is tough buffalo hide, with a mat of quills and handholds.

PLATE CCXLIII

BUFFALO HORN HEADDRESS PAINTED ON SKIN SHIELD COVER

Colors employed are green, blue, red and orange, represented here by the letters a, b, c, and d, respectively. Diameter of deerskin cover, about 18 inches. The shield was the personal property of Comanche Jack, of Oklahoma, who used it on many of his raids into Texas prior to 1880.

PLATE CCXLIV

ANIMALS AND CONCENTRIC CIRCLES PAINTED ON
COMANCHE SHIELD COVER

The so-called target consists of five orange, four red and two blue concentric circles, with the interior painted a dim orange.

The painting of a portion of an animal and merely outlining the balance is a feature found in both prehistoric and historic pictures. Blue paint.

The diameter of the skin is about 18 inches.

The shield originally was the property of Comanche Jack.

PLATE CCXLV

DESIGN PAINTED ON COMANCHE WAR SHIELD
A RAYED SUN-DISC AND SO-CALLED THUNDERBIRDS

All painted in blue except the two short lines in green beneath the circle. There are remains of red flannel cloth and attached feathers at edge of the shield, which is about 22 inches in diameter.

(Plates CCXLIII to CCXLV, courtesy of Field Artillery Museum, Fort Sill, Okla.)

PLATE CCXLVI

INDIAN WAR SHIELD

Owner killed by Col. R. V. Cook.

Possible rayed sun-disc and thunderbirds. Specimen in Sul Ross Museum, Alpine.

(After Sandifer White. Courtesy of Victor J. Smith)

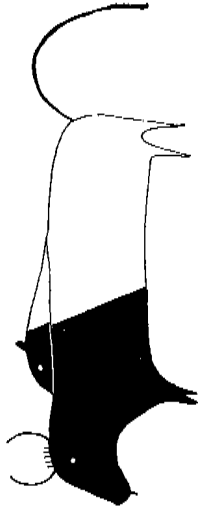
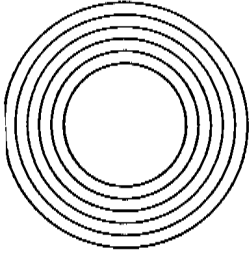


PLATE CCXLIV.

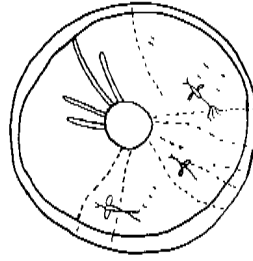


PLATE CCXLVI.

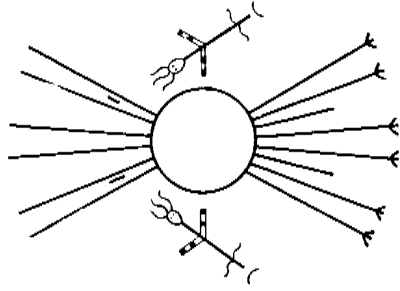


PLATE CCXLV.

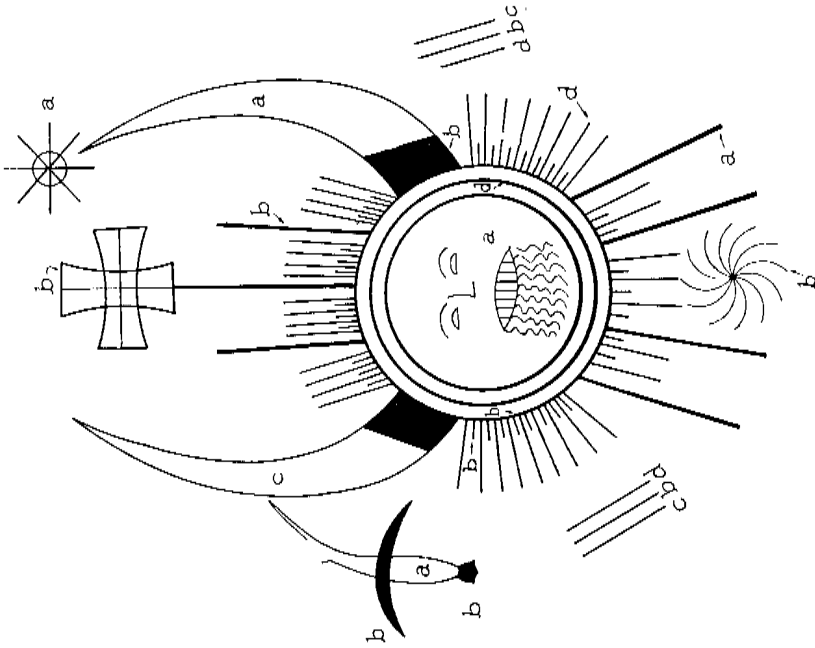


PLATE CCXLIII.

ATTEMPTED MAGICAL AND UTILITARIAN USES OF SHIELD DESIGNS

It is generally supposed that designs painted on shields were solely ornamental or symbolical in nature. It seems, however, that at least some of the designs were intended by the Indians to serve more practical purposes. The designs on the shield of Comanche Jack (Plate CCXLIII) had the practical purpose of bringing rain and good luck.

Herman Lehmann,⁸⁵ in the account of his life among the Indians, describes the making of a shield and the purpose served by the designs thereon as follows:

"To make a shield required several days' time. The Indian took the hide of an old bull (sometimes the thick part of the buffalo hide was used), cut a round piece from the neck and shoulders, threw this over the fire and heated it while green. When it was as hot as it would stand without burning it was then rubbed on a rough rock until the meat was erased, then a smooth stone was used until the hide became very smooth, soft and pliable. A rattan or hickory withe was made into a hoop, and the rawhide was strapped on and sewed with thongs of rawhide; and then it was given the necessary 'dish' by stretching over stakes, and left to dry. After the shield is thoroughly dry and cured it is set up as a target, and if an arrow pierces it or a bullet goes through it, it finds a place among the debris of the camp; but if it proves war-proof it occupies a place with the warriors and a strong string is placed through each side so it can be held on the arm. The hairy side is next to the arm and the slick side facing the enemy. The moon, stars, serpents, turtles and other designs are painted on the shield and in such location that they serve as a compass to guide and direct the Indian owner on a cloudy day.

". . . I would look at the great starry vault, this blue dome, and then at my shield, and I would see that the larger stars occupied the same position on my shield that they did in the heavens, and thus on cloudy days my shield served as a compass as well as a protector."

Of course, the designs on the shield could not be used to determine directions on a cloudy day. If the directions were known, and the shield were oriented with them, the arrangement of the designs thereon might correspond with the positions of the stars. If such a shield could have worked, the invention of the compass would have been unnecessary.

At the time of which Lehmann writes in the first quoted paragraph, he was a captive among the Apaches. The method of painting he recounts, therefore, is taken to be representative of the practice in that tribe for the period indicated. The second paragraph relates to a period between the time of his escape from the Apaches and his taking up with the Comanches. The shield is the one he had at the time he left the Apaches.

⁸⁵Lehmann, Herman, *op. cit.*, pp. 25-26, 139.

KIOWA CALENDAR

Because of the fact that it includes a number of entries pertaining to incidents that took place in Texas, attention is directed to a Kiowa record known as the Set-t'an Yearly Calendar, obtained by Mooney⁸⁶ in 1892 and illustrated in his paper on *Calendar History of the Kiowa Indians*.

The calendar was painted originally on hides, "which were renewed from time to time as they wore out from age and handling." The Set-t'an Calendar obtained by Mooney was drawn with colored pencils on heavy manila paper.

Mooney describes the calendar record as follows:

"The pictographs are arranged in a continuous spiral beginning in the lower right-hand corner and ending near the center, the rows of pictographs being separated from each other by a continuous spiral. . . . The winter is designated by means of an upright black bar, to indicate that vegetation was then dead, while summer was represented by means of the figure of the medicine lodge, the central object of the annual summer religious ceremony. The leading event of the season is indicated by means of a pictograph above or beside the winter mark or medicine lodge.

"Set-t'an stated that he had been fourteen years drawing it; i.e., that he had begun work on it fourteen years before, noting the events of the first six years from the statements of older men and the rest from his own recollection."

The Set-t'an calendar entries concerning happenings in Texas may be briefly summarized as follows:

Winter 1832-33.—"Winter that they captured the money." The first event recorded occurred about New Year in the winter of 1832-33. It was an encounter near the South Canadian River about opposite the old town of Lathrop in the Texas Panhandle. The Kiowas attacked a wagon train of traders returning to the United States from New Mexico, killed several of the party and captured their money. Chief Black Wolf was killed. The Indians beat the coins into discs, attached them to straps, and wore them hanging from the scalplock behind. In the pictured entry the winter is indicated by a black bar; the wolf above the Indian's head signifies the name of their fallen chief; the Mexican dollar tells of the capture of the money.

In the winter of 1837-38 three Comanches, two men and a woman, were camped on the banks of the Brazos River in Texas when an Arapaho sneaked up, raised one corner of the tepee and looked in. The three Comanches rushed out and hid until the intruder returned to shoot them. When he did the three fired upon him and later returned to cut his head off and drag it through their camp. This was known as the "Winter that they dragged the head." The picture shows a horseman dragging a head attached to a rope.

In the summer of 1840 a treaty between the Arapaho and Cheyenne with the Kiowa, Comanche, and Apache was made about the mouth of Mustang Creek in the Panhandle of Texas. The Red-bluff sun dance was pictured as a red square above a sketch of the medicine lodge.

In the winter of 1841-42 a fight between the whole Kiowa tribe and the Texans took place on a head branch of Pease River in northwestern Texas. In this fight was killed a war chief who wore his hair short on the right side and long on the left, for the purpose of displaying his ear ornaments. The picture represents the style of hairdress and the location of the wound.

Winter 1842-43.—Crow-neck died on the upper branch of Double-Mountain Fork of Brazos River in Texas. The painting of a crow beside the chief shows his name.

Summer 1843.—After the "Nest building Sun Dance" a war party under Big-bow and Kicking-bird went into Texas and captured a number of horses.

⁸⁶Mooney, James, *Calendar History of the Kiowa Indians*, Seventeenth Annual Report, Bureau of American Ethnology, 1895-96, Washington, 1898, Part I, pp. 143-145, 254-364.

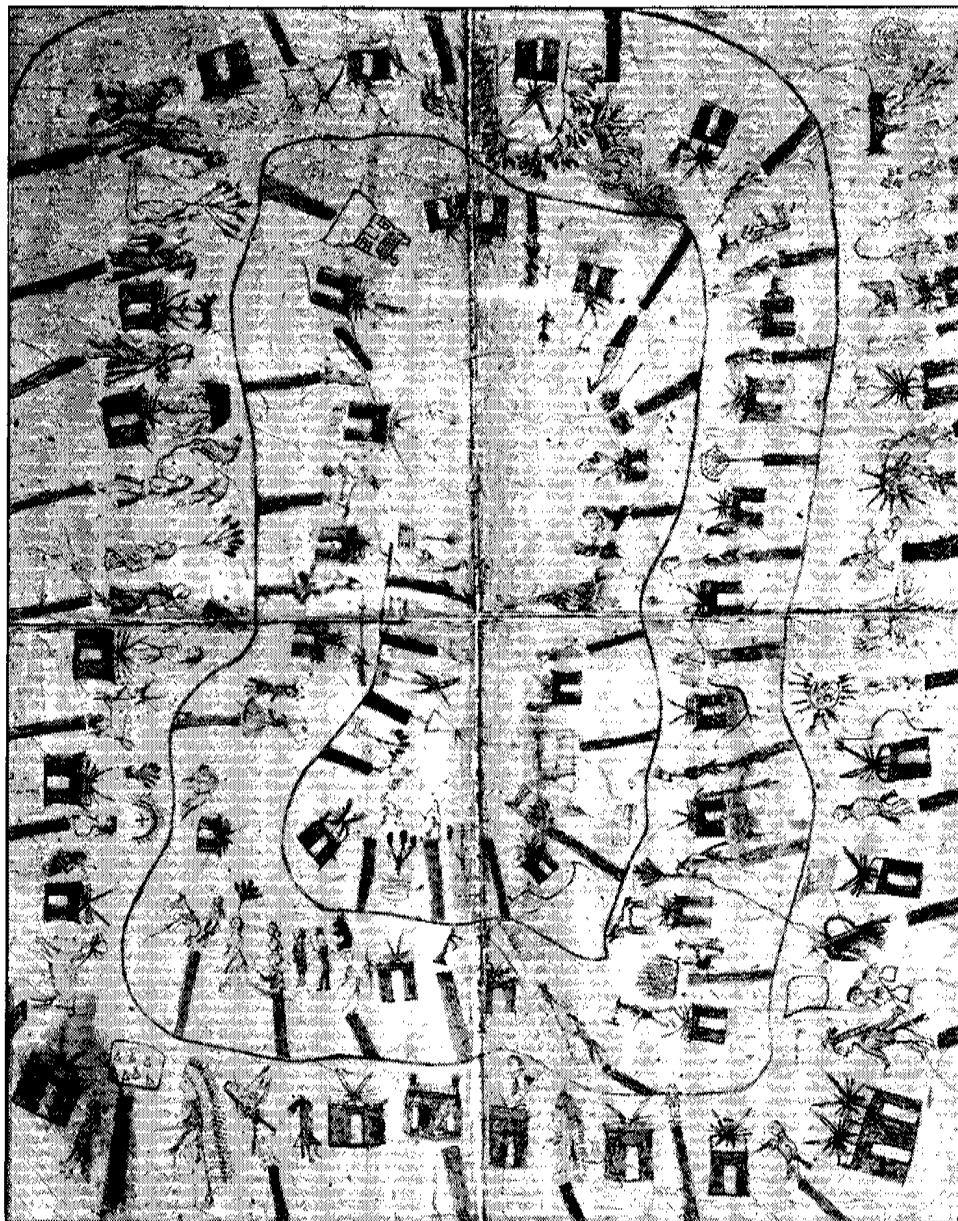


PLATE CCXLVII

THE SET-TAN ANNUAL CALENDAR

(From the native drawing)

The calendar began with 1833 and covers a period of 60 years. The first entry—at the lower right—as well as various others thereafter, pertain to events that happened in Texas.

(Courtesy Bureau of American Ethnology and Smithsonian Institution)

In the winter of 1845-46, Wrinkled-neck (a clerk, so-called by the Kiowa), built a trading post in the Panhandle of Texas. It was on the north bank of the South Canadian, just above Bosque Grande Creek. It was owned by William Bent, called by the Kiowa "Hook-nose-man." The event was recorded by drawing a house above the symbol for winter.

In the winter of 1858-59 Wolf-lying-down was killed after a raid into Mexico. He was on the northern bank of the Rio Grande. The other Indians escaped but he was riding a mare with a young colt that retarded his speed resulting in his being shot. The event is recorded by drawing above the winter mark a man with blood flowing from the body. His name was indicated by the connected animal above.

In the winter of 1859-60 Back-hide, an old man, was left to die at a salt pond called "Black water," perhaps the Agua Negra, just within the Texas boundary. A war party later found his skeleton with a cross over it. Hence the death was recorded by drawing his picture with an equal-armed cross above the head.

In the winter of 1864-65 Kit Carson, assisted by Ute and Jicarilla Apache, made an attack upon a camp composed of Kiowa, Apache and Comanche Indians who were camped between Adobe Walls and Mustang Creek in the Texas Panhandle. The attack was pictured by conventional bullets and arrows around two tepees, above the usual winter mark.

In the winter of 1868-69 a party of Kiowa made a raid into Texas. A warrior, and owner of a medicine lance, was killed. His death was recorded by drawing a man holding the arrow lance.

In the winter of 1870-71 a few men made a raid into Texas. Sitting-bear was killed and later his bones were returned home to his tribe by his father and a few followers. The event was pictured by a skeleton, over the winter mark, with a sitting bear just above the head.

In the summer of 1871 a raid was made into Texas in which a wagon train was attacked, seven men killed and 41 mules captured. As a result of this raid, six Kiowa war chiefs were arrested by the United States Army officers and were sent under military guard to Fort Richardson at Jacksboro, Texas. The calendar entry shows a soldier arresting Set-t'ainte (Satanta), the leader of the raiders.

In the summer of 1873 a sun dance was held on a reservation on Sweetwater Creek, tributary of North Fork of Red River, in the Texas Panhandle. While the dance was in progress one warrior "stole" another's wife. According to tribal punishment, the offended husband killed seven of the seducer's horses. On the calendar, beside the summer mark, was drawn a horse pierced by an arrow. In that manner the event was recorded.

In the winter of 1878-79 Set-t'ainte committed suicide in a Texas prison. In the same winter "Arrowman" was killed by a group of Texans who shot him through the body and both arms, scalped him, and cut off a finger on which there was a ring. The calendar record shows a human figure, above the winter mark, and beside it the medicine lance. The human figure was painted red, with red headdress, representing Set-t'ainte, or Satanta, who killed himself by jumping from an upper story of the penitentiary at Huntsville, Texas.

In discussing primitive records, Professor J. E. Pearce made the following comments:

"It is interesting to compare the winter records of the Indians as illustrated by the Kiowa account with the primitive chronicles of white civilizations. The events recorded in both cases were chiefly disasters, murders, tragedies and painful events generally, and the records are necessarily very brief. It was doubtless with these facts in mind that the philosophical historian of later times observed: 'Happy is that people whose annals are few.'"

PLATE CCXLVIII

SET-TAN OR LITTLE BEAR,

KIOWA AUTHOR OF THE CALENDAR BEARING HIS NAME

(Courtesy Bureau of American Ethnology and Smithsonian Institution)

PLATE CCL

MODERN COMANCHE PAINTING OF WOMAN AND CHILD ON HORSEBACK

The woman is represented as wearing fringed buckskin garments. The blanket is painted red, while the fringe around the garment is blue. Painted by Wah-chi-tah-ker, August 4, 1936.

PLATE CCLI

MODERN COMANCHE PAINTINGS ON CANVAS TEPEE COVERS

Painted by Wah-chi-tah-ker

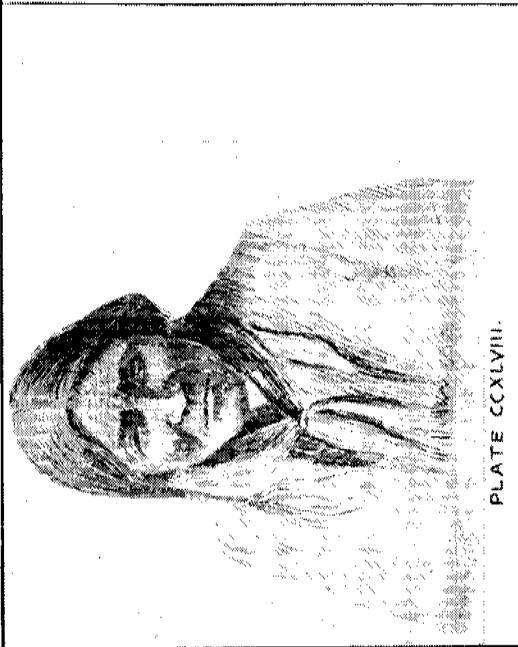


PLATE CCXLVIII.



PLATE CCL.



PLATE CCLI.



2.

PART IV

LATE HISTORIC AND MODERN PAINTINGS

LATE HISTORIC PICTOGRAPHS

We have written accounts of some of the late paintings made by Texas Indians that have not been preserved. One such case is that recounted by Smithwick,⁸⁷ who tells of paintings made by the Comanche Indians on the walls of the old Tumlinson blockhouse. It was located at the headwaters of Brushy Creek, in Williamson County, about 30 miles northwest of the present City of Austin. The incident occurred in the summer of 1837. Smithwick's account is as follows:

"I could never discover anything analogous to written language, the nearest approach to it being diagrams, or more properly maps, which they sometimes marked out on the ground to convey an idea of locality. They were peculiarly expert in sign language, however. Some idea of drawing they had acquired, their work at times evincing a remarkable degree of skill. Any smooth surface—a board, a flat stone, or smooth-bark tree—served for canvas, while charcoal furnished pencils. Colored chalks were sometimes substituted, but whatever the material used, the subject was always the same—Indians chasing buffalo.

"When on a scout out to the old Tumlinson blockhouse, we found the walls covered with these Indian drawings; every loose board being similarly ornamented. The blockhouse was burned by the Indians shortly after. Whether there may have been some special significance attached to the drawings, or whether they were but the expression of a vague longing after the ideal, I could not even conjecture."

Another historic painting, the exact location of which is now in question, was mentioned by Ellis P. Bean⁸⁸ in his narrative of the Phillip Nolan Expedition, which entered Texas in October, 1800. The meager information available speaks for itself:

". . . We came to the Trinity River and, crossing it, we found the big open prairie of that country. We passed through the plains till we reached a spring, which we called the Painted Spring because a rock at the head of it was painted by the Comanche and Pawnee Indians in a peace that was made there by these two nations. . . . For about nine days we were compelled to eat horseflesh, when we arrived at a river called the Brazos. . . ."

David Donoghue,⁸⁹ of Fort Worth, who has made an extensive study of the routes followed by the early traders and explorers in Texas, states:

⁸⁷Smithwick, Noah, *op. cit.*, pp. 172-173, 177-178.

⁸⁸Bolton, H. E., and Barker, E. C., *With the Makers of Texas*, American Book Company, New York, 1904, pp. 68-69.

⁸⁹Donoghue, David, Letter to A. T. Jackson, March 30, 1933.

"I do not know where this spring is located. There are, of course, many seeps and springs in the territory over which Bean traveled, but, while I often thought about this and inquired about it, I have never heard of any springs around which there are Indian pictographs.

"Bean states that he crossed the Red River at the Caddo village, which I presume was located in southwest Arkansas. Apparently he made his way directly to the point where the fight with the Spaniards occurred. I have located this battleground as being on a little branch of the Nolan Creek northeast of Blum in Hill County. This branch is today known as Battle Creek. Presuming that Bean traveled on a more or less straight line from the Caddo village to Nolan Creek, we have him passing through Kaufman and Ellis Counties. I believe that he states that after crossing the Trinity he came out on a wide prairie, and this fits very well for the region just south of Dallas. It would be in this district, at least, that I would look for Painted Spring."

From the above, it would seem that Painted Spring might have been located in Ellis, Navarro, Freestone or Limestone County.

Frank Bryan, a geologist formerly of Waco, verbally stated to the writer that he thinks the paintings may have been located at Tehuacana Springs, Limestone County.

Since the pictographs were on exposed rocks, and no doubt have been destroyed by weathering, the exact location probably will never be known. The incident, however, is of interest as indicating the possible origin of certain other paintings, i.e., the recording of peace pacts by the tribes.

MODERN INDIAN PAINTINGS

In order that paintings of the present-day Comanche Indians might be compared with the designs appearing on their shields of the early historic period, a few paintings were secured from Wah-chi-tah-ker, or George L. Smith, a full-blood Comanche of Lawton, Oklahoma. His grandfather took part in various raids in Texas.

Since, however, this young man has attended modern schools, his technique has been considerably influenced doubtless by his present environment. As an illustration, one may compare his painting of a thunderbird (Plate CCXLIX) with that appearing on a shield of Comanche Jack (Plate CCXLIII). There is, also, as pronounced a difference between this present-day representation of the thunderbird and that pictured on the shelter wall at Site No. 56, Terrell County (Plate XCIX).

The recent painting of a Comanche woman and child, riding an Indian pony, likewise is quite modernistic and sophisticated in its treatment. Some of this artist's paintings on canvas tepee covers are included also for comparative purposes.

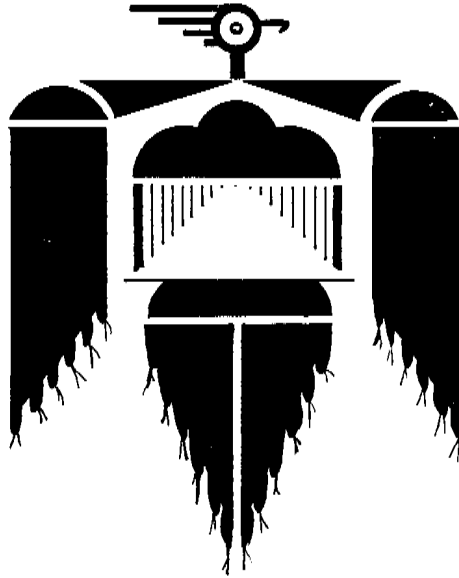


PLATE CCXLIX

THUNDERBIRD PAINTED BY WAH-CHI-TAI-KER

The picture was painted August 4, 1936.

There is an interesting combination of colors. The beak is red; the head feathers, yellow. The head, wings and tail are black. The breast (cloud symbol) is red and yellow; the vertical lines beneath are alternate black and green. Above the cross is red; on each side, black. The ends of the wing and tail feathers are green, with red tips.

PART V

CLASSIFICATION AND DISTRIBUTION OF
DESIGN ELEMENTS

On first viewing a shelter wall or bluff covered with pictographs, or petroglyphs, one has an impression of a jumbled mass. After careful examination the various designs are noted. The elements must be classified before they can be studied and compared with pictures from other sections.

If the pictures are realistic they readily fall into their proper classes. When non-realistic there is less certainty as to the classification. It then becomes a matter of searching for some telltale feature that may indicate what the aboriginal artist was trying to depict. If the designs are symbolic there is even more uncertainty.

Included among the symbolic designs of general distribution are rayed sun-discs, cloud symbols, etc. The meanings of many are problematical. One means of classifying certain elements is by the similarity of the designs to well-known objects. The names of such objects are then applied to the elements in question. Examples are ladders, rakes, pitchforks, anchors, etc.

These names, of course, are taken from white civilization and serve only to group the designs. There is little probability of their having any relation to Indian ideology.

A careful classification discloses much information of value. There may be worked out the development of certain forms—such as that of human or animal figures—through various stages from the realistic to the highly conventionalized. Classification also brings to light elements that reflect a local “style.” When such figures show up elsewhere their occurrence suggests possible migration or trade relations.

The largest source of positive interpretation comes from (1) ethnological sources, where the interpretation is from the old men of living tribes; for example the reading of the winter records like that of the Kiowa in this account. And (2) the accumulated knowledge of primitive psychology and the early ways of man in general, as well as specific ideographic systems, illustrated in Mallery’s monograph.

In pursuing local pictographic study, comparison can be made with the designs from other regions after the design elements have been classified. Such comparison brings out the distribution of the various elements.

The local site is studied as a unit and then compared with other sites from the area under consideration. In an area so large as Texas the most convenient division, for descriptive purposes, is the county. After designs from the various counties have been studied and compared it becomes clear how they fit into the state-wide picture. The next step is to compare these results with published works, and other available information, from adjacent regions and from the world at large. Not much of the latter kind of study is indulged in this account, because of: (1) lack of space, and (2) inadequate supply of sources conveniently at hand.

PLATE CCLII

EXAMPLES OF "CONVENTIONALIZED" HUMAN FIGURES

Sometimes it is difficult to distinguish between figures of humans and those of animals; e.g., No. 6, this plate.

1. Petroglyph, Site "B," Otero County, New Mexico.
2. Pictograph, Site No. 155, Stephens County.
3. Pictograph, Site No. 29, Jeff Davis County.
4. Pictograph, Site No. 99, Val Verde County.
5. Pictograph, Site No. 180, Presidio County.
6. Pictograph, Site No. 178, Culberson County.
7. Pictograph, Site No. 99, Val Verde County.
8. Petroglyph, Site "B," Otero County, New Mexico.
9. Pictograph, Site No. 145, Llano County.

PLATE CCLIII

HUMAN FIGURES WITH LIMBS MISSING

1. Pictograph, Site No. 2, El Paso County.
2. Pictograph, Site No. 99, Val Verde County.
3. Pictograph, Site No. 88, Val Verde County.
4. Pictograph, Site No. 6, Hudspeth County.
5. Petroglyph, Site No. 50, Ward County.
6. Petroglyph, Site No. 158, Bell County.
7. Pictograph, Site No. 140, Gillespie County.
8. Petroglyph, Site No. 50, Ward County.
9. Pictograph, Site No. 1, El Paso County.

PLATE CCLIV

HUMAN FIGURES WITH ADDED OR ANOMALOUS APPENDAGES

1. Pictograph, Site No. 178, Culberson County.
2. Pictograph, Site No. 150, Concho County.
3. Pictograph, Site No. 155, Stephens County.
4. Pictograph, Site No. 21, Culberson County.
5. Petroglyph, Site "C," Chihuahua, Mexico.
6. Petroglyph, Site "B," Otero County, New Mexico.
7. Pictograph, Site No. 96, Val Verde County.

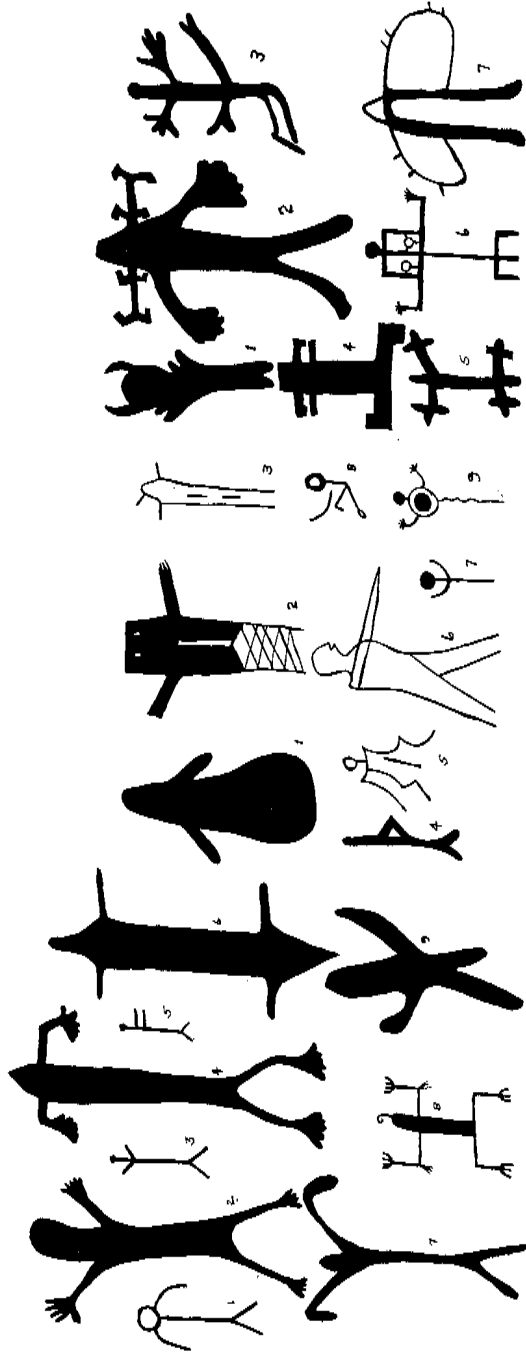


PLATE CCLIV.

PLATE CCLIII.

PLATE CCLII.

PLATE CCLIV

HUMAN HEADS, SOME WEARING MASKS

1. Pictograph, Site No. 3, El Paso County.
2. Petroglyph, Site No. 4, Hudspeth County.
3. Pictograph, Site No. 23, Reeves County.
4. Petroglyph, Site No. 172, Culberson County.
5. Petroglyph, Site No. 4, Hudspeth County.
6. Petroglyph, Site No. 192, Brewster County.
7. Petroglyph, Site No. 4, Hudspeth County.

PLATE CCLVI

ABBREVIATED HEADLESS HUMAN FIGURES

1. Pictograph and Petroglyph, Site No. 155, Stephens County.
2. Petroglyph, Site No. 188, Sutton County.
3. Petroglyph, Site No. 20, Culberson County.
4. Pictograph, Site No. 6, Hudspeth County.
5. Pictograph, Site No. 17, Culberson County.

PLATE CCLVII

REPRESENTATIONS OF THE HUMAN TORSO

1. Petroglyph, Site No. 4, Hudspeth County.
2. Pictograph, Site No. 68, Val Verde County.
3. Petroglyph, Site No. 18, Culberson County.
4. Pictograph, Site No. 21, Culberson County.
5. Pictograph, Site No. 51, Winkler County.

PLATE CCLVIII

SQUARE-SHOULDERED HUMAN REPRESENTATIONS

1. Pictograph, Site "B," Otero County, New Mexico.
2. Pictograph, Site No. 64, Val Verde County.
3. Pictograph, Site No. 64, Val Verde County.
4. Pictograph, Site No. 23, Reeves County.
5. Petroglyph, Site No. 188, Sutton County.
6. Carved stone, Williamson County.
7. Petroglyph, Site No. 8, Hudspeth County.
8. Pictograph, Site No. 108, Edwards County.
9. Pictograph, Site No. 96, Val Verde County.
10. Petroglyph, Site No. 191, Henderson County.
11. Petroglyph, Site No. 50, Ward County.
12. Petroglyph, Site No. 18, Culberson County.
13. Pictograph, Site No. 93, Val Verde County.
14. Petroglyph, Site No. 152, Nolan County.
15. Pictograph, Site No. 38, Brewster County.
16. Petroglyph, Site No. 191, Henderson County.
17. Pictograph, Site No. 64, Val Verde County.
18. Petroglyph, Site No. 11, Hudspeth County.
19. Petroglyph, Site "A," Otero County, New Mexico.
20. Petroglyph, Site "A," Otero County, New Mexico.
21. Petroglyph, Site "A," Otero County, New Mexico.
22. Pictograph, Site No. 150, Concho County.
23. Pictograph, Site No. 51, Winkler County.
24. Pictograph, Site "B," Otero County, New Mexico.

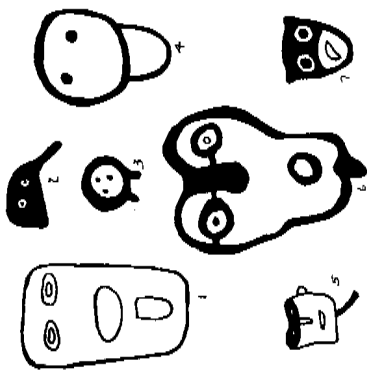


PLATE CCLV.

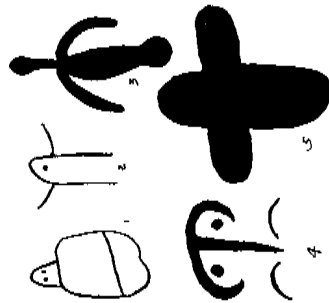


PLATE CCLVII.

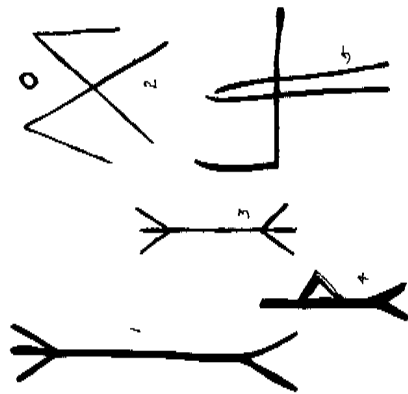


PLATE CCLVI.

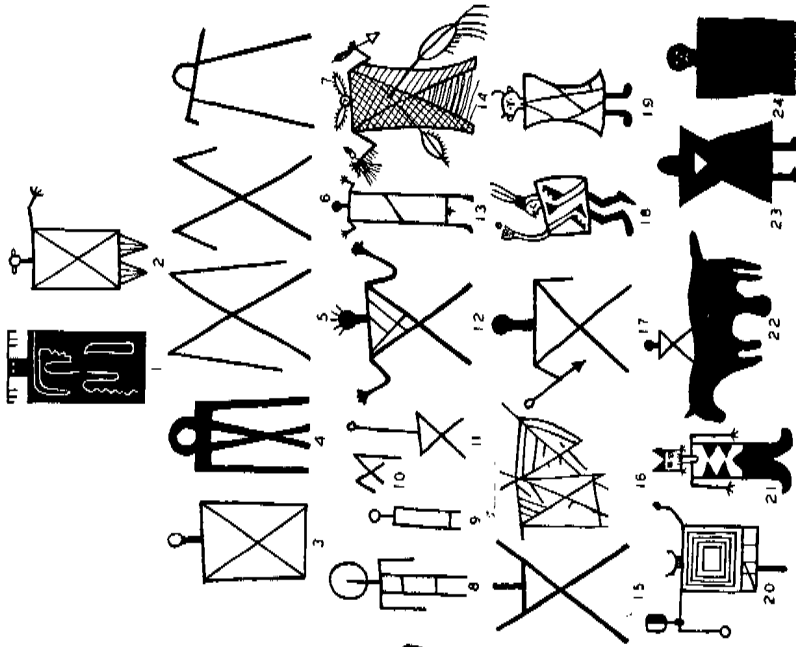


PLATE CCLVIII.

Photographs and sketches of petroglyphs from two sites in Otero County, New Mexico, and one from Chihuahua, Mexico, have been made. The most remote of these is about 22 miles from the Texas state line. Due to their proximity and relation to Texas picture-writings, there can be no reasonable objection to including them in this report.

Various designs are of world-wide occurrence. Outstanding among such widespread culture traits is the representation of the human hand. (See Plate CCLXX.)

When they seem relevant, comparisons of rock pictures are made with certain designs on pottery from East Texas and elsewhere.

CONVENTIONALIZED HUMAN FIGURES

The subject of conventionalized humans is a broad one. The figures range from the simplest form of so-called "stick men" to elaborate ones including many grotesque appendages. In most cases the fingers and toes are not indicated. When they are shown, the sizes may be all out of proportion to that of the body, and the number may range from three to six.

Not only are some of the shapes out of the ordinary, but the postures at times are even worse. Many of the human representations are so conventionalized that it sometimes is difficult to distinguish between them and lower animal forms. (See Plate CCLII.) Most of them suggest hasty, careless execution with little or no thought devoted to the appearance of the finished product. They might be called "unfinished" and "mutilated" forms rather than "conventionalized."

In certain cases there is an indication of a sense of humor. Some pictures might well be called the forerunner of our modern comic strips.

Some of the abbreviated figures show the complete body. Others represent only part of the body, with limbs or other parts missing. A common practice is to omit either the arms or legs and occasionally the head. Plate CCLIII illustrates this practice.

At the other extreme are pictures in which appear not only the complete anatomy but also elaborate adornments with, sometimes, useless and unexplainable accompaniments. Occasionally there is an extra pair of arms, four legs and various other anomalous combinations.

SQUARE-SHOULDERED FIGURES

From the area covered by this study, square-shouldered figures are found in 13 Texas counties and one county in New Mexico. Five specimens each are from Val Verde County, Texas, and Otero County, New Mexico; two each from Hudspeth and Henderson Counties; and nine from the remaining counties; making a total of 23 such figures.

By reference to Map XI the distribution of this type of figure may be readily visualized. It is interesting to note that the square-shouldered figures show up not only in the region adjoining New Mexico but also in five interior counties—separated by several hundred miles from the typical Southwest culture with which they seem to be linked. There is a striking similarity between the figures from the two regions.

As an illustration, reference is made to figures 12 and 17, Plate CCLVIII. The former is from Culberson, the latter from Val Verde County. Another outstanding example is that from Nolan County, appearing as No. 14 same plate. A square-shouldered figure appears as far east as Concho County. Apparently it is astride a horse, but its position seems to be due to superimposing the horse over the lower extremities of the human figure.

Certain conventionalized or abbreviated pictures strongly suggestive of square-shouldered figures have been included. One of these, No. 5, is from petroglyph site No. 188, Sutton County. The other is from a small carved stone found in an open campsite in Williamson County. It is illustrated as No. 6. These differ from the typical ones chiefly because of the absence of a head.

FIGURES IN THE ROUND

Presented in Plate CCLIX are 13 figures in the round, from nine Texas counties and one adjacent in New Mexico. These have been selected as representative of numerous others from the Texas regions. Map XI shows the wide distribution of this form of human representation and indicates that it is characteristic of the entire Texas picture-writing area.

Figures of this type appear in both prehistoric and historic sites. The unmistakable pictures of Europeans are in the same general style, although differing in various details. (See Plate CCLXXII.)

The presence of square-shouldered figures in the interior and round-shouldered ones on the western border raises two questions: 1. Were the former contemporaneous with the latter? 2. Were they made by the same people, even though at widely separated periods? The available facts seem to indicate that the square-shouldered figures may be older than the figures in the round, and probably represent an intrusion from the West.

PLATE CCLIX
HUMAN FIGURES IN THE ROUND

Human representations in the round are widely distributed over the entire Texas picture-writing area.

1. Petroglyph, Site No. 168, Stephens County.
2. Petroglyph, Site No. 8, Hudspeth County.
3. Pictograph, Site No. 74, Val Verde County.
4. Petroglyph, Site "B," Otero County, New Mexico.
5. Pictograph, Site No. 180, Presidio County.
6. Pictograph, Site No. 153, Shackelford County.
7. Pictograph, Site No. 155, Stephens County.
8. Pictograph, Site No. 2, El Paso County.
9. Pictograph, Site No. 51, Winkler County.
10. Pictograph, Site No. 23, Reeves County.
11. Pictograph, Site No. 6, Hudspeth County.
12. Pictograph, Site No. 153, Shackelford County.
13. Pictograph, Site No. 20, Culberson County.

PLATE CCLX
HUMAN FIGURES WITH UPRAISED ARMS

1. Pictograph, Site No. 88, Val Verde County.
2. Pictograph, Site No. 1, El Paso County.
3. Pictograph, Site No. 150, Concho County.
4. Pictograph, Site No. 140, Gillespie County.
5. Petroglyph, Site No. 162, Oldham County.
6. Petroglyph, Site No. 13, Culberson County.
7. Pictograph, Site No. 90, Val Verde County.
8. Pictograph, Site No. 90, Val Verde County.
9. Pictograph, Site No. 96, Val Verde County.
10. Pictograph, Site No. 131, Real County.
11. Pictograph, Site No. 147, San Saba County.
12. Pictograph, Site No. 6, Hudspeth County.

PLATE CCLXI
HUMAN FIGURES WITH OUTSTRETCHED ARMS

1. Pictograph, Site No. 150, Concho County.
2. Pictograph, Site No. 180, Presidio County.
3. Pictograph, Site No. 6, Hudspeth County.
4. Pictograph, Site No. 90, Val Verde County.
5. Pictograph, Site No. 38, Brewster County.
6. Pictograph, Site No. 66, Val Verde County.

PLATE CCLXII
HUMAN FIGURES WITH ARMS DOWNWARD

1. Pictograph, Site No. 150, Concho County.
2. Pictograph, Site No. 99, Val Verde County.
3. Pictograph, Site No. 23, Reeves County.
4. Pictograph, Site No. 99, Val Verde County.
5. Pictograph, Site No. 6, Hudspeth County.
6. Pictograph, Site No. 90, Val Verde County.
7. Pictograph, Site No. 187, Sutton County.
8. Pictograph, Site No. 145, Llano County.
9. Pictograph, Site No. 31, Presidio County.
10. Petroglyph, Site "A," Otero County, New Mexico.

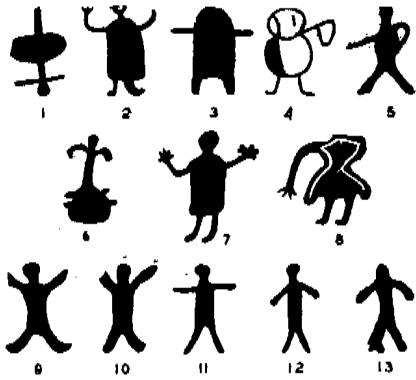


PLATE CCLIX.



PLATE CCLX.

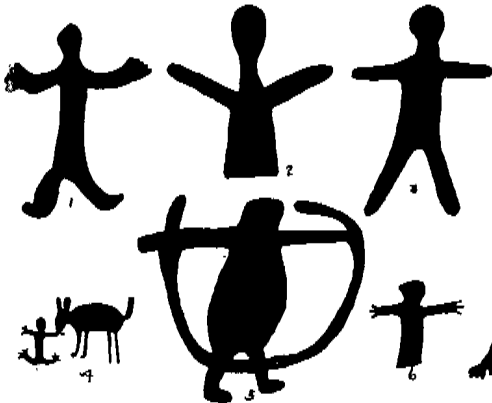


PLATE CCLXI.

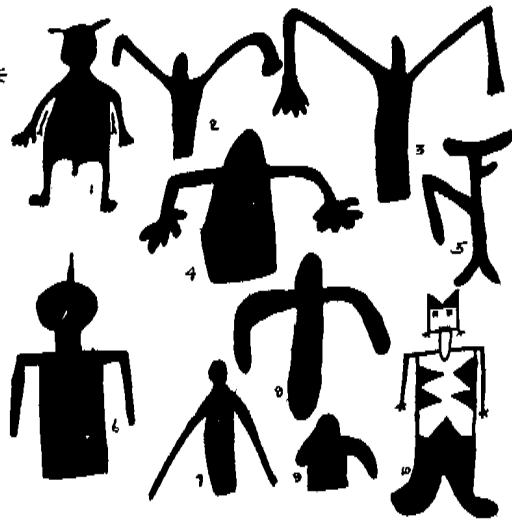
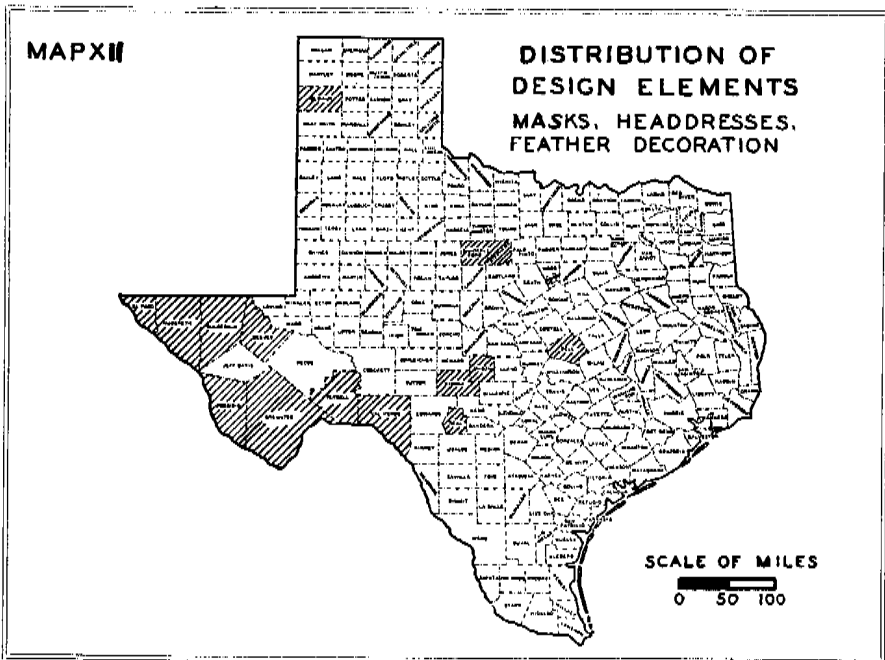
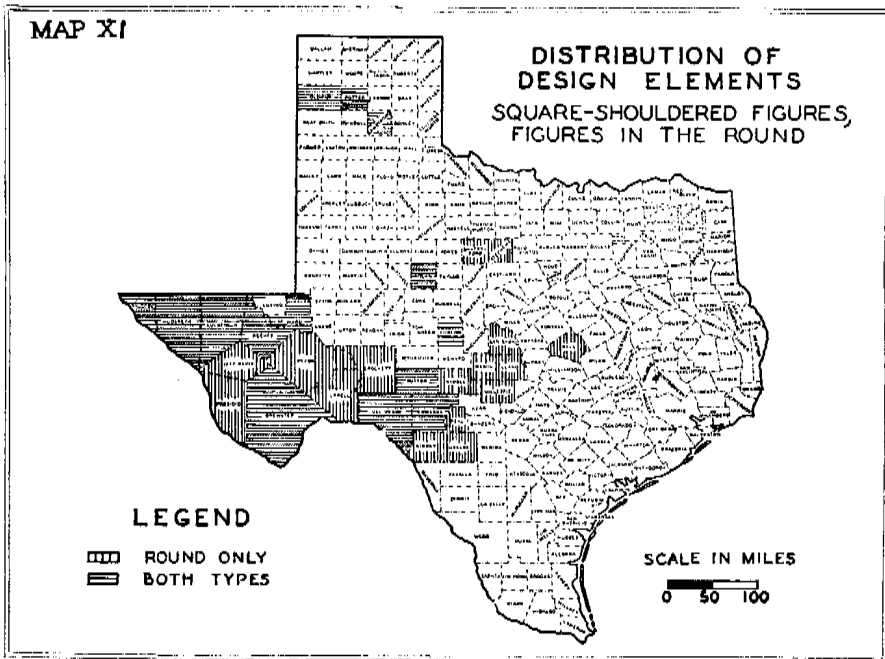


PLATE CCLXII.



MAP XI. DISTRIBUTION OF SQUARE-SHOULDERED FIGURES
AND FIGURES IN THE ROUND

MAP XII. DISTRIBUTION OF MASKS, HEADDRESSES AND
FEATHER DECORATION

POSITIONS OF THE ARMS

There is a great diversity in the placement of the arms of human figures. The postures may be grouped into five classes as follows:

1. Arms upraised.
2. Arms outstretched.
3. Arms downward.
4. Arms akimbo.
5. Arms across the body.

The figures with upraised arms are variously interpreted. One explanation is that the position represented an attitude of supplication; another that it was a gesture in dancing. Many of the pictures seem to bear out the latter theory. (See Plate CCLX.)

Figures with outstretched arms are less common, but met with in certain localities. No special reason for this posture is apparent, except in action pictures where the arms are involved in the implied action. Some of these include figures apparently engaged in the snake dance; others extending a hand to an animal, etc. (See Plate CCLXI.)

Few of the pictures show the arms in their natural position. Most of those that point downward are in an unnatural position, like that of the arms held upward to the elbow with the forearms down. There is no apparent definite reason for this position. Another type is the so-called square-shouldered figure, where the arm extends outward to the elbow, then turns sharply downward.

A position rarely met with, except in restricted areas, is that with one or both arms akimbo—the hands placed on the hips. In some cases they are turned inward, not quite touching the body. Again they appear to be doubled back a short distance below the shoulder. Charlevoix⁹⁰ states that in Louisiana the Indians represented the French with arms set akimbo, to distinguish them from the savages, whom they represented with arms hanging down.

In Texas this distinction does not always hold true. Of six sites where the arms are thus placed, five are historic. The sixth appears to be surely prehistoric. At four of the sites are evidences of mission influence. It thus seems that this position, occasionally used in prehistoric times, was much more common after the coming of the Spaniards; and in most cases was used to represent Europeans.

Rarest of all is the placing of the arms across the body. Of four cases noted, two are shooting with bow and arrow. One is a reclining figure, and the other that of a runner. (See Plate CCLXIV.)

⁹⁰Charlevoix, Pierre, *Travels Through Canada and Louisiana to the Gulf of Mexico*, *op. cit.*, p. 304.

PLATE CCLXIII

HUMAN FIGURES WITH ARMS AKIMBO

1. Pictograph, Site No. 180, Presidio County.
2. Pictograph, Site No. 6, Hudspeth County.
3. Petroglyph, Site "C," Chihuahua, Mexico.
4. Pictograph, Site No. 96, Val Verde County.
5. Pictograph, Site No. 180, Presidio County.
6. Pictograph, Site No. 150, Concho County.
7. Pictograph, Site No. 131, Real County.
8. Pictograph, Site No. 180, Presidio County.
9. Pictograph, Site No. 31, Presidio County.
10. Pictograph, Site No. 56, Terrell County.
11. Pictograph, Site No. 96, Val Verde County.

PLATE CCLXIV

HUMAN FIGURES WITH ARMS ACROSS BODY

1. Pictograph, Site No. 150, Concho County.
2. Pictograph, Site No. 150, Concho County.
3. Pictograph, Site No. 27, Jeff Davis County.
4. Petroglyph, Site No. 13, Culberson County.

PLATE CCLXV

MASKED HUMAN HEADS, OR HEADS WITH ELABORATE HEADDRESS

1. Pictograph, Site No. 2, El Paso County.
2. Petroglyph, Site No. 4, Hudspeth County.
3. Petroglyph, Site "A," Otero County, New Mexico.
4. Pictograph, Site No. 2, El Paso County.
5. Petroglyph, Site No. 4, Hudspeth County.
6. Pictograph, Site No. 2, El Paso County.
7. Pictograph, Site No. 131, Real County.
8. Pictograph, Site No. 3, El Paso County.
9. Pictograph, Site "B," Otero County, New Mexico.
10. Petroglyph, Site "C," Chihuahua, Mexico.
11. Pictograph, Site No. 2, El Paso County.
12. Pictograph, Site No. 2, El Paso, County.
13. Pictograph, Site No. 23, Reeves County.
14. Pictograph, Site No. 2, El Paso County.

PLATE CCLXVI

HORN HEADDRESSES

1. Pictograph, Site No. 139, Kimble County.
2. Petroglyph, Site "B," Otero County, New Mexico.
3. Pictograph, Site "B," Otero County, New Mexico.
4. Pictograph, Site No. 82, Val Verde County.
5. Pictograph, Site No. 2, El Paso County.
6. Pictograph, Site "B," Otero County, New Mexico.
7. Pictograph, Site No. 142, Mason County.
8. Pictograph, Site No. 6, Hudspeth County.

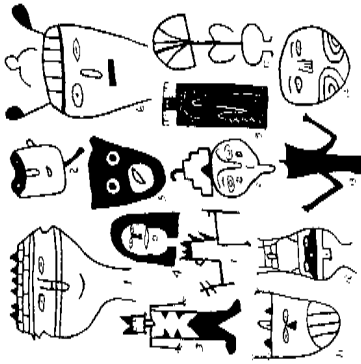


PLATE CCLXXV.

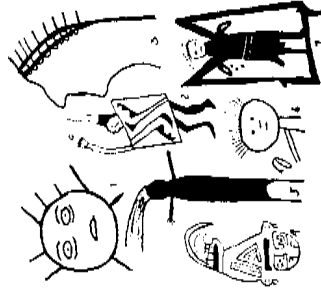


PLATE CCLXXVII.

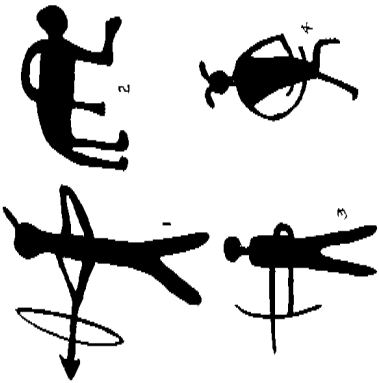


PLATE CCLXXIV.

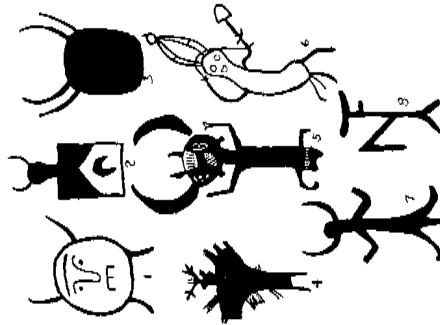


PLATE CCLXXVI.

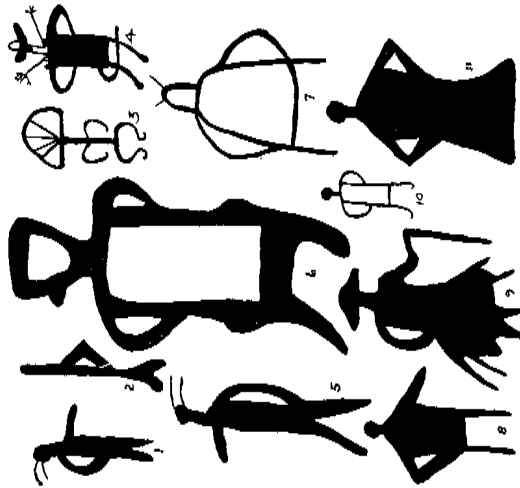


PLATE CCLXIII.

PLATE CCLXVII
FEATHER HEADDRESSES

1. Pictograph, Site No. 3, El Paso County.
2. Petroglyph, Site No. 11, Hudspeth County.
3. Pictograph, Site No. 139, Kimble County.
4. Pictograph, Site No. 2, El Paso County.
5. Pictograph, Site No. 74, Val Verde County.
6. Petroglyph, Site No. 158, Bell County.
7. Pictograph, Site No. 162, Oldham County.

HEADDRESSES

The Indians' love of ornament, coupled with a desire to make ceremonial occasions more impressive, no doubt led to the extensive wearing of headdresses of various kinds. That they were considered of importance is shown by their frequent representation in picture-writings. They are divided into three groups: masks, horn and feather headdresses.

The former are more prevalent in the extreme western part of the State, a number appearing in El Paso County. A description of certain paintings of masked figures, and archaeological evidence tending to show the manner in which the masks were constructed, has been presented by Roberts.¹¹ According to his findings, yucca flower stalks sometimes were used in making the framework for the mask.

Several of the masks illustrated in Plate CCLXV are highly suggestive of such construction. A mask from Site No. 131, Real County, consists of a series of triangular elements above and at one side of the head, the mask proper being rectangular in shape. It is at a historic site and seems to be the work of late Indians, perhaps the Lipan Apaches, who occupied the region in historical times.

Feather headdresses appear in pictures in various parts of the State. Occasionally they are shown as so-called "war bonnets," but more often are suggestive of feathers stuck in the hair. Frequently there is a lone feather. A few of the headdresses—like a petroglyph at Site No. 11, Hudspeth County—show a conventionalization of a mask and feathers.

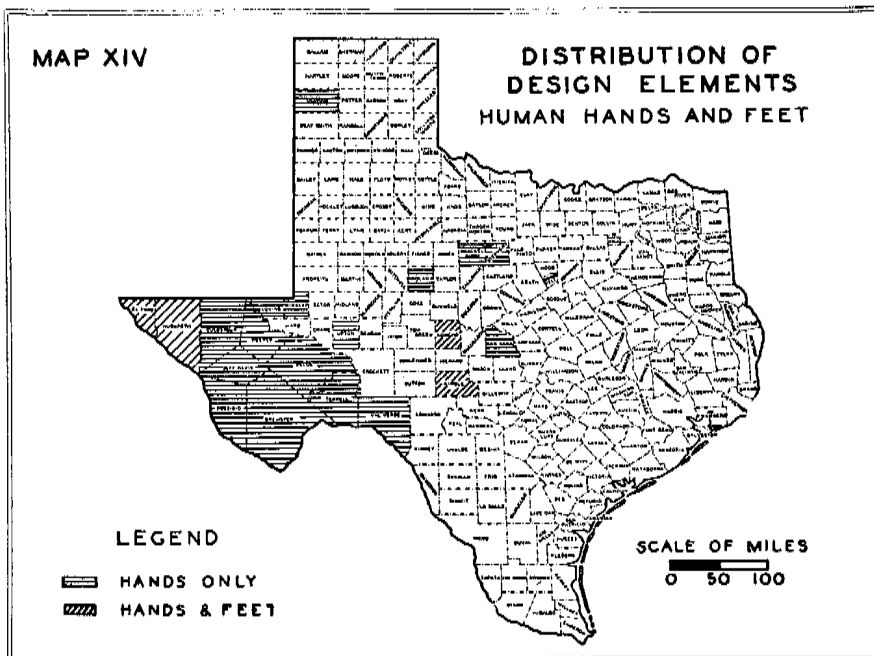
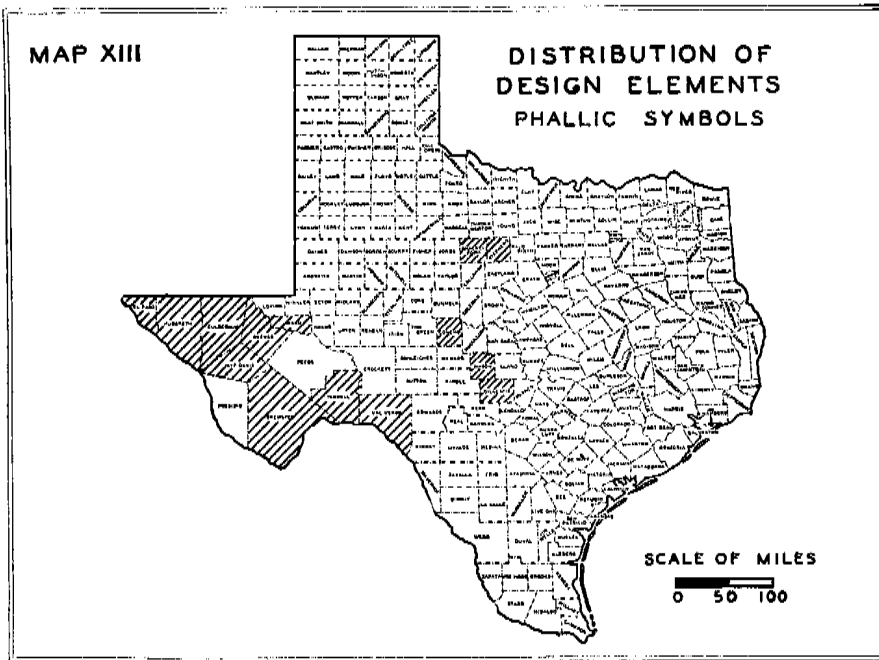
Many of the figures wearing feather headdresses are in historic sites and appear to be of no great age. A few, however, are among the older paintings.

Horn headdresses often consist of two buffalo horns, but occasionally horns of other animals. At Site No. 82, Val Verde County, is an unusual painting of a figure wearing a deer antler headdress. It has every indication of being prehistoric and is in a shelter where no evidence of European contact was found.

FEATHER DECORATIONS

In addition to use in headdresses, feathers served in various other forms of decoration. There are a number of pictographs representing human figures with what appear to be feathers suspended from the arms or legs, and used in various other manners. Plate CCLXVIII shows typical examples of feathers hanging from the elbow and from the sides of garments.

¹¹Roberts, Frank H. H., Jr., *op. cit.*, pp. 2-5.



MAP XIII. DISTRIBUTION OF PHALLIC SYMBOLS

MAP XIV. DISTRIBUTION OF REPRESENTATIONS OF HUMAN
HANDS AND FEET

PLATE CCLXVIII

FEATHER DECORATION

1. Petroglyph, Site No. 18, Culberson County.
2. Pictograph, Site No. 74, Val Verde County.
3. Petroglyph, Site No. 172, Culberson County.
4. Carved stone, Hopkins County.
5. Pictograph, Site No. 155, Stephens County.
6. Pictograph, Site No. 84, Val Verde County.
7. Pictograph, Site No. 90, Val Verde County.
8. Petroglyph, Site No. 81, Val Verde County.
9. Pictograph, Site No. 23, Reeves County.
10. Pictograph, Site "B," Otero County, New Mexico.
11. Pictograph, Site No. 73, Val Verde County.
12. Pictograph, Site No. 75, Val Verde County.
13. Pictograph, Site No. 142, Mason County.
14. Pictograph, Site No. 69, Val Verde County.
15. Pictograph, Site No. 84, Val Verde County.
16. Pictograph, Site No. 178, Culberson County.
17. Pictograph, Site No. 154, Shackelford County.
18. Pictograph, Site No. 13, Culberson County.
19. Pictograph, Site No. 69, Val Verde County.
20. Pictograph, Site No. 68, Val Verde County.
21. Pictograph, Site No. 69, Val Verde County.
22. Pictograph, Site No. 180, Presidio County.
23. Pictograph, Site No. 90, Val Verde County.

PLATE CCLXIX

PHALIC REPRESENTATIONS

1. Pictograph, Site No. 1, El Paso County.
2. Pictograph, Site No. 142, Mason County.
3. Pictograph, Site No. 150, Concho County.
4. Pictograph, Site No. 154, Shackelford County.
5. Petroglyph, Site No. 13, Culberson County.
6. Petroglyph, Site No. 81, Val Verde County.
7. Petroglyph, Site No. 50, Ward County.
8. Pictograph, Site No. 154, Shackelford County.
9. Pictograph, Site No. 150, Concho County.
10. Petroglyph, Site No. 11, Hudspeth County.
11. Pictograph, Site No. 150, Concho County.
12. Pictograph, Site No. 99, Val Verde County.
13. Pictograph, Site No. 30, Jeff Davis County.
14. Pictograph, Site No. 75, Val Verde County.
15. Petroglyph, Site No. 11, Hudspeth County.
16. Pictograph, Site No. 93, Val Verde County.
17. Petroglyph, Site No. 50, Ward County.
18. Petroglyph, Site No. 81, Val Verde County.
19. Pictograph, Site No. 150, Concho County.
20. Petroglyph, Site No. 50, Ward County.
21. Pictograph, Site No. 65, Val Verde County.
22. Pictograph, Site No. 64, Val Verde County.
23. Pictograph, Site No. 65, Val Verde County.
24. Pictograph, Site No. 155, Stephens County.

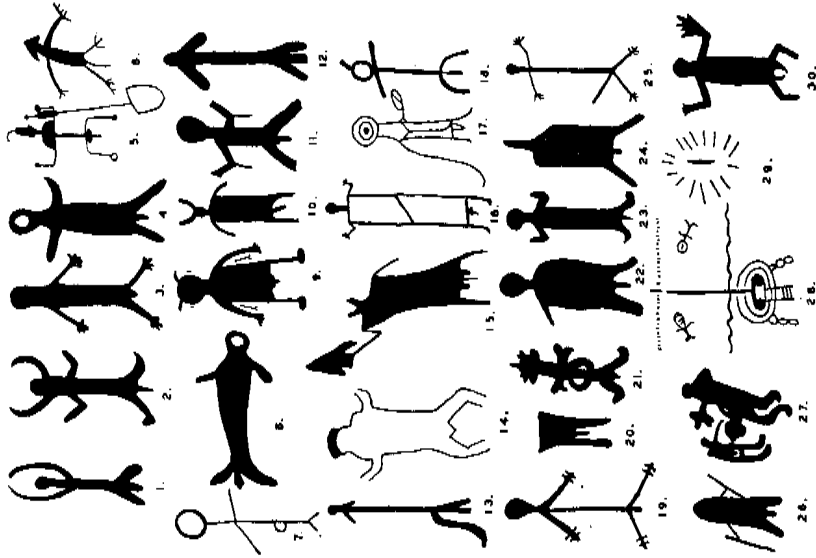


PLATE CCI. XIX.

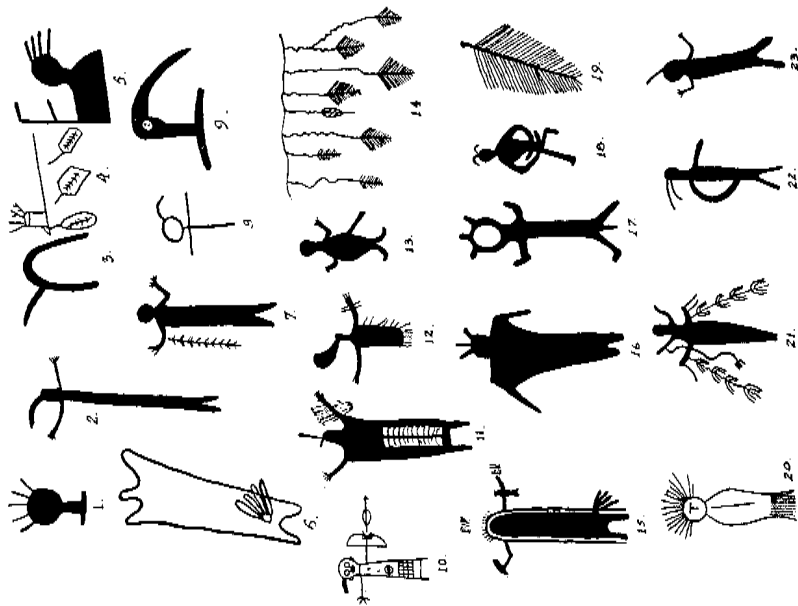


PLATE CCLXVIII.

25. Pictograph, Site No. 56, Terrell County.
26. Pictograph, Site No. 88, Val Verde County.
27. Pictograph, Site No. 2, El Paso County.
28. Pictograph, Site No. 23, Reeves County.
29. Pictograph, Site No. 22, Reeves County.
30. Pictograph, Site No. 150, Concho County.

No. 29 is possibly a cysthos.

PHALLIC REPRESENTATIONS

In the picture-writings of 14 Texas counties are phallic representations. Of 30 such pictures illustrated in Plate CCLXIX, eight are pecked or carved and 22 painted. They are found in both prehistoric and historic sites. Most of the pictures are conventionalized and often the phallus is highly exaggerated.

The fact that the men usually wore little or no clothing in warm weather led them necessarily to accept the nude body as a matter of course. Its representation in pictures, therefore, was merely to paint themselves as they were.

Again, as in many parts of the Old World, such pictures may have had a religious or symbolical significance, symbolizing the generative or creative principle in nature. Such symbolism generally involves and for completeness should make use, also, of the cysthos. The latter is rarely found in the Texas pictures and never in clear unmistakable form.

THE HUMAN HAND

In 19 counties covered by this study the imprint or picture of the human hand is found on the walls of caves and shelters. The handprints are made in various ways. For convenience in reference they are classified as follows:

1. Positive prints:
 - (a) Impressed
 - (b) Impressed and with painted background
 - (c) Mutilated and impressed
2. Negative prints:
 - (a) Painted background
 - (b) Etched or scraped background
3. Limned hands:
 - (a) Realistic
 - (b) Conventionalized

The types of handprints and pictures found in the various counties are indicated in the following tabulation:

TYPES OF HANDPRINTS BY COUNTIES

County	Positive Handprints			Negative Handprints		Limned Hands-- Realistic and Con- ventionalized
	Impressed	Impressed With Painted Background	Mutilated and Impressed	Painted Background	Etched or Scraped Background	
Brewster	X		X	X	X	X
Concho	X	X	X	X		X
Culberson						X
El Paso	X		X			X
Jeff Davis	X				X	
Hudspeth						X
Loving						X
Nolan				X		
Oldham	X					
Pecos					X	
Presidio	X					
Reeves	X					X
San Saba	X			X		
Shackelford						X
Stephens	X					X
Terrell	X		X		X	X
Upton					X	
Val Verde	X			X		X
Winkler			X			

By reference to the preceding table it will be noted that the impressed, or positive handprints are found in 11 counties, as are also the limned hands. The two classes of negative prints are each found in five counties. The impressed hands with evidence of mutilation are present in five counties. The impressed hand with a painted background appears in only one county.

It is interesting to note that the locations of the negative handprints having etched or scraped background are in five contiguous counties. It thus seems that this is a local trait, centered in a restricted area, and not widespread in the State. The relative age of handprints of this type can not be very definitely determined. One of the sites, No. 29, Jeff Davis County, is historic; yet the handprints may belong to the prehistoric period. None of the other sites show definite indications of white contacts. It seems, therefore, that these prints may belong to the late prehistoric period. The technique consisted of applying the unpainted hand to the sooty wall and then scraping or rubbing away the soot of the background to make the figure of the hand stand out. No paint was employed.

The only case noted of a positive handprint with surrounding painted area was at Site No. 150, Concho County. The impression of the left hand was made in yellow paint. The area surrounding the hand and wrist was painted in red.

The ordinary painted background was done by splashing or brushing paint around the hand, thus leaving the unpainted print surrounded by a painted area. This technique appears more often in historic sites.

Prints of mutilated hands sometimes occur. Usually one finger is missing, rarely two. In a few cases, the thumb is absent. The mutilation may represent the world-wide practice of sacrificing parts of the body to obdurate deities. A present-day Indian, however, laughed at the idea and demonstrated to the writer how such prints might be made by holding up a finger, so it would not touch the rock.

There are no handprints at sites having only very old paintings. Positive prints are in some sites that appear to be late prehistoric; but they are more common in historic sites. The fact that some of the prints are historic is proved by their presence at two places where only mission scenes or pictures showing white contact are found. They also are present in a number of other historic sites. Prominent among these are Nos. 56, 73 and 89, the former in Terrell County, the others in Val Verde County. Another indication that they are not very old is the superimposition of a handprint over an old, dim painting. An example is at Site No. 65, Val Verde County, where the hand was impressed over a painting damaged by spalling of the stone. No damage has occurred since the handprint was made.

Limned hands are those drawn, without placing the hand against the wall. Some of these free-hand drawings are realistic, but show telltale features proving that they are not actual hand imprints. Most of them are exaggerated, or conventionalized, and often deviate widely from the natural shape of the hand.

Prominent among conventionalized hands are those in petroglyph sites. Most of them were pecked with a hammerstone. A few, like those at Site No. 190, Loving County, appear to have been chiseled or etched with a sharp implement.

The prevalence of left hands in cave and shelter impressions is discussed by Smith.⁹² An idea as to the relative frequency of right and left handprints may be gained from a tabulation of the numbers at a few representative sites.

FREQUENCY OF RIGHT AND LEFT HANDPRINTS

Site No.	County	Left Hand	Right Hand
47	Brewster	30	2
56	Terrell	13	5
61	Terrell	35	---
67	Val Verde	10	11
150	Concho	20	12
	Total	108	30

⁹²Smith, Victor J., *The Human Hand in Primitive Art*, *op. cit.*, p. 90, Fig. 11.

It is thought that making the impression of the hand was connected with certain ceremonies. They likewise may have been made for other purposes. In this connection Martin⁹³ makes the following statement:

“Graves frequently have pictographs of hands above or near them, and several interments were located in this way. These, however, were not found to be infallible indications of burial. No interments were located in the vicinity of some of them.”

The present writer's observation has been that handprints above or near burials are so few as to suggest mere coincidence.

FOOTPRINTS

Conventionalized footprints occasionally are met with in petroglyphs. Sometimes it is difficult to distinguish between a human footprint and that intended to represent the track of a bear. Prominent among such petroglyphs are those at Sites No. 4 and 11, Hudspeth County. Similar ones are found at Site “B,” Otero County, New Mexico, and at Site “C,” Chihuahua, Mexico. Neither of the latter sites is more than 25 miles from the Texas border.

Occasionally there is found what appears to be the painting of a conventionalized boot. (See Plate CCLXX.) These are from historic sites, No. 139, Kimble County and No. 150, Concho County. A bear foot, or conventionalized human foot, with four toes is painted on the wall of a small shelter at Site No. 2, El Paso County.

A painting suggestive of a sandal is found at Site No. 82, Val Verde County. At petroglyph Site No. 4, Hudspeth County, are two pecked figures much like shoe tracks. At the same site is a realistic human footprint with only three toes.

⁹³Martin, G. C., *Archaeological Exploration of the Shumla Caves, Big Bend Basket Maker Papers No. 3*, Witte Memorial Museum, San Antonio, 1933, p. 10.

PLATE CCLXX

IMPRESSIONS OR PICTURES OF HUMAN HANDS AND FEET

1. Pictograph, Site No. 155, Stephens County.
2. Pictograph, Site No. 150, Concho County.
3. Pictograph, Site No. 150, Concho County.
4. Pictograph, Site No. 24, Reeves County.
5. Pictograph, Site No. 150, Concho County.
6. Petroglyph, Site No. 190, Loving County.
7. Petroglyph, Site "B," Otero County, New Mexico.
8. Petroglyph, Site "C," Chihuahua, Mexico.
9. Petroglyph, Site "C," Chihuahua, Mexico.
10. Petroglyph, Site "C," Chihuahua, Mexico.
11. Petroglyph, Site No. 4, Hudspeth County.
13. Pictograph, Site No. 148, San Saba County.
13. Pictograph, Site No. 29, Jeff Davis County.
14. Pictograph, Site No. 147, San Saba County.
15. Pictograph, Site No. 53, Upton County.
16. Petroglyph, Site No. 81, Val Verde County.
17. Pictograph, Site No. 150, Concho County.
18. Pictograph, Site No. 152, Nolan County.
19. Pictograph, Site No. 139, Kimble County.
20. Pictograph, Site No. 150, Concho County.
21. Pictograph, Site No. 82, Val Verde County.
22. Pictograph, Site No. 180, Presidio County.
23. Petroglyph, Site No. 4, Hudspeth County.
24. Petroglyph, Site No. 11, Hudspeth County.
25. Petroglyph, Site No. 4, Hudspeth County.
26. Petroglyph, Site "C," Chihuahua, Mexico.
27. Pictograph, Site No. 2, El Paso County.
28. Petroglyph, Site "B," Otero County, New Mexico.
29. Petroglyph, Site "A," Otero County, New Mexico.
30. Petroglyph, Site No. 4, Hudspeth County.

PLATE CCLXXI

EVIDENCES OF MISSION INFLUENCE

1. Pictograph, Site No. 29, Jeff Davis County.
2. Pictograph, Site No. 180, Presidio County.
3. Pictograph, Site No. 96, Val Verde County.
4. Pictograph, Site No. 150, Concho County.
5. Pictograph, Site No. 150, Concho County.
6. Pictograph, Site No. 38, Brewster County.
7. Pictograph, Site No. 73, Val Verde County.
8. Pictograph, Site No. 147, San Saba County.
9. Pictograph, Site No. 56, Terrell County.
10. Pictograph, Site No. 56, Terrell County.
11. Pictograph, Site No. 89, Val Verde County.
12. Pictograph, Site No. 56, Terrell County.

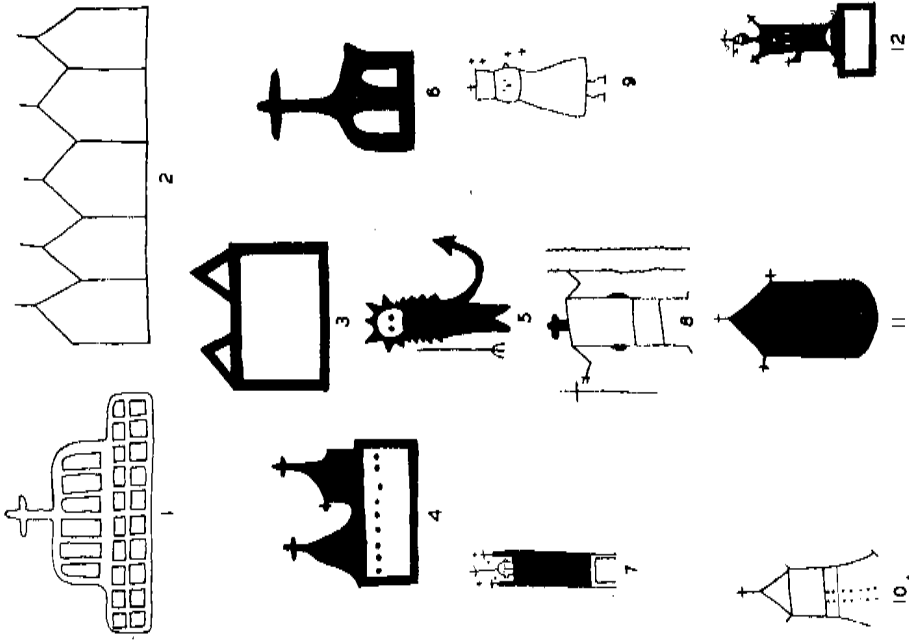


PLATE CCLXXXI

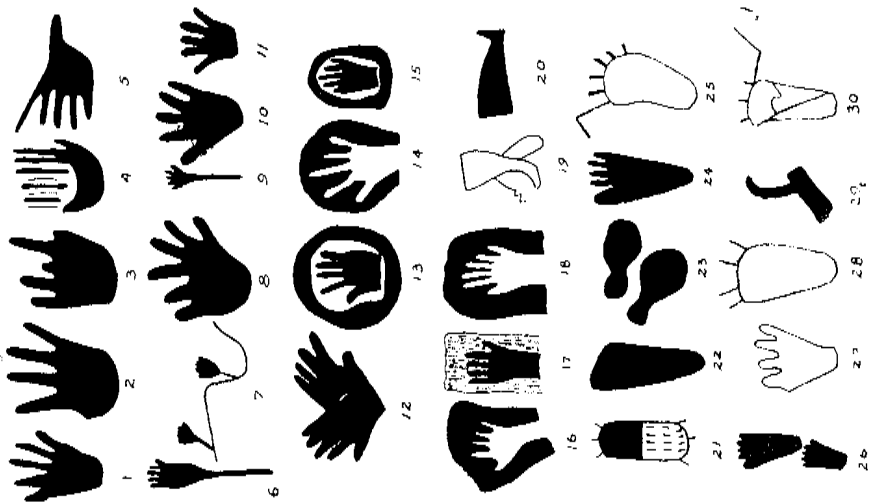


PLATE CCLXX

MISSION AND OTHER EUROPEAN INFLUENCES

In regions about the old mission sites in Texas one finds evidences of European contacts in the Indian picture-writings. It is but natural that a highly developed culture planted in the midst of a primitive people would make a profound impression on the primitive mind. It is logical to suppose that the things which impressed them most would be the things represented in pictures. Hence, one might well expect such pictures to appear soon after the arrival of the white man.

A great many of these historic paintings undoubtedly resulted from the influence of the Spanish missions. Others may not owe their origin to the missions, but may be due to general white contacts.

THE MISSIONS

In order to gain a better idea of the possible origin of the pictures carrying evidence of white contacts, a brief account will be given of some of the missions with which the Indians under discussion came in touch. It is not intended to give a complete history of the missions; only some information about them to indicate ways in which the Indians may have been led to paint pictures of them. Since the only places where such paintings have been preserved are in Central and West Texas, only such missions will be mentioned as may have influenced the Indians in these regions. The missions in South and East Texas are excluded because either the absence of rock bluffs in these regions left no proper surfaces for pictures, or the heavy rainfall has destroyed them.

The intimate relation existing between the locations of the missions and the mission-influenced pictographs may be visualized by a glance at Map XV. The seven counties containing such pictures are all within easy reach of one or more missions. Three other counties where pictures show evidence of European influence, but no definite mission ideation, are likewise adjacent to missions. It would thus seem that most, at least, of the historic paintings owe their motivation to the missions.

In the extreme west, influencing the Indians of the El Paso region, were several missions. Nuestra Senora de Guadalupe, located $1\frac{1}{2}$ miles west of the Rio Grande at El Paso, was established in 1659. It took six years to complete the permanent building. Also on the Mexican side of the Rio Grande, 36 miles below El Paso, was Nuestra Padre San Francisco de los Sumas Mission. It was established prior to 1680. On the Texas side of the river, at the present town of Ysleta, Mission San Antonio de la Isleta was established in 1682. The name was taken from its predecessor in New Mexico.

A mission at Presidio del Norte, then known as La Junta, was in existence before 1670. It was located across the river from present Presidio, Texas. That immediate vicinity became an active mission center as early as 1683. By 1715 there were nine missions.

These missions ministered to eight "nations" of Indians. Some of these small sub-tribes probably were Apaches; others may have been Jumanos. One account, in 1715, stated that the Indians were "gentle, docile, kind and agricultural—also warlike." This might suggest that they were Jumanos. There is the further statement that the Indians at the missions around La Junta "mixed or met with many other peoples." Thus it is easy to see how the Indians in Presidio County, Brewster

County, and other adjacent Texas counties might have come in touch with the missions. The Indians were friendly to the missions in that section up until 1783.

A presidio and two missions were established around the close of the seventeenth century on the Rio Grande below the present town of Eagle Pass. The missions, San Juan Bautista and San Bernardo, though located in Coahuila, were closely associated with the early development of Texas. The mission influence undoubtedly reached for a considerable distance up the river, and might easily account for mission pictures in Val Verde and Terrell Counties. Then after 1772 the San Saba Mission was moved below the Rio Grande, south of the cave region in Val Verde County.

In January, 1762, San Lorenzo Presidio was established by Franciscan monks. Its location was at the headwaters of Rio San Joseph, now Nueces River, in the edge of Edwards County, about 40 miles northwest of Uvalde. Twenty soldiers guarded the place. Some two weeks later its companion mission, Nuestra Senora de la Candelaria, was founded about 15 miles down the river and on the opposite side of the stream. Its location was at the present village of Montell, Uvalde County. The mission was founded for the Lipan Indians, after they had been frightened away from San Saba mission by the hostile Comanches. The mission was founded at the request of Chief Texa, or Turnio, who had a following of some 300 people. The mission was attached to those of the Rio Grande.

In 1766-67 the Comanches on three occasions attacked San Lorenzo Mission. In the final raid they killed and captured more than 30 Lipans and captured a large number of horses.

Chief Texa and his people deserted the mission prior to 1767—after a stay of less than five years. Their departure resulted in the mission being abandoned.⁹⁴

The San Saba Mission was established in 1757 on the San Saba River, one mile above the present town of Menard, Menard County. It was built for the Lipan Apaches. The presidio, San Luis de las Amarillas, also was founded in 1757.

On March 2, 1758, the Comanches, assisted by the Wichita and other allies, stole about 60 horses from the San Saba Mission. Two weeks later, a large force of these mounted Indians were admitted into the mission grounds on the pretense of a friendly visit. They then murdered many of the mission inhabitants and set fire to the buildings. Most of the Lipan Indians escaped when they saw the Comanches approaching.⁹⁵

After the destruction of the mission the presidio was strengthened and served as both fort and mission.

In 1766 Marques de Rubi inspected the frontier missions. Due to a number of encounters with the hostile Indians, he recommended that San Saba and San Lorenzo missions be abandoned. The former accordingly was abandoned in 1768 and moved south of the Rio Grande.

⁹⁴Bolton, H. E., Article in Handbook of American Indians North of Mexico, Bulletin 30, Bureau of American Ethnology, Part 2, Washington, 1910, p. 92.

⁹⁵Bolton, H. E., Handbook of American Indians North of Mexico, *op. cit.*, p. 452.

It may be noted in passing that the San Saba Mission was located only some 40 miles south of pictograph Site No. 150, Concho County, where certain mission scenes are painted on the bluff.

Between 1746 and 1749, three missions were set up on the San Xavier, now known as San Gabriel River, about nine miles northwest of Rockdale, Milam County. Among the tribes sheltered there were the Yojuane, Mayeye and Tonkawa. A siege of smallpox and raids by the Apaches almost ruined the morale of the missions. San Ildefonso, one of the missions at the site, served the Bidai, Arkokisa and Deadose tribes. A few months after the epidemic the Indians at this mission deserted and joined certain East Texas tribes against the Apaches. They later returned and camped near the San Xavier Mission. When the last mission was abandoned, in 1756, the soldiers were transferred to the San Saba Mission.⁹⁶

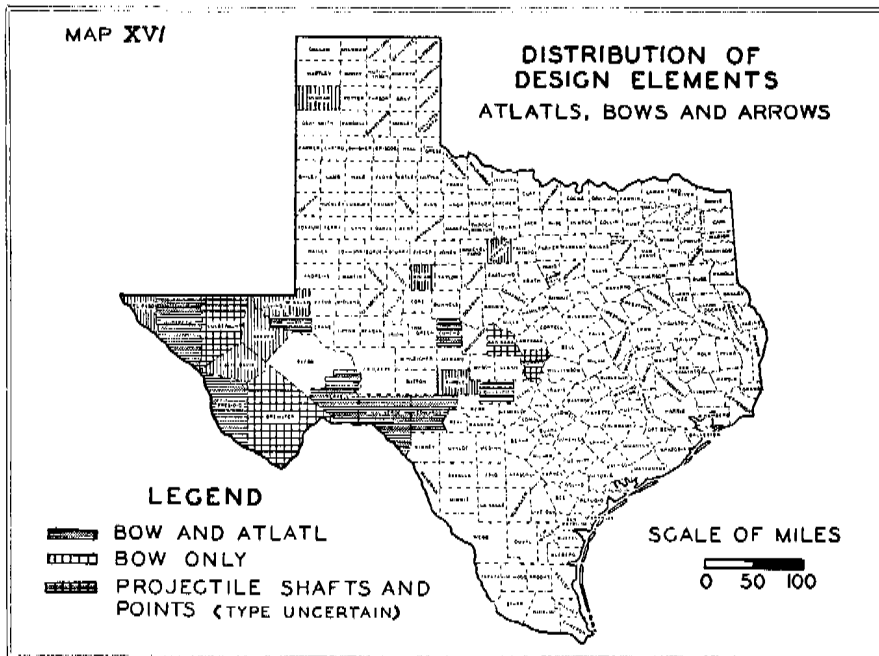
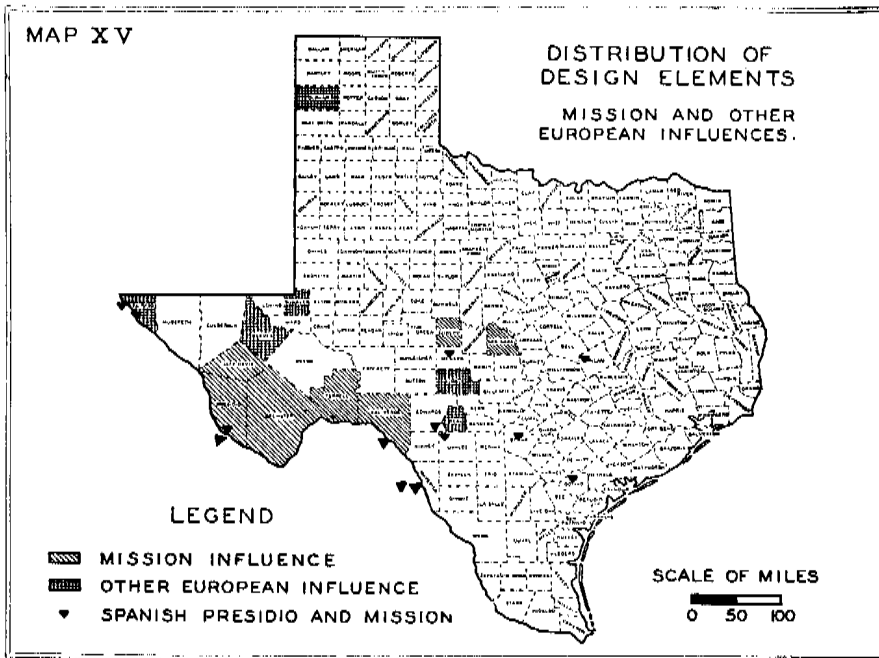
The several missions around San Antonio, Bexar County, although further removed from the pictograph area, exercised considerable influence over an extensive region. Most of these missions were founded between 1722 and 1731. They continued active for some 70 years.

The following is an example of incidents that sometimes arose. On June 7, 1737, all the Indians deserted Mission San Francisco de la Espada. The missionaries insisted that the exodus was due to fear of the Apaches. But the Indians and soldiers claimed it resulted from mistreatment. Most of the Indians ultimately were brought back to the mission.⁹⁷

The missions were attacked sometimes by hostile Indians and at other times were deserted by the mission Indians. Both events furnished potential reasons for the subsequent painting of mission scenes by the Indians involved. Some of the paintings may have been made by individuals from either group. But it seems likely that most of them were the work of former mission Indians. Having spent some time in a mission, and thus become familiar with its various activities, the refugee had first-hand knowledge from which to draw. On the other hand, members of a raiding party would seem less likely to take note of the details frequently included in such pictographs.

⁹⁶Bolton, H. E., *Handbook of American Indians North of Mexico*, *op. cit.*, p. 780.

⁹⁷Bolton, *op. cit.*, p. 435.



MAP XV. LOCATIONS OF MISSIONS THAT INFLUENCED PICTURE-WRITINGS

MAP XVI. DISTRIBUTION OF ATLATLS, BOWS AND ARROWS AS SHOWN IN PICTOGRAPHS AND PETROGLYPHS

MISSION PAINTINGS

The mission building itself, with a rugged beauty of architecture that may have impressed the savage mind, was a favorite subject for the artist. Pictures of nine such buildings have been found in six counties—Brewster, Concho, Jeff Davis, Presidio, Terrell, and Val Verde. Some of the paintings are greatly simplified, but their identity is unmistakable. Six of them feature the cross quite prominently; three show three crosses each, one has two crosses, and the other only one.

In most cases, but one mission building appears at each of the pictograph sites. But at Site No. 56, Terrell County, there are three separate buildings pictured in close proximity. At three of the other sites are group paintings of two and five "compartments" in a building. This probably is an abbreviated method of representing several buildings. It seems significant that the group of five-in-one is located in Presidio County about 25 miles from the seat of mission activity at La Junta, or Presidio del Norte.

Four of the pictured buildings emphasize the small arches in the towers. The best illustration of this type of drawing is at Site No. 29, Jeff Davis County (Plate CCLXXI). In that drawing are 26 of the openings, 20 of them arranged in groups of four each. An equal-armed cross is formed between each four of them. This suggests a blending of the prehistoric use of the equal-armed cross with that of the Christian cross.

In two of the other buildings appear rows of seven and nine painted dots (Plate CCLXXI, 4 and 10). These probably are simplified representations for the above mentioned openings.

What may depict the burning of San Saba Mission is the presence at Site No. 150, Concho County, of a large splotch of black paint over part of the red mission picture. The black may symbolize smoke rising from the burning building, or it may be merely an ordinary superimposed picture.

Another unmistakable evidence of mission influence is the painting of a human figure carrying one or more crosses. Striking illustrations are found at Sites No. 56, 73, and 147 in Terrell, Val Verde, and San Saba Counties. Two of these show a cross above, and resting on, the head. The other man wears a hat which, taken in combination with the neck, also forms a cross. Two represent the priest holding a cross in each hand; another shows the cross beside the man, about to be grasped in the hand; a fourth has a row of four small crosses beside the priest, ranging from the shoulder to the top of the head.

Attention is called to a picture, from Site No. 56, Terrell County (Plate CCLXXI, 12), that seems to be a composite of a man and mission building. It embodies a number of features found in paintings from both these themes.

One painting, apparently showing mission influence, is that of the devil (Plate CCLXXI, 5). It is so unlike any of the others as at first to arouse suspicion regarding its authenticity. But a careful examination seems to justify the assumption that it is a genuine Indian work. It is a representation of the devil with horns, an arrow-tipped tail and accompanied by a pitchfork. No arms are shown. Coming from Site No. 150, Concho County, it suggests that the artist who painted it was a former neophyte in the nearby San Saba Mission.

OTHER HISTORIC PICTURES

There are many other examples of picture-writing showing European contacts. Prominent among these are paintings and carvings of horses. Approximately 45 per cent of the realistic historic pictures are of these, to the Indians, newly-acquired and important animals. More than half of the horses have riders; many are unaccompanied by human figures; a few have packs on the back; one may possibly be hitched to a so-called stage coach. Some of the riders are white men, wearing hats; others are Indians, with feather headdresses. In only a few cases are saddles shown on the horses. Most of the riders apparently are bareback. This may be due in part to the artists' usual practice of dispensing with details.

The technique employed in drawing horses varies somewhat. About 60 per cent of them are painted a solid color, usually red. The others are merely outlined, with borders ranging from one-half to one inch wide. In Kimble, Reeves and Val Verde Counties all the horses noted are represented in outline; in El Paso, San Saba, and Winkler Counties they are painted in full; in Concho, Oldham, and Terrell Counties both styles are found. Features common to most of them are long, slim bodies and poorly executed heads. Occasionally the legs are omitted; but in most cases they consist of mere "pegs." Usually the ears are indicated, and in one case the mane was shown.

The human figures representing members of the white race are varied in technique. A few are quite realistic; many are simplified. Certain of the headless figures may be identified as women, by the presence of skirts. It has been stated⁹⁸ that a headless figure represented a person killed by the Indians, while one with the head was taken captive. But this does not seem to hold true in Texas. More often the men were killed and the women made captives. Other writers have suggested that any headless figure represented a woman, and that only men were pictured with heads. In Texas picture-writings the women, too, sometimes had heads.

The positions of the arms have been discussed under that special heading.

In the realistic pictures one frequently secures information regarding the kind of clothes worn and other details of interest. The figure apparently of an army officer (Plate CCLXXII, 10) shows not only the coat and epaulets, but likewise the buttons down the front of the uniform, and a pipe in the hand. The artist then deviated from accuracy of detail by showing one hand with six fingers and the other with four. This picture was at a site showing mission influence.

Some of the paintings of white men combine certain Indian-like features. One figure (Plate CCLXXII, 9) wearing a hat and with arms akimbo, has what appears to be an animal-tail dangling from the side. This suggests a skin garment with the tail left in place, and is only a step from the pioneer coon-skin cap with the tail for a tassel.

One picture (Plate CCLXXII, 8) shows an abbreviated figure, probably a woman, holding what appears to be an iron kettle.

⁹⁸Charlevoix, Pierre, *Travels Through Canada and Louisiana to the Gulf of Mexico*, *op. cit.*, p. 304.

PLATE CCLXXII

PICTOGRAPHS SHOWING WHITE MEN, HORSES AND OTHER
EUROPEAN INFLUENCES

1. Pictograph, Site No. 150, Concho County.
2. Pictograph, Site No. 23, Reeves County.
3. Petroglyph, Site No. 162, Oldham County.
4. Pictograph, Site No. 150, Concho County.
5. Pictograph, Site No. 66, Terrell County.
6. Pictograph, Site No. 56, Terrell County.
7. Pictograph, Site No. 51, Winkler County.
8. Pictograph, Site "B," Otero County, New Mexico.
9. Pictograph, Site No. 96, Val Verde County.
10. Pictograph, Site No. 89, Val Verde County.
11. Pictograph, Site No. 31, Presidio County.
12. Pictograph, Site No. 31, Presidio County.
13. Pictograph, Site No. 150, Concho County.
14. Pictograph, Site No. 56, Terrell County.
15. Pictograph, Site No. 2, El Paso County.
16. Pictograph, Site No. 162, Oldham County.
17. Pictograph, Site No. 147, San Saba County.
18. Pictograph, Site No. 89, Val Verde County.

FIG. 279. GUIDONS, BANNERS AND FLAGS

1. Pictograph, Site No. 23, Reeves County.
2. Pictograph, Site No. 150, Concho County.
3. Petroglyph, Site No. 4, Hudspeth County.
4. Pictograph, Site No. 150, Concho County.
5. Pictograph, Site No. 150, Concho County.

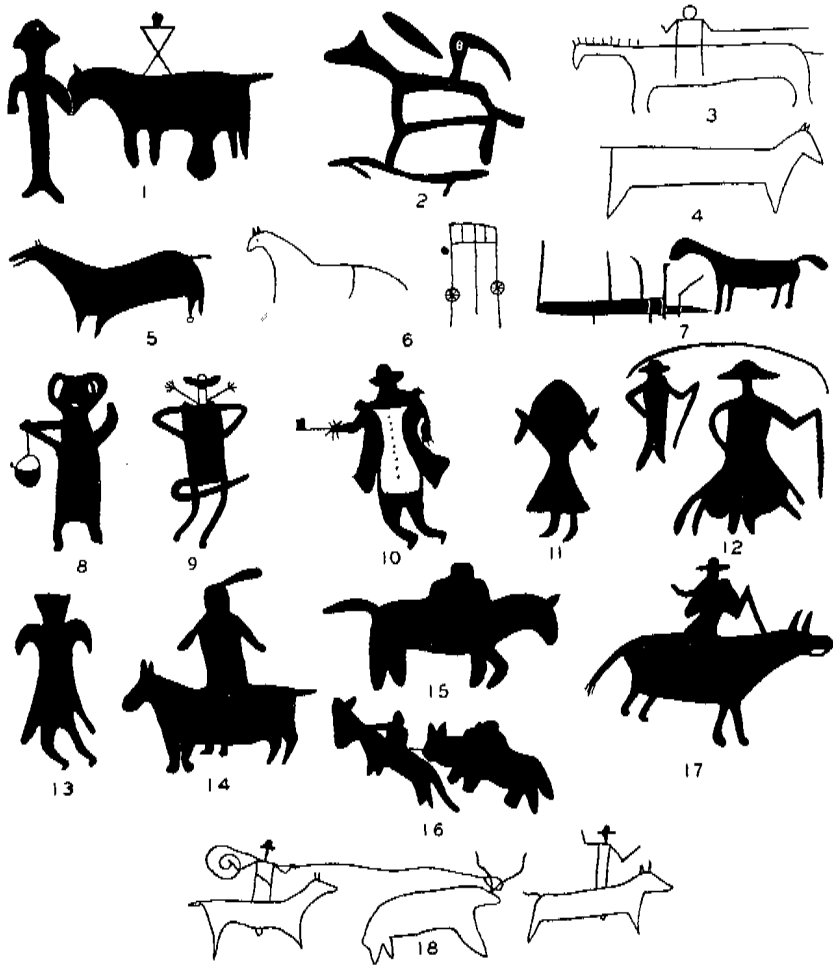


PLATE CCLXXII

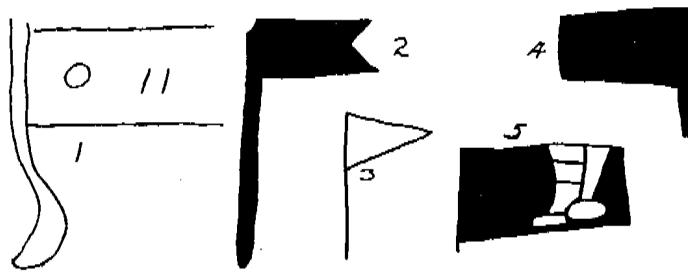


FIG. 279

GUIDONS, BANNERS AND FLAGS

In three Texas counties are paintings and carvings of what appear to be banners and flags. Three of the pictographs are at Site No. 150, Concho County, along with other historic paintings. That site, as previously stated, is located some 40 miles north of the San Saba Mission, which was established in 1757 and abandoned in 1768. The Indians who painted the flags probably had seen the Presidio San Luis de las Amarillas, near the San Saba Mission, and been impressed by the colors flying in the breeze.

A petroglyph at Site No. 4, Hudspeth County, has a striking resemblance to a guidon; but this may be a coincidence. There is no definite evidence of white contacts at that site, although the presence of human masks would seem to indicate that the pecked designs may have been late prehistoric or early historic. If the latter, the Indians may have been in contact with the Spanish missions and soldiers near El Paso. Such contact would explain the presence of the guidon.

The flag-like painting at Site No. 23, Reeves County, probably also is historic, since at that site is a simplified figure of a horse.

In discussing white influences, Sloan and LaFarge⁹⁹ make this statement:

“. . . The Plains Indians have been quick to take up new elements, while fitting them into their older types, so that it is difficult to draw the line between what is and what is not truly Indian. They began depicting horses and American flags long ago. The criterion has to be largely one of taste, and of the Indian feeling. . . .”

WEAPONS

To the Indians weapons were necessary for securing food and protecting their lives. Hence, it is easy to understand why weapons frequently occur in picture-writings.

ATLATLS AND SHAFTS

One of the early weapons was the atlatl. Although its use preceded that of the bow and arrow, the two were long used contemporaneously. This fact is borne out by certain archaeological evidence, supported by the occurrence of both weapons in picture-writings that appear to be of approximately the same age. Finally, however, the atlatl was supplanted by the bow. As a result the late prehistoric pictures show bows and arrows but no atlatls.

Pearce's extensive work in the "burnt-rock mounds" (middens) of Central Texas has revealed the long continued use of the spear and the dart and atlatl by early inhabitants of that region before the appearance of the bow and arrow. In the oldest and deepest of these middens, genuine arrowpoints are found only in the relatively shallow upper stratum, while the much deeper and more extensive lower strata contain only the heavy dart and spearheads. (See Vol. IV, p. 49, *Bul. Tex. Arch. and Pal. Soc.*, 1932.)

⁹⁹Sloan, John, and LaFarge, Oliver, *Introduction to American Indian Art, The Exposition of Indian Tribal Arts, Inc., New York, 1931, p. 25.*

Reference to Map XVI will show the distribution of atlatls, bows and arrows in Texas picture-writings. The bow and atlatl occur in the pictures of seven counties; the bow alone in nine counties.

Plate CCLXXIII illustrates the various types of possible atlatls. Many of the pictures undoubtedly represent this weapon; others, being simplified or conventionalized, are in doubt. Nos. 1, 6, 13, 17 and 24 appear to be views of the atlatl with its dart in place. Nos. 25 and 26 represent human figures in the act of throwing the projectile by means of the atlatl. Nos. 2, 4, 11 and 21 show a conventionalized form of this device. In No. 21 are three lines, suggestive of projectiles, that lend support to this assumption. Nos. 7, 8, 16, 19, 20 and 23 show variations of what seems to be the same type of weapon. In each case the spur, in some form, is present.

Another feature of some of these drawings is the presence of knobs or attachments. (See Nos. 1 and 2.) It is possible that the attachment may represent a projection on the handle to facilitate a firm grasp of the weapon, and prevent it from slipping through the hand. Or it may have been an attachment to give added weight.

The projectiles likewise present an interesting study. Many are so conventionalized as to be unrecognizable if not associated with a companion device. Others are realistic.

Attention is directed to No. 12, which is suggestive of an atlatl bunt point—a shaft with a blunt wooden head in lieu of a flint projectile point. The pictograph is the only one of its kind observed by the writer. Archaeological specimens of this type have been found in West Texas caves by Setzler¹⁰⁰ and Jackson.¹⁰¹ The former, from a cave in Presidio County, has been definitely classified as an atlatl bunt point. The latter, from a cave in Culberson County, is smaller, has the remains of attached feathers; and thus raises a question as to whether it was for use with a bow or an atlatl. Since, however, Gardner and Martin¹⁰² report a light atlatl that might well be used with small reed shafts, there is a possibility that the Culberson County specimen may have been so used. No. 3 has a nock and is much like one illustrated by Gardner and Martin.

¹⁰⁰Setzler, F. M., *Prehistoric Cave Dwellers of Texas*, *op. cit.*, p. 56.

¹⁰¹Jackson, A. T., *Exploration of Certain Sites in Culberson County, Texas*, Texas Archaeological and Palaeontological Society, Vol. 9, Abilene, September, 1937, pp. 162-163, 186, 189.

¹⁰²Gardner, Fletcher, and Martin, G. C., *A New Type of Atlatl from a Cave Shelter on the Rio Grande Near Shumla, Val Verde County, Texas*, Big Bend Basket Maker Papers No. 2, Witte Memorial Museum, San Antonio, 1933, pp. 15-18.

PLATE CCLXXIII

POSSIBLE ATLATLS AND DARTS

1. Pictograph, Site No. 61, Terrell County.
2. Petroglyph, Site No. 40, Brewster County.
3. Petroglyph, Site No. 40, Brewster County.
4. Pictograph, Site No. 64, Val Verde County.
5. Pictograph, Site No. 64, Val Verde County.
6. Pictograph, Site No. 66, Val Verde County.
7. Pictograph, Site No. 140, Gillespie County.
8. Pictograph, Site No. 68, Val Verde County.
9. Pictograph, Site No. 150, Concho County.
10. Pictograph, Site No. 150, Concho County.
11. Pictograph, Site No. 84, Val Verde County.
12. Pictograph, Site No. 84, Val Verde County.
13. Pictograph, Site No. 74, Val Verde County.
14. Pictograph, Site No. 69, Val Verde County.
15. Pictograph, Site No. 61, Terrell County.
16. Pictograph, Site No. 61, Terrell County.
17. Petroglyph, Site No. 50, Ward County.
18. Petroglyph, Site "B," Otero County, New Mexico.
19. Pictograph, Site No. 180, Presidio County.
20. Pictograph, Site No. 74, Val Verde County.
21. Pictograph, Site No. 31, Presidio County.
22. Petroglyph, Site No. 50, Ward County.
23. Petroglyph, Site No. 50, Ward County.
24. Pictograph, Site No. 69, Val Verde County.
25. Pictograph, Site No. 69, Val Verde County.
26. Pictograph, Site No. 73, Val Verde County.
27. Petroglyph, Site No. 4, Hudspeth County.

PLATE CCLXXIV

CONVENTIONALIZED AND REALISTIC BOWS AND ARROWS

1. Petroglyph, Site No. 50, Ward County.
2. Pictograph, Site "B," Otero County, New Mexico.
3. Pictograph, Site No. 23, Reeves County.
4. Pictograph, Site No. 31, Presidio County.
5. Pictograph, Site No. 155, Stephens County.
6. Petroglyph, Site No. 50, Ward County.
7. Pictograph, Site No. 51, Winkler County.
8. Pictograph, Site No. 2, El Paso County.
9. Pictograph, Site No. 150, Concho County.
10. Pictograph, Site No. 61, Terrell County.
11. Pictograph, Site No. 105, Edwards County.
12. Pictograph, Site No. 90, Val Verde County.
13. Pictograph, Site No. 27, Jeff Davis County.
14. Pictograph, Site No. 150, Concho County.
15. Pictograph, Site No. 150, Concho County.
16. Pictograph, Site No. 62, Terrell County.
17. Pictograph, Site No. 90, Val Verde County.
18. Pictograph, Site No. 56, Terrell County.
19. Pictograph, Site No. 76, Val Verde County.
20. Petroglyph, Site No. 190, Loving County.
21. Pictograph, Site No. 139, Kimble County.
22. Pictograph, Site No. 64, Val Verde County.

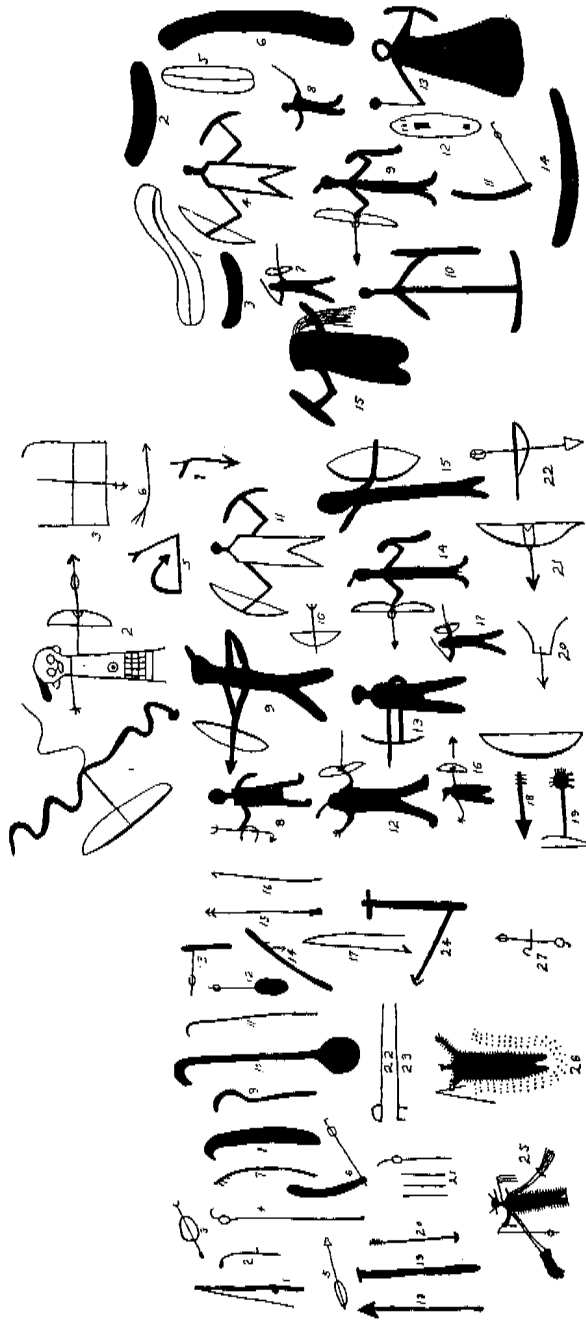


PLATE CCLXXV.

PLATE CCLXXIV.

PLATE CCLXXIII.

PLATE CCLXXV

SO-CALLED RABBIT STICKS OR THROWING CLUBS

1. Pictograph, Site No. 84, Val Verde County.
2. Pictograph, Site No. 65, Val Verde County.
3. Pictograph, Site No. 29, Jeff Davis County.
4. Pictograph, Site No. 105, Edwards County.
5. Pictograph, Site No. 65, Val Verde County.
6. Pictograph, Site No. 23, Reeves County.
7. Pictograph, Site No. 90, Val Verde County.
8. Pictograph, Site No. 62, Terrell County.
9. Pictograph, Site No. 150, Concho County.
10. Petroglyph, Site No. 18, Culberson County.
11. Pictograph, Site No. 66, Val Verde County.
12. Pictograph, Site No. 68, Val Verde County.
13. Pictograph, Site No. 154, Shackelford County.
14. Pictograph, Site No. 108, Edwards County.
15. Pictograph, Site No. 84, Val Verde County.

BOWS AND ARROWS

In Plate CCLXXIV are illustrated various forms of the bow and arrow. Many of the weapons are represented in the hands of men. Several pictures show the arrow as it is about to leave the bow. A few, however, show the Bowman in the act of drawing the bow.

The arrowshafts are interesting. Some show attached projectile points, while others seem to represent sharpened wooden foreshafts or one-piece arrows. Several of the shafts are pictured bent or broken. No. 1 shows an arrow, with bow attached, penetrating a snake. A cord-like projection extends beyond the snake. The various methods of indicating the feathering of the arrow appear to be merely different degrees of conventionalization.

RABBIT STICKS OR THROWING CLUBS

There are some pictures representing the typical rabbit stick. Many of these have the shape of the average archaeological specimen of the region. A few are straight and may be ordinary clubs, rather than rabbit sticks.

Several human figures hold rabbit sticks in their hands. These may furnish an inkling as to the use of the implement. In three cases there is nothing in the opposite hand. This suggests that the stick was about to be thrown. But in three other pictures the rabbit stick is in one hand and the bow and arrow in the other. Another figure clasps the rabbit stick in one hand and a hafted stone in the other. These pictures seem to imply different uses for the implement.

Where the stick appears in association with the bow and arrow, it seems unlikely that the former was to be thrown. The question then arises as to whether it may have served, like a shield, for warding off missiles of the enemy; or was called into play to kill wounded animals.

In this connection Kidder and Guernsey¹⁰³ mention that "The sculptures of Chichen Itza frequently depicted these clubs, usually in the hands of warriors who also carry atlatls and atlatl spears." It seems significant that the Texas pictographs indicate a use similar to that in Yucatan. Martin¹⁰⁴ suggests that the rabbit stick may have been used "at close quarters to finish off enemies or animals merely wounded by the atlatl javelin."

Stephen states that the Hopi employed the rabbit stick in war, and that it could "be thrown so as readily to break an arm or leg and kill if it strike an enemy in the forehead. But it is most efficient to be thrown at an enemy drawing his bow or aiming; it is hurled so as to strike the bow, and the Hopi rush in and spear the enemy before he can recover." (Stephen, A. M., *Hopi Journal*, Edited by E. C. Parsons, Columbia University, New York, 1936, Pt. I, pp. 99, 100.)

Attention is called to Plate CCLXXV, 1, 5 and 12, that show grooves in the clubs. The latter picture features small groups of four incised lines, typical of certain archaeological specimens in The University of Texas Anthropology Museum.

PROJECTILE POINTS AND PROJECTILES

Projectiles and projectile points are not common in Texas picture-writings, but a few appear in 12 counties. A number of the points in the petroglyphs of Hudspeth and Culberson Counties are very realistic and unlike those found elsewhere in Texas. The usual pictured projectile point is much conventionalized. This is indicated by Plate CCLXXVI, 9, 13 and 19.

Nos. 1, 10, and 14, same plate, seem to represent spears or darts to be thrown by hand. Other projectiles are shown in the hands of European figures. These pictures tend to show the manner in which the Indian combined his old ideas and practices with those taken over by him from the white man.

¹⁰³Guernsey, S. J., and Kidder, A. V., *Basket-Maker Caves of Northeastern Arizona*, Papers of the Peabody Museum of American Archaeology and Ethnology, Vol. VIII, No. 2, Cambridge, 1921, p. 89.

¹⁰⁴Martin, G. C., *Archaeological Exploration of the Shumla Caves*, *op. cit.*, p. 31.

PLATE CCLXXVI

PROJECTILES AND PROJECTILE POINTS

1. Pictograph, Site No. 64, Val Verde County.
2. Petroglyph, Site No. 11, Hudspeth County.
3. Petroglyph, Site No. 11, Hudspeth County.
4. Petroglyph, Site No. 11, Hudspeth County.
5. Petroglyph, Site No. 11, Hudspeth County.
6. Petroglyph, Site No. 11, Hudspeth County.
7. Pictograph, Site No. 156, Burnet County.
8. Petroglyph, Site No. 13, Culberson County.
9. Pictograph, Site No. 140, Gillespie County.
10. Pictograph, Site No. 76, Val Verde County.
11. Petroglyph, Site "B," Otero County, New Mexico.
12. Petroglyph, Site No. 11, Hudspeth County.
13. Pictograph, Site No. 150, Concho County.
14. Pictograph, Site No. 38, Brewster County.
15. Petroglyph, Site No. 11, Hudspeth County.
16. Pictograph, Site No. 31, Presidio County.
17. Pictograph, Site No. 22, Reeves County.
18. Pictograph, Site No. 147, San Saba County.
19. Pictograph, Site No. 150, Concho County.
20. Petroglyph, Site No. 81, Val Verde County.
21. Petroglyph, Site No. 50, Ward County.
22. Pictograph on buffalo scapula, Texas Plains.
23. Pictograph, Site No. 62, Terrell County.
24. Pictograph, Site No. 150, Concho County.

FIG. 280. PROJECTILE POINTS WITH ATTACHED CORDS

- 1, 2, 3. Petroglyph Site No. 11, Hudspeth County.
4. Pictograph Site No. 31, Presidio County.

PLATE CCLXXVII

POSSIBLE SHIELDS

1. Pictograph, Site No. 51, Winkler County.
2. Pictograph, Site No. 38, Brewster County.
3. Pictograph, Site No. 55, Crockett County.
4. Pictograph, Site No. 82, Val Verde County.
5. Pictograph, Site No. 73, Val Verde County.
6. Pictograph, Site No. 76, Val Verde County.
7. Pictograph, Site No. 56, Terrell County.
8. Pictograph, Site No. 147, San Saba County.
9. Pictograph, Site No. 40, Brewster County.

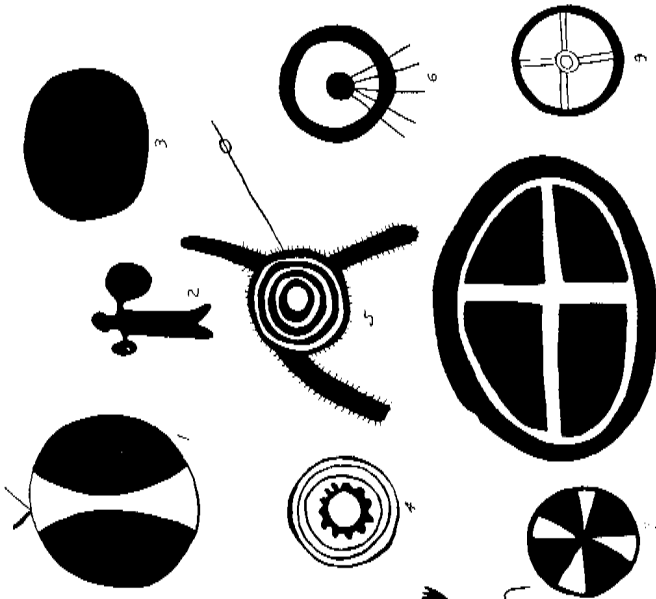


PLATE CCLXXVII.

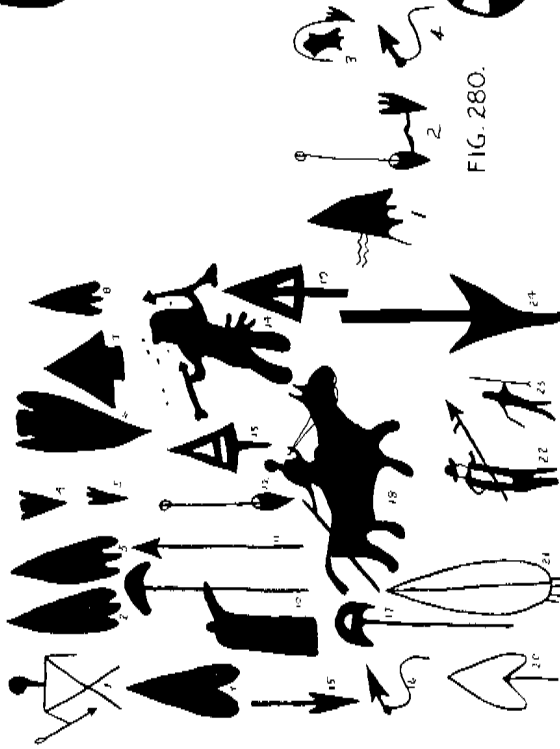
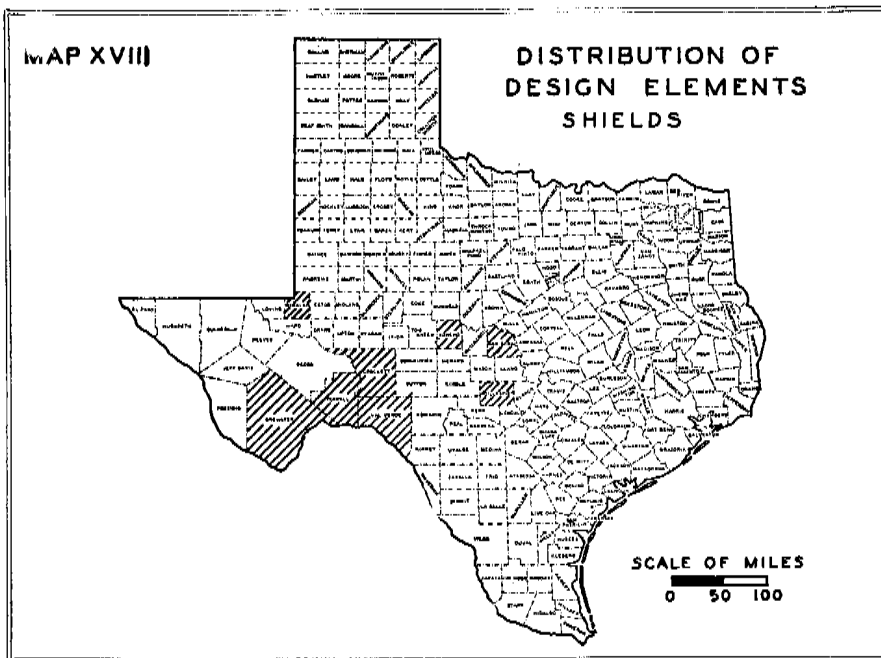
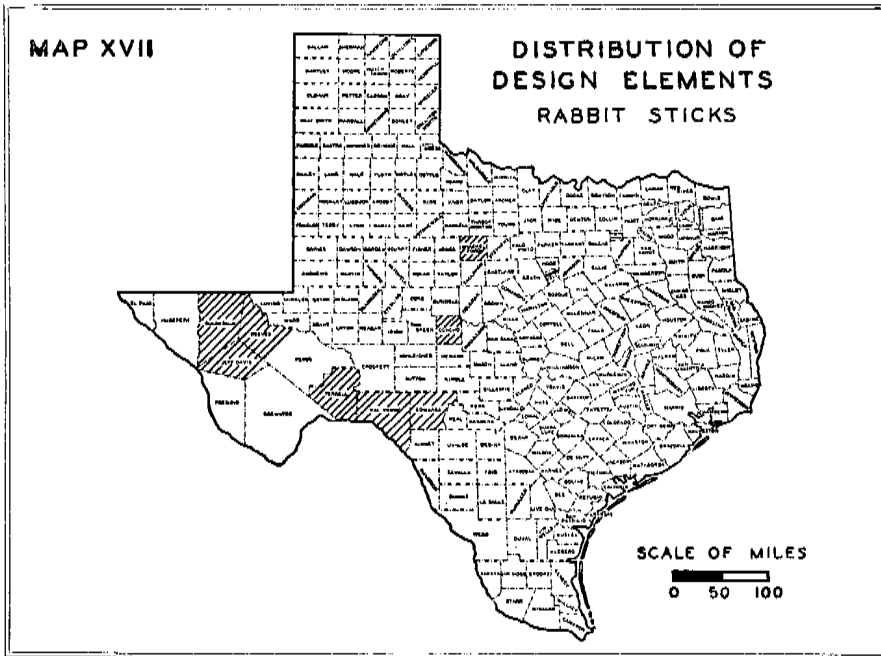


PLATE CCLXXXVI.

FIG. 280.



MAP XVII. DISTRIBUTION OF RABBIT STICKS AS SHOWN IN
PICTURE-WRITINGS

MAP XVIII. DISTRIBUTION OF SHIELD-LIKE REPRESENTATIONS

PROJECTILE POINTS WITH ATTACHED CORDS

At two sites in West Texas are rock pictures suggestive of detachable projectile points. One of these is at Site No. 31, Presidio County, where there is a small painting resembling a projectile point, with a cord attached. The other place is Site No. 11, Hudspeth County, with three pecked pictures of projectile points with what appear to be attached cords. The point of attachment in the petroglyphs, however, is not to the tang but to the barb and side.

These pictures, probably not significant, are presented merely as interesting possibilities.

SIMPLIFIED AND CONVENTIONALIZED SHIELDS

There appear no unmistakable pictures of shields in use. A few pictures, such as that illustrated in Plate CCLXXVII, 2, probably represent shields, but simplification renders positive identification impossible.

Paintings of shields not in use are even less easily identified. There is a possibility that such paintings were intended to represent the sun, or to have other symbolic meaning. Since, however, it is known that some shields of historic times were decorated with painted sun-discs, it seems that certain designs of this type may represent shields.

CLUBS, AXES AND ADZES OR PICKS

Very few rock pictures show unmistakable hafted axes or clubs. The few that occur are problematical. The specimen illustrated in Plate CCLXXVIII, 5 has been variously interpreted as a hafted club with a cord attached to the handle, a gourd with part of the vine in place, etc.

No. 10, same plate, consisting of five attached club-like devices, is suggestive of the bolas used by some natives of South America for entangling the legs of animals.

No. 6 may represent a so-called war club. Nos. 8 and 9 suggest hafted flint implements, for cutting or scraping.

PLATE CCLXXVIII

CLUBS, AXES AND ADZES OR PICKS

1. Pictograph, Site No. 23, Reeves County.
2. Pictograph, Site No. 23, Reeves County.
3. Pictograph, Site No. 156, Burnet County.
4. Pictograph, Site No. 150, Concho County.
5. Pictograph, Site No. 150, Concho County.
6. Pictograph, Site No. 150, Concho County.
7. Pictograph, Site No. 150, Concho County.
8. Pictograph, Site No. 51, Winkler County.
9. Pictograph, Site No. 150, Concho County.
10. Pictograph, Site No. 150, Concho County.

FIG. 281. EUROPEAN WEAPONS

1. Pictograph, Site No. 73, Val Verde County.
2. Pictograph on buffalo scapula, Texas Plains.
3. Pictograph, Site No. 131, Real County.

PLATE CCLXXIX

TEPEE-LIKE ELEMENTS

Some are realistic, others conventionalized, and a few may be merely triangular designs with symbolic or other significance.

1. Petroglyph, Site No. 190, Loving County.
2. Pictograph, Site No. 180, Presidio County.
3. Pictograph, Site No. 155, Stephens County.
4. Petroglyph, Site No. 191, Henderson County.
5. Petroglyph, Site No. 50, Ward County.
6. Petroglyph, Site No. 50, Ward County.
7. Petroglyph, Site No. 4, Hudspeth County.
8. Carved stone, Wilbarger County.
9. Petroglyph, Site No. 152, Nolan County.
10. Petroglyph, Site No. 4, Hudspeth County.
11. Petroglyph, Site No. 188, Sutton County.
12. Petroglyph, Site No. 20, Culberson County.
13. Pictograph, Site No. 30, Jeff Davis County.
14. Pictograph, Site No. 84, Val Verde County.
15. Pictograph, Site No. 140, Gillespie County.
16. Pictograph, Site No. 156, Burnet County.
17. Pictograph, Site No. 56, Terrell County.

PLATE CCLXXX

POSSIBLE EARTHENWARE OR GOURD VESSELS

1. Pictograph, Site No. 150, Concho County.
2. Pictograph, Site No. 140, Gillespie County.
3. Pictograph, Site No. 67, Val Verde County.
4. Pictograph, Site No. 152, Nolan County.
5. Pictograph, Site No. 180, Presidio County.
6. Pictograph, Site No. 150, Concho County.

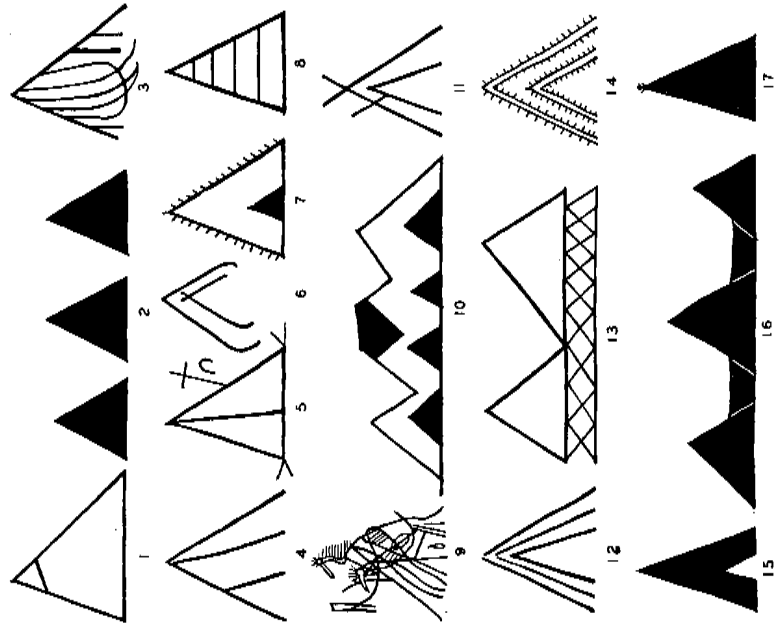


PLATE CCLXXIX

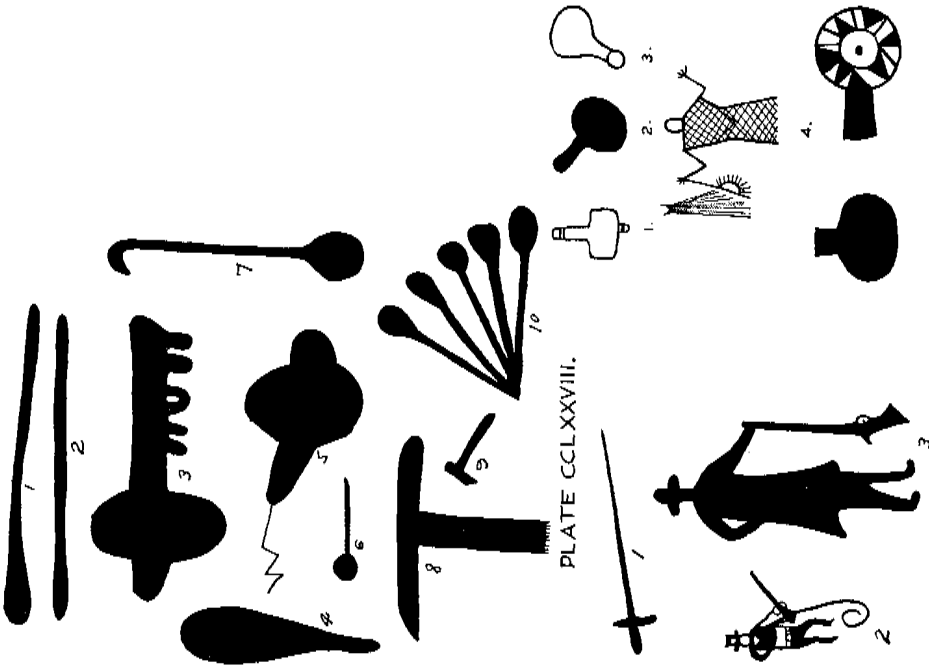


PLATE CCLXXXIII.

PLATE CCLXXX.

FIG. 281.

EUROPEAN WEAPONS

Very few European weapons are represented in Texas picture-writings. Those that have been found are not in the same shelters with paintings showing mission influence.

Since the Spanish missions were protected by small garrisons of soldiers, one would expect that pictures of their weapons would occur along with the mission scenes. The absence of such paintings may have been due to several reasons: 1. The few soldiers at each presidio probably had no weapons to spare. 2. It would have been poor policy to trade weapons to hostile outside Indians at that time. (Beads, jews'-harps and like trinkets were harmless trade articles.) 3. The religious atmosphere of the mission opposed force, except where absolutely necessary. Weapons, therefore, were little in evidence. These facts probably furnish the explanation of the absence of such paintings prior to 1800.

With the abandonment of the missions, and the subsequent influx of adventurers from the United States, more of the Texas Indians became acquainted with the weapons of white men. Later, Texas Rangers became famous as Indian fighters; federal forts were established along the frontier to "make the Indians be good"; buffalo hunters, with long-range rifles, delighted in shooting the troublesome Indians! It was during these days that the Indians saw many guns, and came into possession of some. But then they were constantly on the move, fighting for their existence; and had less time to paint pictures than in the earlier mission period.

Only two known pictographs in Texas show firearms. One of these, painted on a buffalo scapula, was found on the plains in the Comanche range prior to 1850. (See Plate CCXXXVIII.) The other is painted on the wall of an overhanging ledge at Site No. 131, Real County. (See Plate CLXXXVII.) They are discussed elsewhere.

At a few sites in Val Verde County are sword-like paintings. Notable among these is Site No. 73, where six of the paintings occur. All other pictures in that shelter appear to be prehistoric. A few hundred yards up the canyon is a small overhanging bluff with paintings of mission scenes; but no sword is among the latter pictures. There thus is an element of uncertainty regarding the interpretation of the sword-like design.

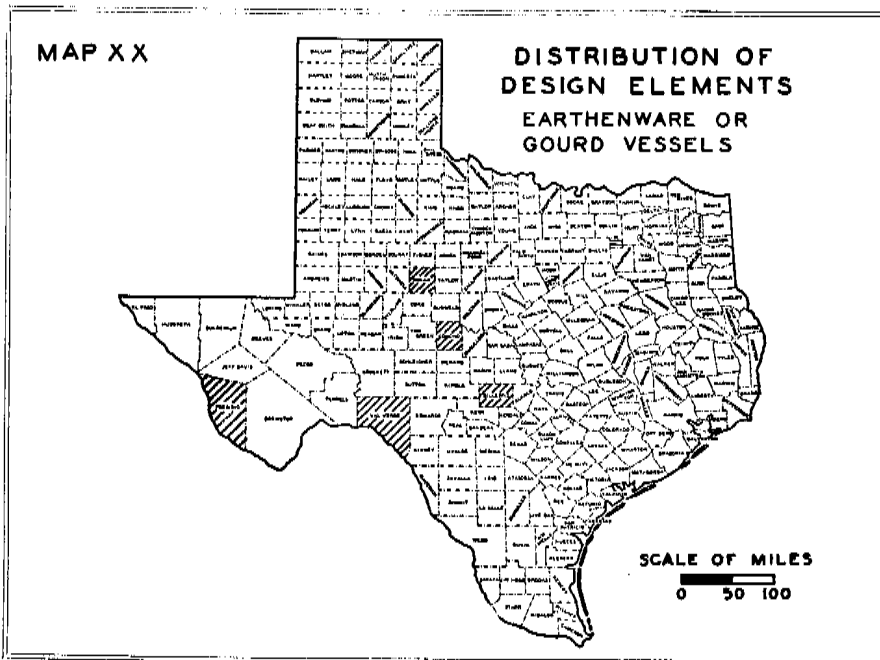
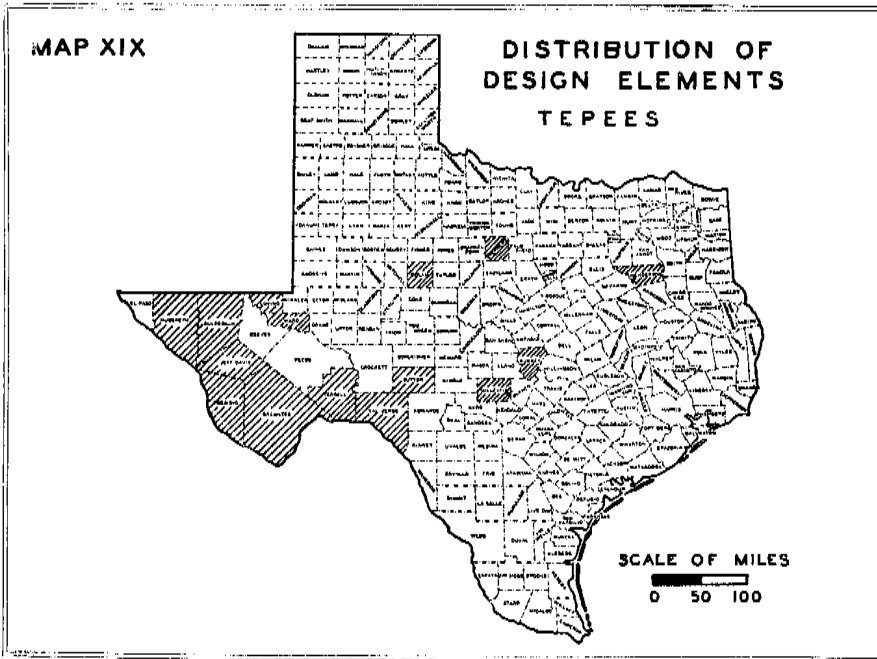
OTHER PICTURES REPRESENTING HUMAN WORKMANSHIP

TEPEES

Triangular designs are common in Texas picture-writings. Most of these probably had no special meaning. There are, however, a few designs that appear to represent tepees.

Since the skin-covered tepee played a prominent part in the lives of the nomadic tribes, one might expect it to be frequently represented in pictures. The fact, however, that such paintings are relatively scarce seems to indicate that most of the rock pictures were made by cave dwellers who rarely used tepees; or, in certain cases, were done by raiding or war parties who traveled without their women—so traveled lightly and without tepees.

Plate CCLXXIX, 7, 11, and 14 represent tepees with the entrance or flap open; No. 17 shows the tepee closed, but the poles are visible at the apex.



MAP XIX. DISTRIBUTION OF TEPEE-LIKE ELEMENTS

MAP XX. DISTRIBUTION OF POSSIBLE EARTHENWARE OR GOURD VESSELS
IN TEXAS PICTOGRAPHS

PLATE CCLXXXI

PIPES AND PIPE-LIKE ELEMENTS

1. Pictograph, Site No. 89, Val Verde County.
2. Carved stone, Hopkins County.
3. Petroglyph, Site No. 4, Hudspeth County.
4. Pictograph, Site No. 150, Concho County.
5. Pictograph, Site No. 29, Jeff Davis County.

FIG. 282. SPECTACLE-LIKE ELEMENTS

1. Pictograph, Site No. 150, Concho County.
2. Petroglyph, Site No. 192, Brewster County.
3. Petroglyph, Site No. 4, Hudspeth County.

PLATE CCLXXXII

MOUNTAIN SHEEP

1. Petroglyph, Site No. 4, Hudspeth County.
2. Petroglyph, Site No. 4, Hudspeth County.
3. Petroglyph, Site No. 11, Hudspeth County.
4. Petroglyph, Site No. 4, Hudspeth County.
5. Petroglyph, Site No. 4, Hudspeth County.
6. Pictograph, Site No. 178, Culberson County.
7. Pictograph, Site No. 3, El Paso County.
8. Pictograph, Site No. 2, El Paso County.
9. Pictograph, Site No. 178, Culberson County.
10. Pictograph, Site No. 178, Culberson County.
11. Pictograph, Site No. 29, Jeff Davis County.

PLATE CCLXXXIII

BUFFALO AND LONGHORN CATTLE

1. Pictograph, Site No. 62, Terrell County.
2. Pictograph, Site No. 147, San Saba County.
3. Petroglyph, Site No. 4, Hudspeth County.
4. Pictograph, Site No. 89, Val Verde County.
5. Pictograph, Site No. 31, Presidio County.
6. Pictograph on Comanche shield, Texas.
7. Painted buffalo scapula, Texas Plains.
8. Pictograph, Site No. 150, Concho County.
9. Pictograph, Site No. 150, Concho County.
10. Pictograph, Site No. 93, Val Verde County.
11. Pictograph, Site No. 147, San Saba County.
12. Pictograph, Site No. 31, Presidio County.
13. Pictograph, Site No. 27, Jeff Davis County.
14. Pictograph, Site "B," Otero County, New Mexico.
15. Pictograph, Site No. 56, Terrell County.



FIG. 282



PLATE CCLXXXI

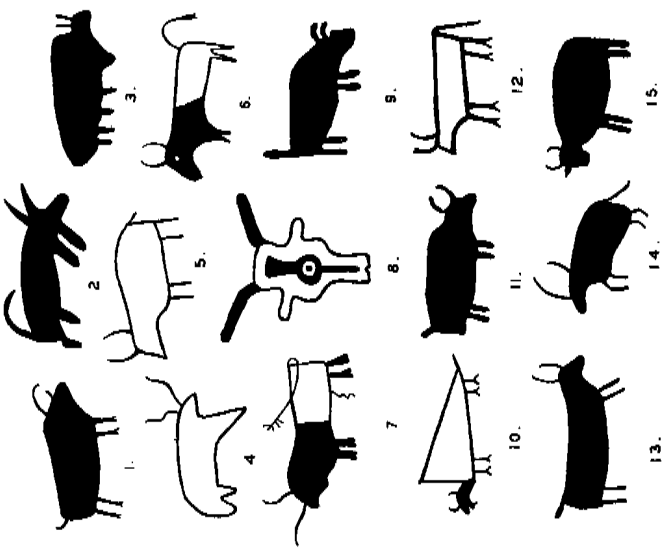
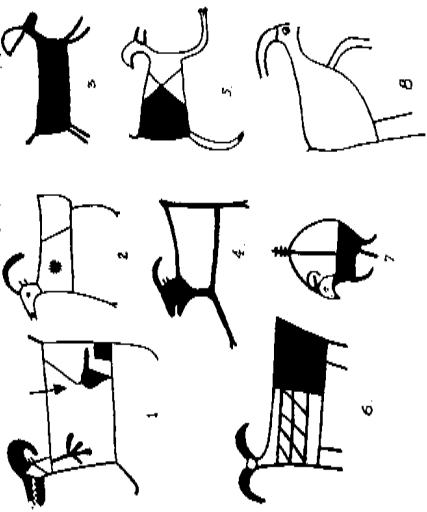


PLATE CCLXXXIII

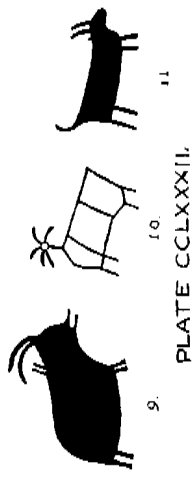


PLATE CCLXXXII

POSSIBLE EARTHENWARE OR GOURD VESSELS

In five counties are pictographs suggestive of earthenware or gourd vessels. Two of these paintings are in historic sites; the others are among what appear to be pre-historic pictures.

In the midden deposit at one of the sites, No. 140, Gillespie County, two potsherds were found. They are of a thin ware, such as often used for water bottles; hence, it seems reasonable that a picture of an earthenware bottle might have been painted on the wall of the shelter.

PIPES AND PIPE-LIKE ELEMENTS

Very few Texas rock pictures depict the act of smoking. Practically all of those that occur are in historic sites. The most outstanding of these is found at Site No. 89, Val Verde County. The painting, done in red, consists of a man wearing a soldier's uniform and holding a pipe in one hand.

At Sites No. 4, 29, and 150, Hudspeth, Jeff Davis, and Concho Counties, are pipe-like elements very suggestive of clay pipes.

On a stone found in a campsite in Hopkins County is a carved smoking scene. The figure is represented wearing a headdress, and feathers are hanging from the bowl and stem of the pipe. On the reverse side of the stone are pits—a typical pitted stone common to village sites in the region. The carving is different from any found in West Texas. But, since pipes are common in East Texas archaeological sites, this may be the work of historic Indians.

SPECTACLE-LIKE ELEMENTS

Pictures suggestive of spectacles appear at Sites No. 4, 150, and 192, Hudspeth, Concho, and Brewster Counties. Possibly they were prompted by seeing Europeans wearing glasses; or the resemblance probably was a mere coincidence. They may represent masks.

LOWER LIFE
ANIMAL REPRESENTATIONS
MOUNTAIN SHEEP

The Rocky Mountain sheep, bighorn, or Cimarrons (*Ovis mexicanus*), appear in many of the picture-writings of extreme western Texas within the former habitat of this animal.

The sheep are more plentiful among the petroglyphs but occasionally occur in a pictograph site. The situation in Texas corresponds with that reported by Steward,¹⁰⁵ who says that in California the mountain sheep, with but three exceptions, is confined to petroglyphs.

An outstanding feature, that makes these drawings easily identified, is the pair of long curving horns. It is thought that the drawing of these animals may have been with the idea of offering a prayer to deity for an increase in the number, or to facilitate the ease of killing.

These pictures by the native artists are a reminder of an animal that is now almost extinct in Texas. There remain only small numbers in the Chisos and Guadalupe Mountains of the Trans-Pecos region.¹⁰⁶

BUFFALO AND LONGHORN CATTLE

Buffalo and cattle are rare in Texas picture-writings. Some paintings of the buffalo appear in historic, others in prehistoric sites. Pictures that represent longhorn cattle are found in historic sites. An outstanding example of the latter type of pictures is at Site No. 89, Val Verde County, where two cowboys are represented in the act of roping a longhorn. (See Plate CLXXIV.)

DEER AND ANTELOPE

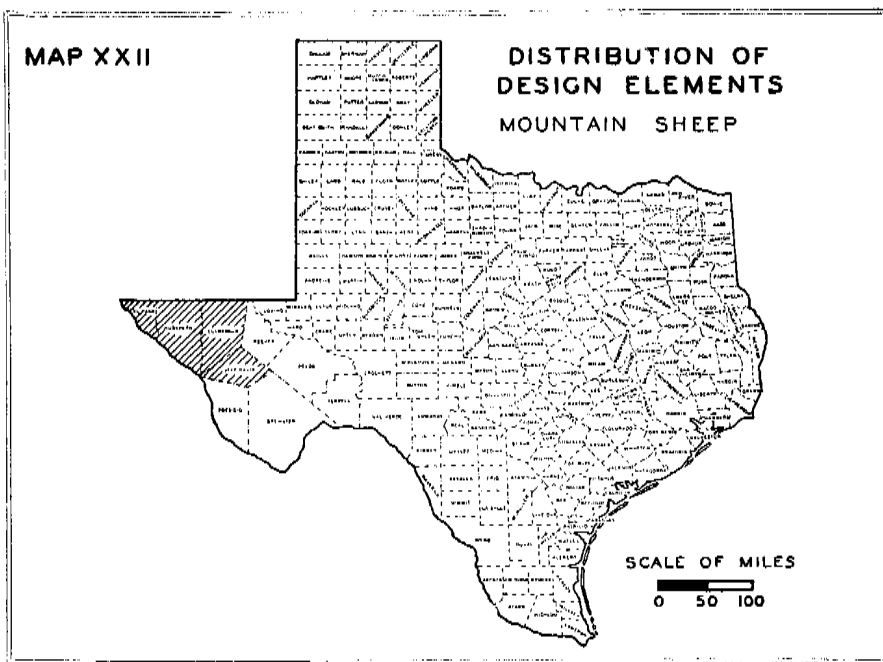
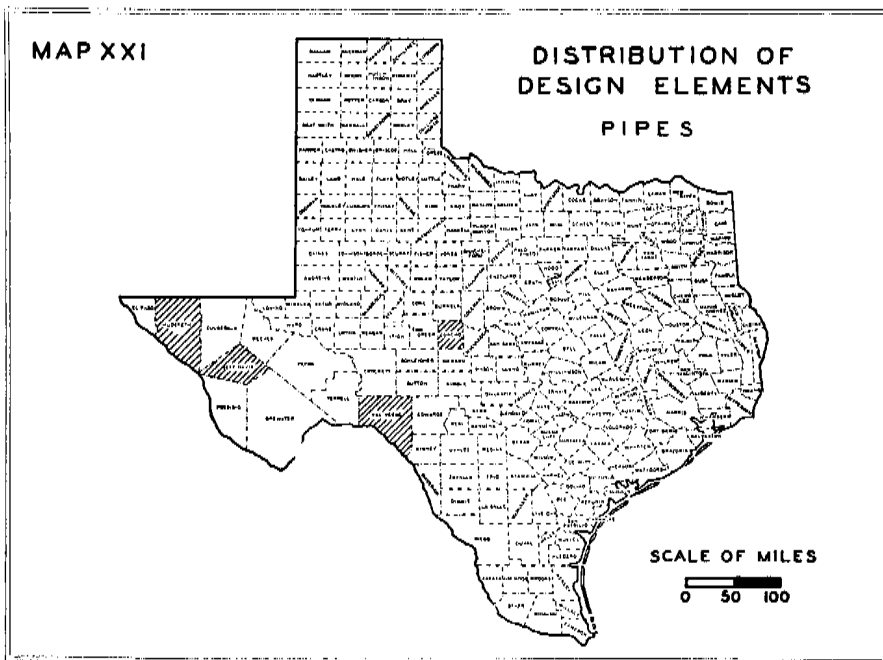
Even when highly conventionalized, the deer usually is recognizable by its antlers. Since both its meat and hide were of importance, the native artists frequently represented this animal. The making of such pictures may have partaken of the nature of imitative magic, by which it was thought that the animals could thus be more easily found and more readily killed.

An examination of the pictures in Plate CCLXXXIV reveals the fact that the artists frequently depicted the animal in action. Attention is called to Nos. 3 and 7, same plate, portraying wounds inflicted by projectiles.

Of 18 pictures shown in the plate, 11 are pictographs and seven petroglyphs.

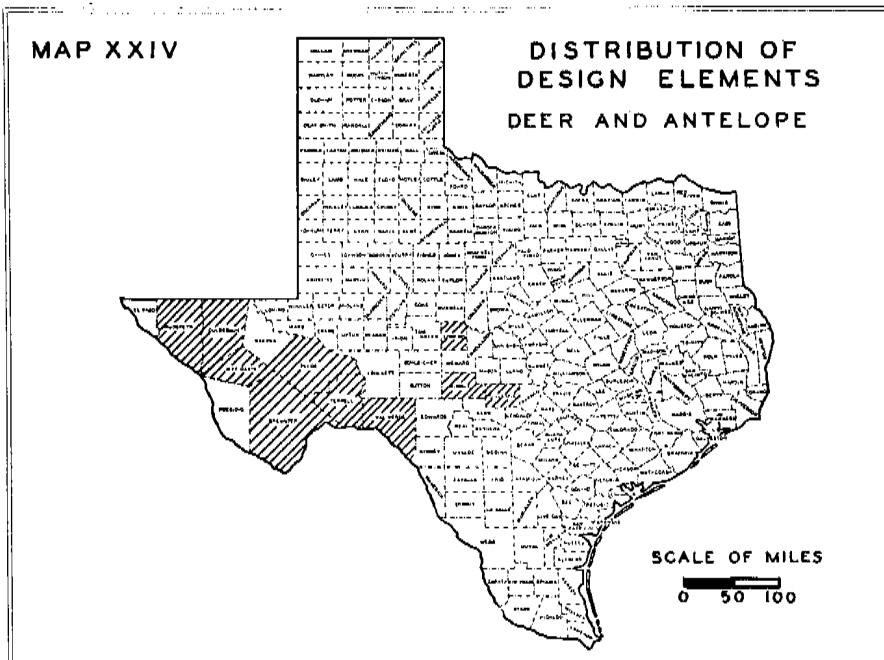
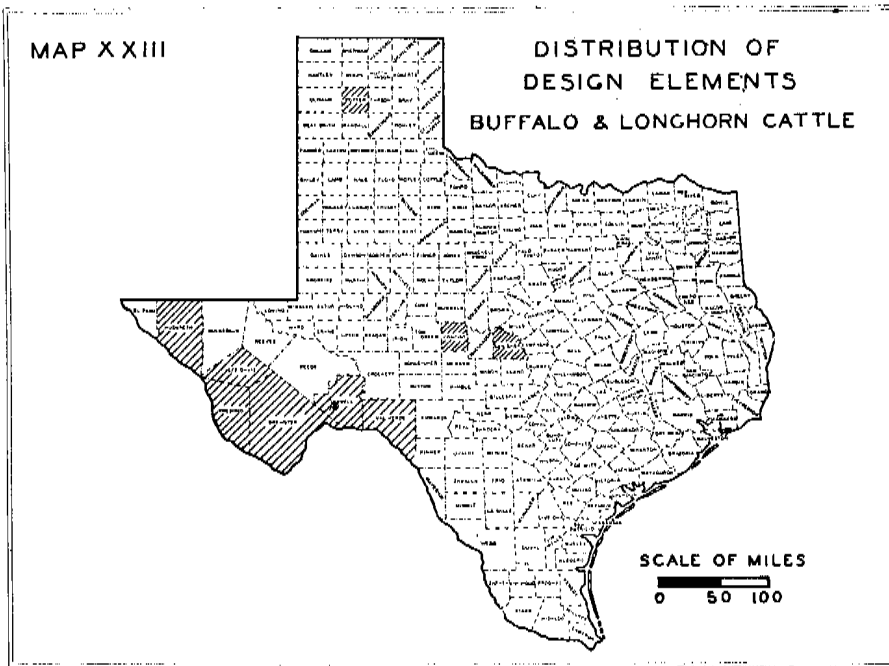
¹⁰⁵Steward, Julian H., *op. cit.*, p. 189.

¹⁰⁶The Texas Almanac, Dallas News Publishing Company, Dallas, 1936, p. 224.



MAP XXI. DISTRIBUTION OF PIPES AND PIPE-LIKE ELEMENTS

MAP XXII. DISTRIBUTION OF MOUNTAIN SHEEP IN TEXAS ROCK PICTURES



MAP XXIII. DISTRIBUTION OF BUFFALO AND LONGHORN CATTLE AS REPRESENTED IN PICTURE-WRITING

MAP XXIV. DISTRIBUTION OF DEER AND ANTELOPE PICTURES

PLATE CCLXXXIV

DEER AND ANTELOPE

Some of the figures are fantastic, others quite realistic.

1. Petroglyph, Site No. 11, Hudspeth County.
2. Pictograph, Site No. 71, Val Verde County.
3. Petroglyph, Site No. 11, Val Verde County.
4. Petroglyph, Site No. 4, Hudspeth County.
5. Pictograph, Site No. 29, Jeff Davis County.
6. Pictograph, Site No. 71, Val Verde County.
7. Pictograph, Site No. 84, Val Verde County.
8. Pictograph, Site No. 69, Val Verde County.
9. Pictograph, Site No. 56, Terrell County.
10. Pictograph, Site No. 178, Culberson County.
11. Pictograph, Site No. 29, Jeff Davis County.
12. Petroglyph, Site No. 11, Hudspeth County.
13. Petroglyph, Site No. 11, Hudspeth County.
14. Pictograph, Site No. 178, Culberson County.
15. Pictograph, Site No. 6, Hudspeth County.
16. Petroglyph, Site No. 11, Hudspeth County.
17. Petroglyph, Site No. 4, Hudspeth County.
18. Pictograph, Site No. 27, Jeff Davis County.

PLATE CCLXXXV

CONVENTIONALIZED, INCOMPLETE OR DISTORTED ANIMALS

1. Petroglyph, Site No. 50, Ward County.
2. Petroglyph, Site No. 191, Henderson County.
3. Petroglyph, Site No. 50, Ward County.
4. Petroglyph, Site No. 18, Culberson County.
5. Pictograph, Site No. 17, Culberson County.
6. Petroglyph, Site No. 50, Ward County.
7. Pictograph, Site No. 21, Culberson County.
8. Pictograph, Site No. 150, Concho County.
9. Pictograph, Site No. 150, Concho County.
10. Pictograph, Site, No. 30, Jeff Davis County.
11. Pictograph, Site No. 153, Shackelford County.
12. Petroglyph, Site No. 11, Hudspeth County.
13. Pictograph, Site No. 66, Val Verde County.
14. Pictograph, Site No. 3, El Paso County.
15. Pictograph, Site No. 99, Val Verde County.
16. Pictograph, Site No. 11, Hudspeth County.
17. Pictograph, Site No. 11, Hudspeth County.
18. Pictograph, Site No. 84, Val Verde County.
19. Pictograph, Site No. 147, San Saba County.
20. Pictograph, Site No. 81, Val Verde County.
21. Pictograph, Site No. 96, Val Verde County.
22. Pictograph, Site No. 91, Val Verde County.
23. Pictograph, Site No. 29, Jeff Davis County.
24. Pictograph, Site No. 64, Val Verde County.
25. Pictograph, Site No. 24, Reeves County.
26. Petroglyph, Site No. 162, Oldham County.
27. Pictograph, Site No. 150, Concho County.
28. Petroglyph, Site No. 139, Kimble County.

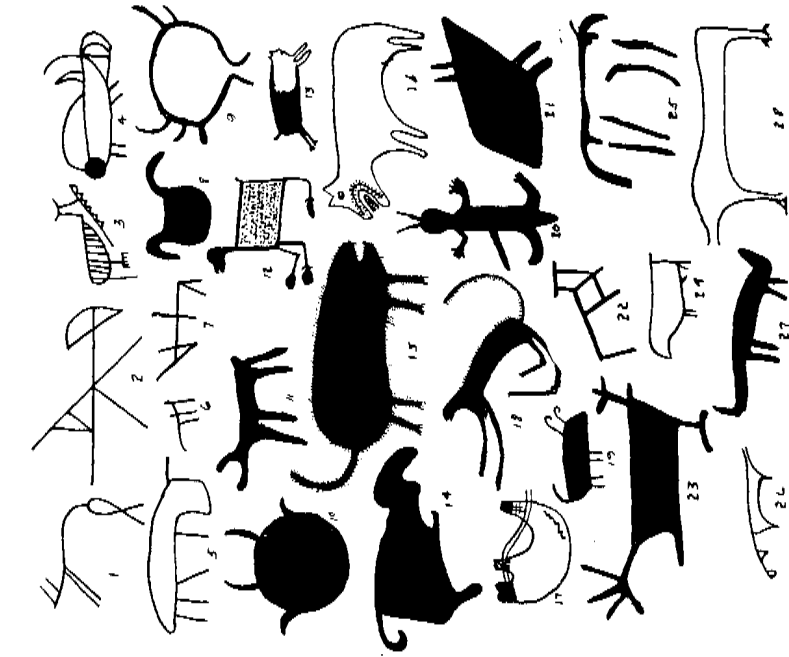


PLATE CCLXXXV.

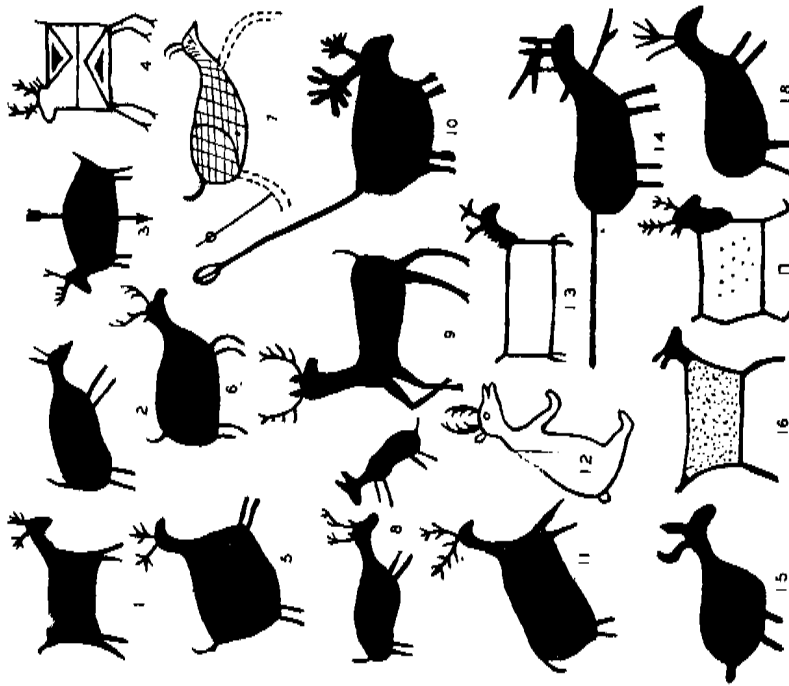


PLATE CCLXXXIV.

ABBREVIATED, FANTASTIC AND CONVENTIONALIZED ANIMALS

The most common figures among the various forms of lower life were abbreviated or conventionalized animals. Pictures of this type may be classed under various subheadings as follows:

1. Extreme conventionalization, figures made by a few bold strokes.
2. Picture somewhat more elaborate, but lacking detail so that it still was unlike a real animal.
3. Animal represented by the head only.
4. Crude outline of an animal, sometimes recognizable.
5. Animal with certain parts missing and other parts not accurately delineated.
6. Ludicrous, "comic-strip" appearance, with exaggeration of certain features.

Animals of the latter class may show bristles, teeth, claws, etc., to the exclusion or minimization of other and more prominent parts. From this emphasis, there is no mistaking the particular feature the artist had in mind. The kind of animal represented, however, frequently remains doubtful.

Some of the most highly conventionalized animals are of the type referred to as "stick drawings." (Plate CCLXXXV, 7.) They consist merely of a few straight lines, with "sticks" for legs. Still another class features drawings outlined in part, with the balance of the pictures colored or pecked solidly. Again, the entire animal may be merely outlined.

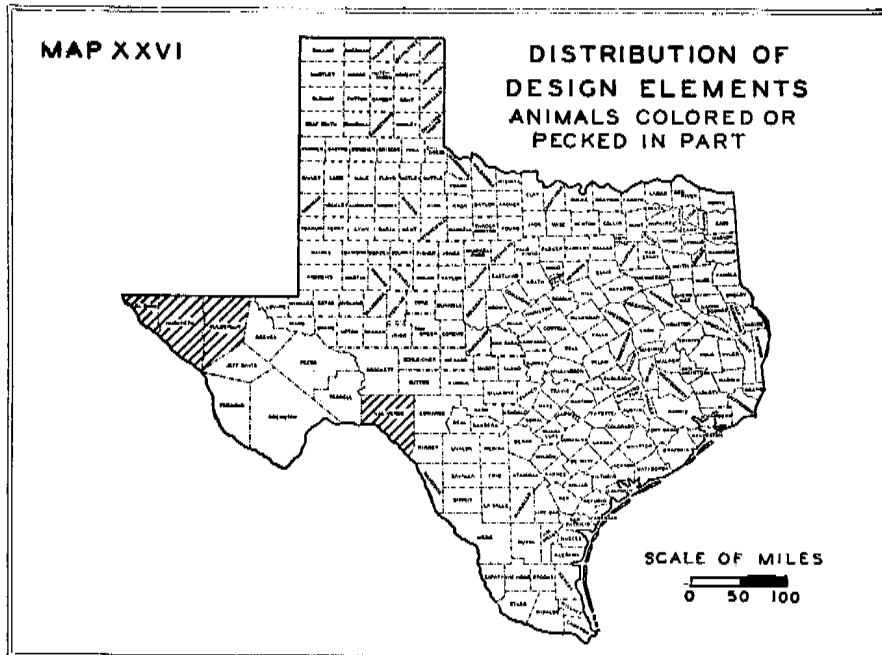
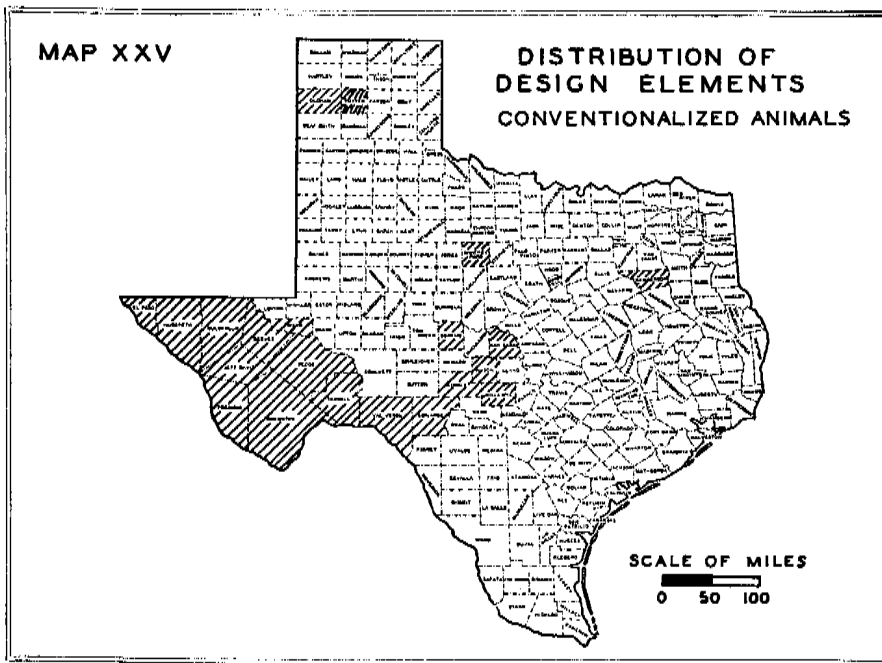
A very crude sketch, highly conventionalized but retaining certain distinctive features, is that illustrated in Plate CCLXXXV, 14. It is an animal with a curved tail that has a somewhat bushy end. This telltale feature, coupled with the fact that the animal is standing on its hind legs, probably labels it as a kangaroo rat which is found in the semi-arid region of West Texas.

Another feature, more often found in historic sites, is that of animals merely outlined and without heads.

CARNIVOROUS ANIMALS

Many of the animal pictures are so simplified or distorted as to be unidentifiable. But even among such pictures there are some that stand out, give an idea of ferocity and leave the impression of carnivorous animals.

Outstanding among these is a large painting at Site No. 99, Val Verde County.



MAP XXV. DISTRIBUTION OF GROTESQUE, DISTORTED OR CONVENTIONALIZED ANIMAL PICTURES

MAP XXVI. DISTRIBUTION OF ANIMALS COLORED OR PECKED IN PART

PLATE CCLXXXVI

PROBABLE REPRESENTATIONS OF CARNIVOROUS ANIMALS

1. Pictograph, Site No. 153, Shackelford County.
2. Pictograph, Site No. 90, Val Verde County.
3. Pictograph, Site No. 62, Terrell County.
4. Pictograph, Site No. 99, Val Verde County.
5. Pictograph, Site No. 62, Terrell County.
6. Pictograph, Site No. 70, Val Verde County.
7. Pictograph, Site No. 84, Val Verde County.

PLATE CCLXXXVII

ANIMALS PARTLY SOLID, REMAINDER OUTLINED

1. Pictograph, Site No. 66, Val Verde County.
2. Pictograph, Site No. 2, El Paso County.
3. Pictograph, Site No. 82, Val Verde County.
4. Painted buffalo scapula, Texas Plains.
5. Pictograph, Site No. 90, Val Verde County.
6. Petroglyph, Site No. 4, Hudspeth County.
7. Petroglyph, Site No. 11, Hudspeth County.
8. Pictograph on shield, Comanche Indian, Texas.
9. Petroglyph, Site No. 4, Hudspeth County.

PLATE CCLXXXVIII

SO-CALLED PELTS

1. Pictograph, Site No. 6, Hudspeth County.
2. Pictograph, Site No. 178, Culberson County.
3. Petroglyph, Site No. 11, Hudspeth County.
4. Petroglyph, Site No. 4, Hudspeth County.
5. Pictograph, Site No. 6, Hudspeth County.

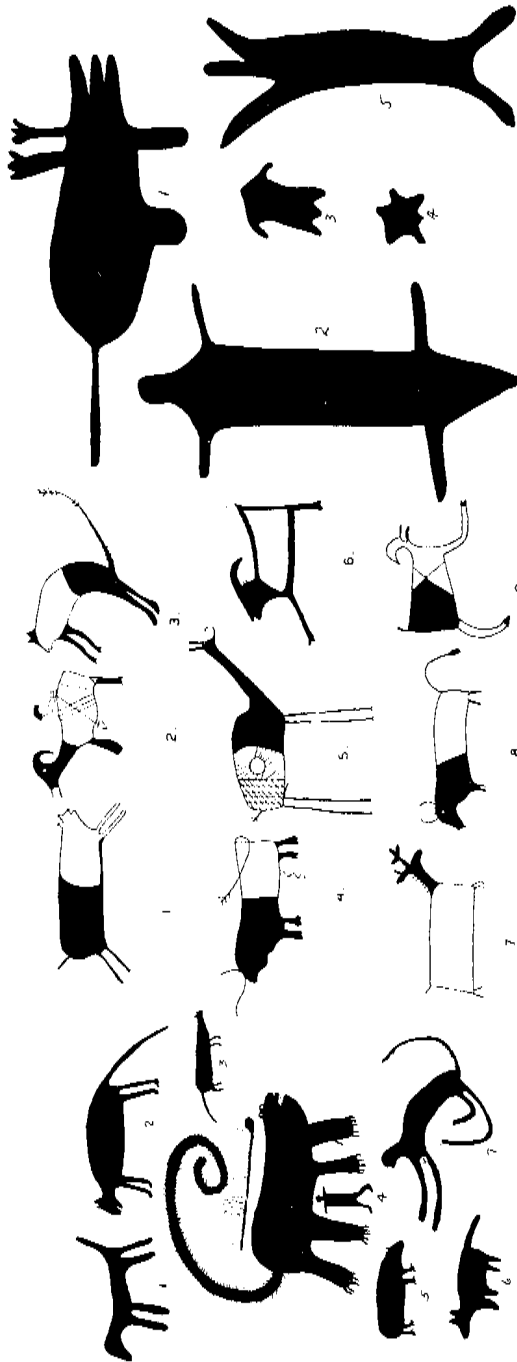


PLATE CCLXXXVIII

PLATE CCLXXXVII

PLATE CCLXXXVI

The animal is depicted with huge claws and open mouth, showing large, sharp teeth. The long cat-like tail is curved upward.

Whether or not by coincidence, frequently a conventionalized human figure stands beneath the body of such an animal. This suggests an attack by the animal. But the pictures may have been painted at different times; and, in such cases, we cannot always be sure of the interpretation.

ANIMALS COLORED OR PECKED IN PART

In four Texas counties are pictographs and petroglyphs representing animals partly solid, with the remainder of the body outlined. It is not known whether this was done solely for economy of effort or for some other reason.

Hunter¹⁰⁷ states that men killed were "indicated by the number of footsteps painted black, and the wounded by those partially so colored." . . . If the partial coloring of human figures was intended to represent wounds, may it not be that the partly colored animals likewise told of wounded creatures that escaped the hunter?

Attention is called to Mallery's interpretation, previously quoted, concerning a buffalo half painted and half outlined being jointly owned by the Indians and the whites. (See Plate CCXXXVIII.)

By reference to Plate CCLXXXVII, 5 will be noted an attempt to represent the vital organs of an animal. Fewkes¹⁰⁸ states that "the antelope constantly has the heart depicted in symbols for it has 'good wind,' and proper heart action is associated in the primitive mind with endurance in running."

ANIMAL PELTS

Representations of so-called pelts, or animal skins, are not common in Texas picture-writings. Most of the pictures of this class are in Hudspeth and Culberson Counties. In most such cases it is doubtful whether the artist intended to represent an animal skin or something else.

ANIMAL AND BIRD TRACKS

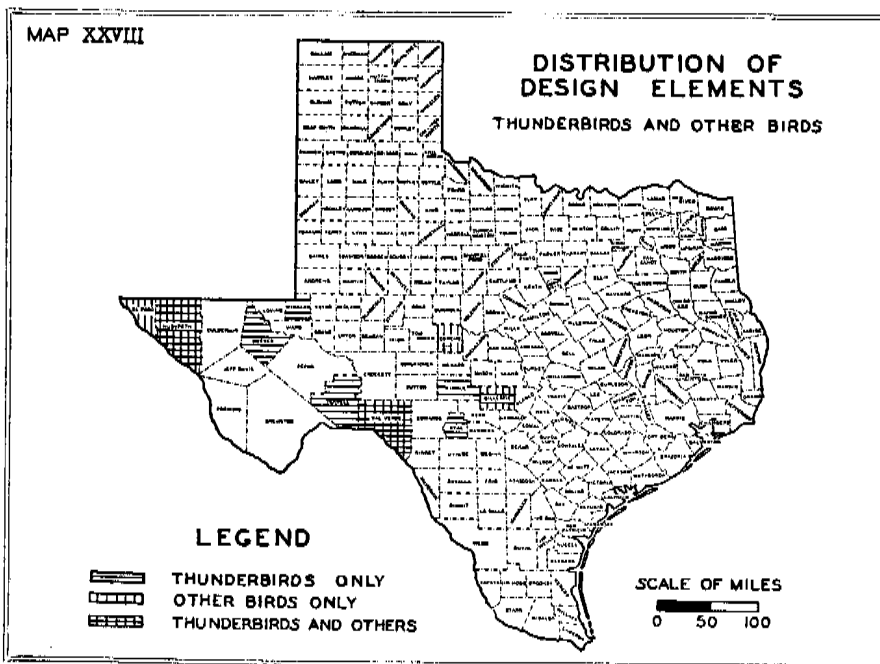
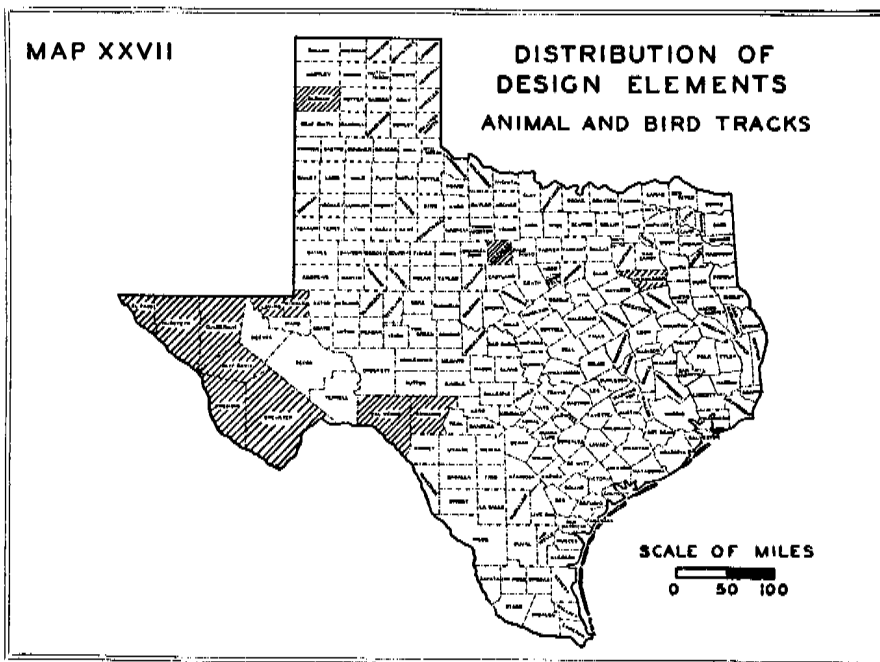
So-called animal and bird tracks are not uncommon among Texas picture-writings. The former sometimes show a close resemblance to human footprints. Such prints are thought to represent bear tracks.

Examples are illustrated in Plate CCLXXXIX, 10 and 19. Nos. 1 to 7, same plate, possibly are intended for bird tracks. No. 12 represents hoofprints of the horse. The chevron-like elements in Nos. 15 and 16 are called by Fewkes¹⁰⁹ mountain sheep tracks.

¹⁰⁷Hunter, J. D., *op. cit.*, pp. 184-187.

¹⁰⁸Fewkes, J. W., The Butterfly in Hopi Myth and Ritual, *American Anthropologist* (N.S.), Vol. 12, No. 4, October-December, 1910, pp. 582-584.

¹⁰⁹Fewkes, J. W., Tusayan Totemic Signatures, *op. cit.*, pp. 1-11.



MAP XXVII. DISTRIBUTION OF ANIMAL AND BIRD TRACKS

MAP XXVIII. DISTRIBUTION OF THUNDERBIRDS AND OTHER BIRDS

PLATE CCLXXXIX

ANIMAL AND BIRD TRACKS AS REPRESENTED IN PICTURE-WRITING

1. Petroglyph, Site No. 155, Stephens County.
2. Petroglyph, Site No. 168, Stephens County.
3. Petroglyph, Site No. 191, Henderson County.
4. Petroglyph, Site No. 191, Henderson County.
5. Pictograph, Site No. 108, Edwards County.
6. Pictograph, Site No. 29, Jeff Davis County.
7. Petroglyph, Site No. 81, Val Verde County.
8. Petroglyph, Site No. 190, Loving County.
9. Pictograph, Site No. 82, Val Verde County.
10. Pictograph, Site No. 2, El Paso County.
11. Pictograph, Site No. 82, Val Verde County.
12. Petroglyph, Site No. 59, Terrell County.
13. Petroglyph, Site No. 18, Culberson County.
14. Pictograph, Site No. 51, Winkler County.
15. Pictograph, Site No. 17, Culberson County.
16. Pictograph, Site No. 180, Presidio County.
17. Petroglyph, Site No. 11, Hudspeth County.
18. Petroglyph, Site No. 162, Oldham County.
19. Petroglyph, Site No. 11, Hudspeth County.

PLATE CCXC

THUNDERBIRDS

1. Pictograph, Site No. 69, Val Verde County.
2. Pictograph, Site No. 140, Gillespie County.
3. Pictograph, Site No. 51, Winkler County.
4. Pictograph, Site No. 56, Terrell County.
5. Pictograph, Site No. 23, Reeves County.
6. Pictograph, Site No. 56, Terrell County.
7. Pictograph, Site No. 22, Reeves County.
8. Pictograph, Site No. 131, Real County.
9. Petroglyph, Site No. 139, Kimble County.
10. Pictograph, Site No. 56, Terrell County.

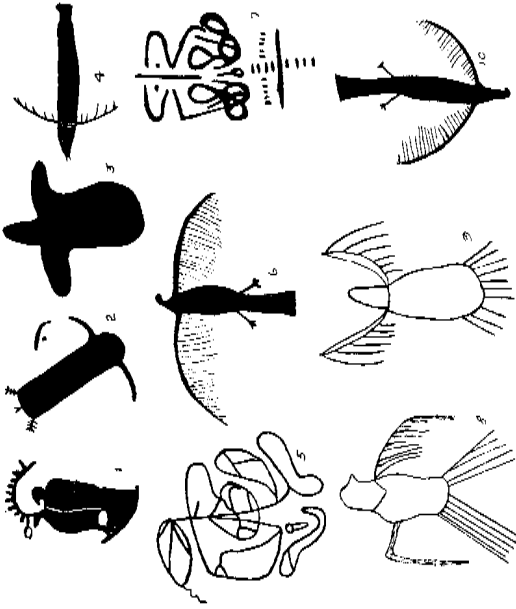


PLATE CCXC.

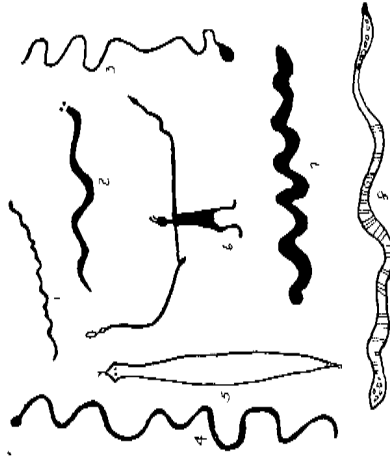


PLATE CCXCII.

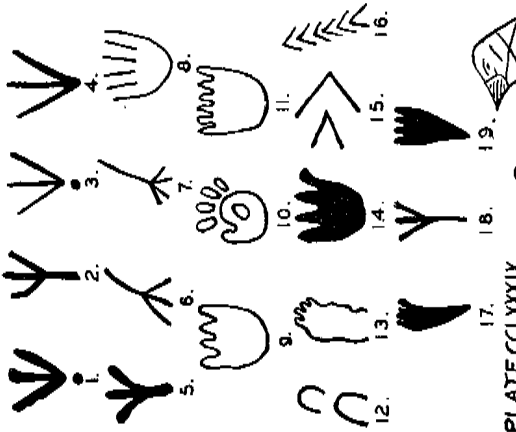


PLATE CCLXXXIX.

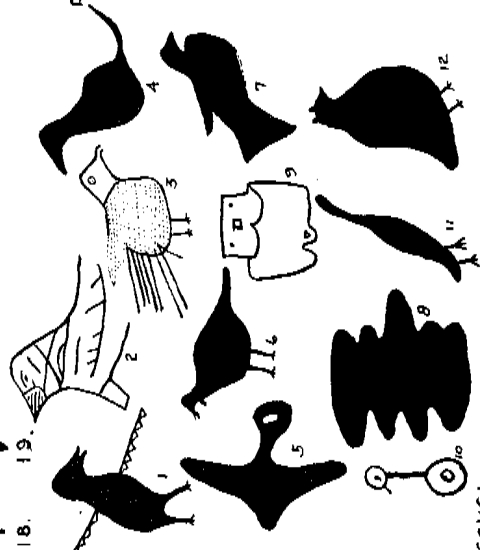


PLATE CCXCI.

PLATE CCXCI

NATURAL BIRDS, CONVENTIONALIZED AND REALISTIC

1. Pictograph, Site No. 82, Val Verde County.
 2. Pictograph, Site No. 64, Val Verde County.
 3. Pictograph, Site No. 2, El Paso County.
 4. Pictograph, Site No. 150, Concho County.
 5. Pictograph, Site No. 150, Concho County.
 6. Pictograph, Site No. 150, Concho County.
 7. Pictograph, Site No. 2, El Paso County.
 8. Pictograph, Site No. 150, Concho County.
 9. Pictograph, Site No. 11, Hudspeth County.
 10. Petroglyph, Site No. 4, Hudspeth County.
 11. Pictograph, Site No. 140, Gillespie County.
 12. Pictograph, Site No. 150, Concho County.
- Nos. 1, 5 and 8 are suggestive of birds in flight.

PLATE CCXCII

REALISTIC AND CONVENTIONALIZED SERPENTS

1. Pictograph, Site No. 70, Val Verde County.
2. Pictograph, Site No. 2, El Paso County.
3. Petroglyph, Site No. 50, Ward County.
4. Petroglyph, Site No. 18, Culberson County.
5. Petroglyph, Site No. 4, Hudspeth County.
6. Petroglyph, Site No. 13, Culberson County.
7. Pictograph, Site No. 150, Concho County.
8. Pictograph, Site No. 3, El Paso County.

OTHER FORMS OF LIFE

THE THUNDERBIRD AND REALISTIC BIRDS

Birds are relatively scarce in Texas picture-writings. The most common form is that of the eagle or thunderbird, which are indistinguishable. The most realistic and outstanding picture of this type is at Site No. 56, Terrell County. (See Plate XCIX.)

At Site No. 22, Reeves County, is an intricate design with a marked resemblance to the Haida double thunderbird pictured by Mallery.¹¹⁰ The Texas figure consists of two connected birds, with an eye of each showing. An interesting feature of the design is the occurrence of the figure eight element. Beneath the birds is a group of dots and lines, apparently forming a part of the picture.

Another conventionalized bird, from the same site, has a huge beak from which dangles a worm or serpent. Since various paintings of historic Indians depict eagles fighting and devouring rattlesnakes, this picture may represent such a conflict.

¹¹⁰Mallery, Garrick, *op. cit.*, Tenth Annual Report, p. 401, Pl. XXIV, Fig. 522.

SERPENTS

Snakes played a prominent part in both the real and the ceremonial life of the West Texas Indians. As a consequence there are a great number of pictures in which serpents are represented. They vary widely and may be grouped into nine subclasses:

1. A simple curved line, with an enlargement for a head.
2. Realistic, some showing rattles and fangs.
3. Head represented by a circle, or concentric circles; sometimes with, and sometimes without, fangs.
4. Head in form of a triangle.
5. Spade-shaped head.
6. Central enlargement, as if a rodent or large egg had been swallowed.
7. Punctate and diamond-back.
8. Plumed or horned; sometimes quite intricate.
9. Carved line with a conical pit for a head.

Two or more of these features may be combined in a single picture. Paintings suggestive of the plumed or horned serpent, while not numerous, are found in various parts of West Texas from El Paso County to Real County. Paintings of snakes are common, but pecked representations are more plentiful. The latter are confined largely to the western part of the area, with the former more common toward the east.

TURTLES, FISH, FROGS, AND LIZARDS

Turtles, fish, frogs, and lizards sometimes appear in Indian picture-writings, but are not numerous. Realistic turtles are distributed over a wide area. Frogs are less plentiful and usually more highly conventionalized. Lizards are conventionalized and frequently difficult to distinguish from some of the human figures.

Fish rarely are found. The most realistic of these are paintings in Val Verde County, near the Rio Grande. An excellent pecked figure of a fish, however, appears at Site No. 4, Hudspeth County. The catfish is clearly represented in Plate CCXCVI, 18.

PLATE CCXCHI

SERPENTS WITH CIRCULAR HEADS

1. Petroglyph, Site No. 172, Culberson County.
2. Petroglyph, Site No. 50, Ward County.
3. Petroglyph, Site No. 40, Brewster County.
4. Petroglyph, Site No. 50, Ward County.
5. Petroglyph, Site No. 50, Ward County.
6. Petroglyph, Site No. 50, Ward County.
7. Pictograph, Site No. 139, Kimble County.
8. Petroglyph, Site No. 18, Culberson County.
9. Pictograph, Site No. 66, Val Verde County.
10. Petroglyph, Site No. 13, Culberson County.
11. Petroglyph, Site No. 50, Ward County.
12. Petroglyph, Site No. 172, Culberson County.
13. Pictograph, Site No. 77, Val Verde County.
14. Petroglyph, Site No. 18, Culberson County.

PLATE CCXCIV

SERPENTS WITH TRIANGULAR AND SPADE-SHAPED HEADS

1. Pictograph, Site No. 2, El Paso County.
2. Pictograph, Site No. 180, Presidio County.
3. Petroglyph, Site No. 4, Hudspeth County.
4. Pictograph, Site No. 76, Val Verde County.
5. Petroglyph, Site No. 20, Culberson County.
6. Petroglyph, Site No. 190, Loving County.
7. Petroglyph, Site No. 81, Val Verde County.
8. Petroglyph, Site No. 4, Hudspeth County.
9. Pictograph, Site No. 82, Val Verde County.
10. Pictograph, Site No. 75, Val Verde County.
11. Petroglyph, Site No. 18, Culberson County.
12. Petroglyph, Site No. 18, Culberson County.

PLATE CCXCV

SO-CALLED PLUMED OR HORNED SERPENTS TOGETHER WITH OTHER
SNAKE VARIANTS

1. Pictograph, Site No. 82, Val Verde County.
2. Pictograph, Site No. 88, Val Verde County.
3. Pictograph, Site No. 74, Val Verde County.
4. Pictograph, Site No. 2, El Paso County.
5. Pictograph, Site No. 133, Real County.
6. Petroglyph, Site No. 4, Hudspeth County.
7. Petroglyph, Site No. 18, Culberson County.
8. Pictograph, Site No. 3, El Paso County.
9. Petroglyph, Site No. 81, Val Verde County.
10. Pictograph, Site No. 162, Oldham County.
11. Pictograph, Site No. 84, Val Verde County.
12. Pictograph, Site No. 150, Concho County.
13. Pictograph, Site No. 74, Val Verde County.
14. Pictograph, Site No. 103, Edwards County.
15. Pictograph, Site No. 71, Val Verde County.
16. Petroglyph, Site No. 11, Hudspeth County.

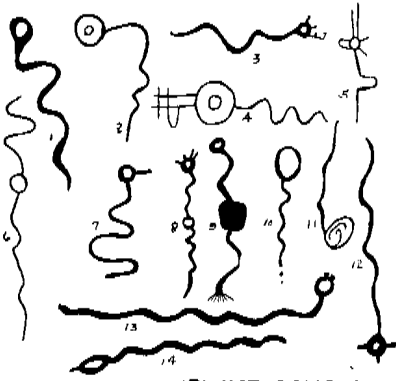


PLATE CCXCIII.



PLATE CCXCIV.

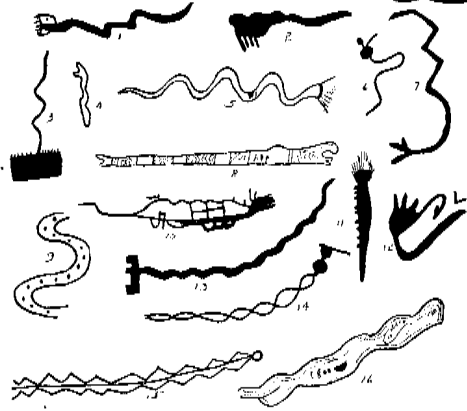


PLATE CCXCV.

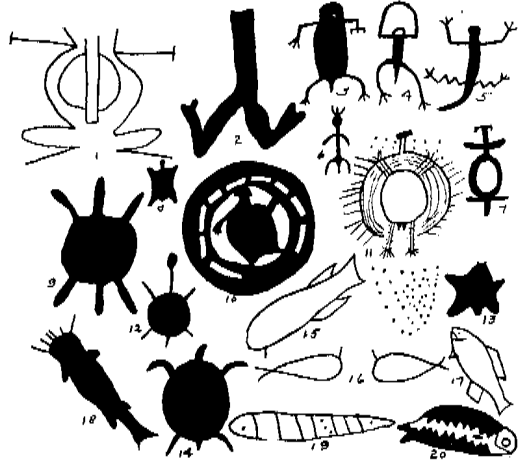


PLATE CCXCVI.

PLATE CCXCVI

TURTLES, FISH, FROGS AND LIZARDS

1. Pictograph, Site No. 26, Jeff Davis County.
2. Pictograph, Site No. 20, Culberson County.
3. Petroglyph, Site "B," Otero County, New Mexico.
4. Petroglyph, Site "B," Otero County, New Mexico.
5. Petroglyph, Site "B," Otero County, New Mexico.
6. Petroglyph, Site No. 13, Culberson County.
7. Petroglyph, Site "A," Otero County, New Mexico.
8. Pictograph, Site No. 90, Val Verde County.
9. Pictograph, Site No. 150, Concho County.
10. Pictograph, Site No. 150, Concho County.
11. Pictograph, Site No. 84, Val Verde County.
12. Petroglyph, Site No. 81, Val Verde County.
13. Petroglyph, Site No. 4, Hudspeth County.
14. Petroglyph, Site No. 13, Culberson County.
15. Pictograph, Site No. 91, Val Verde County.
16. Pictograph, Site No. 2, El Paso County.
17. Carved stone, Wilbarger County.
18. Pictograph, Site No. 90, Val Verde County.
19. Petroglyph, Site No. 81, Val Verde County.
20. Petroglyph, Site No. 4, Hudspeth County.

BUTTERFLIES AND OTHER INSECTS

In 12 counties are representations of butterflies and other insect-like designs. A few are realistic, but most of them are so crude and vague in form as to render identification dubious. In some cases the antennae, or feelers, are greatly exaggerated; in others the wings are featured; again, the legs of the bugs are very prominent.

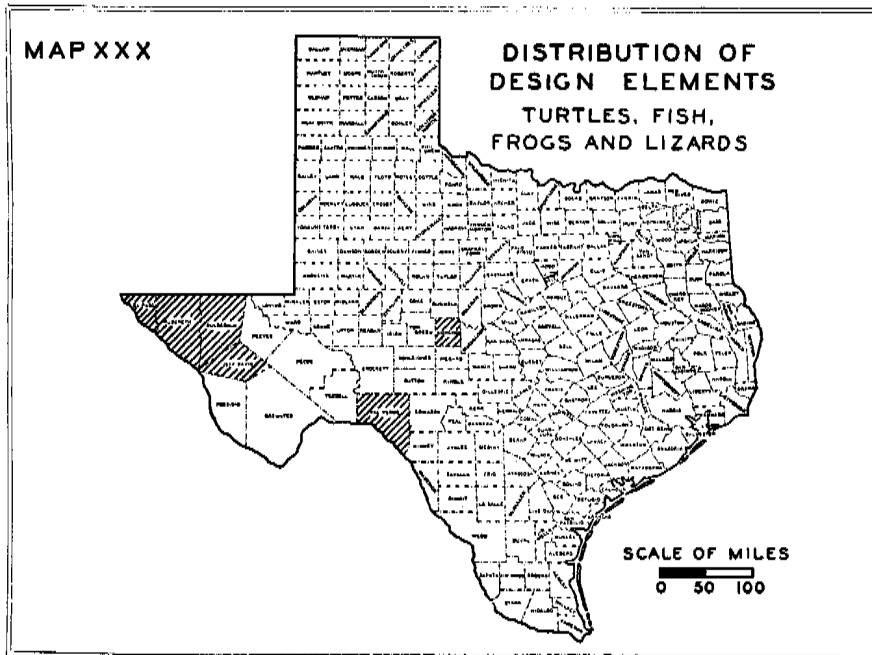
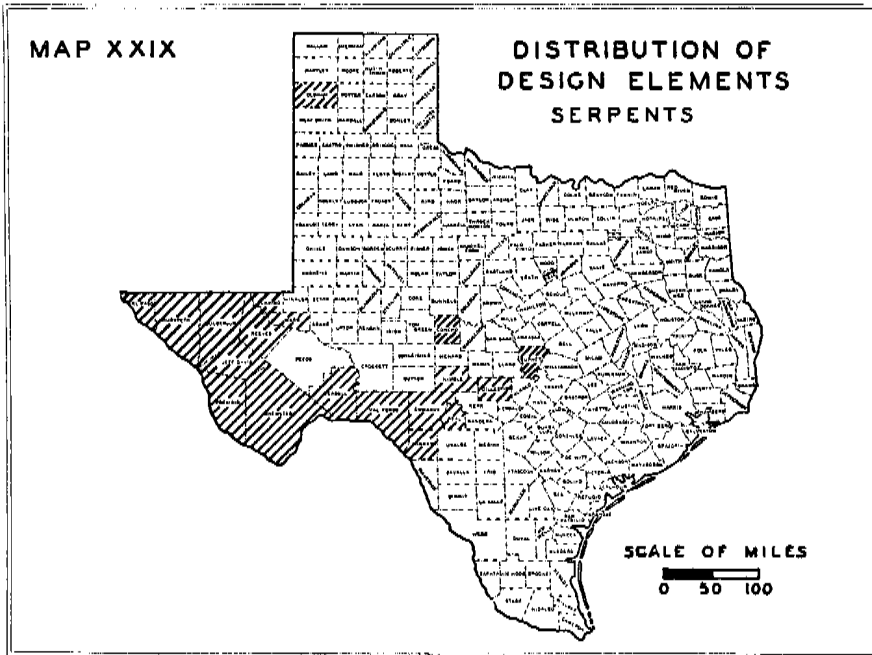
Of the 40 specimens illustrated in Plate CCXCVII, eight are petroglyphs and 32 pictographs, making 20 per cent for the former and 80 per cent of the latter.

No. 33, same plate, is suggestive of the centipede, which Bourke¹¹¹ states is "an important animal god of the Apaches." The painting is from Site No. 108, Edwards County, in which region the Lipan Apaches ranged for a time. Certainly these gruesome and obnoxious creatures were prevalent in the caves and camps and must have been much in mind of the Indians, who slept on the ground.

As mentioned by Fewkes,¹¹² "conventionalized figures of both birds and butterflies are so made that it often is difficult to decide whether a figure represents a bird or insect. . . . Highly conventionalized bird and butterfly symbols are thus often indistinguishable and grade into each other so closely that they are extremely difficult to separate."

¹¹¹Bourke, J. G., *The Medicine Men of the Apaches*, Ninth Annual Report, Bureau of American Ethnology, 1887-88, Washington, 1892, p. 580.

¹¹²Fewkes, J. W., *The Butterfly in Hopi Myth and Ritual*, *op. cit.*, pp. 582-584.



MAP XXIX. DISTRIBUTION OF SERPENTS IN PICTURES

MAP XXX. DISTRIBUTION OF TURTLES, FISH, FROGS AND LIZARDS

PLATE CCXCVII

BUTTERFLIES AND OTHER INSECTS

1. Pictograph, Site No. 71, Val Verde County.
2. Pictograph, Site No. 69, Val Verde County.
3. Petroglyph, Site No. 5, Hudspeth County.
4. Petroglyph, Site No. 81, Val Verde County.
5. Pictograph, Site No. 2, El Paso County.
6. Pictograph, Site No. 71, Val Verde County.
7. Pictograph, Site No. 150, Concho County.
8. Pictograph, Site No. 84, Val Verde County.
9. Pictograph, Site No. 69, Val Verde County.
10. Petroglyph, Site "B," Otero County, New Mexico.
11. Pictograph, Site No. 71, Val Verde County.
12. Pictograph, Site No. 23, Reeves County.
13. Pictograph, Site No. 30, Jeff Davis County.
14. Petroglyph, Site No. 191, Henderson County.
15. Petroglyph, Site No. 81, Val Verde County.
16. Pictograph, Site No. 88, Val Verde County.
17. Pictograph, Site No. 51, Winkler County.
18. Pictograph, Site No. 69, Val Verde County.
19. Pictograph, Site No. 82, Val Verde County.
20. Pictograph, Site No. 71, Val Verde County.
21. Painted pebble, Site No. 82, Val Verde County.
22. Pictograph, Site No. 68, Val Verde County.
23. Pictograph, Site "B," Otero County, New Mexico.
24. Pictograph, Site No. 66, Val Verde County.
25. Pictograph, Site "B," Otero County, New Mexico.
26. Pictograph, Site No. 61, Terrell County.
27. Pictograph, Site No. 2, El Paso County.
28. Pictograph, Site No. 71, Val Verde County.
29. Pictograph, Site No. 150, Concho County.
30. Petroglyph, Site No. 13, Culberson County.
31. Pictograph, Site No. 84, Val Verde County.
32. Pictograph, Site No. 150, Concho County.
33. Pictograph, Site No. 108, Edwards County.
34. Pictograph, Site No. 64, Val Verde County.
35. Petroglyph, Site "C," Chihuahua, Mexico.
36. Pictograph, Site No. 64, Val Verde County.
37. Pictograph, Site No. 82, Val Verde County.
38. Pictograph, Site No. 82, Val Verde County.
39. Pictograph, Site No. 2, El Paso County.
40. Petroglyph, Site "A," Otero County, New Mexico.

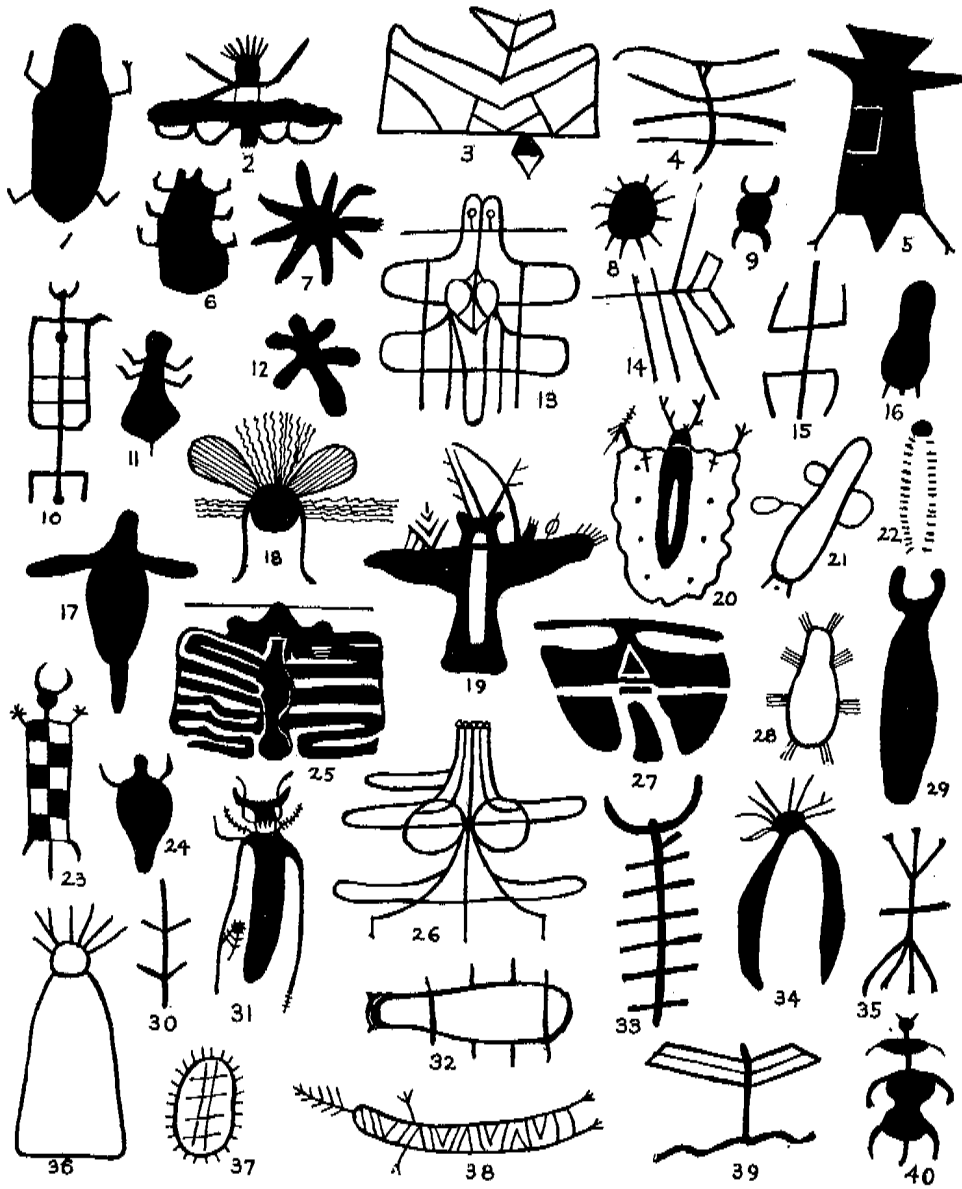


PLATE CCXCVII

PLATE CCXCVIII
TREES AND PLANTS

1. Pictograph, Site No. 61, Terrell County.
2. Pictograph, Site No. 2, El Paso County.
3. Petroglyph, Site No. 59, Terrell County.
4. Pictograph, Site No. 82, Val Verde County.
5. Pictograph, Site "B," Otero County, New Mexico.
6. Pictograph, Site No. 82, Val Verde County.
7. Petroglyph, Site No. 81, Val Verde County.
8. Pictograph, Site No. 84, Val Verde County.
9. Pictograph, Site No. 84, Val Verde County.
10. Pictograph, Site No. 150, Concho County.
11. Pictograph, Site No. 140, Gillespie County.
12. Pictograph, Site No. 51, Winkler County.
13. Pictograph, Site No. 23, Reeves County.
14. Pictograph, Site No. 75, Val Verde County.
15. Petroglyph, Site No. 8, Hudspeth County.
16. Petroglyph, Site No. 8, Hudspeth County.
17. Petroglyph, Site No. 4, Hudspeth County.
18. Petroglyph, Site No. 4, Hudspeth County.
19. Petroglyph, Site No. 4, Hudspeth County.
20. Petroglyph, Site No. 5, Hudspeth County.
21. Painted pebble, Site No. 82, Val Verde County.

PLATE CCXCIX
PROJECTILE WOUNDS

1. Petroglyph, Site No. 11, Hudspeth County.
2. Pictograph, Site No. 2, El Paso County.
3. Petroglyph, Site No. 152, Nolan County.
4. Petroglyph, Site No. 162, Oldham County.
5. Petroglyph, Site No. 11, Hudspeth County.
6. Petroglyph, Site No. 11, Hudspeth County.
7. Pictograph, Site No. 82, Val Verde County.
8. Pictograph, Site No. 84, Val Verde County.
9. Petroglyph, Site No. 11, Hudspeth County.
10. Petroglyph, Site No. 4, Hudspeth County.
11. Pictograph, Site No. 90, Val Verde County.
12. Petroglyph, Site No. 4, Hudspeth County.
13. Pictograph, Site No. 76, Val Verde County.
14. Pictograph, Site No. 73, Val Verde County.
15. Pictograph, Site No. 178, Culberson County.
16. Pictograph, Site No. 29, Jeff Davis County.

PLATE CCC
GROUND-LINE PICTURES

1. Petroglyph, Site No. 18, Culberson County.
2. Pictograph, Site No. 23, Reeves County.
3. Pictograph, Site No. 150, Concho County.
4. Pictograph, Site No. 178, Culberson County.
5. Petroglyph, Site No. 188, Sutton County.
6. Pictograph, Site "B," Otero County, New Mexico.
7. Pictograph, Site No. 96, Val Verde County.
8. Pictograph, Site No. 74, Val Verde County.

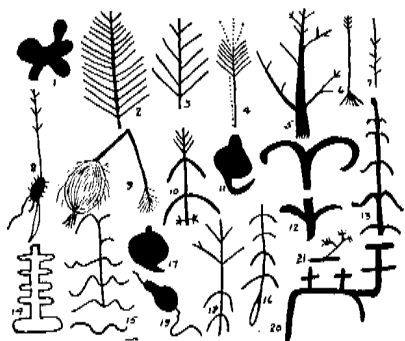


PLATE CCXCVIII.

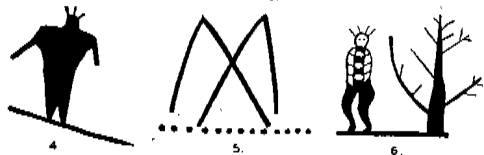
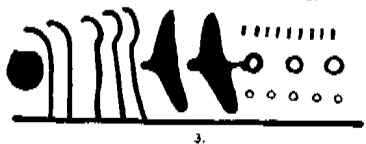


PLATE CCC.

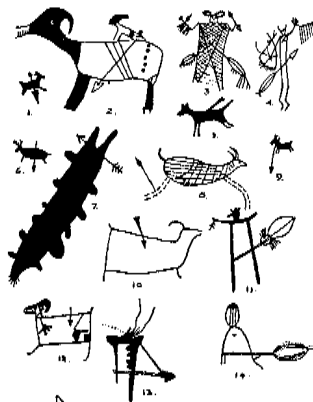


PLATE CCXCIX.

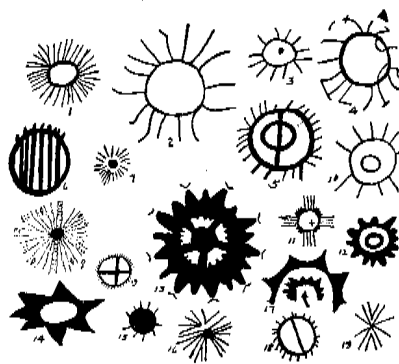


PLATE CCCI.

PLATE CCCI

SUN SYMBOLS, RAYED DISCS

1. Pictograph, Site No. 56, Terrell County.
2. Pictograph, Site No. 83, Val Verde County.
3. Petroglyph, Site No. 81, Val Verde County.
4. Pictograph, Site No. 64, Val Verde County.
5. Pictograph, Site No. 150, Concho County.
6. Pictograph, Site No. 30, Jeff Davis County.
7. Pictograph, Site No. 38, Brewster County.
8. Pictograph, Site No. 82, Val Verde County.
9. Pictograph, Site No. 65, Val Verde County.
10. Pictograph, Site No. 3, El Paso County.
11. Pictograph, Site No. 56, Terrell County.
12. Pictograph, Site No. 3, El Paso County.
13. Pictograph, Site No. 150, Concho County.
14. Pictograph, Site No. 150, Concho County.
15. Pictograph, Site No. 140, Gillespie County.
16. Petroglyph, Site No. 20, Culberson County.
17. Pictograph, Site No. 2, El Paso County.
18. Pictograph, Site No. 30, Jeff Davis County.
19. Petroglyph, Site No. 20, Culberson County.

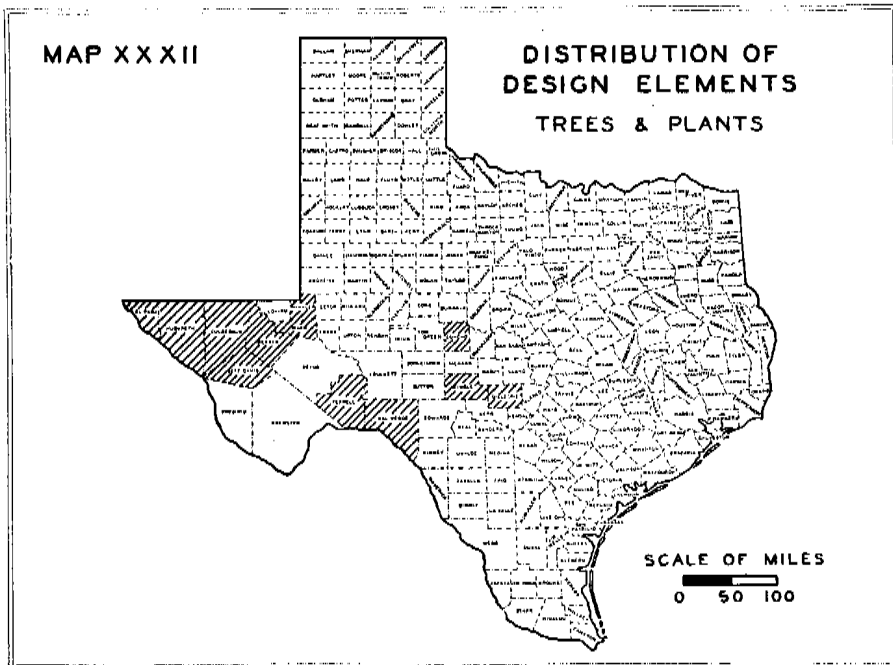
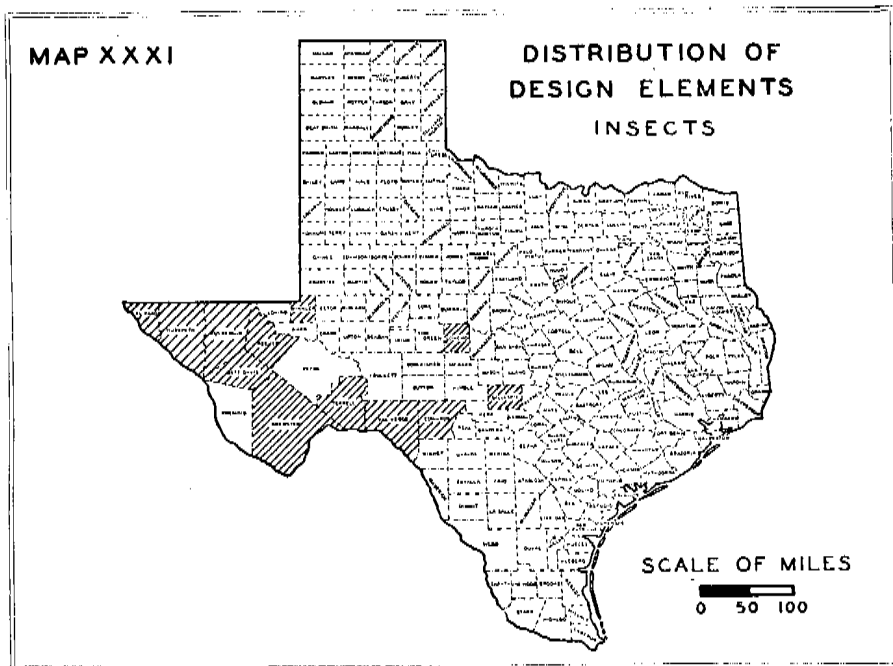
TREES AND PLANTS

The representation of trees and plants is not very common in Texas picture-writings. There are, however, a few pictures of this kind distributed over 12 counties. Of the 21 specimens illustrated in Plate CCXCVIII, eight are petroglyphs and 13 pictographs.

The most common type of tree form is in the herringbone pattern, with branches offsetting each other in a symmetrical manner. Very rarely are identifiable plants found; but one at Site No. 150, Concho County, seems to represent a stalk of corn. Both the stalk and root system are shown. A similar picturing of plant roots is found at Site No. 82, Val Verde County.

As might be expected in a region abounding in yucca, the flower stalk of that plant sometimes occurs among the paintings. An interesting illustration is at Site No. 84, Val Verde County.

A petroglyph at Site No. 4, Hudspeth County, seems to represent a gourd, with a portion of the vine or a cord---attached. At Site No. 140, Gillespie County, is a small painting suggestive of an onion or a tuber. A similar picture is pecked into the rock at Site No. 4, Hudspeth County.



MAP XXXI. DISTRIBUTION OF INSECTS IN PICTURE-WRITING
MAP XXXII. DISTRIBUTION OF TREES AND PLANTS IN PICTURES

At Site No. 61, Terrell County, is a realistic representation of the prickly pear (*Opuntia lindheimeri*). A pebble from Site No. 82, Val Verde County, has painted on it a vine-like design.

These pictures, though not numerous, indicate that the Indian had some powers of observation where his interests were concerned.

SAME MOTIVATION IN DIFFERENT TYPES OF PICTURES

While pictures may be broadly classified as human representations and workmanship, lower life, etc., there are certain cases of overlapping, or partial representation, due to efforts at telling a story or indicating action. This is due in part to the motivation. Movement or action might modify any type of picture.

Illustrations of this fact are brought out in the following discussions of projectile wounds and ground-line pictures.

PROJECTILE WOUNDS

The Indian frequently pictured animals and humans—sometimes insects—as pierced by projectiles. The manner of representation varies widely. Frequently the projectile is shown piercing the body and protruding at each end. Again, merely the point has entered the flesh. In such cases, the point may or may not show, depending on whether the animal is painted solidly or merely outlined. If outlined, the penetrating projectile and point are indicated. Sometimes the greater part of the shaft has gone through the animal, leaving merely the nock end remaining.

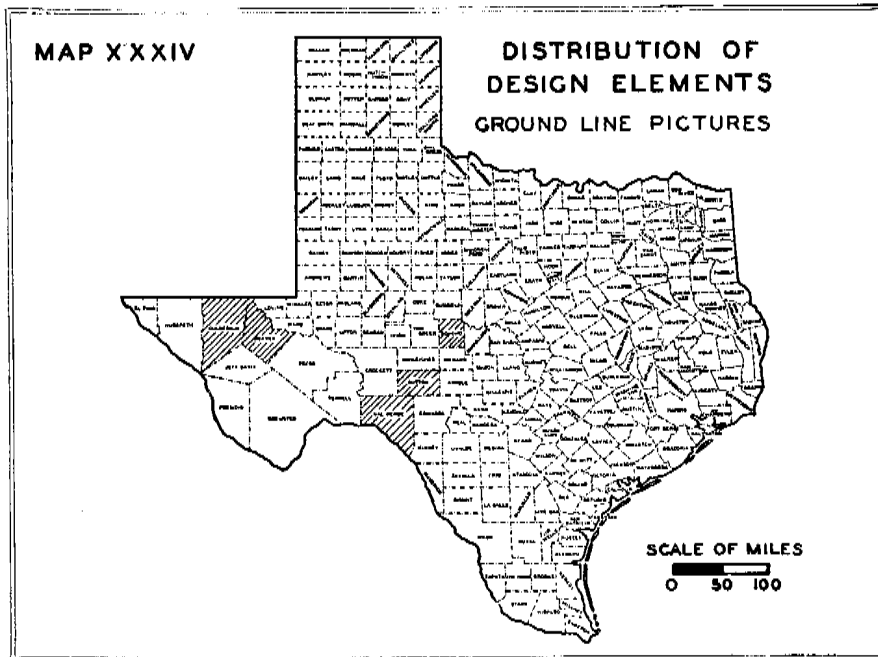
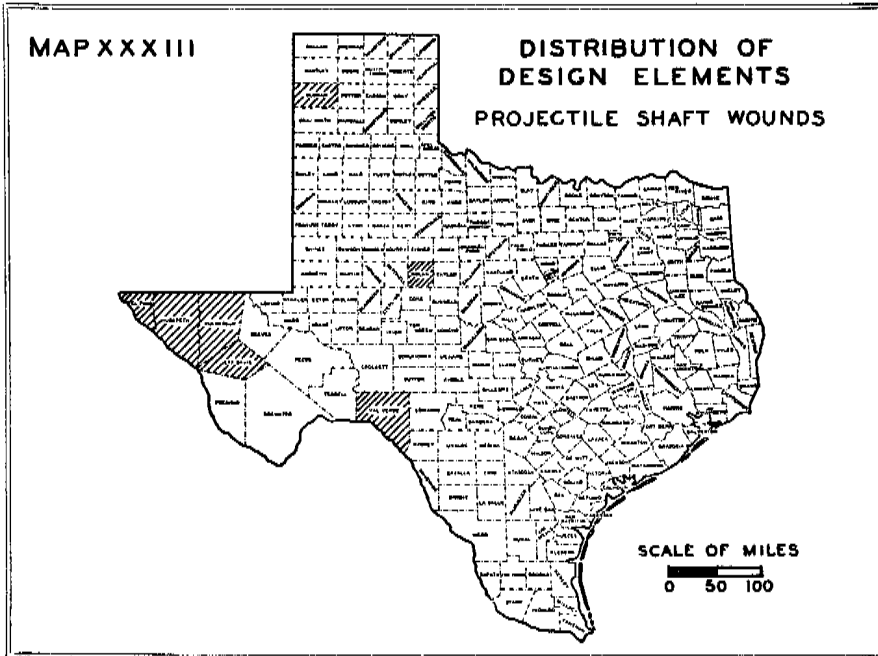
The forms of life more often pierced by projectiles are the mountain sheep and deer. Occasionally there is a picture showing a projectile penetrating a fish or snake.

Usually the point is represented as having penetrated the vital parts of the body; but in a few cases the hunter, it seems, almost missed his mark. A striking example is seen in Plate CCXCIX, 8, where the shaft has struck a hind leg of a running deer. Rarely does there seem to be any attempt to show blood issuing from the wound.

GROUND-LINE PICTURES

For want of a better name, certain pictures in which the earth seems to have been represented are here called ground-line pictures. Usually a man or animal is drawn without showing the ground on which he stands. That common trait of "suspension in midair" was departed from in these few pictures, with the result that the apparent representation of the ground-line gave rise to the name of the class.

But the added features may have been intended merely as decorative band-lines, without any intention of representing the surface of the earth. Examples are presented in Plate CCC.



MAP XXXIII. DISTRIBUTION OF PROJECTILE WOUNDS

MAP XXXIV. DISTRIBUTION OF GROUND-LINE PICTURES

GEOMETRIC AND SYMBOLIC DESIGNS

SUN SYMBOLS

Various circular designs, rayed discs and star-like elements, commonly called sun symbols, are found in 21 counties.

Willoughby¹¹³ and other writers on symbolism think that the lines radiating from a circle symbolize the rays of the sun; that an equal-armed cross in a circle represents the sun and the four cardinal points, or the four winds; that cosmic symbols represent the sun, four winds or four directions of the compass and the horizon.

“The world of primitive man,” Willoughby states, “was bounded by the horizon - an immense circle over which the sun daily took its course, establishing the cardinal points, the recognition of which forms so conspicuous a part of the religious ceremonies of the Indians.”

CLOUDS, LIGHTNING, RAIN AND WATER SYMBOLS

These symbols, and their many variants, have a wide distribution. The most common form is that of a circular or semi-circular element with rays extending downward. The upper portion symbolizes the clouds, while the lines beneath represent falling rain. Occasionally a zigzag line protrudes from the cloud to denote lightning.

Since rain was always welcome in the semi-arid regions, where most of these pictures occur, it is not surprising that such symbolism sprang up. The symbols probably were employed in prayers for rain.

A circle with wavy lines inside may represent a spring, waterhole or other source of water.

LADDER-LIKE ELEMENTS

In 16 counties are ladder-like elements. These include a few of the single-pole type, but most of them make use of two poles and the ordinary rungs. There are, likewise, some figures suggestive of rope ladders, with sticks for rungs. Examples of the latter are illustrated in Plate CCCV, 5, 17, 19, 20 and 27.

Of 27 pictures included in the plate, 22 are pictographs and five petroglyphs.

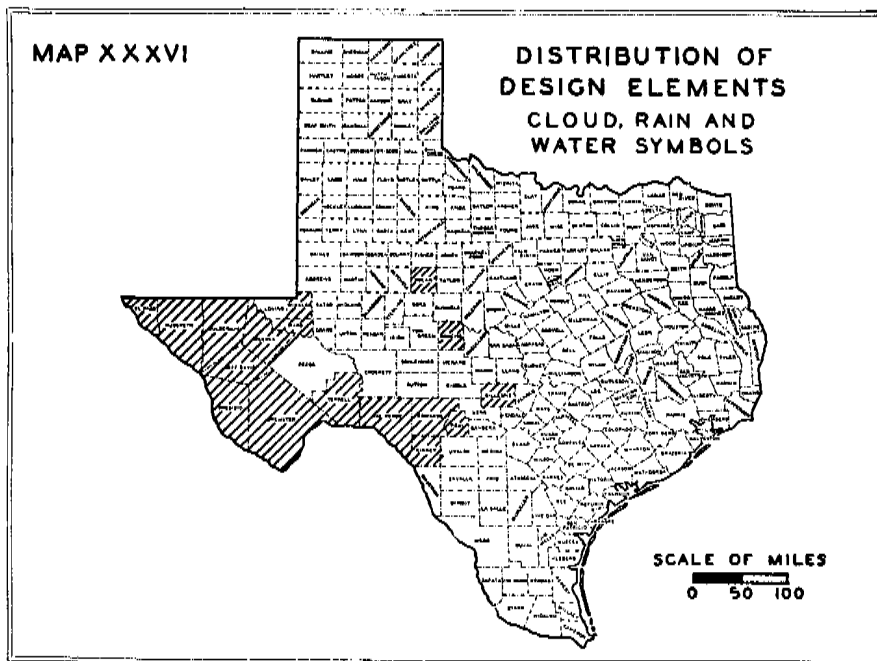
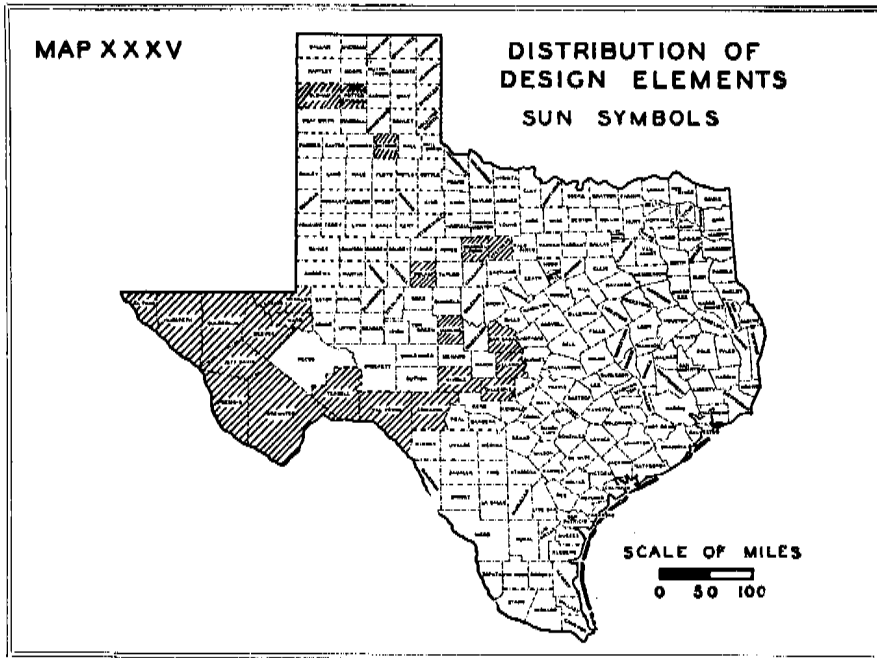
Access to some of the bluff shelters would have been greatly facilitated by the use of ladders. One such ladder has been unofficially reported from a West Texas cave.

Some of the pictographs are located in such elevated positions, on steep cliffs, as to suggest strongly the necessity of ladders to enable the native artist to paint them.

Hence it seems probable that some of these elements were intended to represent real ladders.

The frequency of the design, however, makes it almost certain that these figures represent something else and that they are symbolic of some fact or force that was much in the mind of the picture makers. In other words, we are not sure what they represent.

¹¹³Willoughby, C. C., *An Analysis of the Decorations Upon Pottery from the Mississippi Valley*, *Journal of American Folk-Lore*, Vol. 10, Cambridge, 1897, pp. 9-20.



MAP XXXV. DISTRIBUTION OF SUN SYMBOLS

MAP XXXVI. DISTRIBUTION OF CLOUD, RAIN AND WATER SYMBOLS

PLATE CCCII

SUN SYMBOLS, EQUAL-ARMED CROSSES IN CIRCLES

Sometimes called cosmic symbols.

1. Pictograph, Site No. 3, El Paso County.
2. Petroglyph, Site No. 81, Val Verde County.
3. Petroglyph, Site No. 50, Ward County.
4. Petroglyph, Site No. 50, Ward County.
5. Pictograph, Site No. 147, San Saba County.
6. Petroglyph, Site No. 81, Val Verde County.
7. Pictograph, Site No. 56, Terrell County.
8. Pictograph, Site No. 56, Terrell County.
9. Pictograph, Site No. 40, Brewster County.

PLATE CCCIII

SUN SYMBOLS, UNUSUAL VARIANTS

No. 17, the swastika or Gamma-cross, is very unusual in Texas picture-writing. No. 15 is suggestive of a composite between the swastika and the triskele.

1. Petroglyph, Site "C," Chihuahua, Mexico.
2. Pictograph, Site No. 82, Val Verde County.
3. Pictograph, Site No. 76, Val Verde County.
4. Pictograph, Site No. 2, El Paso County.
5. Pictograph, Site No. 17, Culberson County.
6. Pictograph, Site No. 150, Concho County.
7. Pictograph, Site No. 150, Concho County.
8. Pictograph, Site No. 150, Concho County.
9. Petroglyph, Site No. 50, Ward County.
10. Pictograph, Site No. 150, Concho County.
11. Pictograph, Site No. 150, Concho County.
12. Pictograph, Site No. 150, Concho County.
13. Pictograph, Site No. 119, Edwards County.
14. Pictograph, Site No. 155, Stephens County.
15. Petroglyph, Site No. 13, Culberson County.
16. Pictograph, Site No. 145, Llano County.
17. Pictograph, Site No. 139, Kimble County.

PLATE CCCIV

CLOUD, LIGHTNING, RAIN AND WATER SYMBOLS

1. Pictograph, Site No. 1, El Paso County.
2. Pictograph, Site No. 30, Jeff Davis County.
3. Pictograph, Site No. 74, Val Verde County.
4. Pictograph, Site No. 140, Gillespie County.
5. Petroglyph, Site No. 11, Hudspeth County.
6. Pictograph, Site No. 150, Concho County.
7. Pictograph, Site No. 140, Gillespie County.
8. Pictograph, Site No. 66, Val Verde County.
9. Petroglyph, Site No. 4, Hudspeth County.
10. Pictograph, Site No. 152, Nolan County.
11. Pictograph, Site No. 119, Kinney County.
12. Petroglyph, Site "B," Otero County, New Mexico.
13. Petroglyph, Site No. 50, Ward County.
14. Pictograph, Site No. 51, Winkler County.
15. Pictograph, Site No. 140, Gillespie County.
16. Petroglyph, Site No. 81, Val Verde County.
17. Petroglyph, Site No. 4, Hudspeth County.
18. Petroglyph, Site "C," Chihuahua, Mexico.
19. Pictograph, Site No. 68, Val Verde County.
20. Pictograph, Site No. 150, Concho County.
21. Pictograph, Site No. 69, Val Verde County.
22. Pictograph, Site No. 68, Val Verde County.
23. Pictograph, Site No. 84, Val Verde County.

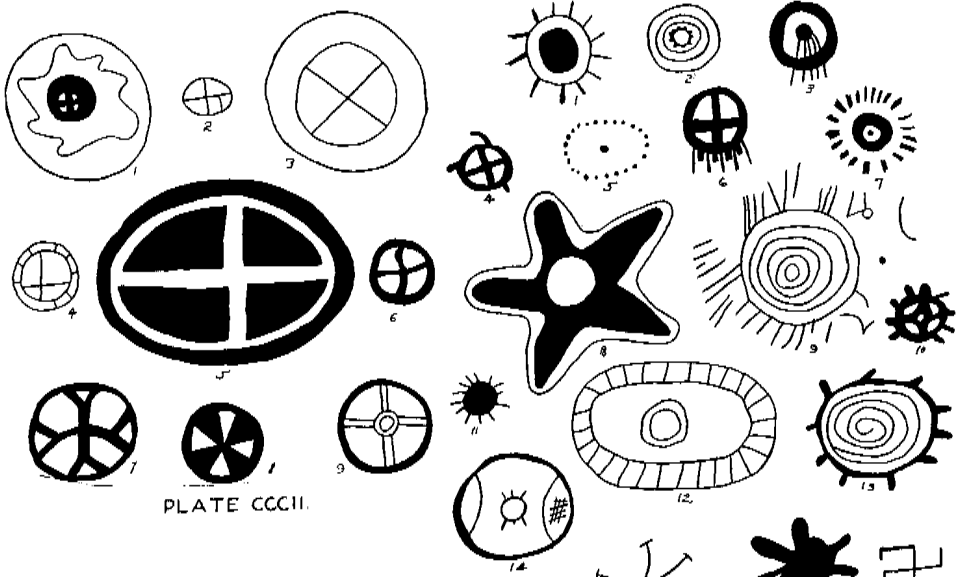


PLATE CCCII.

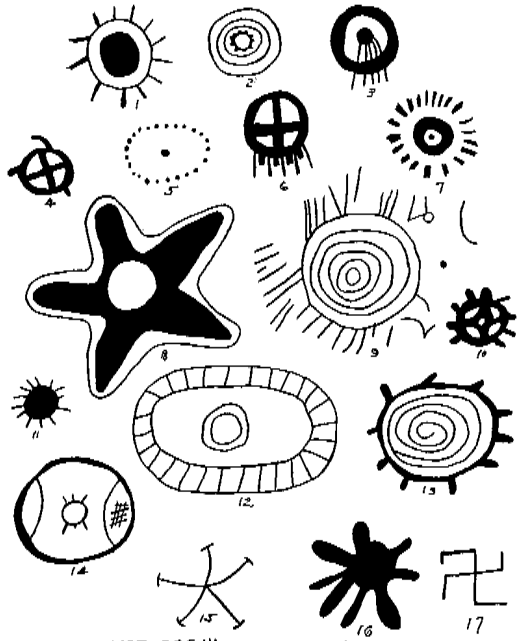


PLATE CCCIII



PLATE CCCIV.

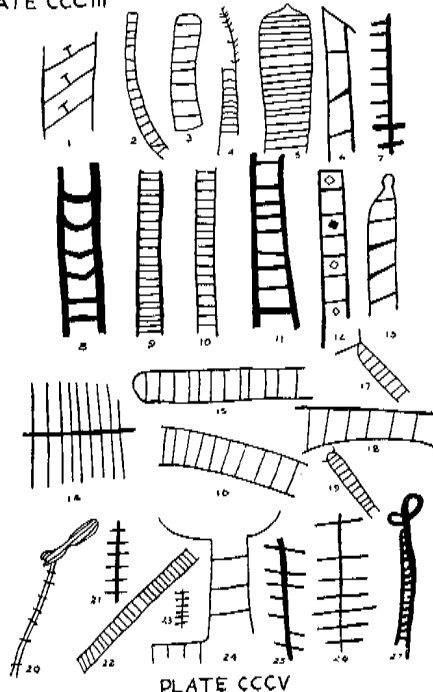
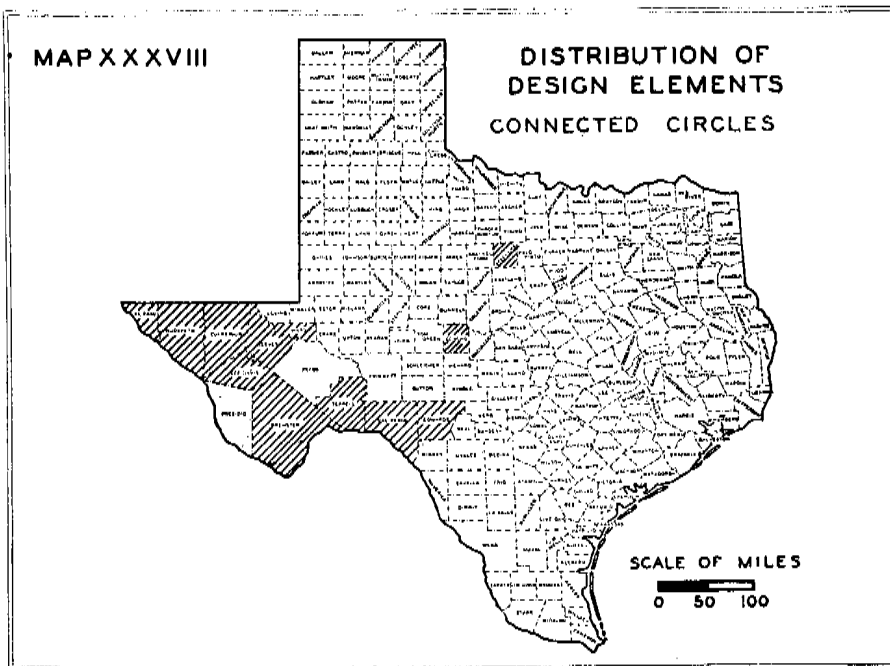
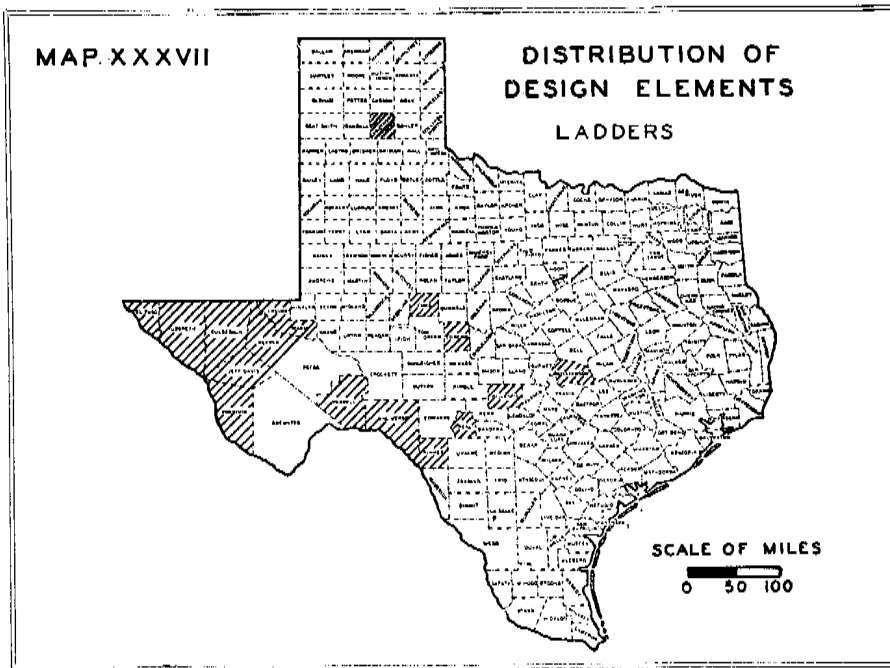


PLATE CCCV

PLATE CCCV

LADDER-LIKE ELEMENTS

1. Painted pebble, Site No. 82, Val Verde County.
2. Pictograph, Site No. 27, Jeff Davis County.
3. Petroglyph, Site No. 8, Hudspeth County.
4. Petroglyph, Site No. 50, Ward County.
5. Pictograph, Site No. 30, Presidio County.
6. Pictograph, Site No. 88, Val Verde County.
7. Pictograph, Site No. 133, Real County.
8. Pictograph, Site No. 133, Real County.
9. Pictograph, Site No. 23, Reeves County.
10. Pictograph, Site No. 99, Val Verde County.
11. Pictograph, Site No. 140, Gillespie County.
12. Pictograph, Site No. 119, Kinney County.
13. Pictograph, Site No. 84, Val Verde County.
14. Pictograph, Site No. 30, Jeff Davis County.
15. Pictograph, Site No. 26, Jeff Davis County.
16. Pictograph, Site No. 27, Jeff Davis County.
17. Petroglyph, Site No. 151, Coke County.
18. Pictograph, Site No. 180, Presidio County.
19. Carved stone, Williamson County.
20. Pictograph, Site No. 66, Val Verde County.
21. Pictograph, Site No. 84, Val Verde County.
22. Carved stone, Williamson County.
23. Pictograph, Site No. 1, El Paso County.
24. Pictograph, Site No. 2, El Paso County.
25. Painted pebble, Site No. 82, Val Verde County.
26. Pictograph, Site No. 82, Val Verde County.
27. Pictograph, Site No. 22, Reeves County.



MAP XXXVII. DISTRIBUTION OF LADDER-LIKE ELEMENTS

MAP XXXVIII. DISTRIBUTION OF CONNECTED CIRCLES

PLATE CCCVI

CONNECTED CIRCLES AND DOTS

1. Petroglyph, Site No. 18, Culberson County.
2. Pictograph, Site No. 2, El Paso County.
3. Pictograph, Site No. 150, Concho County.
4. Petroglyph, Site No. 50, Ward County.
5. Petroglyph, Site No. 18, Culberson County.
6. Pictograph, Site No. 71, Val Verde County.
7. Petroglyph, Site No. 11, Hudspeth County.
8. Pictograph, Site No. 65, Val Verde County.
9. Petroglyph, Site "C," Chihuahua, Mexico.
10. Petroglyph, Site No. 81, Val Verde County.
11. Petroglyph, Site No. 4, Hudspeth County.
12. Petroglyph, Site No. 81, Val Verde County.
13. Pictograph, Site No. 2, El Paso County.
14. Pictograph, Site No. 23, Reeves County.
15. Petroglyph, Site No. 4, Hudspeth County.
16. Petroglyph, Site No. 4, Hudspeth County.
17. Petroglyph, Site No. 4, Hudspeth County.
18. Petroglyph, Site No. 8, Hudspeth County.
19. Petroglyph, Site "B," Otero County, New Mexico.
20. Pictograph, Site No. 103, Edwards County.
21. Petroglyph, Site No. 81, Val Verde County.
22. Petroglyph, Site No. 13, Culberson County.
23. Pictograph, Site No. 150, Concho County.
24. Petroglyph, Site No. 50, Ward County.
25. Petroglyph, Site No. 13, Culberson County.
26. Petroglyph, Site No. 8, Hudspeth County.
27. Pictograph, Site No. 69, Val Verde County.
28. Petroglyph, Site No. 4, Hudspeth County.
29. Pictograph, Site No. 155, Stephens County.
30. Petroglyph, Site No. 81, Val Verde County.
31. Petroglyph, Site "B," Otero County, New Mexico.
32. Petroglyph, Site No. 13, Culberson County.
33. Petroglyph, Site No. 81, Val Verde County.
34. Petroglyph, Site No. 81, Val Verde County.
35. Petroglyph, Site No. 81, Val Verde County.
36. Petroglyph, Site "C," Chihuahua, Mexico.

PLATE CCCVII

RAKE-LIKE ELEMENTS

1. Painted pebbles, Site No. 82, Val Verde County.
2. Petroglyph, Site No. 13, Culberson County.
3. Pictograph, Site No. 178, Culberson County.
4. Pictograph, Site No. 30, Jeff Davis County.
5. Petroglyph, Site No. 18, Culberson County.
6. Pictograph, Site No. 91, Val Verde County.
7. Pictograph, Site No. 17, Culberson County.
8. Pictograph, Site No. 150, Concho County.
9. Pictograph, Site No. 27, Jeff Davis County.
10. Pictograph, Site No. 17, Culberson County.
11. Pictograph, Site No. 178, Culberson County.
12. Petroglyph, Site No. 50, Ward County.
13. Pictograph, Site No. 150, Concho County.
14. Petroglyph, Site No. 190, Loving County.
15. Pictograph, Site No. 2, El Paso County.
16. Pictograph, Site No. 150, Concho County.
17. Pictograph, Site No. 24, Reeves County.

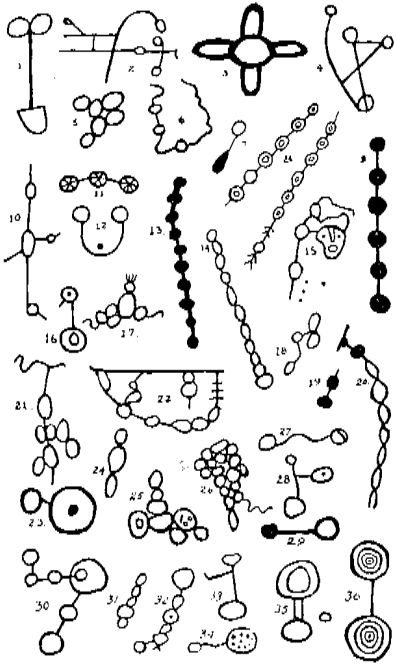


PLATE CCCVI.

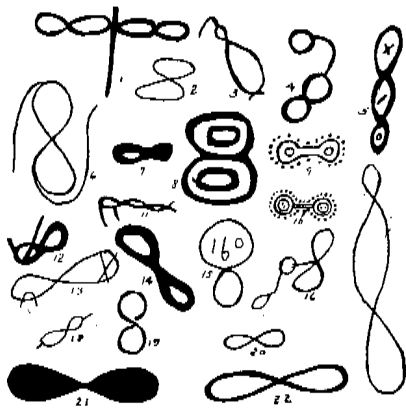


PLATE CCCVIII.

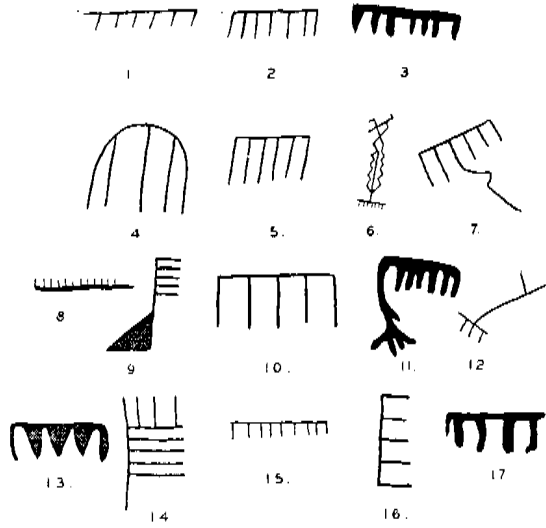


PLATE CCCVII.

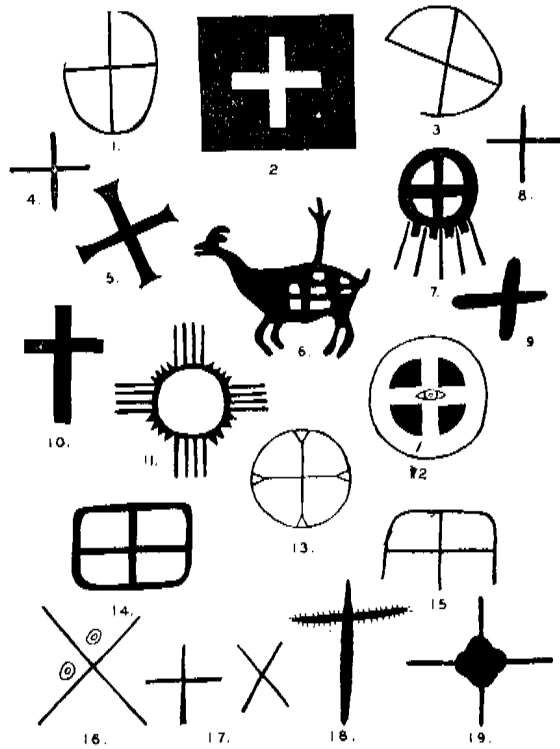


PLATE CCCIX.

PLATE CCCVIII

FIGURE EIGHT ELEMENTS

1. Pictograph, Site No. 30, Jeff Davis County.
2. Petroglyph, Site No. 81, Val Verde County.
3. Pictograph, Site No. 108, Edwards County.
4. Petroglyph, Site No. 18, Culberson County.
5. Pictograph, Site No. 99, Val Verde County.
6. Petroglyph, Site No. 81, Val Verde County.
7. Pictograph, Site No. 84, Val Verde County.
8. Petroglyph, Site No. 5, Hudspeth County.
9. Petroglyph, Site No. 81, Val Verde County.
10. Petroglyph, Site No. 81, Val Verde County.
11. Pictograph, Site No. 133, Real County.
12. Pictograph, Site No. 22, Reeves County.
13. Petroglyph, Site No. 152, Nolan County.
14. Pictograph, Site No. 22, Reeves County.
15. Petroglyph, Site No. 13, Culberson County.
16. Petroglyph, Site No. 8, Hudspeth County.
17. Pictograph, Site No. 108, Edwards County.
18. Petroglyph, Site No. 4, Hudspeth County.
19. Petroglyph, Site "B," Otero County, New Mexico.
20. Petroglyph, Site No. 4, Hudspeth County.
21. Pictograph, Site No. 56, Terrell County.
22. Pictograph, Site No. 61, Terrell County.

PLATE CCCIX

VARIOUS FORMS OF THE CROSS

1. Petroglyph, Site No. 81, Val Verde County.
2. Pictograph, Site No. 31, Presidio County.
3. Pictograph, Site No. 150, Concho County.
4. Pictograph, Site "B," Otero County, New Mexico.
5. Pictograph, Site No. 56, Terrell County.
6. Pictograph, Site No. 3, El Paso County.
7. Pictograph, Site No. 150, Concho County.
8. Petroglyph, Site No. 151, Coke County.
9. Pictograph, Site No. 145, Llano County.
10. Pictograph, Site No. 155, Stephens County.
11. Pictograph, Site No. 56, Terrell County.
12. Carved stone, Wilbarger County.
13. Pictograph, Site No. 56, Terrell County.
14. Pictograph, Site No. 156, Burnet County.
15. Petroglyph, Site No. 13, Culberson County.
16. Petroglyph, Site No. 20, Culberson County.
17. Pictograph, Site No. 180, Presidio County.
18. Pictograph, Site No. 84, Val Verde County.
19. Petroglyph, Site No. 11, Hudspeth County.

CONNECTED CIRCLES, CONCENTRIC CIRCLES AND DOTS

In 12 Texas counties, one in New Mexico and another in Chihuahua, Mexico, are various arrangements of connected circles and dots. Of 36 elements pictured in Plate CCCVI, ten are pictographs and 26 petroglyphs.

In certain cases the connected circles form a maze or netting; some form a chain, others are connected in series. In one case the circles unite to form a rayed sun-disc; again they form a cross. In a few cases, such as Nos. 28 and 33, same plate, they may represent conventionalized human figures. No. 20 is suggestive of a snake, and No. 16 of a simplified bird.

RAKE-LIKE ELEMENTS

Rake-shaped elements appear in the picture-writings in 14 counties. Of 17 such elements illustrated in Plate CCCVII, four are petroglyphs and 13 pictographs.

Nos. 2, 5, 15, same plate, show elements almost identical with a so-called "death count" pictured by Mallery,¹¹⁴ who states: "This device is very frequently used to denote the death of the Dakotas. The black strokes indicate the death of persons of the number delineated and the union line shows that they were of the same tribe."

It is interesting to note that the rake-like element is much like some of the so-called rain symbols. The chief difference, in a number of cases, is that the rake "teeth" are straight, whereas the lines representing falling rain usually are curved or zigzag.

FIGURE EIGHT ELEMENTS

Another picture element of widespread occurrence is the so-called figure eight, found in ten counties. Sometimes the figure varies, taking on the appearance of chain links. Again, there are lines attached at the ends of the figure. Certain connected concentric circles give the appearance of a figure eight.

The writer does not know what significance the Texas Indians attached to this element.

Beyer,¹¹⁵ in writing of the Maya hieroglyphs, calls a figure eight element "entwined flame."

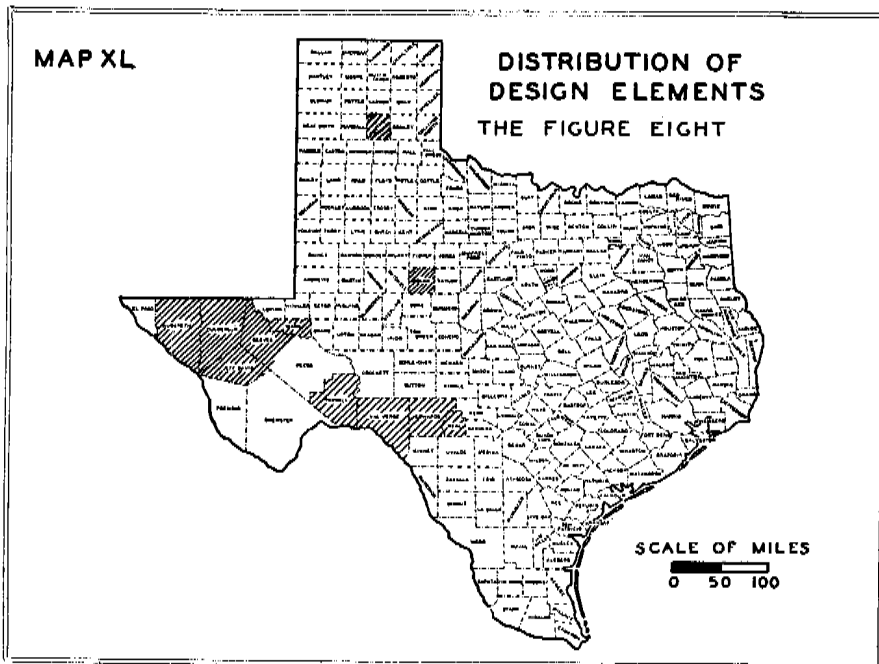
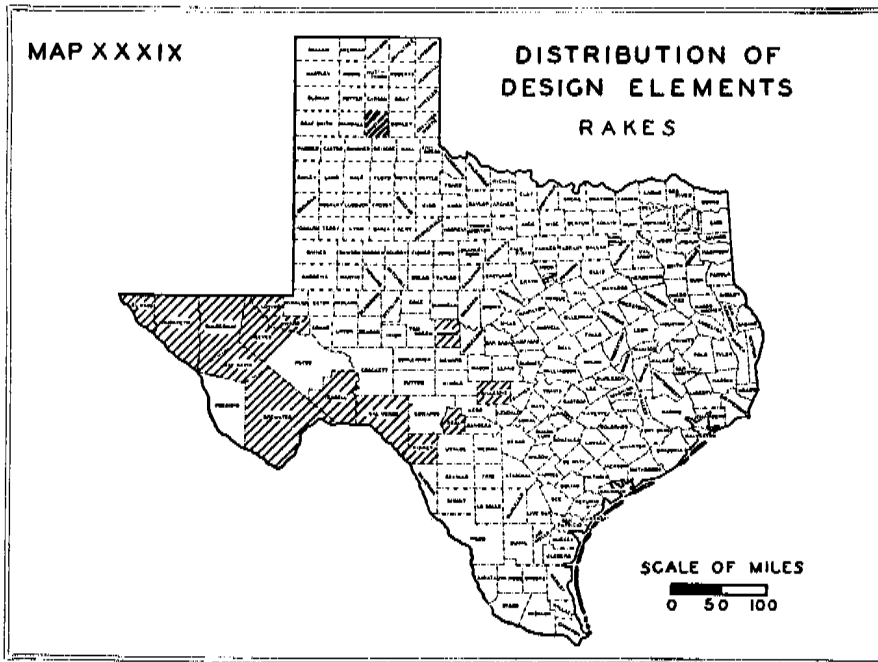
THE CROSS

The cross frequently occurs in both prehistoric and historic pictures. The most common type is the equal-armed, so-called Greek cross. It appears in rock pictures in 17 counties. Of the 19 specimens illustrated in Plate CCCIX, six are petroglyphs and 13 pictographs.

No. 10, same plate, is a typical example of the Latin cross. Nos. 8, 17, and various others, are equal-armed; while No. 13 is a fourchee cross, divided at the extremity of each arm. The latter, together with the ordinary equal-armed cross, are common in the incised designs on pottery from East Texas—in The University of Texas Anthropology Museum—as well as in pictographs and petroglyphs from

¹¹⁴Mallery, Garrick, *op. cit.*, Tenth Annual Report, Fig. 960, p. 604.

¹¹⁵Beyer, Hermann, *The Analysis of the Maya Hieroglyphs*, reprinted from *Internationales Archiv Fur Ethnographie*, Band XXXI, 1930, E. J. Brill, Ltd., Leyden, 1930, p. 12, Fig. 173.



MAP XXXIX. DISTRIBUTION OF RAKE-LIKE ELEMENTS
MAP XL. DISTRIBUTION OF THE FIGURE EIGHT ELEMENT

West Texas. On the other hand, the swastika or Gamma-cross, rather common on East Texas pottery, rarely is found in the West Texas rock pictures.

The crosses found at sites showing mission influence usually are of the Latin type, with the vertical arm longer than the horizontal one. X-shaped elements, symbolizing the cross, also are found at historic sites.

But it must be remembered that not all paintings or carvings with cross-shaped elements are historic. A number appear in prehistoric sites. Holmes¹¹⁶ aptly sizes up the situation as follows:

“If written history does not establish beyond a doubt the fact that the cross had a place in our aboriginal symbolism, we have but to turn to the pages of the great archaeological record, where we find that it occupies a place in ancient American art so intimately interwoven with conceptions peculiar to the continent that it cannot be separated from them. It is found associated with other prehistoric remains throughout nearly the entire length and breadth of America.”

Included in the above numbered plate are several unusual representations of the cross. No. 2, from a historic site, has an outlined equal-armed cross surrounded by a square field lightly colored in red. No. 6 shows two equal-armed crosses incorporated in the body of an animal, with a third cross variant attached to the animal's back. No. 11 consists of an equal-armed cross made up of four parallel lines radiating from a rayed disc. No. 18, from a prehistoric site, has an unusual rayed cross-arm and may be a fantastic insect.

DESIGN ELEMENTS RESEMBLING LETTERS OF THE ALPHABET

By coincidence, there are various paintings and carvings suggestive of certain letters of our alphabet. Most common among these are the Y-shaped elements. In certain sites these appear with such frequency as to indicate some special significance. Their significance is not known. They possibly may represent set-up rabbit nets, with the stem of the Y constituting a run back from the open net corral.

There also are certain sites in which a V-shaped element appears. It sometimes takes the form of a series of chevrons. According to Fewkes,¹¹⁷ these in some cases symbolized the tracks of mountain sheep.

ZIGZAGS

Wavy lines, or zigzags, appear in 16 counties. Of the 17 specimens shown in Plate CCCXI, ten are pictographs and seven petroglyphs.

The meaning is not definitely known. In some cases zigzags may have symbolized lightning. Particularly is this true when connected to cloud or rain symbols.

Steward¹¹⁸ classes parallel zigzags and series of diamonds as girls' puberty paintings. Nos. 2 and 8 are almost identical with some of them.

In this connection, Professor J. E. Pearce makes the following comment: “The zigzag lines in such paintings may represent flowing blood, a natural implication; in which case such designs as Nos. 1 and 5, Plate CCCXI, may represent the cysthos.”

¹¹⁶Holmes, W. H., *Art in Shell of the Ancient Americans*, Second Annual Report, Bureau of American Ethnology, 1880-81, Washington, 1883, pp. 268-269.

¹¹⁷Fewkes, J. W., *Tusayan Totemic Signatures*, *op. cit.*, pp. 1-11.

¹¹⁸Steward, J. H., *op. cit.*, pp. 202, 203, and Map 26.

PLATE CCCX

Y-SHAPED ELEMENTS

1. Pictograph, Site No. 156, Burnet County.
2. Pictograph, Site No. 150, Concho County.
3. Petroglyph, Site No. 50, Ward County.
4. Pictograph, Site No. 27, Jeff Davis County.
5. Pictograph, Site No. 150, Concho County.
6. Pictograph, Site No. 143, Llano County.
7. Pictograph, Site No. 17, Culberson County.
8. Petroglyph, Site No. 50, Ward County.
9. Petroglyph, Site No. 18, Culberson County.
10. Pictograph, Site No. 51, Winkler County.
11. Pictograph, Site No. 21, Culberson County.
12. Pictograph, Site No. 51, Winkler County.
13. Pictograph, Site No. 20, Culberson County.
14. Pictograph, Site No. 51, Winkler County.

PLATE CCCXI

ZIGZAGS

1. Petroglyph, Site No. 81, Val Verde County.
2. Pictograph, Site No. 140, Gillespie County.
3. Petroglyph, Site No. 11, Hudspeth County.
4. Pictograph, Site No. 99, Val Verde County.
5. Pictograph, Site No. 88, Val Verde County.
6. Petroglyph, Site No. 4, Hudspeth County.
7. Petroglyph, Site No. 11, Hudspeth County.
8. Petroglyph, Site No. 11, Hudspeth County.
9. Petroglyph, Site No. 20, Culberson County.
10. Petroglyph, Site No. 8, Hudspeth County.
11. Pictograph, Site No. 156, Burnet County.
12. Pictograph, Site No. 26, Jeff Davis County.
13. Pictograph, Site No. 180, Presidio County.
14. Pictograph, Site No. 150, Concho County.
15. Pictograph, Site No. 180, Presidio County.
16. Pictograph, Site No. 140, Gillespie County.
17. Pictograph, Site No. 140, Gillespie County.

PLATE CCCXII

ANCHOR-LIKE ELEMENTS

1. Pictograph, Site No. 72, Val Verde County.
2. Pictograph, Site No. 74, Val Verde County.
3. Pictograph, Site No. 82, Val Verde County.
4. Petroglyph, Site No. 151, Coke County.
5. Pictograph, Site No. 61, Terrell County.
6. Pictograph, Site No. 23, Reeves County.
7. Pictograph, Site No. 2, El Paso County.
8. Petroglyph, Site No. 4, Hudspeth County.
9. Pictograph, Site No. 2, El Paso County.
10. Petroglyph, Site No. 168, Stephens County.
11. Pictograph, Site No. 82, Val Verde County.
12. Pictograph, Site No. 23, Reeves County.

PLATE CCCXIII

ENCLOSURES OF LINES, DOTS AND DASHES

1. Pictograph, Site No. 82, Val Verde County.
2. Pictograph, Site No. 90, Val Verde County.
3. Pictograph, Site No. 140, Gillespie County.
4. Pictograph, Site No. 82, Val Verde County.
5. Pictograph, Site No. 73, Val Verde County.
6. Petroglyph, Site No. 4, Hudspeth County.
7. Pictograph, Site No. 96, Val Verde County.

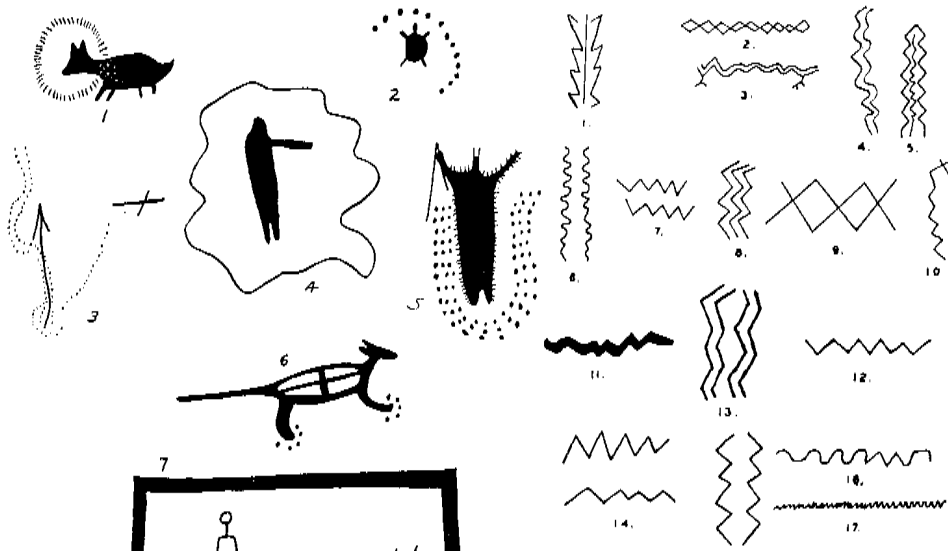


PLATE CCCXIII

PLATE CCCXI

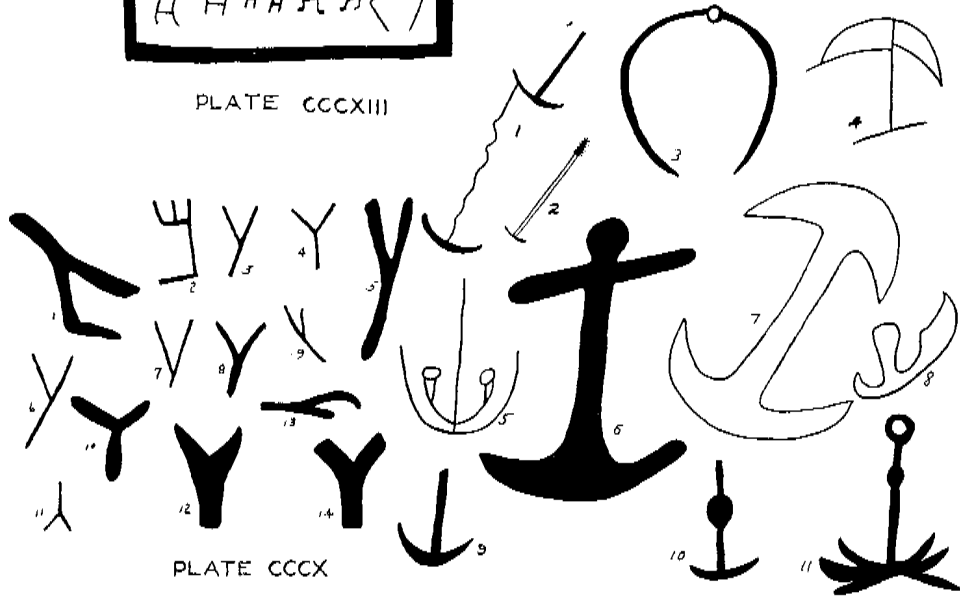
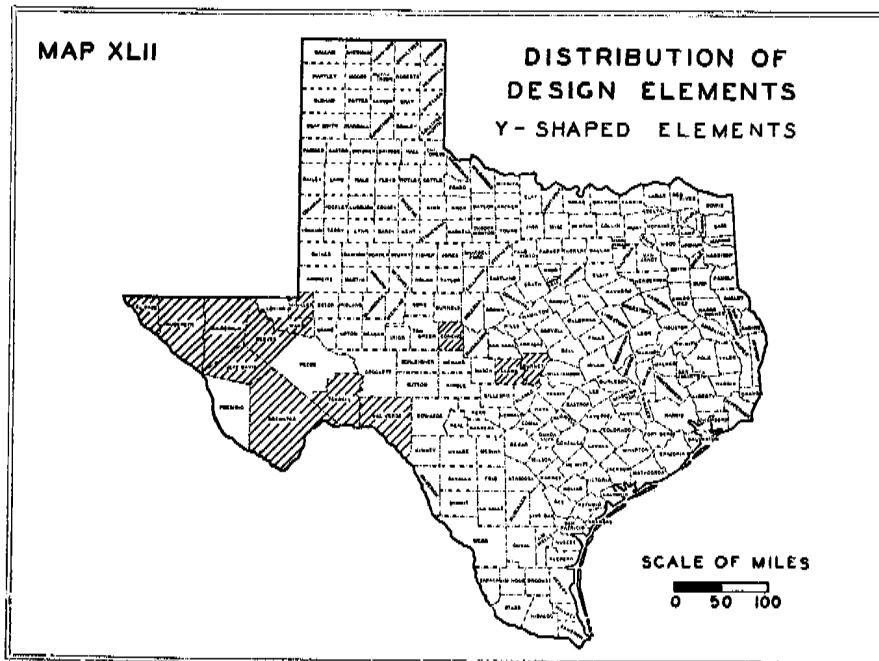
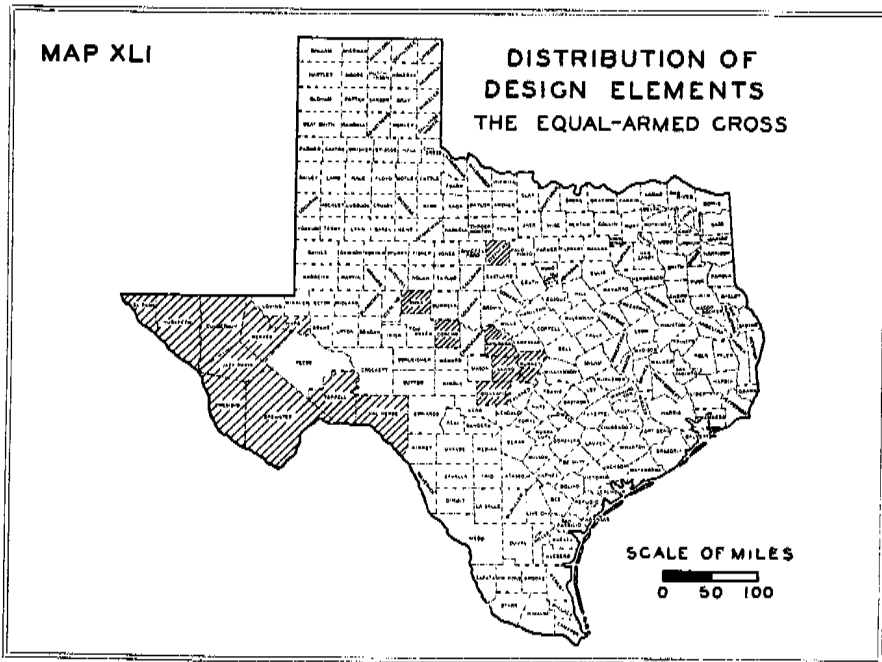


PLATE CCCX

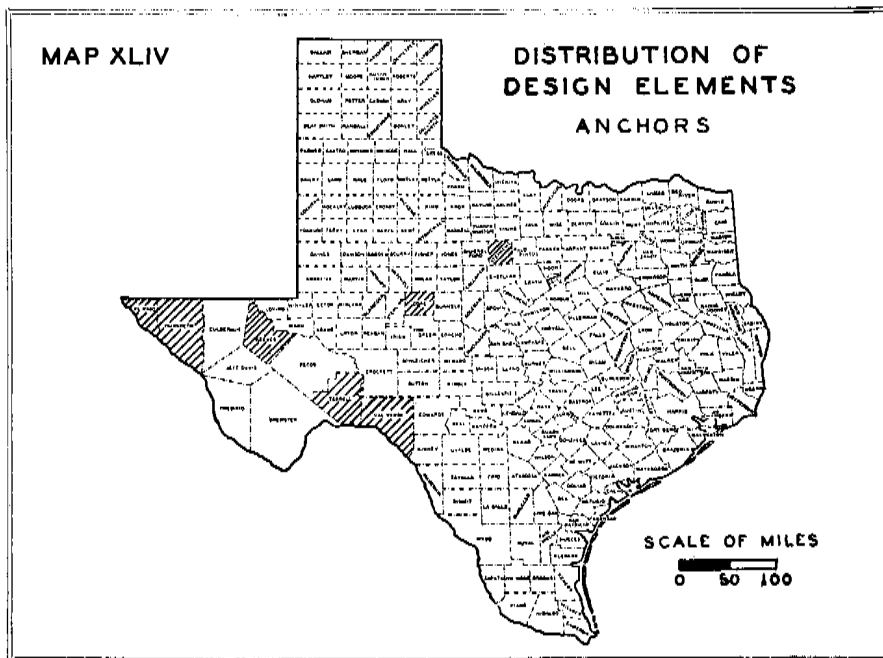
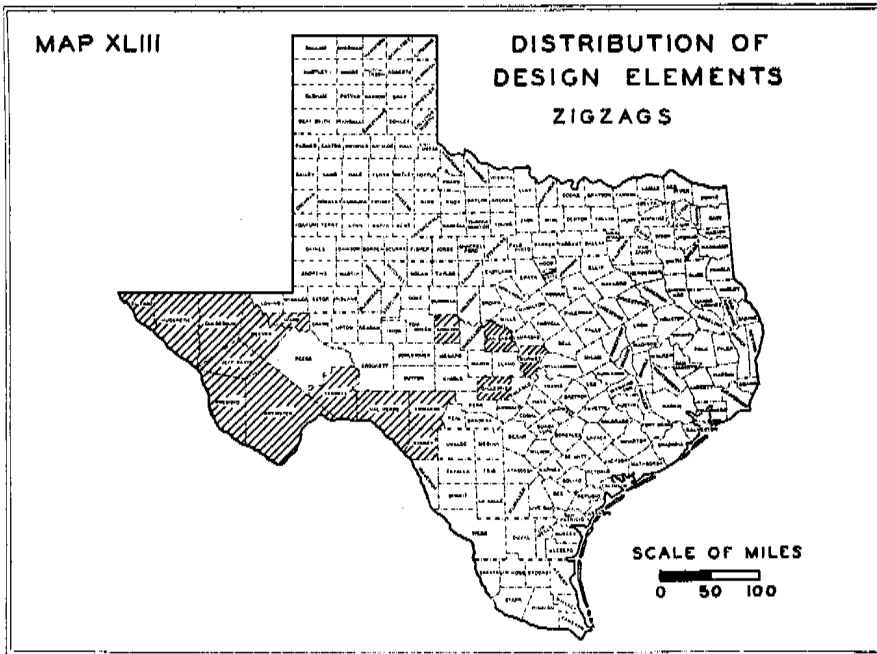


PLATE CCCXII



MAP XLII. DISTRIBUTION OF THE EQUAL-ARMED CROSS IN PICTURES

MAP XLIII. DISTRIBUTION OF Y-SHAPED ELEMENTS



MAP XLIII. DISTRIBUTION OF ZIGZAGS

MAP XLIV. DISTRIBUTION OF ANCHOR-LIKE ELEMENTS

ANCHOR-LIKE ELEMENTS

Appearing in picture writings in seven counties are anchor-like elements. The pictures are found in both prehistoric and historic sites. It is possible that those with a short hook at the end may have represented the atlatl. One is seen in Plate CCCXII, 2. The ones with a cross arm, like No. 6, may be highly conventionalized human figures.

Haury^{119a} illustrates a painting, from the Canyon Creek Ruin in East Central Arizona, that resembles one from Site No. 2, El Paso County, Texas. (Plate CCCXII, 7.) He concludes—as the result of tree-ring dating—that the Arizona picture and ones associated with it “are fourteenth century creations.” He describes the double anchor-like design as “apparently a stylized face.” It, however, has two sets of small concentric circles so placed as to suggest eyes. The Texas painting does not include the latter features.

Hough¹¹⁹ in his paper on “The Buffalo Motive in Middle Celebes Decorative Design” illustrates certain carved hooks and spoons that furnished a key to buffalo designs appearing on bark cloth, gourds, bamboo, coconut and horn articles. Some of those “pairs of crescentic figures diverging outwardly from a base” are suggestive of certain anchor-like elements in Texas picture-writings. Hence it seems possible that some of the Texas pictures may symbolize buffalo horns and heads.

ENCLOSURES OF LINES, DOTS AND DASHES

A symbolic drawing occasionally met with is an enclosure around an animal or human figure. In this connection Mallery¹²⁰ suggests:

“A circle of dots or dashes around the head of an animal is supposed to mean that the animal was surrounded by a circle of hunters and so forced to stop.”

In another place he¹²¹ states that the circle of dashes enclosing an animal may be used to indicate a name. Above the head of a man is pictured a bear enclosed by a circle. It signifies that the man’s name was The-Bear-Stops.

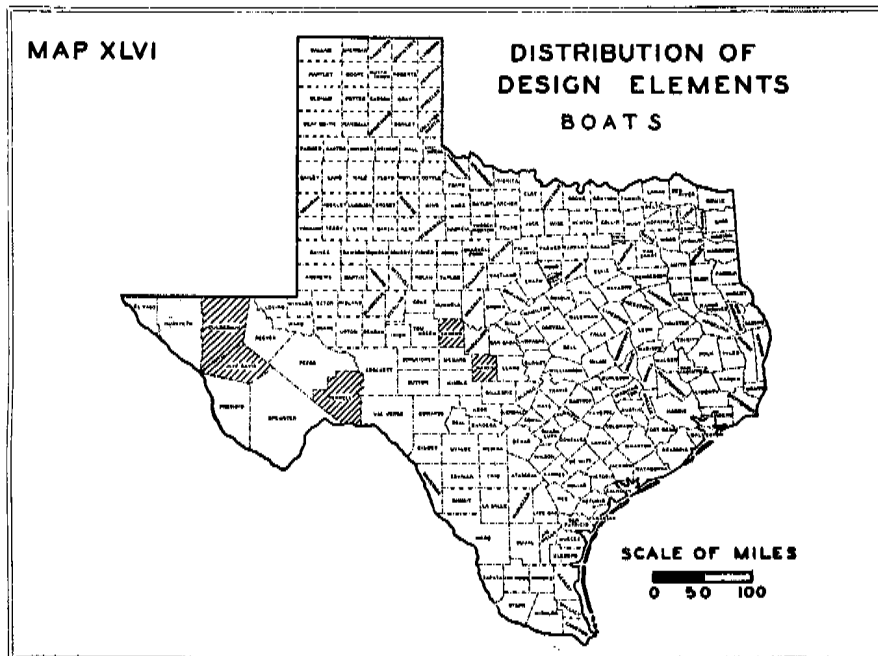
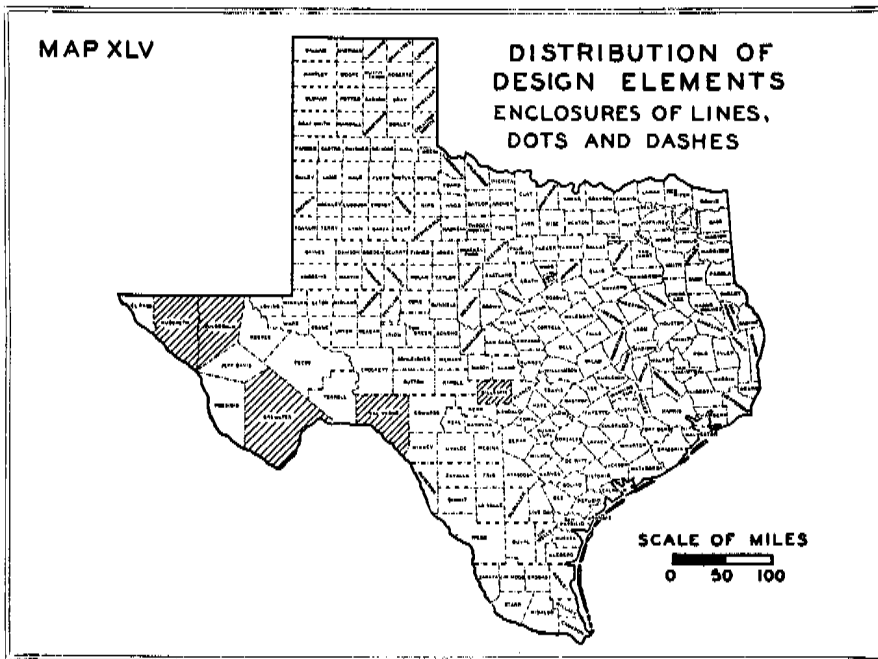
It is not known whether the Texas pictures of this type were totemic signatures or records of the chase. It is interesting to note (Plate CCCXIII, 5) that a human figure partly enclosed by three rows of dots is armed with an atlatl and dart. Was the picture intended to recount the experience of a warrior who, surrounded by enemies, fought to the last? Such interpretation is mere conjecture.

^{119a}Haury, E. W., *The Canyon Creek Ruin and The Cliff Dwellings of the Sierra Ancha*, Medalion Papers No. XIV, Gila Pueblo, Globe, Arizona, January, 1934, pp. 141-142, Fig. 26c.

¹¹⁹Hough, Walter, *The Buffalo Motive in Middle Celebes Decorative Design*, Proceedings of U.S. National Museum, Vol. 79, Art. 29, Washington, 1932, pp. 1-8, pls. 1-9.

¹²⁰Mallery, Garrick, *op. cit.*, Tenth Annual Report, pp. 591, 653.

¹²¹Mallery, Garrick, *op. cit.*, Fourth Annual Report, Pictorial Roster of the Heads of Families, Dakota, 1883, pl. LII.



MAP XLV. DISTRIBUTION OF ENCLOSING LINES, DOTS AND DASHES

MAP XLVI. DISTRIBUTION OF BOAT-LIKE ELEMENTS

PLATE CCCXIV

HOURLASS-LIKE ELEMENTS

1. Pictograph, Site No. 180, Presidio County.
2. Petroglyph, Site No. 4, Hudspeth County.
3. Pictograph, Site No. 56, Terrell County.
4. Pictograph, Site No. 150, Concho County.
5. Petroglyph, Site "B," Otero County, New Mexico.
6. Pictograph, Site No. 51, Winkler County.
7. Pictograph, Site No. 180, Presidio County.
8. Petroglyph, Site "A," Otero County, New Mexico.

PLATE CCCXV

SCROLL AND TERRACE ELEMENTS

1. Pictograph, Site No. 2, El Paso County.
2. Petroglyph, Site No. 4, Hudspeth County.
3. Petroglyph, Site No. 4, Hudspeth County.
4. Petroglyph, Site No. 5, Hudspeth County.
5. Petroglyph, Site No. 4, Hudspeth County.
6. Petroglyph, Site No. 4, Hudspeth County.
7. Petroglyph, Site No. 81, Val Verde County.
8. Pictograph, Site No. 119, Kinney County.
9. Petroglyph, Site No. 14, Culberson County.
10. Petroglyph, Site No. 4, Hudspeth County.
11. Petroglyph, Site "B," Otero County, New Mexico.
12. Petroglyph, Site No. 4, Hudspeth County.
13. Petroglyph, Site "B," Otero County, New Mexico.
14. Pictograph, Site No. 1, El Paso County.
15. Petroglyph, Site No. 4, Hudspeth County.
16. Petroglyph, Site No. 8, Hudspeth County.
17. Petroglyph, Site "A," Otero County, New Mexico.
18. Painted pebble, Site No. 82, Val Verde County.

PLATE CCCXVI

BLANKET-LIKE DESIGNS

1. Pictograph, Site No. 1, El Paso County.
2. Pictograph, Site No. 2, El Paso County.
3. Pictograph, Site No. 72, Val Verde County.
4. Painted pebble, Site No. 82, Val Verde County.

FIG. 283. BOAT-LIKE ELEMENTS

1. Pictograph, Site No. 61, Terrell County.
2. Pictograph, Site No. 61, Terrell County.
3. Petroglyph, Site No. 14, Culberson County.
4. Pictograph, Site No. 150, Concho County.
5. Pictograph, Site No. 142, Mason County.
6. Carved stone, Wilbarger County.
7. Pictograph, Site No. 29, Jeff Davis County.

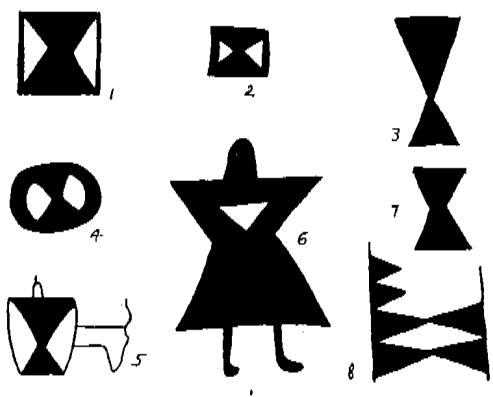


PLATE CCCIV.

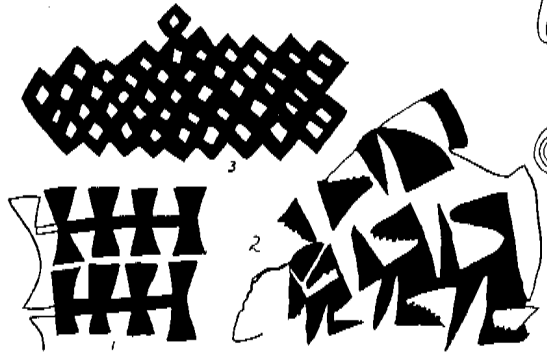
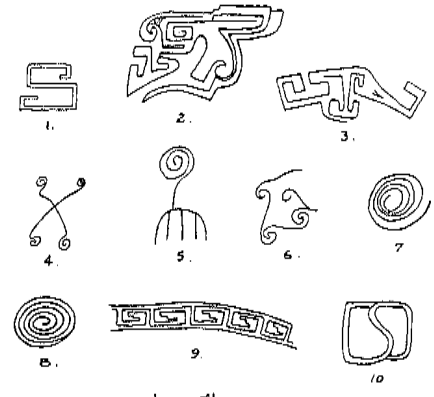


PLATE CCCV.

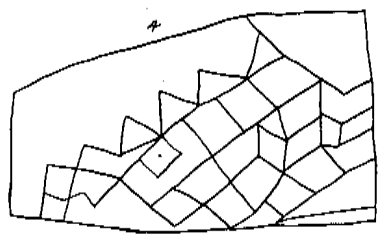
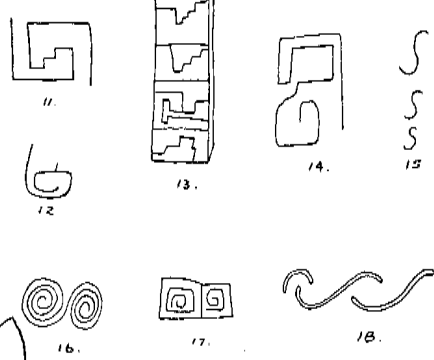


PLATE CCCVI.

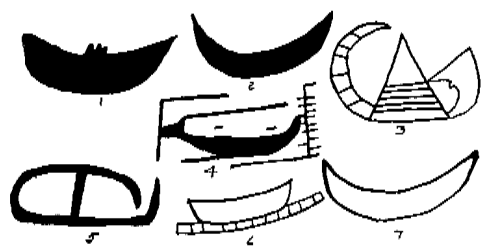


FIG. 283.

BOAT-LIKE ELEMENTS

At a few sites are paintings and carvings suggestive of boats. A painting at Site No. 150, Concho County (Figure 233), is suggestive of a canoe tied between trees. So far as known the Indians ranging in this section did not practice canoe burial. The significance of the painting is unknown.

In certain cases the crescent-shaped elements may have represented the moon.

HOURLASS-LIKE ELEMENTS

The hourglass element occurs in five counties. The most outstanding of these figures are at Site No. 180, Presidio County. Others appear at Sites No. 4, 51, 56, and 150, Hudspeth, Winkler, Terrell and Concho Counties.

The element frequently stands alone, but sometimes is incorporated in other figures. A striking illustration is at Site No. 51, Winkler County, where the hourglass forms the body of a human figure. (Plate CCCXIV, 6.) The design is merely a variation from the common triangular element.

An hourglass element enclosed in a circle, such as that at Site No. 150, Concho County (Plate CCCXIV, 4), is much like a certain design in beadwork of the Arapaho Indians. It is considered fairly prevalent among the Plains Indians as a whole. By custom the design has come to have a definite name and meaning. It is intended to represent the head.¹²²

SCROLL AND TERRACE ELEMENTS

Scroll and terrace elements occur in six counties. They are more abundant in the extreme western part of the state, where sometimes incorporated in cloud and rain symbols. Many of the scrolls are strikingly like pottery designs of both the Southwest and certain parts of the Mississippi Valley.

In Plate CCCXV, 4 is seen a rosette of simple coils, but suggestive of the swastika. No. 6 is a continuous loop coil; No. 9, a complicated series of frets; and No. 16 a reversed coil or spiral.

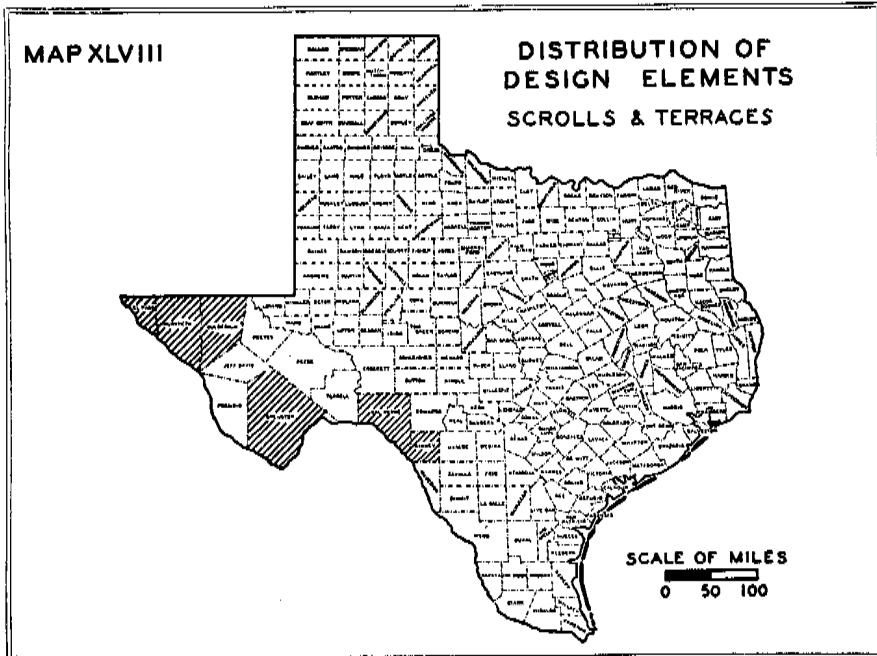
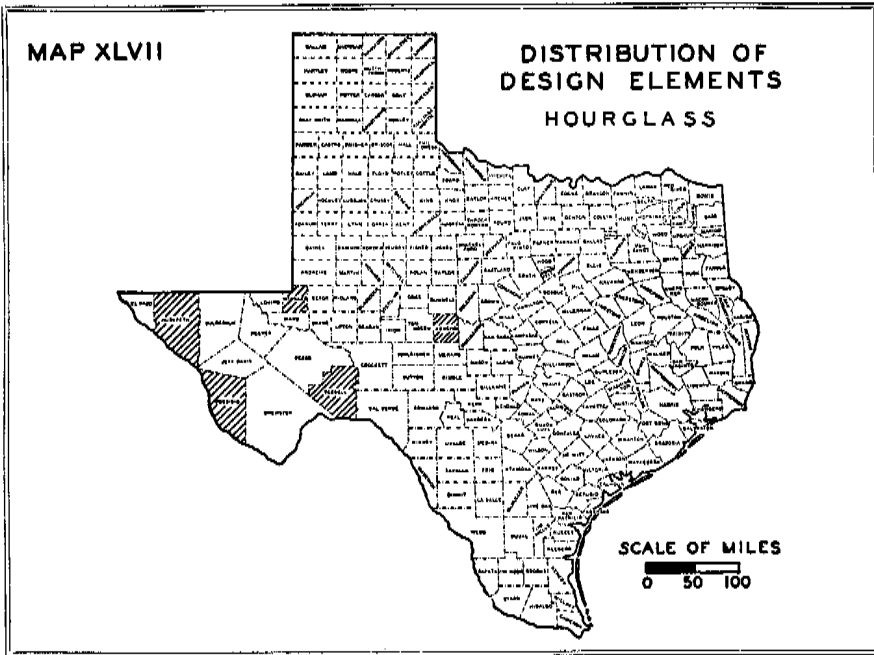
BLANKET-LIKE DESIGNS

At Sites No. 1 and 2, El Paso County, as well as 72 and 82, Val Verde County, are paintings suggestive of designs in the woven blankets of the Southwest.

The one illustrated in Plate CCCXVI, 2 is similar to the design on a "painted stone vase showing textile pattern, Pueblo Bonito, New Mexico, X to XII century," in the Museum of the American Indian, Heye Foundation.¹²³

¹²²Wissler, Clark, *Indian Beadwork*, Guide Leaflet No. 50, American Museum of Natural History, New York, 1927, pp. 24-25.

¹²³Kissell, M. L., *Indian Weaving*, Introduction to American Indian Art, Part II, The Exposition of Indian Tribal Arts, Inc., New York, 1931, p. 14.



MAP XLVII. DISTRIBUTION OF HOURLASS-LIKE ELEMENTS

MAP XLVIII. DISTRIBUTION OF SCROLL AND TERRACE ELEMENTS

PART VI

MATERIALS AND METHODS OF PICTURE-WRITING

In many cases the materials and methods employed by the native artists are evident. Sometimes, however, they are not definitely known.

MATERIALS AND THEIR PREPARATION

Most of the paints used in Texas picture-writings are of mineral origin. The red came from hematite or ocher, and sometimes from cinnabar. The use of the red ore of mercury is to be expected, in view of its abundant supply in the Big Bend region. Paint occasionally was prepared from earth containing oxide of iron which sometimes was burned as a part of the process of preparing.

Another prolific source of red paint, reported by Ray,¹²⁴ is a mine in the southern part of Taylor County. He describes it as follows:

“. . . Here, extending for a distance of a half mile or more in a north and south direction along the brow of a high limestone ridge, is an almost continuous series of excavations in hard rock. These vary from six to eight feet deep and some are over 30 feet across. Some prehistoric people has excavated a tremendous quantity of hard stone to get at a vein of red stone which lies under it. Most of these pits have considerable soil and debris in the bottoms. . . . The people who mined the area carried quantities of the red stone to a flat space to the west side of the hill, where it was found scattered thickly over the ground. On the ground around were strewn many pear-shaped end-scrapers. . . . More than a hundred such scrapers were found where soil erosion had exposed them.

“In many cases from one to three scrapers were found lying around a large stone, just as the workman had left them. . . . Experiments conducted with these scrapers showed that the red stone may be readily shaved off in the form of fine red powder which resembles rouge. One may apply this dry with the finger. Thus used it makes an effective red face paint. The color is very similar to red color used on the painted rocks near the town of Paint Rock, Texas.”

In some cases the black may have been a mixture of charcoal and grease. Again, a manganese compound was used. Martin¹²⁵ found, in a grave, a mass of powdered manganese mixed with fat or oil. The manganese was secured locally.

That charcoal sometimes was used without being mixed with other ingredients is suggested by the occasional finding in the cave deposits of pieces of charcoal that have been scraped into pencil shape and show evidence of use on one end.

The white may have been from kaolin, gypsum or barite used as a base. The yellow came from ocher or limonite. Pearce and Jackson¹²⁶ report two large bars of yellow ocher, apparently ground and molded into triangular shape. These were found in the camp refuse in the rear of a shelter. On the wall are pictographs in the same shade of yellow.

The small amount of green paint, appearing at four sites, probably came from copper oxide secured in the Southwest.

¹²⁴Ray, Cyrus N., *A Differentiation of the Prehistoric Cultures of the Abilene Section, Texas Archaeological and Paleontological Society, Vol. I, Abilene, September, 1929, pp. 17-18.*

¹²⁵Martin, G. C., *Archeological Exploration of Shumla Caves, op. cit., pp. 23, 77.*

¹²⁶Pearce, J. E., and Jackson, A. T., *op. cit., pp. 55-56.*

PART VII

POSSIBLE AGES AND AUTHORSHIP OF PICTURES

The possible ages and authorship of the Texas picture-writings are subjects about which little is known.

AGES

The most definite information concerning possible ages is that dealing with a few pictures showing mission influence. Knowing the dates of the establishment and abandonment of the missions in the various regions, as previously discussed, one may approximate the ages of pictures of that type.

In the region extending from El Paso to the southern tip of the Big Bend, pictures showing mission influence may range in date from 1670 to 1783. Similar paintings in the Terrell County and Val Verde County region may range from 1700 to near 1780. In the upper Nueces River section, including Edwards and Real Counties, mission influences may have shown up in the picture-writings in the brief period of 1762-1767, or shortly thereafter. Sites, such as those in Concho and San Saba Counties, that came under the influence of the San Saba Mission, come within the period of 1757-1768. Paintings along the eastern fringe of the picture-writing area may have been influenced by the San Antonio missions at any time between 1722 and 1800 or somewhat later.

Various other historic paintings, where no definite mission influence is present, may date as late as 1850.

In working backward, beyond the period showing European contact, there are no mileposts. The few dependable yardsticks, by which a possible chronology may be partially worked out, are the following:

1. Possible archaeological dating of the material culture in a given site or locality.
2. The superimposition of pictures.
3. Pictures covered by camp refuse, accumulated since the painting of the pictures.
4. Preservation of paints under conditions similar to those at a site with an age tie-up.
5. Relative weathering of petroglyphs on rocks of corresponding durability.
6. Badly sooted abrading marks and petroglyphs superimposed over pictographs.

With regard to the first possibility, it must be stated that little definite information is now available. Much more archaeological work must be done in the caves and shelters before the problem will come near solution. In discussing his work in the Big Bend region, Setzler¹³⁴ concludes:

"These hypotheses do not imply an antiquity for the Big Bend cave cultures greater than the Basket Maker III or Pueblo I cultures. Even a relative chronology must be very indefinite for the present."

¹³⁴Setzler, F. M., *A Prehistoric Cave Culture in Southwestern Texas*, *American Anthropologist* (N.S.), Vol. 37, No. 1, p. 110.

Since the Basket Maker III culture dates from approximately 200 to 500 A.D. and Pueblo I from 500 to 700 A.D., we thus have a tentative age of 1,200 to 1,700 years for the cave culture of the Big Bend. Even if such dating should prove approximately correct, it still is not safe to apply the earliest culture date to the picture-writings. Some of the oldest cave pictures, which may represent the work of the original occupants, are now practically indecipherable. This is due to age and the superimposing of more recent pictures.

The nearest approach, of which the writer knows, to dating prehistoric Texas picture-writings is that at Site No. 20, Culberson County. Potsherds, found at various depths in the midden deposit, were identified by Mera¹³⁵ and assigned a date range from 1300 to 1600 A.D. It thus seems probable that the oldest paintings at that site do not exceed 600 years.

There is a possibility that, at some future date, a sufficient amount of suitable wood or charcoal may be recovered from the West Texas caves to date the sites by the tree-ring method.

A careful study of the paintings at all sites may bring to light comparative ages of different classes of pictures. For example, the huge paintings of men, animals, and insects along the lower Pecos and Devils Rivers are dim, show no evidence of European contact, and have all the other earmarks of early prehistoric works. On the other hand, the small black paintings of the upper Nueces, Frio, and South Llano Rivers often show European contact; and some, apparently, are scarcely 100 years old.

No human handprints are found in sites having only the very old paintings. Some are among late prehistoric and many with historic pictures. Negative prints with painted outlines are found also in historic sites.

The more recent pecked designs at Site No. 13, Culberson County, have not been discolored by age and are not damaged by weathering. A few of the old figures at the same site are barely decipherable. Others at Site No. 40, Brewster County, on stone just as durable and similarly exposed, are badly weathered and so discolored by age that they blend with the original surface of the stone. The former are comparatively young; the latter quite old.

A sufficiently detailed study of superimposed pictures has not been made to permit of relative dating of many designs.

Many variable elements enter into a comparative study of the ages of paintings based on the state of preservation. Among the elements which make difficult the comparison in widely separated regions are (1) difference in the durability of stones; (2) effects of seasonal changes; (3) variability of wind action.

¹³⁵Mera, H. P., Letter to A. T. Jackson, December 7, 1934, and Report on Sherds, December 17, 1934.

AUTHORSHIP

The matter of determining the makers of the pictures is more difficult than at first appears. This is due, first, to the lack of assurance that the early occupants of the caves and shelters were of the same tribal affiliations as the Indians found in those regions in historic times. Next, it is difficult to tie up certain historic pictures with a given tribe, due to the constant shifting of the various tribes.

There seems little doubt, however, that at least a part of the late prehistoric and early historic pictures in the El Paso and Big Bend regions may be attributed to the various groups of Apaches. Along the Nueces and Concho Rivers, certain of the paintings probably were made by the Lipan and others by the Jumano. Some of the pictographs along the Rio Grande, in the vicinity of the mouth of the Pecos River, likewise may have been painted by the Jumano. According to Bolton,¹³⁶ the Jumano were located in 1684 along the Middle Concho, at the junction of the North and Middle Concho, or on the Colorado River near its junction with the Concho River. Some of the tribe also lived, for some ten years prior to 1693, in the general region of the Rio Grande "a short distance north of the Rio Grande and east of the Pecos, having been forced back by the Apache."

With regard to the pictographs in the El Paso region, Roberts¹³⁷ states that "a few of them suggest at least slight Pueblo influence. The latter seem to be of greater age and in some instances are partially covered by portions of those of more recent date." As previously noted, it is his conclusion that a majority of the pictures of that region are the work of the Apache.

Crimmins¹³⁸ states that the El Paso pictographs painted in green are the work of the Navajo Indians of Northern New Mexico and Arizona. The sites where green occurs in El Paso and Culberson Counties show evidence of Pueblo influence. But there is some doubt in the present writer's mind about the green paintings in Jeff Davis and Val Verde Counties.

In the Texas Panhandle various pictures seem to show Pueblo influence. Some of the historic ones may be the work of the Kiowa Indians.

A few of the historic paintings in West-Central Texas, and perhaps elsewhere, may have been made by the Comanches.

Seventy-eight per cent of all sites examined appear to be entirely prehistoric. This means the authorship of the picture-writings at those sites is unknown, insofar as exact tribal determination is concerned.

¹³⁶Bolton, H. E., *The Jumano Indians in Texas, 1650-1771*, Texas Historical Association Quarterly, Vol. XV, No. 1, Austin, July, 1911, pp. 66-84.

¹³⁷Roberts, F. H. H., Jr., *op. cit.*, pp. 2-3.

¹³⁸Crimmins, M. L., *Pictographs at the Hueco Tanks, op. cit.*, p. 26.

Clint Smith, relating his experiences among the Comanche Indians, states: "We moved up . . . near the head of the Arkansas River. . . . While we were in that country we gathered all kinds of paint, blue, red and black principally, to use in making up our war-paint. For green they used green coffee soaked in turkey or birds' eggs, only the whites being used. It makes a deep green. . . . They learned this from the Mexicans." (*The Boy Captives*, pp. 158-159.)

Coffin¹²⁷ reports, from Brewster County, painted stones on which "vegetable juices were the chief ingredient."

That paint frequently was ground with metates and manos is proved by finds in West Texas caves. The writer discovered a small metate buried on three manos arranged in triangular form. These stones show evidence of having been used for grinding red paint. Again, a large crude metate, accompanied by a mano, showed unmistakable evidence of such use. One side of the metate and mano had a deep red stain.

After the pigment was ground, the next step was to mix it with the proper fixative. Small stones and mussel shells served as palettes. Such specimens frequently are found in the cave deposits.

An excellent description of the preparation of paint materials by primitive man is given by MacCurdy,¹²⁸ who states:

"These minerals were picked up on the surface or in stream beds. Specimens of a uniform tint were chosen and the material scraped off in the form of a powder, by means of a flint scraper. The powder was caught in a stone mortar, or bivalve shell, and reduced to greater fineness. It was mixed with some medium, perhaps grease, and applied by means of a simple brush. . . . The color also was applied by means of crayons whittled from chunks of ocher or oxide of manganese."

In shelters along the lower Pecos River one occasionally finds a water-worn pebble that shows evidence of having been used for mixing paint. Sometimes a pebble with a painted design was used as a paint mixer. This is shown by the fact that the solid coating of paint, usually at the small end, has covered a portion of the original painted design.

At the Fall Creek site, on the Colorado River in Llano County, recently were found several small water-worn pebbles with red paint covering one end. These stones seem to have been used for grinding the red powder or stirring liquid paint. The specimens are in The University of Texas Anthropology Museum. A few dim pictographs are located in a shelter half a mile from this site.

¹²⁷Coffin, E. F., *op. cit.*, p. 27.

¹²⁸MacCurdy, G. G., *The Dawn of Art, Art and Archaeology*, Vol. 4, No. 2, Washington, August, 1916, pp. 71-90.

PLATE CCCXVII

BAR OF YELLOW LIMONITE MOLDED INTO TRIANGULAR SHAPE

Length, about 14 inches. Found in a cave deposit in Val Verde County, Texas. One side has four shallow grooves running lengthwise. These suggest wear by rubbing with a brush, pebble or rounded stick.

PLATE CCCXVIII

A STONE PALETTE USED BY A NATIVE ARTIST

A mano sometimes served for mixing the paints. Both black and red have been mixed on this stone, which is about 4 inches in diameter.

PLATE CCCXIX

MUSSEL SHELL PAINT CONTAINERS AND A USED LUMP OF RED OCHER

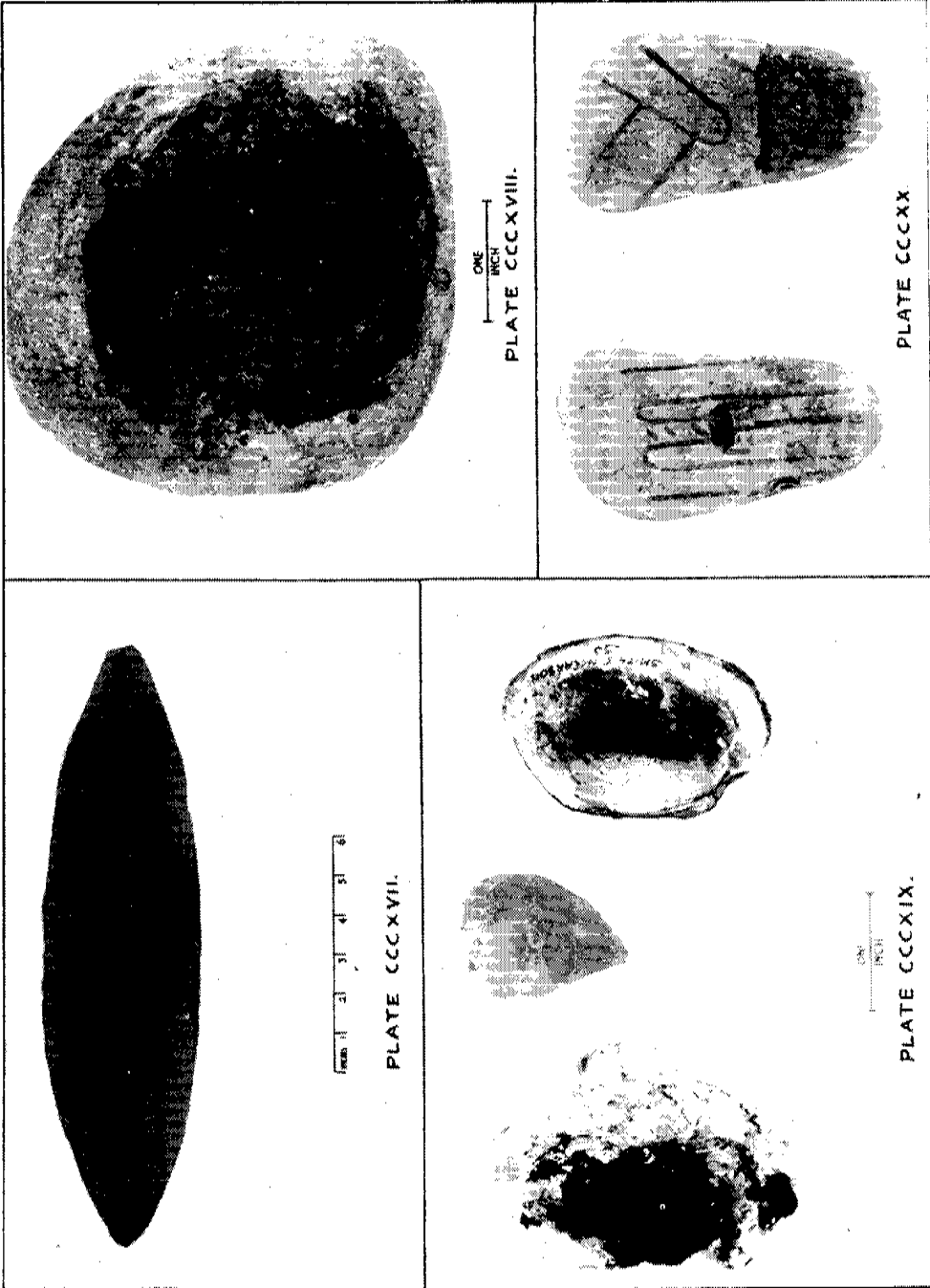
The shells, found in midden deposits, contain red paint.

PLATE CCCXX

PAINTED PEBBLE SHOWING POSSIBLE USE AS A PAINT MIXER

Specimen from a rock shelter in Val Verde County, Texas. Dimensions: $2\frac{3}{4} \times 1\frac{1}{2}$ inches. The design on one side was painted subsequent to the use of the small end as a paint mixer.

(Courtesy of E. F. McNutt.)



ONE INCH
PLATE CCCXVIII.

PLATE CCCXX

ONE INCH
PLATE CCCXVII.

ONE INCH
PLATE CCCXIX.

PAINTING

The manner in which the paint was applied sometimes is impossible to determine. In most cases some kind of brush was used. The writer has found a few brushes made of bundles of lechuguilla (*Agave lechuguilla*) fibers. These usually are small, ranging from two to four inches in length and half to one inch in diameter. One specimen, tied in the center and badly worn at each end, showed dim traces of red paint. Smith¹²⁹ and Martin¹³⁰ likewise report brushes.

Of the great number of fibrous quids found in the midden deposits, less than half a dozen show any trace of paint. It, therefore, seems that they rarely served as paint brushes, but are merely remnants of stalks that have been chewed for the juice. In one case a small bundle of split sotol (*Dasylyrion texanum Scheele*) leaves was tied with a leaf of the same material. The bundle was about ten inches long and $\frac{3}{4}$ inch in diameter. One end was worn from use and had a trace of red paint.

In addition to the archaeological evidence, there are historical references to paint brushes used by the Comanche Indians in the early days of the Republic of Texas and later. Smithwick,¹³¹ who seems to have been a careful observer, makes the following statement:

". . . With paint which they manufactured from colored chalks and brushes made of tufts of hair, the artist . . . drew symbolical designs. . . ."

Attention previously has been called to Cook's statement concerning rock pictures painted by the Comanche Indians, that "with a stick or twig feathered out on the end for a brush they painted." . . . (See Site No. 51, Winkler County.)

Another device for applying the paint is mentioned by Coffin,¹³² who reports finding, in a cave in Brewster County, several beveled stones with paint on them indicating such use.

The writer has found a few flat pieces of wood, with one end slightly sharpened, showing traces of red paint. These may have been used in the same manner as the stones reported by Coffin. In other cases small sticks, ranging from four to seven inches in length and from $\frac{1}{8}$ to $\frac{1}{4}$ inch in diameter, appear to have been used in like manner. One of these was slightly shaped at one end, badly worn, and had black paint on the worn end. In this connection, however, it seems that neither a stick nor a stone would serve effectively for applying paint.

Martin¹³³ reports finding a deer bone implement hollowed out and with a piece of manganese wedged into the narrow cavity. He suggests that thick oil may have been used to soften the manganese, thereby making a type of pencil to be used in painting.

There is evidence to indicate that, in some cases, the human fingers were used as paint brushes. They might serve for broad linework. Some small, detached daubs of paint, that occur without regularity, may be the result of an artist's attempt to remove surplus paint from the finger.

¹²⁹Smith, Victor J., *Archeological Notes of the Big Bend Region*, *op. cit.*, p. 68.

¹³⁰Martin, G. C., *Archeological Exploration of the Shumla Caves*, *op. cit.*, pp. 75, 77.

¹³¹Smithwick, Noah, *op. cit.*, p. 183.

¹³²Coffin, E. F., *op. cit.*, p. 27.

¹³³Martin, G. C., *Archeological Exploration of Shumla Caves*, *op. cit.*, pp. 23, 24, 77, 84.

PECKED AND CARVED PICTURES

Several techniques were employed in making petroglyphs. The most common method was the use of a small hammerstone, with which the design was pecked out. Hammerstones frequently are found adjacent to petroglyph sites and may have been used for that purpose. They usually are small, rarely over three inches in diameter and with a thickness not exceeding one inch. The edges often show considerable battering and wear.

In some cases the use of the hammerstone was preceded by pecking with a pointed stone implement, probably one of flint. This technique is very noticeable in many of the petroglyphs in Hudspeth and Culberson Counties. The design was first outlined, or "roughed out," with the pointed implement. The hammerstone then was brought into use, to widen and smooth out the bottom of the lines.

Some blows of the pick-like implement apparently penetrated deeper than others, with the result that not all the pits were eliminated by the subsequent hammering. The remaining telltale pits reveal the technique employed.

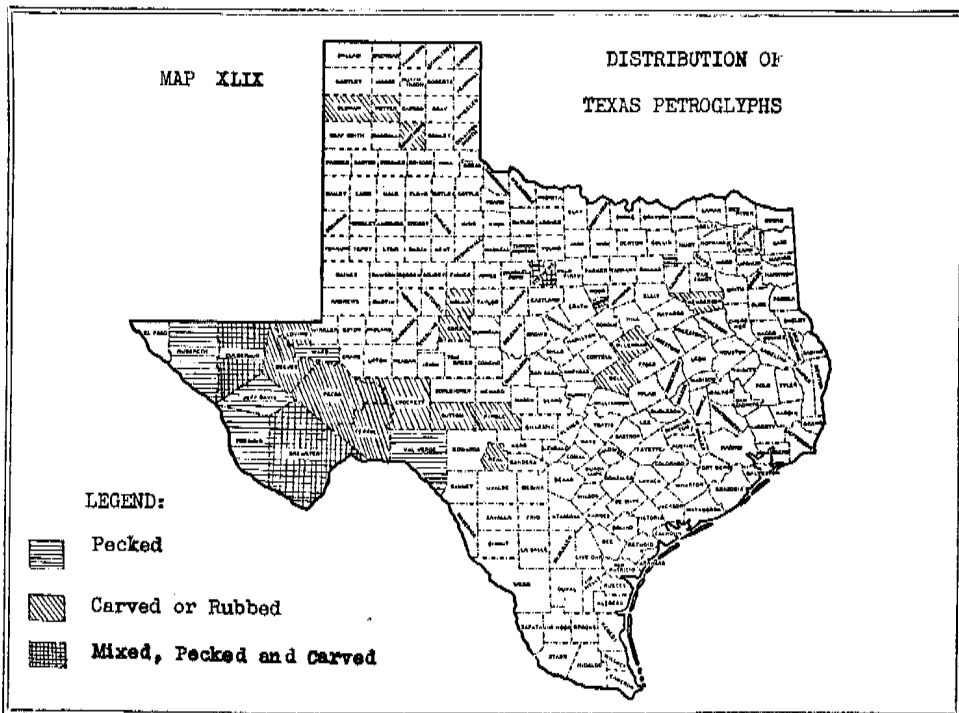
In a few pictures the pointed implement was used to peck or stipple the interior, giving a decorative effect.

In still other cases the designs were carved with some sharp implement, such as a flint graver, knife or arrowpoint. In certain historic carvings a steel knife may have been used. This technique often is found in places where the rock is sandstone and easily cut. Bone or wooden implements occasionally may have been used for this purpose. Nearby rock surfaces frequently contain grooves, supposedly resulting from sharpening carving tools. There are, however, abrading stones at sites where no petroglyphs are found. Hence it seems doubtful whether they were used for that purpose. They probably resulted from the shaping of bone and wood artifacts.

From the following table, and by reference to Map XLIX, it will be noted that pecked figures are predominant in most of the Trans-Pecos region, while carved designs are more common farther east. The available evidence indicates that the petroglyphs pecked with a hammerstone are, as a rule, older than those carved with a sharp implement. The difference in classes of designs, as well as technique, suggest that the two types of pictures may have been made by different tribes.

KINDS OF PETROGLYPHS

Locality	Number of Sites		
	Pecked	Carved or Rubbed	Total
Culberson County, Texas	9	1	10
Hudspeth County, Texas	7	0	7
Brewster County, Texas	3	1	4
Otero County, New Mexico	2	0	2
Chihuahua, Mexico	1	0	1
Ward County, Texas	1	0	1
Jeff Davis County, Texas	1	0	1
Presidio County, Texas	1	0	1
Val Verde County, Texas	1	0	1
Stephens County, Texas	1	1	2
Terrell County, Texas	0	2	2
Sutton County, Texas	0	2	2
Reeves County, Texas	0	1	1
Loving County, Texas	0	1	1
Pecos County, Texas	0	1	1
Crockett County, Texas	0	1	1
Real County, Texas	0	1	1
Kimble County, Texas	0	1	1
Nolan County, Texas	0	1	1
Coke County, Texas	0	1	1
Bell County, Texas	0	1	1
McLennan County, Texas	0	1	1
Oldham County, Texas	0	2	2
Armstrong County, Texas	0	1	1
Potter County, Texas	0	1	1
Henderson County, Texas	0	1	1
Total	27	22	49
Percentages	55	45	100



MAP XLIX. DISTRIBUTION OF TEXAS PETROGLYPHS—PECKED AND CARVED

PART IX

CONCLUSIONS

A careful study of Texas picture-writings has developed a number of worth-while facts. It likewise has exploded several popular fallacies. Chief among the latter is that all picture-writings were mere meaningless scrawls, made to while away idle hours. At the other extreme is the fallacy that the prehistoric Texas Indians were on the verge of an alphabetical system of writing; and that a key, such as the Rosetta Stone, might some day be discovered. All picture-writings were not idle scrawls. But there is no "key" by which all may be deciphered.

The outstanding results of this work are: (1) The assembling of much, if not most, of these materials found in Texas in permanent form for their preservation; and (2) the classification of the design elements. These achievements make possible detailed studies in the future and facilitate comparisons between pictures of widely separated Texas areas, also with those of adjoining states.

The conclusions may be summarized as follows:

1. The oldest pictures probably were made by the first, or nearly first, occupants of the respective regions. The practice of making them persisted well into historic times. It is probable that petrography, or the making of pictures on rocks, was practiced by all the native inhabitants of the regions under discussion.

2. There is some evidence to indicate that the oldest petroglyphs in the Trans-Pecos region may be of greater age than the first pictographs. But the practice of pecking designs on exposed boulders was not abandoned after pictography came in. Many of the petroglyphs farther east, those that were carved with a sharp implement, are much more recent than most of the pecked designs; and a few show European contacts. It can not be said, therefore, that this type of Texas petroglyphs has any very great age.

3. The ages of the oldest pictographs may not go back further than 1500 years. Most of them appear to be much more recent. Perhaps the majority are not older than 500 years, with some not more than 100 years. This supposition, however, is not supported with sufficient palpable evidence to make it more than plausible conjecture.

4. Certain "styles" or unusual features in picture-writings are found in various restricted areas. In the El Paso region are many masked human heads, mountain sheep and other distinctive elements. In the Big Bend proper are some outstanding pictures, of considerable age, showing men armed with the crudest types of stone implements and clubs. In the lower Pecos River section are extra large paintings, in red and sometimes combining orange and black, of human, animal and insect figures. These, in the latter area, appear to be among the oldest pictographs in the state.

In the region along the upper reaches of the Nueces, Frio and South Llano Rivers are small black paintings of human and animal figures. Along the tributaries of the Colorado River, in West Central Texas, are distinctive small red paintings that feature conventionalized human and animal forms.

On tributaries of the Brazos River, in Central North Texas, are certain unique human representations and other unusual features. These include both pictographs and petroglyphs. In the Texas Panhandle are still other types of paintings and

carvings. Among them are some unusual square-shouldered human figures, large plumed serpents, etc.

5. There are, of course, some elements common to all the regions. Outstanding among them are rayed sun-discs and various geometric elements. There also are types of conventionalized humans and animals with a general distribution. Snake-like elements likewise have a general similarity in a wide occurrence.

6. The picture-writings are not evenly distributed. This is due largely to geographical features, that left large areas without proper surfaces for pictures; while certain other regions possessed numerous rock shelters and caves that afforded both fine surfaces and excellent protection for the drawings. Other sections had no shelters. Then the matter of rainfall, seepage, exposure, wind action and the kind of stone had much to do with the preservation of pictographs. In Coryell and Bosque Counties are many rock shelters, with only a few traces of pictographs remaining. Paintings probably have been destroyed by seepage and spalling of the stones in that relatively well watered region.

Due largely to favorable geographical conditions, 34 per cent of the more than 6,500 design elements classified in this study came from Val Verde County. Eight per cent each came from Culberson and Concho Counties; six per cent each from Terrell and Hudspeth Counties.

7. Unless the present destruction by vandalism is arrested, which does not seem at all probable, another 20 years will see most of the now decipherable pictures covered with scratched and painted names and dates; or otherwise so mutilated as to render them meaningless to the science of early man.

8. The painted pebbles are unique. The center of this unusual culture trait seems to be along the Rio Grande and lower Pecos River in Val Verde County. Specimens have been found as far west as Brewster County and as far east as Llano County. In certain cases the designs on the pebbles are similar to, or identical with, pictographs on the walls of the shelters where the pebbles were found. More field work needs to be done before definite conclusions are reached.

These are remarkably like, and suggestive of, the painted stones of the Mas d'Azil shelter belonging to the late Paleolithic in France.

9. Carved designs on small stones are not common. While some, occurring in middens of West and Central Texas, undoubtedly are of genuine Indian workmanship, one must be on guard for fakes. Certain of the designs seem to have the same motivation as those on painted pebbles. This is not surprising, since many of them come from the same sites. Additional research also needs to be done in connection with this phase of picture-writing.

10. Paintings on bones and skins are now very rare. Most of those remaining on skins are historic specimens, but are important for comparative purposes. They are, as a rule, more elaborate than the rock paintings.

11. The pictograph and petroglyph sites reported but not studied should receive attention at the earliest possible date. When all have been copied and studied in an exhaustive manner, it will be the time to make detailed comparisons of the design elements in the various regions in Texas; and, finally, to compare—on an extensive scale—with the rock pictures and pottery designs of other states and countries.

Not until then will the maximum benefits to be derived from the study of Texas picture-writings be assured. This study will then be given its part and place in the very important reconstruction of the history of the race.

BIBLIOGRAPHY

- Adair, James, *The History of the American Indians*, London, 1775, p. 389.
- Bandelier, A. F., *Report of an Archaeological Tour in Mexico in 1881*, Papers of the Archaeological Institute of America, American Series 11, Boston, 1884, p. 184.
- Bartlett, J. R., *Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua*, D. Appleton and Co., New York, 1854, Vol. II, pp. 170-173.
- Bartram, William, *Travels Through North and South Carolina, Georgia, East and West Florida*, Philadelphia, 1791, p. 455.
- Beckwith, Frank, *Ancient Indian Petroglyphs of Utah*, *El Palacio*, Vol. XXXVIII, No. 6, Santa Fe, February 6, 1935, pp. 33-40.
- Beyer, Herman, *The Analysis of the Maya Hieroglyphs*, Reprinted from the *Internationales Archiv für Ethnographie*, E. J. Brill, Publishers, Leyden, 1930, 20 pp.
- Bliss, W. L., *Problems of the Kuaua Mural Paintings*, *El Palacio*, Vol. XI, Nos. 16, 17, 18, Santa Fe, April 15-22-29, 1936, pp. 81-86.
- Bossu, J. B., *Travels Through That Part of North America Formerly Called Louisiana*, London, 1771, Vol. I, p. 164.
- Bourke, J. G., *The Medicine Men of the Apaches*, Ninth Annual Report, Bureau of American Ethnology, 1887-88, Washington, 1892, pls. VI, VII, VIII.
- Bruff, J. C., *Indian Engravings on Rocks Along Green River Valley in Sierra Nevada Range of Mountains*, Smithsonian Institution, Annual Report for 1872, Washington, 1873, pp. 409-412.
- Bushnell, D. I., Jr., *Petroglyphs Representing the Imprint of the Human Foot*, *American Anthropologist* (N.S.), Vol. 15, 1913, pp. 8-15.
- Cabot, Maria, *Pueblo Indian Painting*, Indian Art Series No. 1, New Mexico Association on Indian Affairs, Santa Fe, 1936, 4 pp.
- Cadzow, D. A., *Petroglyphs (Rock Carvings) in the Susquehanna River Near Safe Harbor Pennsylvania*, Publication of Pennsylvania Historical Commission, Vol. III, Harrisburg, 1934, 59 pp.
- Caso, Alfonso, *Monte Alban, Richest Archaeological Find in America*, *National Geographic Magazine*, Vol. LXII, No. 4, Washington, October, 1932, pp. 492, 496, 499, 502, 506.
- Catlin, George, *Letters and Notes on the Manners, Customs and Conditions of the North American Indians*, Fourth Edition, London, 1844, Vol. II, p. 98.
- Chapman, K. M., *The Evolution of the Bird in Decorative Art*, *Art and Archaeology*, Vol. IV, No. 6, Washington, December, 1916, pp. 307-316.
- Charlevoix, Pierre, *Travels Through Canada and Louisiana to the Gulf of Mexico*, R. Goadby, London, 1763, p. 304.
- Clarke, Crahame, *Scandinavian Rock-Engravings*, *Antiquity*, Vol. XI, No. 41, Gloucester, England, March, 1937, pp. 56-69.
- Cleland, H. F., *Weathering Under Constant Conditions*, *Science*, Vol. LVI, No. 1458, New York, December 8, 1922, pp. 660-661.
- Clodd, Edward, *The Story of the Alphabet*, D. Appleton and Co., New York, 1928.
- Coffin, E. F., *Archaeological Exploration of a Rock Shelter in Brewster County, Texas*, *Indian Notes and Monographs*, No. 48, Museum of the American Indian, Heye Foundation, New York, 1932, pp. 5, 12, 16, 27, 31.
- Collins, H. B., Jr., *Prehistoric Art of the Alaskan Eskimo*, *Smithsonian Miscellaneous Collections*, Vol. 81, No. 14, November, 1929, pp. 1-52.
- Cremony, J. C., *Life Among the Apaches*, A. Roman and Co., San Francisco, 1868, p. 44.
- Cressman, L. S., *Petroglyphs of Oregon*, *University of Oregon Monographs, Studies in Anthropology* 2, Eugene, 1937, 78 pp.

- Crimmins, M. L., *Petroglyphs, Pictographs and the Diffusion of Primitive Culture, Art and Archaeology*, Vol. XXI, No. 6, Washington, June, 1926, pp. 297-298.
 The Jumano Indians, West Texas Historical and Scientific Society, Publication No. 2, Alpine, 1928.
 An Archaeological Survey of the El Paso District, Texas Archaeological and Paleontological Society, Vol. I, September, 1929, Abilene, pp. 36-42.
 Some Indian Illustrations Prehistoric and Historic, Texas Archaeological and Paleontological Society, Vol. II, Abilene, 1930, pp. 69-75.
 The Pictographs at the Hueco Tanks, Texas Archaeological and Paleontological Society, Vol. III, Abilene, 1931, pp. 24-30.
- Davidson, D. S., *Aboriginal Australian and Tasmanian Rock Carvings and Paintings*, Memoirs American Philosophical Society, Vol. 5, Philadelphia, 1936, 151 pp.
- D'Alviella, Gablett, *The Migration of Symbols*, Popular Science Monthly, September-October, 1890, pp. 674, 676, 677, 679.
- Dobie, J. Frank, *The Spanish Cow Pony*, The Saturday Evening Post, Vol. 207, No. 21, Philadelphia, November 24, 1934.
- Dodge, R. I., *Our Wild Indians; Thirty-three Years' Personal Experience Among the Red Men of the Great West*, A. D. Worthington and Co., Hartford, 1883, p. 163.
- Douglas, F. H., *Indian Sand-Painting*, Leaflets 43 and 44, Denver Art Museum, Denver, March, 1932.
Colors in Indian Art: Their Sources and Uses, Leaflet 56, Denver Art Museum, Denver, March, 1933.
- Eells, Myron, *The Thunder Bird*, American Anthropologist (O.S.), Vol. II, No. 10, Washington, October, 1889, pp. 329-336.
- Emmons, G. T., *Petroglyphs in Southeastern Alaska*, American Anthropologist (N.S.), Vol. 10, 1908, pp. 221-230.
- Engerrand, George, *Nuevos Petroglifos de la Baja California*, Imp. Del Museo N. de Arqueologia, Historia Y Etnologia, Mexico, 1912.
- Erwin, R. P., *Indian Rock Writing in Idaho*, Idaho State Historical Society, Biennial Report 12, for 1929-1930, Boise, 1930, pp. 33-111.
- Estill, Julia, *Indian Pictographs Near Lange's Mill*, Gillespie County, Texas, Publication of Texas Folk-Lore Society, Vol. IV, Austin, 1925.
- Fewkes, J. W., *A Few Tusayan Pictographs*, American Anthropologist (O.S.), Vol. 5, No. 1, Washington, January, 1892, pp. 9-26.
Tusayan Totemic Signatures, American Anthropologist (O.S.), Vol. X, No. 1, Washington, January, 1897, pp. 1-11.
The Feather Symbol in Ancient Hopi Designs, American Anthropologist (O.S.), Vol. XI, No. 1, Washington, January, 1898, pp. 1-14.
Prehistoric Porto Rican Pictographs, American Anthropologist (N.S.), Vol. 5, No. 3, July-September, 1903, p. 441.
The Butterfly in Hopi Myth and Ritual, American Anthropologist (N.S.), Vol. XII, No. 4, Lancaster, October-December, 1910, pp. 576-599.
- Fossnock, Annette, *Pictographs and Murals in the Southwest*, El Palacio, Vol. XXXIX, No. 16, Santa Fe, October 16, 1935, pp. 81-90.
- French, S. G., *Reports of the Secretary of War, With Reconnaissances of Routes from San Antonio to El Paso*, Senate Executive Document No. 64, Thirty-first Congress, First Session, July 24, 1850.
- Frobenius, Leo, and Fox, D. C., *Prehistoric Rock Pictures in Africa and Europe*, The Museum of Modern Art, New York, 1937, 82 pp.
- Goddard, P. E., *Indians of the Southwest*, American Museum of Natural History, New York, 1913, p. 139.
- Green, Edward, *Ancient Rock Inscriptions in Johnson County, Arkansas*, Miscellaneous Papers Relating to Anthropology, Annual Report Smithsonian Institution, 1881, Washington, 1883, pp. 538-541.
- Harrington, M. R., *Ozark Bluff Dwellers*, American Anthropologist (N.S.), Vol. 26, No. 1, Menasha, January-March, 1924, pp. 3-12.

- Haury, E. W., The Canyon Creek Ruin and the Cliff Dwellings of the Sierra Ancha, Medallion Papers No. XIV, Gila Pueblo, Globe, Arizona, January, 1934, pp. 140-142, pls. I, LXXXII and Fig. 26.
- Henshaw, H. W., Pictographs, Handbook of American Indians North of Mexico, Edited by F. W. Hodge, Smithsonian Institution, Bureau of American Ethnology, Bulletin 30, Part 2, Washington, 1910, pp. 242-245.
- Hewett, E. L., Archaeology of Pajorito Park, New Mexico, American Anthropologist (N.S.), October-December, 1904, Vol. 6, No. 5, pp. 651-653, pls. XXII, 3 and XXVI, 2.
- Hewitt, J. N. B., Serpent Symbolism, American Anthropologist (O.S.), Vol. II, No. 4, Washington, April, 1889, pp. 179-180.
- Hodge, F. W., The Jumano Indians, Proceedings of the American Antiquarian Society, Vol. XX, Worcester, Mass., 1911.
- Hoffman, W. J., Pictographs and Shamanistic Rites of the Ojibwa, American Anthropologist (O.S.), Vol. I, No. 3, Washington, July, 1888, pp. 209-229.
- Holden, E. S., Studies in Central American Picture Writing, First Annual Report, Bureau of American Ethnology, 1879-80, Washington, 1881, pp. 205-245.
- Horne, Sam, Petroglyphs Tonk Creek, Central Texas Archeological Society, Vol. 1, Waco, January, 1935, pp. 30-31.
- Huckerby, Thomas, Petroglyphs of Grenada, West Indies, and a Recently Discovered Petroglyph in St. Vincent, Indian Notes and Monographs, Vol. 1, No. 3, Museum of American Indian, New York, January, 1921, pp. 143-164.
- Hunter, J. D., Memoirs of a Captivity Among the Indians of North America from Childhood to the Age of Nineteen, Longman, Hurst, Rees, Orme, Brown and Green, London, 1824, Third Edition, pp. 184-187.
- Huskey, Vane, An Archaeological Survey of the Nueces Canyon of Texas, Texas Archaeological and Paleontological Society, Vol. VII, Abilene, September, 1935, pp. 112-113.
- Jackson, A. T., Field Reports on Pictograph and Petroglyph Sites in West Texas, The University of Texas Anthropology Museum, Austin, 1930-37.
- Jones, C. C., Jr., Antiquities of the Southern Indians, D. Appleton and Co., New York, 1873, pp. 62-63, 377-380.
- Judd, N. M., Archaeological Observation North of the Rio Colorado, Bulletin No. 82, Bureau of American Ethnology, Washington, 1919, pp. 192-199.
- Kelley, J. C., Report on Archaeological Field Work in the Madera Valley Area, Bulletin No. 48, West Texas Historical and Scientific Society, Publication No. 5, Alpine, December, 1933, pp. 53, 55-56.
- Kidder, A. V., and Guernsey, S. J., Archaeological Explorations in Northeastern Arizona, Bulletin 65, Bureau of American Ethnology, Washington, 1919, pp. 192-199.
- Kingsborough, E. K., Antiquities of Mexico, Ancient Mexican Paintings and Hieroglyphics, A. Aglio, London, 1830-1848. (9 Volumes.)
- Kirkland, Forrest, A Study of Indian Pictures in Texas, Texas Archaeological and Paleontological Society, Vol. IX, Abilene, September, 1937, pp. 89-119.
- A Comparison of Texas Indian Pictographs with Paleolithic Paintings in Europe, Central Texas Archeologist, Vol. 3, Waco, December, 1937, pp. 9-26.
- Krieger, H. W., Aspects of Aboriginal Decorative Art in America Based on Specimens in the U. S. National Museum, Smithsonian Institution Report for 1930, Publication 3102, Washington, 1931, pp. 537-543, pls. 9, 14, 25.
- Leachman, Douglas, Technical Methods in the Preservation of Anthropological Museum Specimens, F. A. Acland, Printer, Ottawa, 1931, Reprint from Annual Report, 1929, National Museum of Canada, p. 156.
- Lehmann, Herman, Nine Years With the Indians, 1870-1879 (Edited by J. Marvin Hunter), Von Boeckmann-Jones Co., Austin, 1927, pp. 26-27, 103, 119, 120, 139.
- Lucas, A., Antiques, Their Restoration and Preservation, Edward Arnold and Co., London, 1932, Second Edition, pp. 138-150, 201-205, 214.
- Lumholtz, Carl, Unknown Mexico, Charles Scribner's Sons, New York, 1902, Vol. I, pp. 72-83.
- New Trails in Mexico, Charles Scribner's Sons, New York, 1912, p. 169.

- MacCurdy, G. G., *The Dawn of Art, Art and Archaeology*, Vol. 4, No. 2, Washington, August, 1916, pp. 71-90.
- Nature Reflected in the Art of the Ancient Chiriquians, *Natural History*, Vol. 19, No. 2, 1929, pp. 141-151.
- Maire, Albert, *Materials Used to Write Upon Before the Invention of Printing*, Smithsonian Institution Annual Report, 1904, Washington, pp. 639-658.
- Mallery, Garrick, *Sign Language Among North American Indians*, First Annual Report, Bureau of American Ethnology, 1879-80, Washington, 1881, pp. 263-552.
- Pictographs of the North American Indians, Fourth Annual Report, Bureau of American Ethnology, 1882-83, Washington, 1884, pp. 3-256.
- Picture-Writing of the American Indians, Tenth Annual Report, Bureau of American Ethnology, 1888-89, Washington, 1893, pp. 1-807.
- Mansfield, C. R., and Boardman, Leona, *Nitrate Deposits of the United States*, U. S. Dept. of Interior, Geological Survey, Bulletin 838, Washington, 1932, pp. 55-57, 67-68. (Pictographs, Brewster and Culberson Counties, Texas.)
- Martin, George C., *Archaeological Exploration of Shumla Caves*, Big Bend Basket Maker Papers No. 3, Witte Memorial Museum, San Antonio, 1933, pp. 10, 16, 23, 74-78.
- Martin, George C., and Woolford, Samuel, *Painted Pebbles of the Texas Big Bend*, Texas Archaeological and Paleontological Society, Vol. IV, Abilene, 1932, pp. 20-24.
- Mason, W. A., *A History of the Art of Writing*, Macmillan Company, New York, 1920.
- Mathews, R. H., *Australian Rock Pictures*, *American Anthropologist (O.S.)*, Vol. VIII, No. 3, Washington, July, 1895, pp. 268-278.
- Australian Ground and Tree Drawings*, *American Anthropologist (O.S.)*, Vol. IX, No. 2, Washington, February, 1896, pp. 33-49.
- McClintock, Walter, *Painted Tipis and Picture Writing of the Blackfoot Indians*, *The Masterkey*, Vol. X, No. 4, Los Angeles, July, 1936, pp. 121-133 and Vol. X, No. 5, September, 1936, pp. 169-179.
- Mooney, James, *Calendar History of the Kiowa Indians*, Seventeenth Annual Report, Bureau of American Ethnology, 1895-96, Washington, 1898, pp. 141-364.
- Morley, S. G., *Inscriptions at Copan*, Carnegie Institution Publication No. 219, Washington, 1920.
- Introduction to the Study of the Maya Hieroglyphs*, Bureau of American Ethnology, Bulletin No. 57, Washington, 1915.
- Nusbaum, J. L., Kidder, A. V., and Guernsey, S. J., *A Basket-Maker Cave in Kane County, Utah*, Museum of the American Indian, Heye Foundation, New York, 1922, pp. 137-138.
- Oyarzun, N. Avreliaud, *El Sol Pintado de Malloa, Sun Worship and Picture Writing*, Malloa, Chile, Imprenta Universitaria, Santiago, 1911, 11 pp.
- Parkyn, E. A., *An Introduction to the Study of Perhistoric Art*, Longmans, Green and Co., New York, 1915, 349 pp.
- Parry, Francis, *The Sacred Symbols and Numbers of Aboriginal Americans in Ancient and Modern Times*, Bulletin No. 2, American Geographical Society, 1894.
- Peabody, Charles, *A Reconnaissance Trip in Western Texas*, *American Anthropologist (N.S.)*, Vol. 11, No. 2, April-June, 1909, Lancaster, pp. 202-216.
- Pearce, J. E., *Indian Mounds and Other Relics of Indian Life in Texas*, *American Anthropologist (N.S.)*, Vol. 21, No. 3, July-September, 1919, p. 232.
- Present Status of Texas Archaeology*, Texas Archaeological and Paleontological Society, Vol. IV, Abilene, September, 1932, p. 46.
- Pearce, J. E., and Jackson, A. T., *A Prehistoric Rock Shelter in Val Verde County, Texas*, *The University of Texas Bulletin No. 3327, Anthropological Papers*, Vol. 1, No. 3, Austin, July 15, 1933, pp. 18-27, 79-87.
- Prudden, T. M., *The Prehistoric Ruins of the San Juan Watershed in Utah, Arizona, Colorado, and New Mexico*, *American Anthropologist (N.S.)*, Vol. 5, No. 2, April-June, 1903, pp. 249-282, pls. XXXI, XXXIII, XXXIV, XXXV.
- Putnam, F. W., and Willoughby, C. C., *Symbolism in Ancient American Art*, Peabody Museum, Cambridge, Mass., American Association for Advancement of Science, Vol. 44, 1895, p. 302.

- Ray, Cyrus N., A Differentiation of the Prehistoric Cultures of the Abilene Section, Texas Archaeological and Paleontological Society, Vol. I, Abilene, September, 1929, pp. 17-18 (Red paint mine).
- Renaud, E. B., Archaeological Survey of Eastern Colorado, University of Denver, Department of Anthropology, Denver, March, 1933, Chapter III, pp. 27-31.
Pictographs and Petroglyphs of the High Western Plains, Archaeological Survey of the High Western Plains, Eighth Report, University of Denver, Denver, September, 1936, 47 pp., 46 pls.
- Richardson, Rupert, The Culture of the Comanche Indians, Texas Archaeological and Paleontological Society, Vol. I, Abilene, 1929, p. 71.
- Roberts, F. H. H., Jr., Recent Archaeological Developments in the Vicinity of El Paso, Texas, Smithsonian Miscellaneous Collections, Vol. 81, No. 7, Washington, January, 1929, pp. 2-5.
- Saville, M. H., The Plumed Serpent in Northern Mexico, *The Archaeologist*, Vol. 2, No. 10, Waterloo, Ind., 1894, pp. 291-293.
- Sayles, E. B., A Rock Shelter in Coke County, Texas Archaeological and Paleontological Society, Vol. II, Abilene, September, 1930, pp. 33-40, pls. 4, 5.
An Archaeological Survey of Texas, Medallion Papers, No. XVII, Gila Pueblo, Globe, Arizona, May, 1935, pp. 99-106.
An Archaeological Survey of Chihuahua, Mexico, Medallion Papers, No. XXI, Gila Pueblo, Globe, May, 1936, pp. 24, 40, 84.
- Schoolcraft, H. R., Historical and Statistical Information Respecting the History, Conditions and Prospects of the Indian Tribes of the United States, Bureau of Indian Affairs, Philadelphia, 1851-1857, Vol. IV, p. 253, pl. 32.
- Setzler, F. M., Prehistoric Cave Dwellers of Texas, Explorations and Field-Work of the Smithsonian Institution in 1932, Washington, 1933, p. 56.
A Prehistoric Cave Culture in Southwestern Texas, *American Anthropologist* (N.S.), Vol. 37, No. 1, Menasha, January-March, 1935, p. 110.
- Shaw, W. B. K., Rock Paintings in the Libyan Desert, *Antiquity*, Vol. X, No. 38, Gloucester, England, June, 1936, pp. 175-178.
- Shetrone, H. C., *The Mound Builders*, D. Appleton and Co., New York, 1931, pp. 236, 240, 242, 335, 336, 399, 400.
- Shuffler, R. H., Blue Mountain Caves in Indian Days Described by Captain Cook, Who Lived There with Comanches, *Odessa News-Times*, Odessa, Texas, December 7, 1934.
- Skinner, Alonson, The Algonkin and the Thunderbird, *The American Museum Journal*, New York, Vol. XIV, No. 2, pp. 71-72.
- Smith, Clint and Jeff, The Boy Captives (As told to J. Marvin Hunter), *Frontier Times*, Bandera Texas, 1927, pp. 40, 47, 66, 129, 158, 159, 193.
- Smith, Victor J., Indian Pictographs in the Big Bend in Texas, *Publications of Texas Folk-Lore Society*, Vol. II, Austin, 1923, pp. 18-30.
The Human Hand in Primitive Art, *Publication of Texas Folk-Lore Society*, Vol. IV, Austin 1925, pp. 80-102.
Some Notes on Dry Rock Shelters in Western Texas, *American Anthropologist* (N.S.), Vol. 29, No. 2, Menasha, 1927, p. 287.
Archaeological Notes on the Big Bend Region, Texas Archaeological and Paleontological Society, Vol. III, Abilene, September, 1931, pp. 67-69, pls. 7, 8.
The Relation of the Southwestern Basket Maker to the Dry Shelter Culture of the Big Bend, Texas Archaeological and Paleontological Society, Vol. IV, Abilene, September, 1932, p. 58.
- Smithwick, Noah, *The Evolution of a State, or Recollections of Old Texas Days*, Gammel Book Co., Austin, 1900; Facsimile Reproduction, The Steck Co., Austin, 1935, pp. 177, 183-184.
- Spearing, H. G., *The Childhood of Art*, H. Holt and Co., New York, 1913, Second Edition, 548 pp.
- Spinden, H. J., Indian Symbolism, Introduction to American Indian Art, Part II, *The Exposition of Indian Tribal Arts*, Inc., New York, 1931, 18 pp.

- Steward, Julian H., *Petroglyphs of California and Adjoining States*, University of California Publications in American Archaeology and Ethnology, University of California Press, Berkeley, 1929, Vol. 24, No. 2, pp. 47-238.
- Petroglyphs of the United States*, Smithsonian Report for 1936, Publication 3437, Washington, 1937, pp. 405-425.
- Strong, William D., and Schenck, W. E., *Petroglyphs Near the Dalles of the Columbia River*, *American Anthropologist* (N.S.), Vol. 27, No. 1, January-March, 1925, pp. 76-90.
- Studer, Floyd V., *Archaeological Survey of the North Panhandle of Texas*, *Texas Archaeological and Paleontological Society*, Vol. III, Abilene, September, 1931, pp. 73-75.
- Tanner, C. L., and Connolly, F., *Petroglyphs in the Southwest*, *The Kiva*, Vol. 3, No. 4, Arizona State Museum, Tucson, January, 1938, pp. 13-16.
- Thomas, Cyrus, *Central American Hieroglyphic Writing*, *Annual Report Smithsonian Institution*, 1903, Washington, 1904, pp. 705-721.
- Thompson, W. J., *Easter Island*, Report U. S. National Museum for 1888-89, Washington, 1891, pp. 447-552.
- Tozzer, A. M., and Allen, Glover M., *Animal Figures in the Maya Codices*, *Papers of Peabody Museum of American Archaeology and Ethnology*, Harvard University, Vol. 4, No. 3, Cambridge, February, 1910, pp. 279-372.
- Vivian, Gordon, *The Murals at Kuaua, El Palacio*, Vol. XXXVIII, No. 21, Santa Fe, May 22, 1935, pp. 113-119.
- Walker, W. M., *The Cave Culture of Arkansas*, Bureau of American Ethnology, *Exploration and Field-Work of the Smithsonian Institution in 1931*, Publication No. 3134, Washington, 1932, pp. 159-168.
- Watt, Frank H., *A Prehistoric Shelter Burial in Bell County, Texas*, *Central Texas Archeological Society*, Vol. 2, Waco, 1936, p. 22.
- Whipple, A. W., Ewbank, Thomas, and Turner, W. W., *Report Upon the Indian Tribes (Indian Traditions, Superstitions and Pictographs), Included in Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route for a Railroad from the Mississippi River to the Pacific Ocean, Made Under Direction of the Secretary of War in 1853-54, Thirty-third Congress, Second Session, House of Representatives, Executive Document No. 91, Vol. 11, Part 3, Washington, 1856, pp. 35-37, plates 28, 29 and 30.*
- Woolsey, A. M., *Field Reports on Pictograph and Petroglyph Sites*, *The University of Texas Anthropology Museum*, Austin, 1936.

PART VIII

MEANING, PURPOSE AND IMPORTANCE

The meanings of a few of the pictures are self-evident; some are suggested in the paintings and carvings; many will never be known. No interpretation can be accepted finally as scientifically accurate that has not been verified by comparison with the habits, customs and symbolism of the historic Indians of the region.

Since the Texas Indians were driven out of the state more than 50 years ago, and before any scientific interest in ethnology had appeared in Texas, or elsewhere for that matter, the opportunity for such comparative study is gone.

The next best procedure is to make a thorough study of the picture-writings; compare them with such meager materials as may be gleaned from the few Oklahoma remnants of the Texas tribes, but more particularly with pictures of like kind and import in other parts of the world.

There are, however, a few design elements of widespread distribution about which there is little question. They were discussed in the section on classification of design elements.

The pictures were made for various purposes. Many, no doubt, had a ceremonial or religious significance. Among such may have been dancing scenes, masked figures, sun and rain symbols, etc. Again, there may have been some designs and symbols involving adolescence ceremonies. Some of the animal and other figures probably were clan totems or signatures of migratory bands, giving brief accounts of clan movements. Other pictures may have been for the purpose of recording personal exploits of bravery in battle or prowess in the chase. It is possible that some animal pictures may have been drawn to serve as charms, or in the practice of sympathetic or imitative magic, to assure success in the chase.

Of what importance, then, are these Indian picture-writings to the present-day civilized world? They cannot be expected to enrich history in the same sense as do important written documents. Some of them probably were meaningless to everyone but their makers at the time they were set down. In many cases certainly the facts portrayed were trivial.

In spite of all these facts, the study and preservation of the picture-writings are well worth while. They represent in a measure a cross-section of Indian life, and are the first attempts at art in Texas. They reflect the customs, beliefs, superstitions, longings and accomplishments of a primitive early race. Since all races once were primitive, they are an integral part of the general history of civilization. Their very crudity makes them interesting; and their existence throws light on the processes of primitive mentality. By general consensus of scientific opinion, they are held now to be the earliest crude forms of writing, as well as the first forms of painting and sculpture.

AUTHORSHIP

The matter of determining the makers of the pictures is more difficult than at first appears. This is due, first, to the lack of assurance that the early occupants of the caves and shelters were of the same tribal affiliations as the Indians found in those regions in historic times. Next, it is difficult to tie up certain historic pictures with a given tribe, due to the constant shifting of the various tribes.

There seems little doubt, however, that at least a part of the late prehistoric and early historic pictures in the El Paso and Big Bend regions may be attributed to the various groups of Apaches. Along the Nueces and Concho Rivers, certain of the paintings probably were made by the Lipan and others by the Jumano. Some of the pictographs along the Rio Grande, in the vicinity of the mouth of the Pecos River, likewise may have been painted by the Jumano. According to Bolton,¹³⁶ the Jumano were located in 1684 along the Middle Concho, at the junction of the North and Middle Concho, or on the Colorado River near its junction with the Concho River. Some of the tribe also lived, for some ten years prior to 1693, in the general region of the Rio Grande "a short distance north of the Rio Grande and east of the Pecos, having been forced back by the Apache."

With regard to the pictographs in the El Paso region, Roberts¹³⁷ states that "a few of them suggest at least slight Pueblo influence. The latter seem to be of greater age and in some instances are partially covered by portions of those of more recent date." As previously noted, it is his conclusion that a majority of the pictures of that region are the work of the Apache.

Crimmins¹³⁸ states that the El Paso pictographs painted in green are the work of the Navajo Indians of Northern New Mexico and Arizona. The sites where green occurs in El Paso and Culberson Counties show evidence of Pueblo influence. But there is some doubt in the present writer's mind about the green paintings in Jeff Davis and Val Verde Counties.

In the Texas Panhandle various pictures seem to show Pueblo influence. Some of the historic ones may be the work of the Kiowa Indians.

A few of the historic paintings in West-Central Texas, and perhaps elsewhere, may have been made by the Comanches.

Seventy-eight per cent of all sites examined appear to be entirely prehistoric. This means the authorship of the picture-writings at those sites is unknown, insofar as exact tribal determination is concerned.

¹³⁶Bolton, H. E., The Jumano Indians in Texas, 1650-1771, Texas Historical Association Quarterly, Vol. XV, No. 1, Austin, July, 1911, pp. 66-84.

¹³⁷Roberts, F. H. H., Jr., *op. cit.*, pp. 2-3.

¹³⁸Crimmins, M. L., Pictographs at the Hueco Tanks, *op. cit.*, p. 26.

In several ways, there is something tangible to be gained from their study and comparison with pictures from adjoining regions. The more one studies them, the more evident does it become that they are part and parcel of a general art concept, found in widely separated regions. The local differences and "styles" indicate a special significance for many of the design elements. These, showing up amid the styles of adjacent regions, often bespeak migration and thereby supplement archaeological evidence in tracing race and culture movements.

In this connection, Dr. Donald Scott,¹³⁹ Director of Peabody Museum, makes the following statement:

"It seems probable that we may be able to tie certain pictographs to certain geographical areas, and possibly to cultural levels, more definitely than is now the case. In that event, we could hope the pictographs might take their place with pottery as diagnostic material."

This suggestion, regarding the possibility of picture-writings taking their place with pottery, suggests another interesting study; viz., a comparison of rock pictures and the designs in the ornamentation of pottery. Various allusions in this paper indicate the possibilities of such study.

COMPARISON OF ROCK PICTURES AND POTTERY DESIGNS

It is an apparent and significant fact that many of the pictographs and petroglyphs are almost identical with the designs on certain types of pottery. It is not surprising that in the West Texas region one might find similarities between the rock pictures and the pottery designs of the Southwest. But the resemblances extend into East Texas, Arkansas, Louisiana and other Mississippi Valley regions; even, for that matter, to Middle and South America.

In Plates CCCXXII and CCCXXIII are pictured a number of comparable design elements taken from rock pictures and incised pottery decorations. Among the elements compared are rayed sun-discs, equal-armed crosses in circles, scrolls, connected concentric circles, projectile points, ladders, tepees, etc. The list could be made much longer.

The striking similarities can mean nothing else than a widespread distribution of many design elements; which in turn means a widespread distribution of fundamental common ideas and concepts. These facts illustrate beautifully and, perhaps, more forcefully than any other line of study could, the fundamental unity in the prehistoric civilizations in the Americas.

¹³⁹Scott, Donald, Letter to A. T. Jackson, October 10, 1934.

PLATE CCCXXII

TEXAS ROCK PICTURES COMPARABLE TO POTTERY DESIGNS

1. Pictograph, Site No. 23, Reeves County.
2. Pictograph, Site No. 71, Val Verde County.
3. Carved stone, Williamson County.
4. Petroglyph, Site No. 188, Sutton County.
5. Petroglyph, Site No. 4, Hudspeth County.
6. Pictograph, Site No. 84, Val Verde County.
7. Pictograph, Site No. 2, El Paso County.
8. Pictograph, Site No. 150, Concho County.
9. Pictograph, Site No. 150, Concho County.
10. Petroglyph, Site No. 81, Val Verde County.
11. Pictograph, Site No. 3, El Paso County.
12. Pictograph, Site No. 56, Terrell County.
13. Petroglyph, Site No. 50, Ward County.
14. Pictograph, Site No. 56, Terrell County.
15. Pictograph, Site No. 56, Terrell County.
16. Petroglyph, Site No. 14, Culberson County.
17. Petroglyph, Site No. 4, Hudspeth County.
18. Petroglyph, Site No. 11, Hudspeth County.
19. Petroglyph, Site No. 81, Val Verde County.
20. Comanche skin painting, Texas, 1860.
21. Petroglyph, Site No. 139, Kimble County.

PLATE CCCXXIII

TEXAS AND OTHER POTTERY DESIGNS COMPARABLE TO THOSE IN ROCK PICTURES

1. Jim Allen Farm, Cherokee County.
2. J. H. Reese Farm, Wood County.
3. J. M. Riley Farm, Upshur County.
- 4, 5. Russell Bros. Farm, Titus County.
6. Richard Patton Farm, Anderson County.
7. A. P. Williams Farm, Titus County.
8. Russell Bros. Farm, Titus County.
9. Mrs. J. M. Cook Farm, Anderson County.
10. Russell Bros. Farm, Titus County.
11. R. L. Jewell Farm, Anderson County.
12. Russell Bros. Farm, Titus County.
13. J. M. Riley Farm, Upshur County.
14. Russell Bros. Farm, Titus County.
15. J. M. Cook Farm, Anderson County.
16. Mrs. H. L. Culpepper Farm, Hopkins County.
17. H. R. Taylor Farm, Harrison County.
18. J. E. Galt Farm, Franklin County.
19. Nacoochee Mound, Georgia (After Judd).¹⁴⁰
20. J. M. Riley Farm, Upshur County.

¹⁴⁰Judd, Neil M., *Indian Sculpture and Carving, Introduction to American Indian Art, Part II, The Exposition of Indian Tribal Arts, Inc., New York, 1931, p. 7.* (Design on a "pottery effigy vase from the Nacoochee Mound, Georgia," in *Museum of the American Indian, Heye Foundation.*)

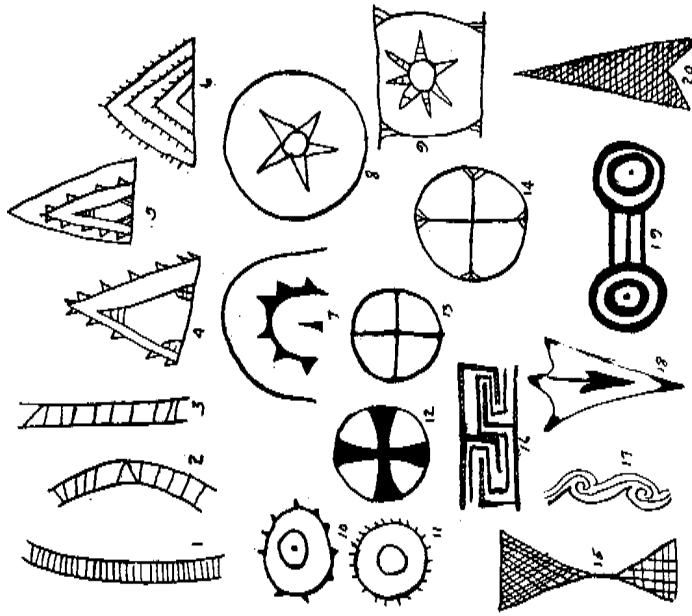


PLATE CCCXXIII.

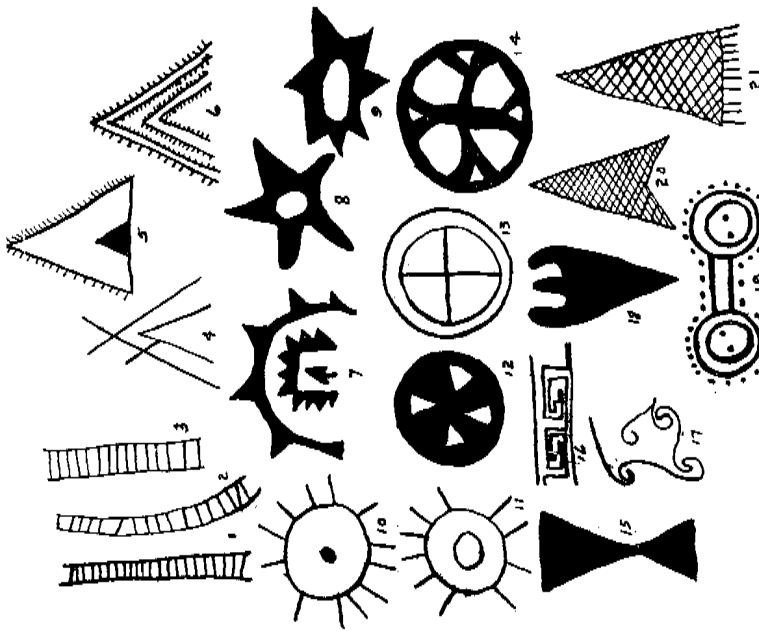


PLATE CCCXXII.

THE RAPID PASSING OF THE PICTURES

The picture-writings, for various reasons, are fast disappearing. Let us look briefly into the causes.

To one who examines thousands of pictographs and petroglyphs, taking careful note of their condition, the conclusion is forced that vandalism is the most destructive agency of the many now at work. The fact has been amply demonstrated by the reports on the individual sites, in the first part of this paper; also in practically all reports of like sites in scientific studies made in this country.

The "inherent cussedness of man," incites him to write his name over the works of the native artists. Fewkes¹⁴¹ ably sums up this perverse trait of mankind:

"The tendency in man to inscribe his name in conspicuous places is a psychic phenomenon amply illustrated by several races in the Southwest. The totemic signatures or Indian names are found on rocks, cliffs, and walls of ancient ruins side by side with names of Spanish, Mexican and American visitors. These present an instructive field of study. The Indian pictographs are of interest to the ethnologist; the Spanish and American inscriptions often afford valuable historical material to the historian. All, even the scribblings of the vandal, show the identity or unity of a psychic tendency which is limited to no race of man."

Vandalism does not stop with the writing of names and dates over the works of the Indians. It frequently happens that a group of youngsters—and sometimes elders—will carry a can of barn paint for miles across rugged mountains to paint pictures beside, or over, the prehistoric ones. Usually these frauds are easily detected; but often they ruin important primitive pictures.

Occasionally a pictograph is used as a target, at which hunters shoot with rifles in matching their skill. A frightful example of this practice is to be found at Site No. 56, Terrell County, where a well preserved Indian painting of a man on a horse was almost ruined by shooting with a large caliber rifle. Both the man and the horse were "killed" by these present-day Indian fighters. (See Plate CHIL.)

The writer was told of one case where school children visited a pictograph site and experimented with oil and water colors, as well as cheap enamels. A subsequent visit to the site showed that they seriously damaged more than a dozen Indian paintings and left a gaudy array of men and animals painted in outlandish colors. It was a case of misdirected enthusiasm being allowed to run riot.

Commercial considerations sometimes exact a toll from archaeological sites. Railroads and highways have destroyed some rock pictures in Texas. The quarrying of rock has ruined part of one large petroglyph site. At least two pictograph sites have been inundated as the result of damming Texas rivers.

Another cause that has contributed to the destruction of picture-writings in certain parts of West Texas is the prospecting for various minerals—other than the legendary "buried treasures."

One type of prospecting that witnessed considerable activity during and shortly after the World War was the unsuccessful search for a commercial supply of nitrate. A number of such prospects, that at first seemed promising, were in caves and shelters in the Big Bend region.

¹⁴¹Fewkes, J. W., *Tusayan Totemic Signatures, op. cit.*, pp. 1-11.

According to Mansfield and Boardman¹⁴² the conditions existing in these caves favored the formation of small nitrate deposits. The caves that were long inhabited contain large quantities of "ashes from old camp fires mixed with other camp refuse containing a large percentage of organic matter. . . . The putrefaction of organic matter in contact with alkaline materials, such as wood ashes, is a process that is thought to have caused the formation of many small nitrate deposits. . . . The fractures in the rock and the cavities due to the expansion of gases permitted the circulation of water-carrying nitrate in solution, and the caves afforded enough protection from the weather to allow the very soluble nitrates to accumulate. . . . The nitrate is confined entirely to the cavities and cracks in the rock near the organic matter of the old Indian cave and the surrounding rock may be expected to be barren of nitrate."

Damage to some of the picture-writings has resulted from the scraping of the incrustation from the cave wall, in an attempt to secure the nitrate it contained. Most of this damage was done prior to the examination of the sites by members of the United States Geological Survey and the publication of their unfavorable nitrate report.

Cosgrove¹⁴³ calls attention to damage done by chalking pictographs at Site No. 2, El Paso County. This practice is unnecessary and often results in damage to the painting. His statement follows:

"Since the writer visited the Huecos, slightly over two months ago, great damage has been done in the chalking of the fine pictographs at this place by misguided photographers and amateur archaeologists. As these pictures are made with soft minerals and with no binder in the paint mixture, the chalking of these figures naturally injures, if not totally destroys, them. Aside from this damage, the outline of the picture is often distorted so it no longer resembles the original drawing. . . ."

One should never chalk pictographs. On rare occasions it may be permissible to use it to bring out the faint lines of petroglyphs. In most cases, however, this is unnecessary. If the photographer is using a good lens, and gives the proper exposure, a satisfactory print usually results. In the rare cases where this expedient is resorted to, the crayon—if on exposed boulders—will be cleared by the first heavy rain. When such a method is employed one must exercise great care to guard against inaccuracies in the tracing of the lines. It is better to have no photograph than to get one that misrepresents the facts.

Next in point of destructiveness are the forces of nature. Seasonal expansion and contraction of the rocks causes them to spall off and thus destroy parts of, or even complete, designs. Pictures not fully protected by a sufficient overhang of the bluff, and those in the open, are subject to the erosive effects of rain and snow. Wind and sand action, that can cause "desert varnish" on the hardest stone or flint, likewise eventually will wear away the most durable paint. Hence in semi-arid regions the location of pictures with regard to wind action has an important bearing on their preservation.

¹⁴²Mansfield, G. R., and Boardman, Leona, *op. cit.*, pp. 57, 82-83.

¹⁴³Cosgrove, C. B., Manuscript Report of Preliminary Survey of the El Paso Pueblo District, El Paso Archaeological Society, El Paso, April, 1925, p. 14.

Saline incrustations or carbonated lime deposited by water evaporation on the cave walls, lichens growing over the petroglyphs on exposed rocks, the soft character of the stone on which some designs are placed, and various other natural causes contribute to the gradual disappearance of the rock pictures.

One case is on record where an earthquake destroyed a number of Texas pictographs.

Rarely is there only one destructive agency at work. Frequently several of them are combined. Hence it is little wonder that the past 25-year period has witnessed vast inroads on the few surviving works of art, consisting of the rock pictures of the American aborigines.

NEED FOR PRESERVATION

What can be done about this destruction? One of the most satisfactory means of preservation of any given site probably would be its inclusion in a national or state park. Obviously, however, this could be hoped for in the case of only a few large sites. What about the others?

The action taken by Cadzow,¹⁴⁴ when petroglyphs in the Susquehanna River in Pennsylvania were to be inundated, is worthy of serious consideration if any of our large sites are to be flooded by impounded water or destroyed by quarry operations. The Pennsylvania Historical Commission spent two years in making scale drawings, plaster molds, casts and in actually drilling out blocks of rock containing the carvings. Thus they were saved to science.

The carvings not to be flooded were accurately recorded and treated with preservative to check further erosion. The preservative consisted of carbon tetrachloride, in which beeswax and paraffin had been dissolved, applied to the stone while hot. Its degree of penetration depends to a considerable extent on the kind of stone. Cadzow states, that an examination of the treated stones, after a two-year period, showed the treatment to be quite effective. The University of Texas made a few tests but has not tried the treatment on an extensive scale.

¹⁴⁴Cadzow, D. A., *Petroglyphs (Rock Carvings) in the Susquehanna River Near Safe Harbor, Pennsylvania*, Publication of Pennsylvania Historical Commission, Vol. III, Harrisburg, 1934, 59 pp.

PLATE CCCXXI

FIBER BRUSHES PROBABLY USED FOR PAINTING PICTOGRAPHS

Found in the rubbish of a large rockshelter, on the wall of which were many paintings.

PLATE CCCXXIV

HORRIBLE EXAMPLES OF VANDALISM

- 1, 2. Pictographs covered with recent carvings, Site No. 150, Concho County.
3. Painted names that destroyed a number of pictographs at Site No. 96, Val Verde County.

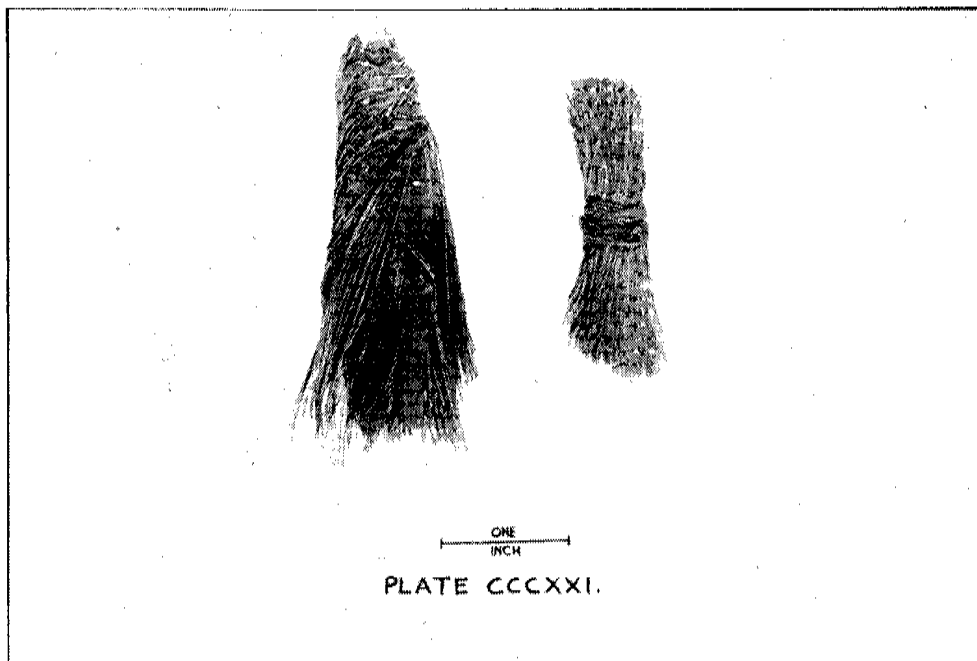


PLATE CCCXXI.



1.



2.



3.

PLATE CCCXXIV.

Lucas¹⁴⁵ cites a case where adherent lichens were removed from prehistoric rock paintings "by means of a dilute aqueous solution of ammonia, which so softened the lichens that they could be removed by gentle brushing, after which the pictures were well washed with water and then with alcohol."

He also recommends "treating the wall repeatedly with a dilute solution of celluloid (1 per cent dissolved in equal parts of acetone and amyl acetate), usually from three to six coats being required. . . . At first . . . the celluloid should be put on with a small soft brush, though not brushed on, but allowed to trickle gently from a full brush. This treatment generally brightens the colors considerably. Naturally, before applying the celluloid the walls should be cleaned as far as possible. . . ."

He cautions that the method is more satisfactory in very dry climates, and adds: ". . . Too strong a solution or too many coats of a weak solution should be avoided, otherwise the contraction of the celluloid on drying may crack the paint and cause it to stand up in curved fragments over the entire surface. . . . Acids must not be used on limestone, as they act vigorously upon it and dissolve it."

The pictures painted with red and yellow ocher are fairly resistant to water, since in most cases they have slightly penetrated the stone. This means that, when necessary, such paintings can be safely cleaned with a damp sponge. Washing with water to which a small quantity of ammonia has been added helps remove bat excrement.

In most cases, however, it is unwise to attempt delicate treatments. Irreparable damages may result from improper treatment made by an untrained person.

Efforts of the layman looking toward the preservation of picture-writings may well begin with the checking of vandalism. This in itself is a difficult task, in the many cases where the sites are far removed from present-day dwellings. One landowner in Texas has lessened the depredations by instructing employes on the place to permit no one to enter without a written permit.

There seems little doubt that most of the vandalism, so destructive to these rock pictures, results from thoughtlessness and ignorance of their importance. Few persons will wilfully damage or destroy them, once their value and the need for preservation are brought to their attention. Unfortunately, however, most of those who do such things do not read archaeological literature and are difficult to reach. The usual type of publicity that appears in the press frequently does more harm than good.

Each person interested in the subject should bend every effort to preserve, by all means possible, these first attempts at writing and fine art.

¹⁴⁵Lucas, A., *Antiques, Their Restoration and Preservation*, Edward Arnold and Company, London, 1932, p. 140.

PART IX

CONCLUSIONS

A careful study of Texas picture-writings has developed a number of worth-while facts. It likewise has exploded several popular fallacies. Chief among the latter is that all picture-writings were mere meaningless scrawls, made to while away idle hours. At the other extreme is the fallacy that the prehistoric Texas Indians were on the verge of an alphabetical system of writing; and that a key, such as the Rosetta Stone, might some day be discovered. All picture-writings were not idle scrawls. But there is no "key" by which all may be deciphered.

The outstanding results of this work are: (1) The assembling of much, if not most, of these materials found in Texas in permanent form for their preservation; and (2) the classification of the design elements. These achievements make possible detailed studies in the future and facilitate comparisons between pictures of widely separated Texas areas, also with those of adjoining states.

The conclusions may be summarized as follows:

1. The oldest pictures probably were made by the first, or nearly first, occupants of the respective regions. The practice of making them persisted well into historic times. It is probable that petrography, or the making of pictures on rocks, was practiced by all the native inhabitants of the regions under discussion.

2. There is some evidence to indicate that the oldest petroglyphs in the Trans-Pecos region may be of greater age than the first pictographs. But the practice of pecking designs on exposed boulders was not abandoned after pictography came in. Many of the petroglyphs farther east, those that were carved with a sharp implement, are much more recent than most of the pecked designs; and a few show European contacts. It can not be said, therefore, that this type of Texas petroglyphs has any very great age.

3. The ages of the oldest pictographs may not go back further than 1500 years. Most of them appear to be much more recent. Perhaps the majority are not older than 500 years, with some not more than 100 years. This supposition, however, is not supported with sufficient palpable evidence to make it more than plausible conjecture.

4. Certain "styles" or unusual features in picture-writings are found in various restricted areas. In the El Paso region are many masked human heads, mountain sheep and other distinctive elements. In the Big Bend proper are some outstanding pictures, of considerable age, showing men armed with the crudest types of stone implements and clubs. In the lower Pecos River section are extra large paintings, in red and sometimes combining orange and black, of human, animal and insect figures. These, in the latter area, appear to be among the oldest pictographs in the state.

In the region along the upper reaches of the Nueces, Frio and South Llano Rivers are small black paintings of human and animal figures. Along the tributaries of the Colorado River, in West Central Texas, are distinctive small red paintings that feature conventionalized human and animal forms.

On tributaries of the Brazos River, in Central North Texas, are certain unique human representations and other unusual features. These include both pictographs and petroglyphs. In the Texas Panhandle are still other types of paintings and

carvings. Among them are some unusual square-shouldered human figures, large plumed serpents, etc.

5. There are, of course, some elements common to all the regions. Outstanding among them are rayed sun-discs and various geometric elements. There also are types of conventionalized humans and animals with a general distribution. Snake-like elements likewise have a general similarity in a wide occurrence.

6. The picture-writings are not evenly distributed. This is due largely to geographical features, that left large areas without proper surfaces for pictures; while certain other regions possessed numerous rock shelters and caves that afforded both fine surfaces and excellent protection for the drawings. Other sections had no shelters. Then the matter of rainfall, seepage, exposure, wind action and the kind of stone had much to do with the preservation of pictographs. In Coryell and Bosque Counties are many rock shelters, with only a few traces of pictographs remaining. Paintings probably have been destroyed by seepage and spalling of the stones in that relatively well watered region.

Due largely to favorable geographical conditions, 34 per cent of the more than 6,500 design elements classified in this study came from Val Verde County. Eight per cent each came from Culberson and Concho Counties; six per cent each from Terrell and Hudspeth Counties.

7. Unless the present destruction by vandalism is arrested, which does not seem at all probable, another 20 years will see most of the now decipherable pictures covered with scratched and painted names and dates; or otherwise so mutilated as to render them meaningless to the science of early man.

8. The painted pebbles are unique. The center of this unusual culture trait seems to be along the Rio Grande and lower Pecos River in Val Verde County. Specimens have been found as far west as Brewster County and as far east as Llano County. In certain cases the designs on the pebbles are similar to, or identical with, pictographs on the walls of the shelters where the pebbles were found. More field work needs to be done before definite conclusions are reached.

These are remarkably like, and suggestive of, the painted stones of the Mas d'Azil shelter belonging to the late Paleolithic in France.

9. Carved designs on small stones are not common. While some, occurring in middens of West and Central Texas, undoubtedly are of genuine Indian workmanship, one must be on guard for fakes. Certain of the designs seem to have the same motivation as those on painted pebbles. This is not surprising, since many of them come from the same sites. Additional research also needs to be done in connection with this phase of picture-writing.

10. Paintings on bones and skins are now very rare. Most of those remaining on skins are historic specimens, but are important for comparative purposes. They are, as a rule, more elaborate than the rock paintings.

11. The pictograph and petroglyph sites reported but not studied should receive attention at the earliest possible date. When all have been copied and studied in an exhaustive manner, it will be the time to make detailed comparisons of the design elements in the various regions in Texas; and, finally, to compare—on an extensive scale—with the rock pictures and pottery designs of other states and countries.

Not until then will the maximum benefits to be derived from the study of Texas picture-writings be assured. This study will then be given its part and place in the very important reconstruction of the history of the race.

BIBLIOGRAPHY

- Adair, James, *The History of the American Indians*, London, 1775, p. 389.
- Bandelier, A. F., *Report of an Archaeological Tour in Mexico in 1881*, Papers of the Archaeological Institute of America, American Series II, Boston, 1884, p. 184.
- Bartlett, J. R., *Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua*, D. Appleton and Co., New York, 1854, Vol. II, pp. 170-173.
- Bartram, William, *Travels Through North and South Carolina, Georgia, East and West Florida*, Philadelphia, 1791, p. 455.
- Beckwith, Frank, *Ancient Indian Petroglyphs of Utah*, *El Palacio*, Vol. XXXVIII, No. 6, Santa Fe, February 6, 1935, pp. 33-40.
- Beyer, Herman, *The Analysis of the Maya Hieroglyphs*, Reprinted from the *Internationales Archiv für Ethnographie*, E. J. Brill, Publishers, Leyden, 1930, 20 pp.
- Bliss, W. L., *Problems of the Kuaua Mural Paintings*, *El Palacio*, Vol. XI, Nos. 16, 17, 18, Santa Fe, April 15-22-29, 1936, pp. 81-86.
- Bossu, J. B., *Travels Through That Part of North America Formerly Called Louisiana*, London, 1771, Vol. I, p. 164.
- Bourke, J. G., *The Medicine Men of the Apaches*, Ninth Annual Report, Bureau of American Ethnology, 1887-88, Washington, 1892, pls. VI, VII, VIII.
- Bruff, J. C., *Indian Engravings on Rocks Along Green River Valley in Sierra Nevada Range of Mountains*, Smithsonian Institution, Annual Report for 1872, Washington, 1873, pp. 409-412.
- Bushnell, D. I., Jr., *Petroglyphs Representing the Imprint of the Human Foot*, *American Anthropologist* (N.S.), Vol. 15, 1913, pp. 8-15.
- Cabot, Maria, *Pueblo Indian Painting*, Indian Art Series No. 1, New Mexico Association on Indian Affairs, Santa Fe, 1936, 4 pp.
- Cadzow, D. A., *Petroglyphs (Rock Carvings) in the Susquehanna River Near Safe Harbor Pennsylvania*, Publication of Pennsylvania Historical Commission, Vol. III, Harrisburg, 1934, 59 pp.
- Caso, Alfonso, *Monte Alban, Richest Archaeological Find in America*, *National Geographic Magazine*, Vol. LXII, No. 4, Washington, October, 1932, pp. 492, 496, 499, 502, 506.
- Catlin, George, *Letters and Notes on the Manners, Customs and Conditions of the North American Indians*, Fourth Edition, London, 1844, Vol. II, p. 98.
- Chapman, K. M., *The Evolution of the Bird in Decorative Art*, *Art and Archaeology*, Vol. IV, No. 6, Washington, December, 1916, pp. 307-316.
- Charlevoix, Pierre, *Travels Through Canada and Louisiana to the Gulf of Mexico*, R. Goadby, London, 1763, p. 304.
- Clarke, Crahame, *Scandinavian Rock-Engravings*, *Antiquity*, Vol. XI, No. 41, Gloucester, England, March, 1937, pp. 56-69.
- Cleland, H. F., *Weathering Under Constant Conditions*, *Science*, Vol. LVI, No. 1458, New York, December 8, 1922, pp. 660-661.
- Clodd, Edward, *The Story of the Alphabet*, D. Appleton and Co., New York, 1928.
- Coffin, E. F., *Archaeological Exploration of a Rock Shelter in Brewster County, Texas*, *Indian Notes and Monographs*, No. 48, Museum of the American Indian, Heye Foundation, New York, 1932, pp. 5, 12, 16, 27, 31.
- Collins, H. B., Jr., *Prehistoric Art of the Alaskan Eskimo*, *Smithsonian Miscellaneous Collections*, Vol. 81, No. 14, November, 1929, pp. 1-52.
- Cremony, J. C., *Life Among the Apaches*, A. Roman and Co., San Francisco, 1868, p. 44.
- Cressman, L. S., *Petroglyphs of Oregon*, *University of Oregon Monographs, Studies in Anthropology* 2, Eugene, 1937, 78 pp.

- Crimmins, M. L., *Petroglyphs, Pictographs and the Diffusion of Primitive Culture, Art and Archaeology*, Vol. XXI, No. 6, Washington, June, 1926, pp. 297-298.
- The Jumano Indians, West Texas Historical and Scientific Society, Publication No. 2, Alpine, 1928.
- An Archaeological Survey of the El Paso District, Texas Archaeological and Paleontological Society, Vol. I, September, 1929, Abilene, pp. 36-42.
- Some Indian Illustrations Prehistoric and Historic, Texas Archaeological and Paleontological Society, Vol. II, Abilene, 1930, pp. 69-75.
- The Pictographs at the Hueco Tanks, Texas Archaeological and Paleontological Society, Vol. III, Abilene, 1931, pp. 24-30.
- Davidson, D. S., *Aboriginal Australian and Tasmanian Rock Carvings and Paintings*, Memoirs American Philosophical Society, Vol. 5, Philadelphia, 1936, 151 pp.
- D'Alviella, Gablett, *The Migration of Symbols*, Popular Science Monthly, September-October, 1890, pp. 674, 676, 677, 679.
- Dobie, J. Frank, *The Spanish Cow Pony*, The Saturday Evening Post, Vol. 207, No. 21, Philadelphia, November 24, 1934.
- Dodge, R. I., *Our Wild Indians; Thirty-three Years' Personal Experience Among the Red Men of the Great West*, A. D. Worthington and Co., Hartford, 1883, p. 163.
- Douglas, F. H., *Indian Sand-Painting*, Leaflets 43 and 44, Denver Art Museum, Denver, March, 1932.
- Colors in Indian Art: Their Sources and Uses, Leaflet 56, Denver Art Museum, Denver, March, 1933.
- Eells, Myron, *The Thunder Bird*, American Anthropologist (O.S.), Vol. II, No. 10, Washington, October, 1889, pp. 329-336.
- Emmons, G. T., *Petroglyphs in Southeastern Alaska*, American Anthropologist (N.S.), Vol. 10, 1908, pp. 221-230.
- Engerrand, George, *Nuevos Petroglifos de la Baja California*, Imp. Del Museo N. de Arqueologia, Historia Y Etnologia, Mexico, 1912.
- Erwin, R. P., *Indian Rock Writing in Idaho*, Idaho State Historical Society, Biennial Report 12, for 1929-1930, Boise, 1930, pp. 33-111.
- Estill, Julia, *Indian Pictographs Near Lange's Mill*, Gillespie County, Texas, Publication of Texas Folk-Lore Society, Vol. IV, Austin, 1925.
- Fewkes, J. W., *A Few Tusayan Pictographs*, American Anthropologist (O.S.), Vol. 5, No. 1, Washington, January, 1892, pp. 9-26.
- Tusayan Totemic Signatures*, American Anthropologist (O.S.), Vol. X, No. 1, Washington, January, 1897, pp. 1-11.
- The Feather Symbol in Ancient Hopi Designs*, American Anthropologist (O.S.), Vol. XI, No. 1, Washington, January, 1898, pp. 1-14.
- Prehistoric Porto Rican Pictographs*, American Anthropologist (N.S.), Vol. 5, No. 3, July-September, 1903, p. 441.
- The Butterfly in Hopi Myth and Ritual*, American Anthropologist (N.S.), Vol. XII, No. 4, Lancaster, October-December, 1910, pp. 576-599.
- Fossnock, Annette, *Pictographs and Murals in the Southwest*, El Palacio, Vol. XXXIX, No. 16, Santa Fe, October 16, 1935, pp. 81-90.
- French, S. G., *Reports of the Secretary of War, With Reconnaissances of Routes from San Antonio to El Paso*, Senate Executive Document No. 64, Thirty-first Congress, First Session, July 24, 1850.
- Frobenius, Leo, and Fox, D. C., *Prehistoric Rock Pictures in Africa and Europe*, The Museum of Modern Art, New York, 1937, 82 pp.
- Goddard, P. E., *Indians of the Southwest*, American Museum of Natural History, New York, 1913, p. 139.
- Green, Edward, *Ancient Rock Inscriptions in Johnson County, Arkansas*, Miscellaneous Papers Relating to Anthropology, Annual Report Smithsonian Institution, 1881, Washington, 1883, pp. 538-541.
- Harrington, M. R., *Ozark Bluff Dwellers*, American Anthropologist (N.S.), Vol. 26, No. 1, Menasha, January-March, 1924, pp. 3-12.

- Haury, E. W., The Canyon Creek Ruin and the Cliff Dwellings of the Sierra Ancha, Medallion Papers No. XIV, Gila Pueblo, Globe, Arizona, January, 1934, pp. 140-142, pls. I, LXXXII and Fig. 26.
- Henshaw, H. W., Pictographs, Handbook of American Indians North of Mexico, Edited by F. W. Hodge, Smithsonian Institution, Bureau of American Ethnology, Bulletin 30, Part 2, Washington, 1910, pp. 242-245.
- Hewett, E. L., Archaeology of Pajorito Park, New Mexico, American Anthropologist (N.S.), October-December, 1904, Vol. 6, No. 5, pp. 651-653, pls. XXII, 3 and XXVI, 2.
- Hewitt, J. N. B., Serpent Symbolism, American Anthropologist (O.S.), Vol. II, No. 4, Washington, April, 1889, pp. 179-180.
- Hodge, F. W., The Jumano Indians, Proceedings of the American Antiquarian Society, Vol. XX, Worcester, Mass., 1911.
- Hoffman, W. J., Pictographs and Shamanistic Rites of the Ojibwa, American Anthropologist (O.S.), Vol. I, No. 3, Washington, July, 1888, pp. 209-229.
- Holden, E. S., Studies in Central American Picture Writing, First Annual Report, Bureau of American Ethnology, 1879-80, Washington, 1881, pp. 205-245.
- Horne, Sam, Petroglyphs Tonk Creek, Central Texas Archeological Society, Vol. 1, Waco, January, 1935, pp. 30-31.
- Huckerby, Thomas, Petroglyphs of Grenada, West Indies, and a Recently Discovered Petroglyph in St. Vincent, Indian Notes and Monographs, Vol. 1, No. 3, Museum of American Indian, New York, January, 1921, pp. 143-164.
- Hunter, J. D., Memoirs of a Captivity Among the Indians of North America from Childhood to the Age of Nineteen, Longman, Hurst, Rees, Orme, Brown and Green, London, 1824, Third Edition, pp. 184-187.
- Huskey, Vane, An Archaeological Survey of the Nueces Canyon of Texas, Texas Archaeological and Paleontological Society, Vol. VII, Abilene, September, 1935, pp. 112-113.
- Jackson, A. T., Field Reports on Pictograph and Petroglyph Sites in West Texas, The University of Texas Anthropology Museum, Austin, 1930-37.
- Jones, C. C., Jr., Antiquities of the Southern Indians, D. Appleton and Co., New York, 1873, pp. 62-63, 377-380.
- Judd, N. M., Archaeological Observation North of the Rio Colorado, Bulletin No. 82, Bureau of American Ethnology, Washington, 1919, pp. 192-199.
- Kelley, J. C., Report on Archaeological Field Work in the Madera Valley Area, Bulletin No. 48, West Texas Historical and Scientific Society, Publication No. 5, Alpine, December, 1933, pp. 53, 55-56.
- Kidder, A. V., and Guernsey, S. J., Archaeological Explorations in Northeastern Arizona, Bulletin 65, Bureau of American Ethnology, Washington, 1919, pp. 192-199.
- Kingsborough, E. K., Antiquities of Mexico, Ancient Mexican Paintings and Hieroglyphics, A. Aglio, London, 1830-1848. (9 Volumes.)
- Kirkland, Forrest, A Study of Indian Pictures in Texas, Texas Archaeological and Paleontological Society, Vol. IX, Abilene, September, 1937, pp. 89-119.
- A Comparison of Texas Indian Pictographs with Paleolithic Paintings in Europe, Central Texas Archeologist, Vol. 3, Waco, December, 1937, pp. 9-26.
- Krieger, H. W., Aspects of Aboriginal Decorative Art in America Based on Specimens in the U. S. National Museum, Smithsonian Institution Report for 1930, Publication 3102, Washington, 1931, pp. 537-543, pls. 9, 14, 25.
- Leachman, Douglas, Technical Methods in the Preservation of Anthropological Museum Specimens, F. A. Acland, Printer, Ottawa, 1931, Reprint from Annual Report, 1929, National Museum of Canada, p. 156.
- Lehmann, Herman, Nine Years With the Indians, 1870-1879 (Edited by J. Marvin Hunter), Von Boeckmann-Jones Co., Austin, 1927, pp. 26-27, 103, 119, 120, 139.
- Lucas, A., Antiques, Their Restoration and Preservation, Edward Arnold and Co., London, 1932, Second Edition, pp. 138-150, 201-205, 214.
- Lumholtz, Carl, Unknown Mexico, Charles Scribner's Sons, New York, 1902, Vol. I, pp. 72-83.
- New Trails in Mexico, Charles Scribner's Sons, New York, 1912, p. 169.

- MacCurdy, G. G., *The Dawn of Art, Art and Archaeology*, Vol. 4, No. 2, Washington, August, 1916, pp. 71-90.
- Nature Reflected in the Art of the Ancient Chiriquians, *Natural History*, Vol. 19, No. 2, 1929, pp. 141-151.
- Maire, Albert, *Materials Used to Write Upon Before the Invention of Printing*, Smithsonian Institution Annual Report, 1904, Washington, pp. 639-658.
- Mallery, Garrick, *Sign Language Among North American Indians*, First Annual Report, Bureau of American Ethnology, 1879-80, Washington, 1881, pp. 263-552.
- Pictographs of the North American Indians, Fourth Annual Report, Bureau of American Ethnology, 1882-83, Washington, 1884, pp. 3-256.
- Picture-Writing of the American Indians, Tenth Annual Report, Bureau of American Ethnology, 1888-89, Washington, 1893, pp. 1-807.
- Mansfield, C. R., and Boardman, Leona, *Nitrate Deposits of the United States*, U. S. Dept. of Interior, Geological Survey, Bulletin 838, Washington, 1932, pp. 55-57, 67-68. (Pictographs, Brewster and Culberson Counties, Texas.)
- Martin, George C., *Archaeological Exploration of Shumla Caves*, Big Bend Basket Maker Papers No. 3, Witte Memorial Museum, San Antonio, 1933, pp. 10, 16, 23, 74-78.
- Martin, George C., and Woolford, Samuel, *Painted Pebbles of the Texas Big Bend*, Texas Archaeological and Paleontological Society, Vol. IV, Abilene, 1932, pp. 20-24.
- Mason, W. A., *A History of the Art of Writing*, Macmillan Company, New York, 1920.
- Mathews, R. H., *Australian Rock Pictures*, *American Anthropologist (O.S.)*, Vol. VIII, No. 3, Washington, July, 1895, pp. 268-278.
- Australian Ground and Tree Drawings*, *American Anthropologist (O.S.)*, Vol. IX, No. 2, Washington, February, 1896, pp. 33-49.
- McClintock, Walter, *Painted Tipis and Picture Writing of the Blackfoot Indians*, *The Masterkey*, Vol. X, No. 4, Los Angeles, July, 1936, pp. 121-133 and Vol. X, No. 5, September, 1936, pp. 169-179.
- Mooney, James, *Calendar History of the Kiowa Indians*, Seventeenth Annual Report, Bureau of American Ethnology, 1895-96, Washington, 1898, pp. 141-364.
- Morley, S. G., *Inscriptions at Copan*, Carnegie Institution Publication No. 219, Washington, 1920.
- Introduction to the Study of the Maya Hieroglyphs*, Bureau of American Ethnology, Bulletin No. 57, Washington, 1915.
- Nusbaum, J. L., Kidder, A. V., and Guernsey, S. J., *A Basket-Maker Cave in Kane County, Utah*, Museum of the American Indian, Heye Foundation, New York, 1922, pp. 137-138.
- Oyarzun, N. Avreliaud, *El Sol Pintado de Malloa, Sun Worship and Picture Writing*, Malloa, Chile, Imprenta Universitaria, Santiago, 1911, 11 pp.
- Parkyn, E. A., *An Introduction to the Study of Prehistoric Art*, Longmans, Green and Co., New York, 1915, 349 pp.
- Parry, Francis, *The Sacred Symbols and Numbers of Aboriginal Americans in Ancient and Modern Times*, Bulletin No. 2, American Geographical Society, 1894.
- Peabody, Charles, *A Reconnaissance Trip in Western Texas*, *American Anthropologist (N.S.)*, Vol. 11, No. 2, April-June, 1909, Lancaster, pp. 202-216.
- Pearce, J. E., *Indian Mounds and Other Relics of Indian Life in Texas*, *American Anthropologist (N.S.)*, Vol. 21, No. 3, July-September, 1919, p. 232.
- Present Status of Texas Archaeology*, Texas Archaeological and Paleontological Society, Vol. IV, Abilene, September, 1932, p. 46.
- Pearce, J. E., and Jackson, A. T., *A Prehistoric Rock Shelter in Val Verde County, Texas*, *The University of Texas Bulletin No. 3327, Anthropological Papers*, Vol. 1, No. 3, Austin, July 15, 1933, pp. 18-27, 79-87.
- Prudden, T. M., *The Prehistoric Ruins of the San Juan Watershed in Utah, Arizona, Colorado, and New Mexico*, *American Anthropologist (N.S.)*, Vol. 5, No. 2, April-June, 1903, pp. 249-282, pls. XXXI, XXXIII, XXXIV, XXXV.
- Putnam, F. W., and Willoughby, C. C., *Symbolism in Ancient American Art*, Peabody Museum, Cambridge, Mass., American Association for Advancement of Science, Vol. 44, 1895, p. 302.

- Ray, Cyrus N., A Differentiation of the Prehistoric Cultures of the Abilene Section, Texas Archaeological and Paleontological Society, Vol. I, Abilene, September, 1929, pp. 17-18 (Red paint mine).
- Renaud, E. B., Archaeological Survey of Eastern Colorado, University of Denver, Department of Anthropology, Denver, March, 1933, Chapter III, pp. 27-31.
Pictographs and Petroglyphs of the High Western Plains, Archaeological Survey of the High Western Plains, Eighth Report, University of Denver, Denver, September, 1936, 47 pp., 46 pls.
- Richardson, Rupert, The Culture of the Comanche Indians, Texas Archaeological and Paleontological Society, Vol. I, Abilene, 1929, p. 71.
- Roberts, F. H. H., Jr., Recent Archaeological Developments in the Vicinity of El Paso, Texas, Smithsonian Miscellaneous Collections, Vol. 81, No. 7, Washington, January, 1929, pp. 2-5.
- Saville, M. H., The Plumed Serpent in Northern Mexico, *The Archaeologist*, Vol. 2, No. 10, Waterloo, Ind., 1894, pp. 291-293.
- Sayles, E. B., A Rock Shelter in Coke County, Texas Archaeological and Paleontological Society, Vol. II, Abilene, September, 1930, pp. 33-40, pls. 4, 5.
An Archaeological Survey of Texas, Medallion Papers, No. XVII, Gila Pueblo, Globe, Arizona, May, 1935, pp. 99-106.
An Archaeological Survey of Chihuahua, Mexico, Medallion Papers, No. XXI, Gila Pueblo, Globe, May, 1936, pp. 24, 40, 84.
- Schoolcraft, H. R., Historical and Statistical Information Respecting the History, Conditions and Prospects of the Indian Tribes of the United States, Bureau of Indian Affairs, Philadelphia, 1851-1857, Vol. IV, p. 253, pl. 32.
- Setzler, F. M., Prehistoric Cave Dwellers of Texas, Explorations and Field-Work of the Smithsonian Institution in 1932, Washington, 1933, p. 56.
A Prehistoric Cave Culture in Southwestern Texas, *American Anthropologist* (N.S.), Vol. 37, No. 1, Menasha, January-March, 1935, p. 110.
- Shaw, W. B. K., Rock Paintings in the Libyan Desert, *Antiquity*, Vol. X, No. 38, Gloucester, England, June, 1936, pp. 175-178.
- Shetrone, H. C., The Mound Builders, D. Appleton and Co., New York, 1931, pp. 236, 240, 242, 335, 336, 399, 400.
- Shuffler, R. H., Blue Mountain Caves in Indian Days Described by Captain Cook, Who Lived There with Comanches, *Odessa News-Times*, Odessa, Texas, December 7, 1934.
- Skinner, Alonson, The Algonkin and the Thunderbird, *The American Museum Journal*, New York, Vol. XIV, No. 2, pp. 71-72.
- Smith, Clint and Jeff, The Boy Captives (As told to J. Marvin Hunter), *Frontier Times*, Bandera Texas, 1927, pp. 40, 47, 66, 129, 158, 159, 193.
- Smith, Victor J., Indian Pictographs in the Big Bend in Texas, *Publications of Texas Folk-Lore Society*, Vol. II, Austin, 1923, pp. 18-30.
The Human Hand in Primitive Art, *Publication of Texas Folk-Lore Society*, Vol. IV, Austin 1925, pp. 80-102.
Some Notes on Dry Rock Shelters in Western Texas, *American Anthropologist* (N.S.), Vol. 29, No. 2, Menasha, 1927, p. 287.
Archaeological Notes on the Big Bend Region, Texas Archaeological and Paleontological Society, Vol. III, Abilene, September, 1931, pp. 67-69, pls. 7, 8.
The Relation of the Southwestern Basket Maker to the Dry Shelter Culture of the Big Bend, Texas Archaeological and Paleontological Society, Vol. IV, Abilene, September, 1932, p. 58.
- Smithwick, Noah, The Evolution of a State, or Recollections of Old Texas Days, Gammel Book Co., Austin, 1900; Facsimile Reproduction, The Steck Co., Austin, 1935, pp. 177, 183-184.
- Spearing, H. G., The Childhood of Art, II, Holt and Co., New York, 1913, Second Edition, 548 pp.
- Spinden, H. J., Indian Symbolism, Introduction to American Indian Art, Part II, The Exposition of Indian Tribal Arts, Inc., New York, 1931, 18 pp.

- Steward, Julian H., *Petroglyphs of California and Adjoining States*, University of California Publications in American Archaeology and Ethnology, University of California Press, Berkeley, 1929, Vol. 24, No. 2, pp. 47-238.
- Petroglyphs of the United States*, Smithsonian Report for 1936, Publication 3437, Washington, 1937, pp. 405-425.
- Strong, William D., and Schenck, W. E., *Petroglyphs Near the Dalles of the Columbia River*, *American Anthropologist* (N.S.), Vol. 27, No. 1, January-March, 1925, pp. 76-90.
- Studer, Floyd V., *Archaeological Survey of the North Panhandle of Texas*, *Texas Archaeological and Paleontological Society*, Vol. III, Abilene, September, 1931, pp. 73-75.
- Tanner, C. L., and Connolly, F., *Petroglyphs in the Southwest*, *The Kiva*, Vol. 3, No. 4, Arizona State Museum, Tucson, January, 1938, pp. 13-16.
- Thomas, Cyrus, *Central American Hieroglyphic Writing*, *Annual Report Smithsonian Institution*, 1903, Washington, 1904, pp. 705-721.
- Thompson, W. J., *Easter Island*, Report U. S. National Museum for 1888-89, Washington, 1891, pp. 447-552.
- Tozzer, A. M., and Allen, Glover M., *Animal Figures in the Maya Codices*, *Papers of Peabody Museum of American Archaeology and Ethnology*, Harvard University, Vol. 4, No. 3, Cambridge, February, 1910, pp. 279-372.
- Vivian, Gordon, *The Murals at Kuaua, El Palacio*, Vol. XXXVIII, No. 21, Santa Fe, May 22, 1935, pp. 113-119.
- Walker, W. M., *The Cave Culture of Arkansas*, Bureau of American Ethnology, *Exploration and Field-Work of the Smithsonian Institution in 1931*, Publication No. 3134, Washington, 1932, pp. 159-168.
- Watt, Frank H., *A Prehistoric Shelter Burial in Bell County, Texas*, *Central Texas Archeological Society*, Vol. 2, Waco, 1936, p. 22.
- Whipple, A. W., Ewbank, Thomas, and Turner, W. W., *Report Upon the Indian Tribes (Indian Traditions, Superstitions and Pictographs), Included in Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route for a Railroad from the Mississippi River to the Pacific Ocean, Made Under Direction of the Secretary of War in 1853-54, Thirty-third Congress, Second Session, House of Representatives, Executive Document No. 91, Vol. 11, Part 3, Washington, 1856, pp. 35-37, plates 28, 29 and 30.*
- Woolsey, A. M., *Field Reports on Pictograph and Petroglyph Sites*, *The University of Texas Anthropology Museum*, Austin, 1936.

INDEX

- A
- Abrading
 grooves, 65
 marks, 117, 120, 137, 143, 286, 299, 300, 304, 316, 317, 318
- Acknowledgments, xxiii-xxv
- Action pictures, 12, 13, 264, 265, 312, 313, 405
 See Story-telling pictures
- Adolescence ceremonies, 464
- Ages of pictures, 5, 34, 41, 49, 64, 65, 98, 102, 114, 139, 146, 156, 160-161, 187, 209, 252, 263, 267, 270, 292, 293, 304, 311, 319, 337, 339, 340, 343, 346, 350, 354, 356, 376, 388, 400, 448, 459, 461-462, 473
- Akimbo, *see* Arms, position of
- Alcohol, washing with, 472
- Alphabet, elements resembling, 443
 See Design elements
- Alphabetic system, 1, 473
- Alves, Mrs. Eileen E., xxiii
- Alves, R. B., xxiii
- American flags, 388
- Amoeboid figures, *see* Design elements
- Ammonia, solution of, 472
- Anchor-like elements, 445, 447, 448
 See Design elements
- Anderson County, 466
- Anderson, Gordon, 330
- Animals
 absence of on matting and basketry, 329
 carnivorous, 45, 173, 216, 217, 236, 237, 410, 413
 colored or pecked in part, 410, 413, 414
 See Design elements
 connected to show proper names, 349, 351, 448
 conventionalized, 410; *see* Design elements
 horn, *see* Headdress, horn
 pelts, 413; *see* Design elements
 pierced by projectiles, 19, 27, 45, 77, 78, 94, 409
 prayer for increase of, 343, 345, 405
 roar of, 45, 237
 tracks, 414, 415; *see* Design elements
- Antelope, 414
- Antler headdress, *see* Headdress, horn
- Apache Indians, 22, 72, 76, 146, 170, 337, 343, 348, 349, 380, 382, 422, 463
- Archaeological
 dating, 461
 record, 388, 443, 465
 specimens, 389, 392
- Arches, 384
- Arkokisa Indians, 382
- Armadillo, 44, 45, 409
- Arms
 attachments to, 173, 174, 176, 177, 187, 188, 192, 193, 209, 210, 211, 214, 215
 position of, 367-369
 across body, 47, 265, 297
 akimbo, 103, 104, 109, 234, 235, 247, 248, 278, 279, 385, 387
 downward, 228, 259, 265, 297
 outstretched, 173, 209, 210, 263, 265, 294, 295
 upraised, 187, 188, 191, 194, 211, 247, 248, 259, 263, 265, 275, 291, 302, 316
- Armstrong County, 3, 314
- Arrows, *see* Bows and arrows
- Arrowhead, *see* Projectile points
- Art concept, 6, 465
- Asinai Indians, 321
- Asphalt paint, 328
- Atkinson, Mrs. M. J., xxv
- Atlats, 107, 152, 156, 157, 160, 165, 166, 167, 169, 173, 174, 185, 192, 193, 195, 388-391
 See Design elements
- Authorship of pictures, 21, 263, 267, 320, 344, 370, 422, 463
- B
- Bailey, Ben P., Jr., xxiv
- Baker, C. L., xxiv, 21, 57, 72, 76, 96, 99, 107, 133, 293, 306
- Band-lines, 430
- Banner, *see* Flags
- Barite as paint, 454
- Barker, E. C.
- Barnard, Mrs. Helen Donovan, xxv
- Barnard, P. D., xxv
- Bartlett, J. R., 10, 12
- Basket Maker, 59, 170, 290, 326, 461, 462
- Basketry, painted, 329
- Battle Creek, 355
- Beads, trade, 262, 400
- Bean, Ellis P., 354, 355
- Bell County, 3, 332, 333, 334
- Bexar County, 382
- Beyer, Herman, 441
- Bibliography, 475-480
- Bidai Indians, 382
- Big-bow, Chief, 349
- Big Paint Bluff, 4
- Birds
 pictures of, 16, 17, 19, 125, 417, 418
 tracks, 417; *see* Design elements
- Bison, 27, 90, 91, 115, 161, 162, 234, 235, 264, 265, 281, 283, 402, 403, 405, 407
- Black Hand Cave, 4
- Black paint
 comparatively recent, 240, 244, 249
 symbol of death or bravery, 267
- Black Wolf, Chief, 349
- Blanket-like designs, 18, 181, 451, 452
 See Design elements
- Blood, 266
 flow of, 430, 443
 suggested by red paint, 267
- Bloody Handprint Bluff, 4, 263-264, 266
- Blue paint, 320, 321, 340, 342, 344, 345, 346, 352, 455
- Bluff, cave and boulder pictures, 8-319
- Boardman, Leona, 50, 110, 116, 469
- Boat-like elements, 449, 451, 452
 See Design elements
- Boat-shaped pictures; *see* Design elements
- Bolas, 284, 397, 399
- Bolton, H. E., 354, 381, 382, 463
- Bones, paintings on, 1, 336, 338, 474

- Boot-like elements, 252, 267, 275, 377
 Bosque County, 474
 Bourke, J. G., 422
 Bows and arrows, 84, 85, 90, 91, 110, 160, 217,
 229, 240, 252, 253, 265, 281, 283, 298,
 326, 327, 391, 392
 See Design elements
 Bravery, symbol of, 267
 Brazos River, 349, 354, 473
 Brewster County, 3, 95, 107, 116-132, 161, 196,
 384, 455, 458, 474
 Bridles, 80, 81
 Brinton, D. G., 245
 Briscoe County, 3, 315
 Brown, C. E., xxv
 Brown, Glen, 326
 Brown, Jim, 321
 Browning, Gaitha, xxiv
 Brushes
 finger used as, 258
 paint, 142, 342, 455, 458, 470, 471
 Brushy Creek, 354
 Bryan, Frank, 355
 Buffalo
 dance, 311
 designs, key to, 448
 horn, *see* Headdress, horn
 Indians chasing, 354
 motive, 448
 paintings on bones, 249, 337, 338, 400
 robes, 252, 339-342
 shield, 340, 341
 pictures of, *see* Bison
 Bunt point, 214, 215, 389, 391
 Bureau of American Ethnology, 338, 350, 352
 Burnet County, 3, 276, 296
 Butterflies, 16, 17, 32, 422, 425, 429
 See Design elements
 Buttons, 228, 387
- C
- Cactus, 80, 156, 157, 160
 Caddo Indians, 321
 Cadzow, D. A., 470
 Calendars, 146, 349-351
 Canadian River, 308, 314, 315
 Carbon tetrachloride, 470
 Carson, Burch, 74
 Carson, Kit, 351
 Carson, Mary, xxiv
 Carvings on small stones, 329-335
 See Petroglyphs
 Casparis, Mrs. Alex, 340, 343
 Cass County, 330, 331, 335
 Catfish, 229, 419, 421
 Cattle
 "brands," 120
 pictures of, *see* Longhorn cattle
 Celluloid, dilute solution of, 472
 Centipede, 422
 Chaffin, Mary, xxv
 Chain-like elements, *see* Design elements
 Chalk, colored, 342
 Chalking pictographs, damage by, 469
 Charcoal as paint, 267, 354, 454
 Charlevoix, Pierre, 104, 367, 385
 Charms, 464
 Chase
 prowess in, 464
 record of, 448
 See Trophy of chase
 Cherokee County, 466
 Chevrans, 443
 See Design elements
 Chihuahua, Mexico, 1, 111-116, 362
 Chiricahua Apache, 76
 Chisos Mountain State Park, 111, 405
 Chronology, 41, 42, 64, 65, 363, 461
 See Ages of pictures
 Churingas, 328
 Cinnabar, 454
 Circles, *see* Design elements
 Clan totems, 464
 Claws, animal, 237, 413
 Clearing pictographs, 472
 Cloud and rain symbols, 432, 433, 435
 See Design elements
 "Cloud-blower," *see* Tubular pipe
 Clubs, 397, 398, 399
 See Design elements
 Coahuila, Mexico, 381
 Coffin, E. F., 125, 324, 455, 458
 Coke County, 3, 286, 287, 299
 Coleman County, 332, 333, 335
 Colorado River, 142, 296, 321, 326, 328, 334,
 455, 463, 473
 Colors
 ages of, 232, 240, 244, 249, 254
 sacred, 342
 use of, 4, 10, 21, 35, 57, 99, 267, 319, 320,
 340
 Comanche Jack, 344, 345, 346, 348, 355
 Comanche
 Indians, 110, 141, 146, 194, 252, 262, 263,
 267, 319, 320, 321, 322, 337, 340, 343,
 345, 348, 349, 351, 381, 455, 458, 463
 paintings, 142, 338, 352, 353, 354, 355
 shields, 340, 341, 344, 345, 346, 347, 355
 skin paintings, 339-343
 trails, 321, 322, 323
 tree carvings, 320, 322
 Composite pictures, 98, 118, 206, 384
 Concho County, 3, 92, 144, 146, 240, 249, 255,
 267-286, 296, 312, 384, 385, 428, 461,
 474
 Concho River, 4, 267, 268, 269, 337, 463
 Conclusions, 473-474
 Conventionalized
 definition of, 362
 human figures, 362-379
 Cook, Jim, 141, 458
 Cook, R. V., 346
 Copper oxide, 454
 Corn
 cobs, finding of, 30
 shucks, 311
 stalks, pictures of, 84, 85, 144, 145, 267,
 268, 269, 278, 279, 285, 428
 Coronado, 311
 Coryell County, 3, 299, 474
 Cosgrove, C. B., 469
 Cosmic symbols, 434, 435
 Cowan, G. W., 321, 322
 Cowboys, paintings of, 227, 228, 387, 405
 Crescents, *see* Design elements
 Crested serpents, *see* Plumed serpents
 Grimmins, M. L., xxiii, 12, 130, 131, 463
 Crockett County, 3, 143-145, 165

- Cross, 439, 440, 441, 446, 465, 467
 See Design elements
- Crosshatch, *see* Design elements
- Culberson County, 3, 49, 78, 125, 139, 173, 196, 300, 323, 389, 393, 414, 459, 462, 463, 474
- Culture
 complex, 334
 European, 1
 traits, 328, 362
- Curvilinear designs, *see* Design elements
- Cysthos, 81, 168, 169, 204, 374, 443, 445
- D
- Dancing
 figures, 12, 13, 46, 47, 51, 52, 99, 100, 101, 107, 146, 150, 151, 154, 155, 207, 219, 256, 274, 275, 316, 317
 gestures in, 367
 scenes, 464
- Dates, range of, *see* Ages of pictures
- Davis Mountains, 72
- Deadose Indians, 382
- Death
 "count," 280, 281, 282, 283, 300, 441
 symbol, 267
- Dead, represented as headless, 104
- Deer
 antler headdress, *see* Headdress, horn
 painted skin, 340, 341
 pictures of, 21, 25, 25, 29, 35, 36, 37, 74, 75, 77, 78, 93, 94, 115, 173, 179, 180, 216, 217, 227, 336, 405, 407, 409, 430
 scapula, 96, 336
- "Desert varnish," 92, 469
- Design elements
 analysis of, 6, 35
 carved on small stones, 329-335
 classification of, 6, 10, 19, 20, 21, 23, 27-28, 30, 34-35, 36, 38, 40, 48, 49-50, 59, 62, 66, 70, 73, 78, 80, 86, 87, 90, 92, 95-96, 99, 106, 109, 113, 117, 124, 130, 136, 141, 142, 149, 160, 161, 165, 170, 171-172, 175, 178, 183, 186, 189, 194, 195, 196, 198, 201, 208, 213, 220, 221, 224, 229, 230, 231, 238, 239, 240, 241, 244, 245, 249, 251, 254, 255, 256, 260, 262, 263, 271, 286, 287, 288, 292, 293, 294, 298, 302, 306, 314, 315, 359, 361, 365, 369, 373, 379, 387, 391, 395, 399, 403, 409, 413, 417, 421, 425, 427, 435, 439, 445, 451
 comparison of, 99, 150, 240, 255, 268, 328, 334, 343, 357, 363, 464, 465, 473, 474
 distribution of, 357, 366, 371, 383, 396, 401, 406, 407, 411, 415, 423, 429, 431, 433, 437, 442, 446, 447, 449, 453, 465
 diversity of, 5, 82
 summary of, 318
 world-wide occurrence, 362
- Destruction, causes of, 4, 8, 12, 32, 34, 65, 72, 95, 111, 122, 126, 137, 146, 154, 161, 170, 179, 195, 199, 204, 218, 232, 239, 244, 245, 260, 262, 263, 266, 268, 272, 280, 281, 287, 292, 294, 355, 376, 468, 469, 470, 474
- Devil, pictures of, 205, 267, 270, 384
- Devils River, 231, 238, 239, 462
- Diamond-back rattlesnake, *see* Snakes
- Discs, *see* Design elements
- Distance traveled, 142, 252
- Dodge, R. I., 320
- Donoghue, David, 354
- Dots, 19, 57; *see* Design elements
- E
- Eagle, *see* Thunderbirds
- Eagle Mountain, 72
- Ears
 animal, 385, 387
 human, 191
- Earthenware vessels, 107, 173, 265, 280, 281, 404; *see* Design elements
- Ector County, 141
- Edwards County, 3, 4, 38, 99, 239, 244, 255, 292, 320, 322, 326, 327, 328, 329, 381, 422, 461
- Ellis County, 355
- El Paso County, 3, 8, 23, 173, 240, 242, 255, 258, 385, 419, 448, 461, 463, 469
- Enclosures of lines, dots and dashes, 445, 448, 449; *see* Design elements
- Endurance, symbol for, 414
- Environment, influence of, 355
- Epaullets, 228, 385, 387
- Equal-armed cross, *see* Cross
- Erosion, 5, 31, 36, 38, 42, 51, 470
- Estill, Julia, 254
- Ethnology of Texas Indians, xxi, 357, 464
- Europe, painted pebbles from, 328
- European
 distinguished from savage, 104, 367
 figures, 45, 102, 103, 150, 151, 152, 153, 228, 247, 248, 265, 280, 281, 379, 384, 387, 393, 399
 weapons, 247, 248, 249
- Ewbank, Thomas, 304, 308
- Excavation, 30, 55, 57, 64, 125, 143, 206, 241, 254, 286
- Exploits of bravery, 464
- Eyes
 animal, 387
 bird, 417, 418
 fish, 27
 human, 15, 17, 152, 153, 194
- F
- Fallacies, popular, 473
- Fall Creek, 334, 455
- Feather decoration, 370
 See Design elements
- Fertility symbol, 82, 83
- Fetish, 343
- Fewkes, J. W., 57, 107, 414, 422, 443, 468
- Field Artillery Museum, 344, 346
- Fields, L. A., 320
- Figure eight elements, 439, 440, 441, 442
 See Design elements
- Figures in the round, 363; *see* Design elements
- Finger used as brush, 258, 458
- Fish
 pictures of, 27, 203, 207, 419, 421, 423
 See Design elements
 -tail sandals, 30, 64
- Flags, 216, 217, 267, 276, 277, 280, 281, 283, 387, 388; *see* Guidons
- Flint
 graver, 334, 335

- implements, 397
 quarry, 299
 scrapers, 454, 455
 Flooded pictures, 32, 34, 137, 199, 218, 244,
 245, 251, 256, 260, 263, 296
 Floor
 carvings on stone of, 308
 level, altering of, 5
 paintings, below, 5, 34, 206
 paintings, height above, 5, 34
 Footprints, 308, 377; *see* Design elements
 Fork-shaped elements; *see* Design elements
 Four
 number, prevalence of, 340, 342
 winds, 146
 Fourchee cross, 441
 France, painted pebbles from, 328
 Franklin County, 466
 Frauds, 251, 252, 335, 468, 474
 Freestone County, 355
 French, representation of, 104, 367
 French, S. G., 231
 Frets, 452
 Frieze, 53, 54
 Frio River, 247, 462, 473
 Frogs, 419, 421; *see* Design elements
- C
- Game
 playing of, 51, 52
 sticks, 80, 81, 152, 153
 Gamma-cross, 434, 443
 Gardner, Fletcher, 389
 Garments, European, 152, 153, 191, 228, 235,
 248, 265, 385, 387; *see* Design elements
 Garner, Clay, 326
 Genital organs, female, *see* Cysthos
 Geological survey
 Texas, 72
 United States, 50, 116
 Geometric and symbolic designs, 432-453
 See Design elements
 Gestures in dancing, 367
 Gillespie County, 3, 254-256, 290, 404, 428
 Gilliland, V. D., 133, 143
 Girls
 Hopi hairdress, 311
 "puberty paintings," 23, 103, 105, 109,
 222, 232, 233, 443
 Gottholt, R. A., 93
 Gourd
 fragments, 329
 -like elements, 272, 273, 277, 291, 404,
 428; *see* Design elements
 painted, 329
 Cranberry, C. R., xxiv, 284
 Grasshoppers, 268
 Cravers, 334, 335, 459
 Grease mixed with paint, 454, 455
 Greek cross, 102, 103, 441
 Green paint, 16, 53, 100, 101, 173, 340, 342,
 344, 346, 356, 454, 455, 463
 Ground-line pictures, 430, 431
 See Design elements
 Guadalupe Mountains, 72, 405
 Guernsey, S. J., 393
 Guidons, 282, 283; *see* Flags
 Guns, 247, 248, 249, 311, 337, 399, 400
 Gypsum, 454
- II
- Hale, William J., 321
 Hammerstones, 4, 23, 28, 32, 293, 376, 459
 Hands, 374-377; *see* Design elements
 classification of prints, 374
 etched or scratched, 95, 131, 133, 139,
 143, 160, 161
 four-fingered, 12, 13, 60, 61, 137, 173, 280,
 281, 284, 285, 385
 left, prevalence of, 131, 268, 376
 limned, 125, 268, 376
 mutilated, 128, 129, 154, 155, 256, 268
 on hips, *see* Arms akimbo
 prints, absence of at old sites, 376, 462
 prints, ages of, 375, 376
 six-fingered, 112, 137, 385, 387
 three-fingered, 302
 thumb missing, 256, 268
 Harrington, M. R., 125
 Harrison County, 466
 Hatcher, Mrs. M. A., 270
 Hats, 152, 153, 228, 235, 247, 248, 263, 265,
 267, 278, 279, 294, 384, 385, 387
 Haury, E. W., 448
 Headdress, 370
 feather, 22, 36, 60, 61, 76, 103, 109, 114,
 115, 166, 187, 190, 191, 253, 263, 291,
 296, 297, 298, 321, 335, 341, 344, 346,
 347, 385, 387, 404; *see* Design elements
 horn, 12, 13, 76, 176, 177, 192, 193, 252,
 258, 259, 276, 277, 313
 importance of, 370
 masks, *see* Masked human heads
 whorls, 311
 Heart of animal, 227
 Hematite, 454
 Henderson County, 3, 299-302
 Henderson, J. M., xxiv, 321
 Herringbone, *see* Design elements
 Hides
 picture-writing on, 339-343
 rubbing on stones, 92
 Hill County, 355
 Hill, Jim, 320
 Historic
 carvings, 252, 253, 308, 312, 459
 paintings, 5, 45, 99, 146, 190, 191, 194,
 224, 248, 262, 264, 265, 267, 304, 305,
 342, 354, 355, 376, 384-388, 443, 461
 Hog, wild, *see* Javalina
 Holland, G. A., 339, 340
 Holmes, J. R., xxv
 Holmes, W. H., 443
 Hoof
 cloven, 74, 75
 prints of, 57
 Hopi Indians, 311, 393
 Hopkins County, 332, 335, 404, 466
 Horne, Sam, 299
 Horned serpents, *see* Plumed serpents
 Horses
 carved, 308, 312, 313
 hoofprints of, 80, 81, 158, 159, 414
 interpretation of pictures, 142
 killed, 351
 pictures of, 5, 12, 13, 19, 82, 83, 84, 85,
 86, 110, 141, 145, 146, 150, 151, 154,
 155, 157, 191, 194, 262, 263, 264, 265,

- 267, 276, 277, 279, 281, 304, 305, 308,
311, 312, 313, 337, 338, 385, 387, 388
- Hough, Walter, 448
- Hourglass-shaped elements, 451, 452, 453
See Design elements
- Howard County, 322
- Howell, Holland, xxv
- Hudspeth County, 3, 23-40, 104, 113, 240, 255,
393, 397, 414, 428, 459, 474
- Hueco Tanks, 469
- Human
fingers as brushes, 258, 458
footprints, *see* Design elements
handprints, *see* Design elements
headless, 104, 120, 121
- Humor, sense of, 6, 229, 362, 410
- Hunter, John D., 73, 158, 320, 414
- Hunter, J. Marvin, 266, 267
- Hunting
party, 255
scenes, 57, 58, 161, 163, 183, 184, 185
- Huskey, W. V., 241, 244, 249
- I
- Ideographic stage, 1
- Incrustations
saline, 470
scraped from wall, 469
- Indian
agriculture, 30
art, 342, 464
"maps," *see* Maps
posture, 104, 247
prayers, 343, 345
raids, 142, 266, 267, 344
trails, 23, 72, 73, 321, 323
war shields, *see* Shields
- Insects, 422, 425, 429; *see* Design elements
- Interpretation of pictures, xxi, 142, 158, 268,
274, 384, 397, 400, 414, 448, 464
- J
- Jack rabbit, 45, 227, 228
- Jackson, A. T., 79, 206, 324, 389, 454
- Javalina, 166, 167
- Jeff Davis County, 3, 87-99, 131, 133, 161, 173,
240, 255, 336, 384, 463
- Jicarilla Apache, 351
- Johnson County, 330, 331, 335
- Jones, C. C., 320
- Jones County, 288
- Jordan, C. E., 332
- Judd, Neil M., 466
- Juices, vegetable, as paint, 455
- Jumano Indians, 146, 380, 463
- K
- Kangaroo rat, 22, 409, 410
- Kaolin, 454
- Kaufman County, 355
- Kelley, J. Charles, 79, 82, 84, 134
- Kennedy, William, 322
- Kerr County, 3, 251
- Kettle, 45, 385, 387
- Kicking-bird, Chief, 349
- Kidder, A. V., 393
- Killiker, Tom, 339
- Kimble County, 3, 4, 196, 251-254, 276, 312,
385
- Kinney County, 3, 4, 244-247, 326, 328, 332
- Kiowa
calendar, 349-351
Indians, 194, 463
- Kirkland, Forrest, xxiv
- Kissel, M. L., 452
- Krieger, H. W., 343
- L
- Lacrosse, 152, 153
- Ladder
elements, 432, 435, 436, 437, 465, 467
See Design elements
use of, 194
- LaFarge, Oliver, 388
- LaJunta, 114, 380, 384
- Lake Buchanan, 328
- Lanc, W. A., xxv
- Lang, W. B., 50
- Larsen, E. S., 116
- Latin cross, 441, 443
- Layland, W. J., 330
- Legends, 264, 266, 308
- Lehmann, Herman, 337, 343, 344, 348
- Leon River, 298
- Letters, elements resembling, *see* Design ele-
ments
- Lichens, 133, 143, 199, 247, 254, 470, 472
- Lightning symbols, 432, 443; *see* Design ele-
ments
- Limestone County, 355
- Limned hands, 125, 268, 376
- Limonite, 454, 456, 457
- Lipan Apaches, 262, 263, 267, 370, 381, 422,
463
- Lizards, 419, 421; *see* Design elements
- Llano County, 3, 262, 267, 326, 327, 328, 330,
331, 334, 337, 343, 455, 474
- Llano River, 251, 256
- Longhorn cattle, 103, 104, 105, 265, 267, 282,
283, 345, 387, 405
- Loving County, 3, 116, 137-141, 300
- Lucas, A., 472
- M
- McCarson, W. E., Jr., xxiv, 196, 198, 230, 326
- McCulloch County, 3, 266
- McLennan County, 3, 294, 299
- McNutt, E. F., 324, 456
- MacCurdy, G. G., 455
- Magic, sympathetic, 405, 464
- Mallery, Garrick, 12, 72, 73, 74, 79, 84, 158,
308, 328, 337, 343, 357, 414, 418, 441,
448
- Manganese paint, 328, 454, 455, 458
- Manos, as paint grinders, 455, 456, 457
- Mansfield, G. R., 50, 110, 116, 469
- Manufacture of paint, 142, 299, 342
- Maps, Indian, 46, 47, 49, 68, 69, 70, 71, 72,
122, 158, 159, 176, 177, 294, 295, 299,
354
- Marcy, Randolph, 12
- Martin, George C., 324, 377, 389, 393, 454, 458
- Masked human heads, 14, 15, 16, 17, 21, 22,
27, 42, 43, 46, 247, 248, 312, 388, 404,
464, 473
- Mas d'Azil, France, 328, 474
- Mason County, 3, 256-261, 267, 337

- Materials and methods of picture-writing, 142, 451-450
- Mathews, R. H., 320
- Matting, painted, 329
- Maverick County, 322
- Maya hieroglyphs, 245, 441
- Maycye Indians, 382
- Mayfield, Walter, 110
- Mayhall, Mrs. M.P., xxiv
- Mead, C. W., 44
- Menard County, 381
- Mentality, primitive, 464
- Mera, H. P., 64, 462
- Mescalero Apache, 76, 170
- Metates
carved, 332, 333, 335
paint ground on, 455
- Middle America, 1, 465
- Migrations, 465
- Milam County, 382
- Mills, Frank, 107
- Mine, paint, 454
- Missions and presidios, 380-383
activities of, 227, 228, 381, 382
attacks by hostile Indians, 381, 382
dates of, 102, 380, 381, 382, 388
escape from, 382
influence of, 262, 270, 380, 461
Nuestra Padre San Francisco de los Su-
mas, 380
Nuestra Senora de Guadalupe, 380
Nuestra Senora de la Candelaria, 381
pictures of, 93, 94, 100, 101, 107, 108, 114,
115, 146, 152, 153, 154, 155, 227, 267,
280, 281, 384
San Antonio de la Isleta, 380
San Bernardo, 381
San Francisco de la Espada, 382
San Ildefonso, 382
San Lorenzo, 381
San Luis de las Amarillas, 381, 388
San Saba, 263, 267, 270, 381, 382, 384, 388
San Xavier, 382
- Moccasins, 312
- Moisture, damage by, 245
- Molds, plaster, 470
- Moon
lunar month, 146
symbol for, 160, 242, 284, 285, 348, 452
- Mooney, James, 349
- Mortar holes, 8, 10, 12, 13, 35, 38, 39, 50, 55,
56, 65, 66, 68, 69, 72, 88, 89, 92, 111,
120, 121, 134, 137, 138, 141, 143, 146,
160, 186, 194, 209, 210, 219, 221, 227,
267, 292
- Moss, James R., 343
- Motivation of
carvings, 158, 474
designs, 328
historic paintings, 380
pictures, 430
- Motley County, 3, 315
- Mountain
lions, 173, 216, 217
representation of, 158
sheep, 19, 21, 22, 23, 24, 27, 35, 36, 37, 38,
39, 57, 74, 76, 77, 78, 107, 108, 116,
144, 145, 312, 336, 403, 405, 414, 430,
443, 473; *see* Design elements
- Mouth, human, 15, 17, 152, 153, 194
- Murals, xxiv
- Mussel shells, used as palettes, 455, 456, 457
- Mustang Creek, 349
- N
- National Park Service, U.S., 111
- Navajo Indians, 463
- Navarro County, 355
- Nets, rabbit, 183, 185, 242, 243, 443
- Neville, Maude, xxiv
- Niebuhr, E. C., 111, 112, 126, 131, 196
- Nocona, Chief, 339
- Nolan County, 3, 4, 287, 298
- Nolan, Philip, expedition, 354
- Nose, human, 15, 17, 152, 153, 194
- Nueces River, 249, 328, 332, 381, 461, 462, 463,
473
- Numeration marks, 142, 255, 272, 276, 280
- Nusbaum, J. L., 326
- O
- Ocher, 454, 455, 456, 457, 472
- Oldham County, 3, 252, 276, 308-314, 385
- Ore of mercury, 454
- Organs, vital, 227, 413, 414
- Origin
legend of, 264, 266
of paintings, 21, 263, 267, 320, 355, 422
- Otero County, New Mexico, 40-49, 362
- Oxide of
iron, 454
manganese, 455
- P
- Pacific Railroad Expedition survey, 308
- Pack animals, 19, 304
- Packsaddle Mountain, Battle of, 340, 343
- Paint
brushes, 142
chalks, 354
charcoal as, 267, 354
containers, 456, 457
in petroglyphs, 53
mine, 454
mineral, 4, 142, 299, 328, 454-457
mixers, 455-457
preparation of, 142, 454, 455
preservation of, 472
source of, 21, 267, 454, 455
- Painted Canyon, 4
- Painting
by children, 142
technique of, 458
- Palettes, 70, 455, 456, 457
- Palo Duro Canyon State Park, 314
- Palo Pinto County, 321, 322
- Panthers, *see* Animals, carnivorous
- Parker, Cynthia Ann, 339
- Pawnee Indians, 354
- Peabody, Charles, 80, 87, 95, 102, 110
- Peace pacts, 354, 355
- Pearce, J. E., xxv, 79, 206, 324, 351, 388, 443,
454
- Pease River, 339, 349
- Pebbles
carved, 1, 329-335, 474
painted, 1, 68, 79, 242, 324-328, 456, 457,
474
- Peccary, *see* Javalina

- Pecos County, 3, 95, 131, 133, 161
Pecos River, 3, 99, 133, 137, 142, 143, 170, 171, 175, 255, 324, 326, 328, 334, 455, 462, 463, 473, 474
- Pencils
charcoal, 354, 454
manganese, 458
- Pendant triangles, *see* Design elements
- Petroglyphs
carved pebbles, 329-335
derived from abrading marks, 66, 137
height of, 111
technique of, 4, 299, 459, 460
weathering of, 111, 199
- Petrographic sites, 3, 7, 162, 250, 307
- Petrography, 4
- Pevler, F. M., 339
- Phallic representations, 12, 13, 36, 37, 60-61, 166, 167, 170, 199, 200, 232, 233, 234, 235, 257, 268, 269, 281, 283, 291, 372-374; *see* Design elements
- Pictographs
colors of, *see* Colors
height above floor, 5
sizes of, *see* Sizes of pictures
- Pictures
authenticity of, 251, 252
band of, 245, 246
on movable objects, 96, 324-351
placement of, 4
realistic, 227
- Picture-writing
ages of, *see* Ages of pictures
authorship of, 21, 263, 267, 320, 344, 422, 459, 463
classes of, 4-5
comparison of, 35, 99, 363
defaced by abrading grooves, 65
destruction of, *see* Vandalism
distribution of, 2
materials and methods, 142, 454-460
New Mexico, 40-49
on bluffs, caves and boulders, 8-319
on bones, 96, 336-338
on hides, 339-343
on small stones, 68, 324-328
on sticks, 53, 54, 55, 125
on trees, 319-323
on walls of house, 354
place names derived from, 4
posture in, 104, 247, 362
preservation of, 6, 470, 472
sizes of, *see* Sizes of pictures
system of, 1
to commemorate peace pact, 354, 355
- Pipes, 331, 334, 385, 387, 403, 404
See Design elements
- Pipkin, H. C., 316
- Pitchfork-like elements, *see* Design elements
- Pits
conical, 65, 66
cup-shaped, 139, 140
for snake head, 65, 66, 67
in petroglyphs, 459
paint mine, 454
result of pecking, 28
- Place names, 4
- Plants, *see* Design elements
- Plaster molds, 470
- Plumed serpents, 25, 26, 44, 45, 72, 126, 127, 196, 197, 215, 222, 223, 247, 248, 249, 252, 253, 283, 309, 419, 421, 473, 474
See Snakes
- Pole ladders, *see* Design elements
- Pope, John, 12
- Position of arms, *see* Arms
- Potsherds, 5, 10, 34, 64, 107, 139, 335, 404, 462
- Potter County, 3, 315-317
- Pottery
comparison of designs with rock pictures, 150, 268, 278, 334, 335, 362, 441, 452, 465-467, 474
comparison of designs with skin paintings, 342
vessels, *see* Earthenware vessels
- Prayer for
more animals, 343, 345, 405
rain, 345, 432
- Prehistoric use of equal-armed cross, 443
- Prentice, R. A., xxiv, 308
- Preservation
attempts at, 6
need for, 470-472
- Presidio County, 3, 99-110, 252, 312, 384, 389, 397, 452
- Price, I. B., Jr., 330
- Prickly pear, picture of, 156, 157, 160, 427, 430
- Projectile
points, 36, 37, 38, 53, 54, 72, 102, 110, 116, 145, 227, 252, 253, 280, 281, 296, 393-395, 397, 465
wounds, 19, 27, 45, 77, 78, 94, 173, 179, 180, 183, 217, 337, 405, 409, 430, 431
- Projectiles, *see* Design elements
- Proper names, picturing of, 349, 351
- Proportions of pictures, 267
- Psychology, primitive, 357
- Puberty paintings, *see* Girls' puberty paintings
- Pueblo
culture, 461, 462
Indians, 65, 311, 343
influence, 22, 463
ruin, 315, 316, 317
- Pulliam Creek, 320
- Puma, 173, 216, 217, 236, 237
- Punctate decoration, *see* Design elements
- Purposes of pictures, 464
- Q
- Quillin, Mrs. Ellen S., xxiv
- R
- Rabbit
dance, 12, 13
nets, 183, 185, 242, 243, 443
pictures of, 179, 180
sticks, 173, 240, 242, 283, 391, 392-393
See Design elements
- Rainfall, 2, 4, 245, 290, 291, 380, 474
- Rake-like elements, 438, 439, 441; *see* Design elements
- Randall County, 3, 314
- Rattlesnakes, *see* Snakes
- Ray, Cyrus N., xxiii, 287, 288, 454
- Real County, 3, 4, 99, 247-251, 300, 400, 419, 461
- Rebus stage, 1
- Red Fox, Chief, 146, 150

- Red River, 351, 355
 Reeves County, 3, 78-87, 99, 385
 Reproductive organs, 80, 81
 Rifles
 long-range, 400
 pictures of, *see* Guns
 shooting pictures with, 468
 Riggs, Earl, xxiii
 Rio Grande, 72, 99, 102, 107, 131, 186, 195,
 198, 213, 221, 230, 324, 326, 334, 351,
 380, 381, 419, 463, 474
 Roar, or bark, of animals, 207, 237
 Roberts, Dan W., 343, 344
 Roberts, Frank H. H., Jr., 21, 30, 370, 463
 Rock pictures
 chronology of, *see* Chronology
 comparison with pottery designs, 150, 268,
 278, 334, 335, 362, 441, 452, 465-467,
 474
 destruction of, *see* Vandalism
 surfaces for, 4
 Roof
 falling of, caused by earthquake, 137
 pictures on, 4, 80, 92, 133, 143, 194, 254,
 256, 264, 288, 306, 308, 312
 rocks from, 68, 183
 Rope ladders, *see* Design elements
 Ross, Captain Sul, 339
 Runners, 51, 52, 367
- S
- Sabine River, 322
 Saddles, 312, 343, 385
 Sand, wind-blown, 12, 92, 137, 469
 Sandals
 pictures of, 377
 types of, 30, 64
 San Gabriel River, 382
 San Saba County, 3, 4, 258, 262, 266, 321, 334,
 384, 385, 461
 San Saba River, 262
 Sayles, E. B., xxiv, 106, 130, 133, 158, 286, 288,
 312, 324
 Schoolcraft, H. R., 337
 Schutze, Henry, 110
 Scott, Donald, 465
 Scraping for paint material, 454
 Scrolls, 451, 452, 453, 465, 467
 See Design elements
 Seasonal changes, effects of, 462, 469
 Seepage, damage caused by, 179, 204, 247, 474
 Semicircles, *see* Design elements
 Serpents, *see* Snakes
 Set-t'ainte (Satanta), arrest of, 351
 Set-l'an
 author of calendar, 352, 353
 yearly calendar, 349-351
 Setzler, F. M., 63, 324, 389, 461
 Seven, number, frequently used, 312
 Shackelford County, 3, 288-292
 Shields, 395-397
 hairy side of, 344
 magical use of, 348
 making of, 348
 paintings on, 343-347
 representation of, *see* Design elements
 Shinny, 152
 Shuffler, R. H., 141
 Signatures, totemic, *see* Totem paintings
 Significance of
 colors, 267, 342
 pictures, 343, 354, 374, 441, 464
 skin paintings, 343
 Sims, D. E., xxiii
 Sims, O. L., xxiii
 Sites
 distribution of, 1
 numbers, 1, 8, 40, 165
 petrographic, 3, 7, 162, 250
 Sitting-bear, 351
 Sizes of pictures, 5, 141, 213, 236, 267
 Skins, paintings on, 1, 339-348, 474
 Skirts, 385
 Sloan, John, 388
 Sloan, John A., 264
 Smith, Clinton L., 455
 Smith County, 322
 Smith, George L., 345, 355
 Smith, S. L. S., 194
 Smith, Victor J., xxiii, 79, 93, 96, 114, 116,
 117, 118, 120, 126, 130, 131, 336, 337,
 345, 346, 376, 458
 Smithsonian Institution, 338, 350, 352
 Smithwick, Noah, 158, 319, 342, 354, 458
 Smoking scene, 332, 333, 335
 Snake
 "charmer," 206, 207
 dance, 51, 52, 114, 115, 126, 127, 367
 Snakes and serpents, 12, 13, 19, 22, 25, 26, 27,
 29, 44, 45, 51, 52, 53, 54, 62, 66, 67,
 72, 73, 82, 83, 118, 119, 127, 129, 152,
 153, 169, 179, 180, 185, 200, 206, 233,
 248, 279, 283, 298, 322, 348, 392, 417,
 418, 419, 421, 423, 430, 441
 See Design elements
 Soldiers, 146, 249, 280, 381, 388, 400
 South America, 465
 South Canadian River, 349, 351
 South Llano River, 251, 462, 473
 Spalling of stone, *see* Destruction, causes of
 Spears, *see* Projectile points
 Spectacles, 403, 404; *see* Design elements
 Spider-like designs, *see* Design elements
 Spirals, *see* Design elements
 Spring, representation of, 432
 Square-shouldered figures, 363; *see* Design
 elements
 Squirrel, 207
 Stage coach, painting of, 156, 157, 385, 387
 Stephen, A. M., 393
 Stephens County, 3, 290, 292-295, 299
 Steward, Julian H., 6, 23, 109, 144, 222, 405,
 443
 Stick
 as brush, 458
 painted, 53, 54, 55, 329
 rabbit, *see* Rabbit sticks
 Stone, Alexander G., 344
 Story-telling pictures, 161, 206, 245, 246, 255,
 268, 280, 281, 430
 Stratigraphy, *see* Superimposed pictures
 Stream, representation of, 158
 Studor, Floyd V., xxiii, 308, 311, 312, 314, 315,
 316
 Style, local, 357
 Sul Ross State Teachers College, 117, 336,
 345, 346
 Sun symbols, 432, 433, 435; *see* Design ele-
 ments

- Superimposed pictures, 5, 41, 42, 43, 76, 80, 84, 85, 99, 111, 118, 119, 146, 150, 151, 156, 166, 167, 168, 170, 187, 195, 209, 213, 232, 239, 249, 256, 267, 268, 272, 276, 278, 282, 324, 376, 384, 461, 462
- Superposed pictures, 41
- Supplication, attitude of, 114, 115, 367; *see* Arms, position of
- Sutton County, 3, 300, 304-306
- Swastika-like elements, 110, 252, 253, 434, 443, 452; *see* Design elements
- Sweetwater Creek, 351
- Sword-like elements, 187, 188, 311, 400; *see* Design elements
- Symbol of death or bravery, 267
- T
- Taboo, 35
- Tails, 22, 74, 75, 77, 78, 173, 174, 216, 217, 237, 409, 413
- Tallest pictographs, 98, 211
- Tally marks, 87, 312
- "Tanks," 10, 12, 13
- Tarantula-like elements, *see* Design elements
- Taylor County, 454
- Technique, 4, 136, 143, 165, 173, 184, 209, 227, 249, 252, 268, 298, 312, 320, 355, 375, 385
- Teeth, animal, 45
- Tehuacana Springs, 355
- Tepees
 paintings on, 353, 355
 pictures of, 399, 400, 401, 465, 467; *see* Design elements
- Terraced design elements; *see* Design elements
- Terrell County, 3, 4, 131, 146, 165, 240, 255, 342, 381, 384, 385, 418, 461, 468, 474
- Texa, Chief, 381
- Texas
 maps of, prior to 1850, 322
 Memorial Museum, xxiv
 State Library, 330, 334
- Thunderbirds, 27, 60, 61, 74, 75, 79, 80, 81, 82, 83, 144, 145, 147, 150, 151, 234, 235, 247, 248, 252, 253, 258, 340, 341, 344, 345, 355, 417, 418; *see* Design elements
- Titus County, 334, 466
- Todd, Alice, 264, 266
- Todd, G. W., 266
- Tonkawa Indians, 382
- Totem paintings, 57, 328, 448, 468
- Tracks
 animal, 36, 107, 112, 158, 159, 207, 414, 415, 417
 bird, 242, 294, 297, 300, 414, 417
 human, 36, 128, 129
- Trading post, 351
- Trails, Indian, 23, 72, 73, 158, 321, 322, 323
- Tree
 elements, *see* Design elements
 pictures of, 16, 17, 427, 428, 429
 pictures on, 319-323, 354
 -ring dating, 448, 462
- Triangular elements, *see* Design elements
- Tribes, 4, 6, 23
- Trinity River, 354, 355
- Triskele, 434; *see* Design elements
- Trophy of chase, 114, 126, 127, 274
- T-shaped elements, *see* Design elements
- Tubular pipe, carved, 330, 331, 334
- Tumlinson blockhouse, 354
- Turkey Bluff, 4
- Turkey Creek, 321
- Turkeys, pictures of, 22, 227, 228, 238, 262, 283
- Turner, W. W., 304, 308
- Turtles, 419, 421, 423; *see* Design elements
- U
- Uniforms, 227
- United States
 Geological Survey, 50, 116
 National Park Service, 111
- Unity in prehistoric civilizations, 465
- Upshur County, 342, 466
- Upton County, 3, 95, 131, 143, 161
- U-shaped elements, *see* Design elements
- Uvalde County, 3, 4, 247, 381
- V
- Val Verde County, 3, 4, 38, 136, 165-239, 249, 292, 324-326, 334, 335, 381, 384, 385, 400, 404, 410, 419, 428, 461, 463, 474
- Vandalism, 4, 12, 146, 147, 152, 221, 231, 238, 251, 262, 263, 264, 268, 272, 273, 287, 290, 292, 294, 468, 470, 471, 472
- Van Horn Mountains, 72
- Van Zandt County, 322
- Vegetable juice as paint, 455
- Vinegaroon, 12
- Viscera, 190, 191, 227
- V-shaped elements, 443; *see* Design elements
- W
- Wagon
 picture of, burning, 337
 trains, 231, 349, 351
- Wah-chi-tah-ker, 345, 352, 355, 356
- War bonnet, 370
- Ward County, 3, 133-136
- Water
 color sketches, 187
 remoteness of, 30, 50, 59, 68
 symbols, 432; *see* Design elements
- Watt, Frank H., 298, 299
- Weapons, 160, 388-400
- Weathering, damage by, 8, 23, 34, 49, 72, 95, 111, 122, 126, 146, 154, 247, 256, 262, 268, 294, 334, 355, 461, 469
- West Texas Historical and Scientific Society, 345
- Whipple, A. W., 304, 308, 311, 312
- Whip scorpion, 12
- White, Massingale, xxv
- White paint, comparatively recent, 232, 254; *see* Colors
- White, Sandifer, 346
- Whorls, 311
- Wichita Indians, 381
- Wilbarger, J. W., 343
- Williamson County, 3, 304, 329, 330, 331, 354
- Willoughby, C. C., 432
- Wilson, A. M., 332, 334

- Winkler County, 3, 141-143, 385, 452
 Winter mark, 349
 Wissler, Clark, 452
 Witte Memorial Museum, xxiv, 125, 159, 234
 Wolf-lying-down, Chief, 351
 Wolves, 179, 180
 Women, headless, 385
 Wood County, 321, 334, 466
 Wood, Lester B., 293, 294
 Wood, pictures on, 53, 54, 55, 125, 329
 Woolford, Samuel, 324
 Woolsey, A. M., xxiv, 254, 328
 Wounds, representation of, 414; *see* Projectile wounds
 Writing, alphabetic system of, I, 473
- X
- X-shaped elements, 443; *see* Design elements
- Y
- Yojuane Indians, 382
 York, J. G., xxv
 Young, C. S., 125
 Y-shaped elements, 443; *see* Design elements
 Yucca flower stalks, 214, 215, 370, 427, 428
- Z
- Ziggags, 443, 445, 447; *see* Design elements
 Zwiener, Charles, xxiv

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