

## Photography

Photographing rock art is difficult but can be very rewarding. A camera angle perpendicular to the rock face and at eye level with the design will yield the best results.

A 35 mm or larger camera will give you the most control over poor lighting conditions. Close framing can help make up for a lack of contrast. Full shade can be controlled by using a flash. Hold the flash several feet to one side to create shadow in the grooves.

“Chalking” or other marking techniques have been used in the past by some photographers to enhance the outlines of petroglyphs. This practice damages the rock art and lends a false, modern element to photographs.

**Please do not mark (vandalize) the designs -**

**vandalism is illegal.**



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*For more information on viewing  
Crack Cave or other rock art  
on the Comanche National Grassland,  
contact:*

Comanche National Grassland  
27204 HWY 287  
PO Box 127  
Springfield, CO 81073

Phone: 719-523-6591  
Mon-Fri 8:00 am–5:00 pm

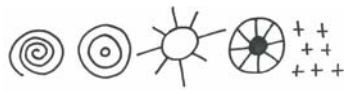
Comanche National Grassland  
Timpas Unit  
1420 E Third St  
La Junta, CO 81050

Phone: 719-384-2181  
Mon-Fri 8 am-12:00  
1:00–5:00 pm

## ARCHAEOASTRONOMY on the Comanche *National Grassland*



Caring for the Land  
and Serving People.



## What is Archaeoastronomy?

**A**rchaeoastronomy is the study of astronomy of ancient cultures. Imagine a time before conventional communication, when tribal histories were verbally passed from person to person. How would one show the passage of time or record important events or rituals? Ancient peoples used what methods they had available. Plains Indians recorded time by drawing parallel lines, various symbols and pictures on hides and by notching bones or wooden sticks. Some drawings were passed down for generations.

### When were petroglyphs created?

Many archaeologists agree that historic Plains Indians probably created the petroglyphs in Picture Canyon during the 17<sup>th</sup> to early 19<sup>th</sup> centuries. Artifacts



found in caves and at other similar archaeological sites support this theory. Some epigraphers (scholars of ancient languages) see resemblances between ancient Old World writing systems and petroglyphs around Picture Canyon.



### What do they mean?

Today, a wide variety of petroglyphs (images pecked or incised into a rock surface) can be found across Southeastern Colorado. Many of the deeply incised vertical and horizontal lines in the area appear to be counts or calendar devices to record the passage of time in days, months or years or to track the movement of the sun, moon and stars. Spirals, sets of concentric circles, wheel and sun-like designs, and groups of “+” marks may represent astronomical symbols such as the wind, sun, moon, and stars. The similarity of these motifs through time and across space suggest they were communicated and shared between cultures. They may also be drawn



similarly because there are only a limited number of ways to represent the moon, sun, and stars.

### Crack Cave

On the western edge of Picture Canyon is a natural separation in the sandstone cliff face. Formed when a large boulder broke away from the bluff, a small cave exists named Crack Cave. The narrow crack continues about 15 feet into the rock before it widens into a small room-like opening. Numerous petroglyphs decorate the cave walls. For two special times of the year, during the Spring and Autumn Equinox, focus is concentrated upon one group of petroglyphs. At sunrise on these two days, the sun’s rays appear over the east canyon rim to penetrate the cave entrance, illuminating specific marks on the North cave wall. These petroglyphs are brilliantly lit for 10-12 minutes soon after sunrise, only to fade away until the next Equinox.



Crack Cave  
Regular Lighting



Crack Cave  
Day of Equinox