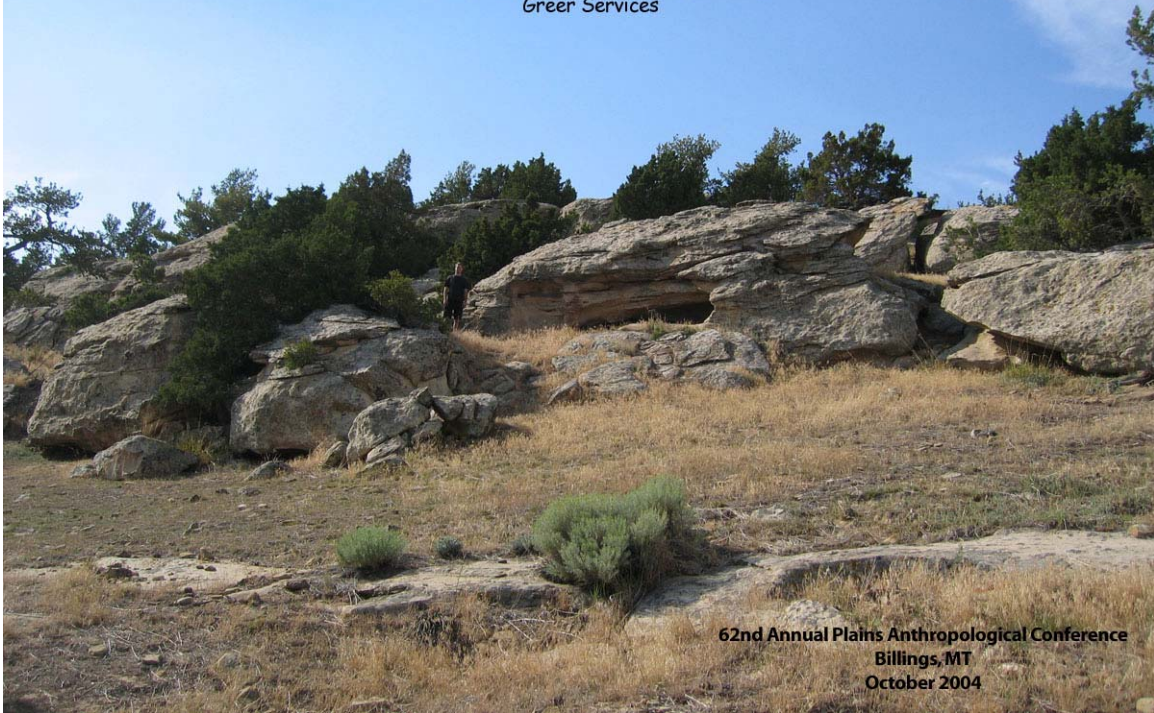


Notches Dome Pictographs: Are They Foothills Abstract Tradition in Central Wyoming?

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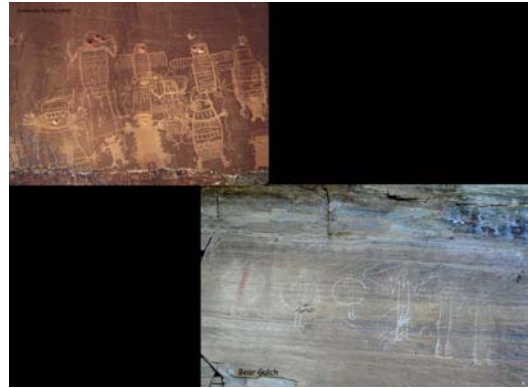
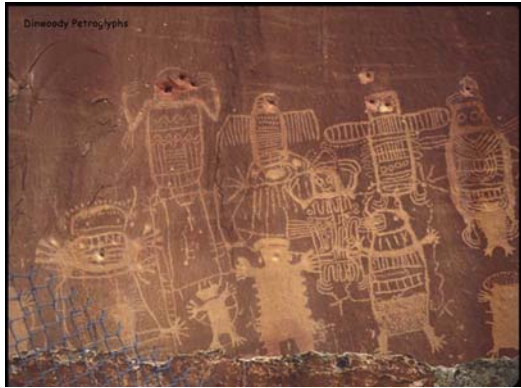
The Notches Dome Pictographs are a series of paintings in small rockshelters within the southern foothills of the Bighorn Mountains in central Wyoming. The site is on the southwest side of a distinctive topographic feature where sandstone formations rise from the surrounding



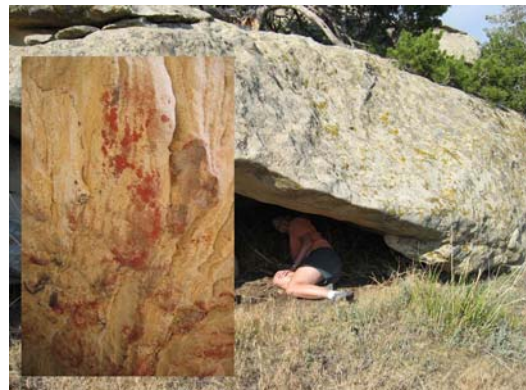
plains on a pine-covered ridge system that separates broad gentle tributaries to the South Fork of the Powder River. From the site is a view south across the extensive plains toward the Rattlesnake Range.



Like many rock art sites, Notches Dome is an eye-catching location, but once there the paintings are not readily visible and do not greet you with the show of power of the Dinwoody Tradition to the west or the compositional panels of biographic rock art so well known throughout Wyoming and Montana.



Instead these paintings are secluded in small openings that necessitate crawling to view, and inside these cramped shelters the pictographs look like they belong in the island mountain chains of central Montana, where smears and fingerlines dominate early rock art.



We have only recently begun our work at Notches Dome. The site was brought to our attention by a woman we met while getting work done on our pickup. While we were waiting she told us of several sites west of Casper including a rock art site with figures that looked like those at Castle Gardens. Now, those of you familiar with Castle Gardens know that





this prominent site is dominated by representational petroglyphs, especially the well known shields, many of which were originally painted. Thus, we expected to see elaborate, easily visible, probably painted petroglyph shield figures on sandstone formations. Instead, we found numerous small shelters filled with fingerlines and smears. To date, we have numbered 17



main shelters with paintings in an area extending 1200 feet along the edge of the low hillside escarpment. Although we were surprised not to see shield figures, we were not disappointed because we have a special interest in fingerlines and smears, although our enthusiasm is not shared by many rock art researchers.

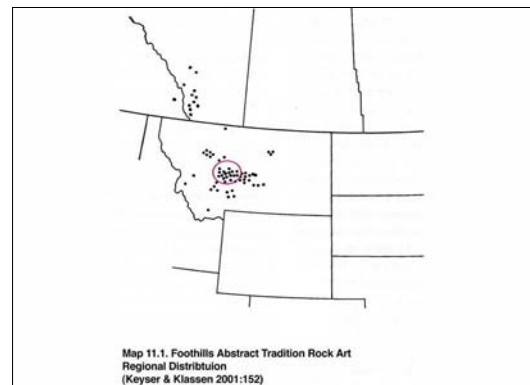
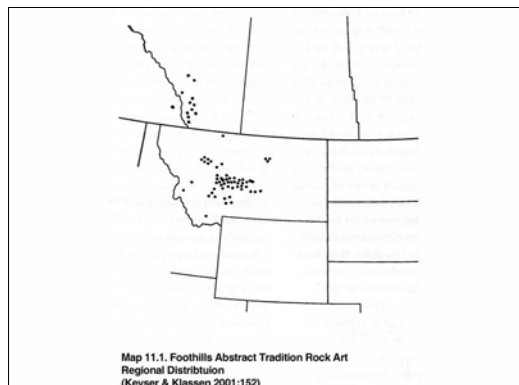
Prior to our work along the Smith River in central Montana in the early 90s, fingerlines and smears did not receive much attention in rock art recording or analysis. Occasionally they were mentioned on site forms, but mostly they were considered incidental and not something important for rock art study because they were thought not to have any information pertinent to age, function, or cultural affiliation. However, we have shown that they can be relevant to questions regarding rock art distribution, dating pictograph production, paint procurement and use, and the relation between different kinds of figures and settings, as well as absolute stylistic chronology.



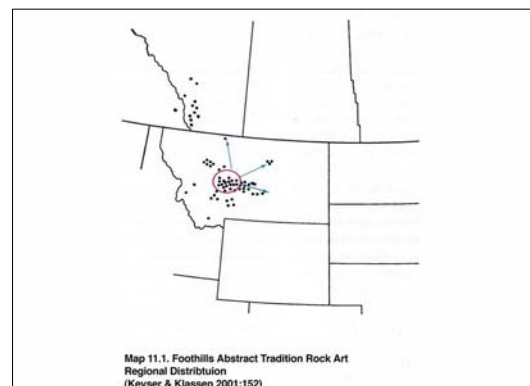
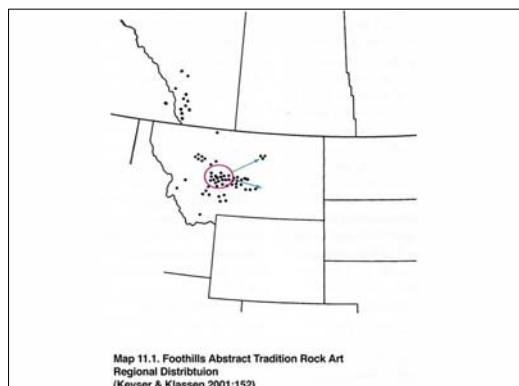
Our first analyses of fingerlines and smears were incorporated into the working definition of the time, which was Jim Keyser's Central Montana Abstract Style. However, by 1994, we were convinced that fingerlines and smears were part of a much larger Central Montana Abstract Tradition, which included several styles. By 2001 Keyser and Klassen again redefined the taxon and called it the Foothills Abstract Tradition. They described eight figure categories or motifs as characteristic of the Tradition, two of which are fingerlines and smears.



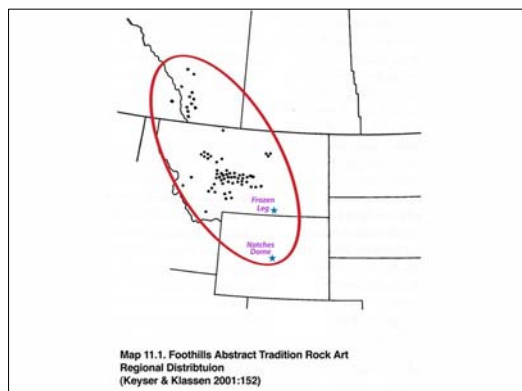
The occurrence of abstract figures is highly biased toward cave room or rockshelter locations in foothills settings rather than in mountain interiors or on boulders on the open plains. The fingerlines and smears at Notches Dome clearly place it stylistically within the Tradition, and its physical location within the foothills of the Bighorn Mountains is consistent with the typical setting for this kind of rock art.



Keyser's early work on the Central Montana Abstract Style considered site distribution to be limited to a few counties in central Montana. Our continuation of that research increased the distribution of motifs and sites east as far as the Little Rockies and north to the international



border and resulted in our expansion of the classification to a tradition, more widespread in space and covering more time than previously thought. At the same time we were concentrating on sites in Montana, Mike Klassen was finding the distribution expanding through the foothills of southern Alberta. Thus, when Keyser and Klassen synthesized work on the northern Plains, they found the distribution to extend from a northern point near Calgary, Alberta, to a southern point near Dillon, Montana. Their distribution map shows no Foothills Abstract Tradition sites in Wyoming or on the Montana side of the Bighorn Mountains, although they mention two sites, which they do not identify in the book but are in the eastern Bighorn Mountain foothills, and imply that the tradition could continue into Wyoming.



One long known site, Frozen Leg Cave, at the northern end of the Bighorn Mountains, contains early Foothills Abstract figures and confirms to us that the Tradition extends to the Big Horn River.

For those unfamiliar with the site, this high limestone cave system of numerous rooms and

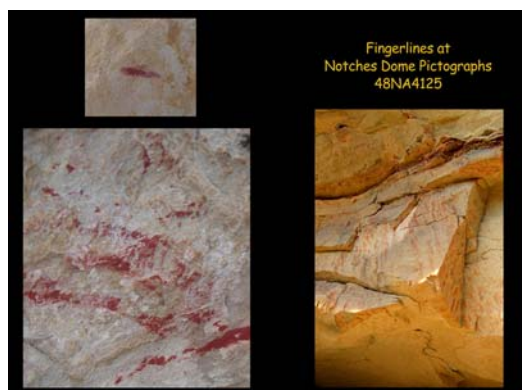


passages is best known for a room containing large anthropomorphs with unusual headdresses and associated plant figures, which have been studied and reported by Larry Loendorf and Julie Francis who have connected the unusual paintings to the Crow tobacco society. In a separate room to the east, and unrelated to the late Crow representational figures, is a large panel of earlier fingerlines, smears, and impressed handprints in red liquid paint.



Frozen Leg clearly represents the Foothills Abstract Tradition at the northern end of the Bighorns, while the newly recorded Notches Dome represents it on the southern end of the same mountain chain.

As noted above, Notches Dome is dominated by smears. This is the application of paint to cover an area, which occasionally creates a pattern. Smears are not the intentional destroying of previously drawn figures or places where the painters cleaned their hands. The smears at Notches range from small areas just a few centimeters across to large expanses of red that appear to have been designed to cover most of a ceiling. Smears were applied with the hand and fingers, and it is possible to see remnants of fingerlines within smeared areas, and in some places palm impressions are still clear.



Fingerlines were also created individually and not as part of smears. These are streaks usually made with the central three fingers (as is most common in Central Montana), but there are many single-finger lines at Notches Dome. These lines range from about 5-30 centimeters long. In all cases, however, they are not the short neat tally marks or day counts of Columbia Plateau style fingerline groupings (which occur in western Montana). Instead of being lined up in rows or columns they are randomly placed across the panel more similar to modern-day finger painting than to the record-keeping preciseness of tally marks. The slanted individual lines of Foothills Abstract depictions are often superimposed with small smeared areas, and based on figure styles and paint condition at Notches, it appears that painting episodes at some panels, although occurring at different times that may have involved several hundred years elapsed time or done within minutes of each other, were intended to



interact through superpositioning to create a bi- or multi-colored abstract appearance that would not be possible with the individual placement of either a fingerline or a smear. The relative timing of this kind of interaction cannot be sorted out by casual visual inspection and will necessitate detailed dating of paint to confirm relations. The fingerline and smear abstracts here are not as defined and intricately executed as characteristic abstract panels of the central Montana heartland, and this suggests that the Notches abstracts may be earlier within the Tradition.



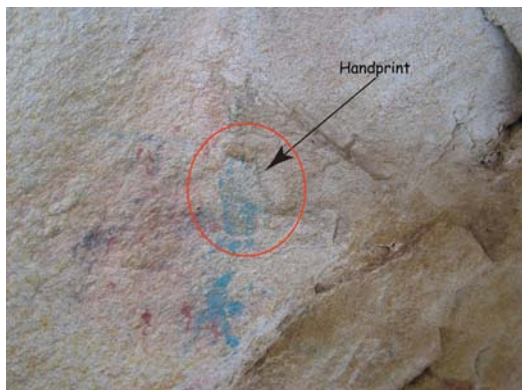
Like other Foothills Abstract Tradition sites, the pictographs of Notches Dome are dominated by red and black liquid paint. These red and black figures would not stand out if placed in a central Montana site, but the blue and green colors at Notches are not found in that area. The extensiveness of blue and green was surprising, and these colors may be what caused our informant at the car repair shop to think the pictographs resembled Castle Gardens, where green paint occurs. Because green is rare in northern Plains rock art, when present the pigment has been the subject of interest and study. Finnegan Cave, a rock art site near Bozeman that displays characteristics of the Foothills Abstract Tradition with fingerlines, smears, and handprints, also contains green paint. Larry Loendorf analyzed the

chemical composition of the green paint and found it to be celadonite, a green mineral that forms in cavities on basalt and other igneous rocks. It will be interesting to see if the green at Notches Dome is of the same composition. A visual examination of the two greens, which are shown here side-by-side, suggests they may be different.





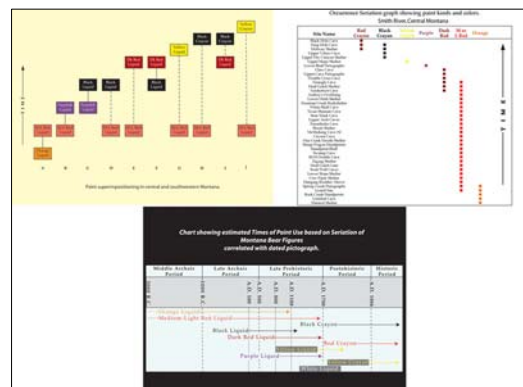
Blue is even more elusive in the northwestern Plains and adjacent Rocky Mountains. We have never seen blue liquid paint at another rock art site in the region, and although someone is bound to say, “how could you forget about such and such a site”, we could not find reference to any blue liquid paint in Wyoming or Montana pictographs. However, blue occurs in rock art sites in the southwest, West Texas, and southern California. The blue pigment at Notches Dome should be studied to determine its source, which could pertain to where the people who painted Foothills Abstract figures were coming from or going, or with whom they interacted.



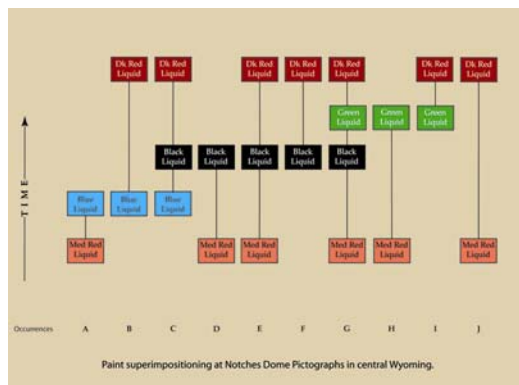
The blue liquid paint at Notches Dome is not limited to smears. The most recognizable handprint is also blue. Two other possible handprints are in red. However, the Notches handprints almost appear accidental, as if they happened while producing fingerlines and smears rather than as a result of intentional placement.

We have previously done chronological analysis in Montana of sites containing fingerlines, smears, and handprints. In sites along the Smith River, seriation of paint types shows fingerlines were made with paints used for the older pictographs in the drainage. Jannie Loubster, applying Harris line analysis to some sites along the Missouri River in central Montana, recently got the same results for relative age of fingerlines.

Our chronological studies have focused on using seriation based on superpositioning of kinds and colors of paint. We began our chronological analysis of Notches Dome by comparing information there with what we had established for central Montana. We believed the comparison was warranted due to the similarity of the figures and



their treatment. Superpositioning in the central Montana region (shown in the upper left) indicates that paint kinds and colors changed through time, and previous seriation of paint in Montana has produced a temporal ordering of those changes. Graphs for sites in the Smith River area (shown in the upper right) indicate that orange liquid paint is early, followed by several color changes, before liquid paints eventually are replaced almost entirely by solid dry paint, or aboriginal crayons. A subsequent seriation of paints associated with bear figures in Montana resulted in a preliminary time frame (shown here on the bottom) indicating the kind of information that this analysis can generate. However, a preliminary time frame has not yet been attempted for fingerlines and smears, but data gathering is leading to its development. The Notches Dome paint comparison with the chart on the upper left shows, the red and black liquid paints used for the Notches figures are those most common at earlier, rather than later, rock art sites elsewhere in the region.



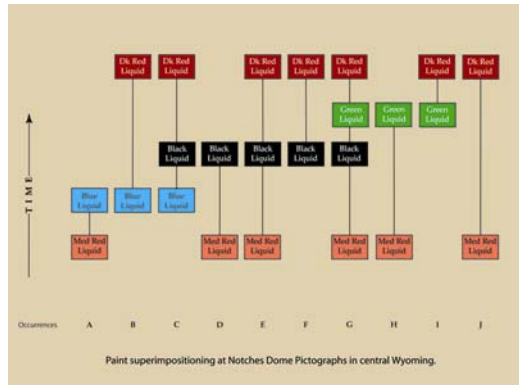
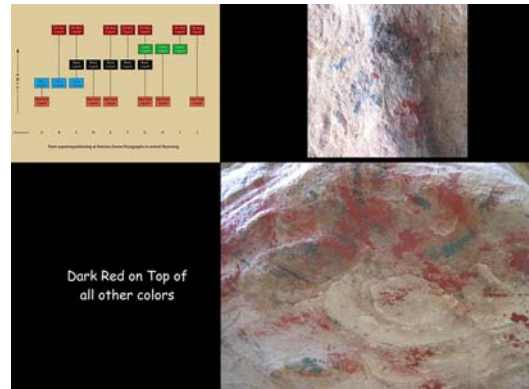
The Notches Dome pictographs contain much overlapping paint, in contrast with most panels in central Montana, and this provides an excellent opportunity to determine change in color preferences and/or preferences of color combinations. Chronological analysis continued by determining the paint superpositioning sequences at Notches, and this was done by visually examining the paints on

digital images at a magnification of 150% to 400%. This computer inspection allowed us clearly to identify relations between the paint layers. Ten different combinations of paint stratigraphy were observed and are presented in this chart. In all cases, the relative ordering of colors is consistent from one panel to the next.

Medium red is always on the bottom and earlier than all other superimposed colors. Blue occurs over medium red and is covered by black and dark red. Liquid black occurs over both medium red and blue and is covered by dark red and green.



Green is over black and medium red and is only covered by dark red. Dark red is always the latest of the paint layers.



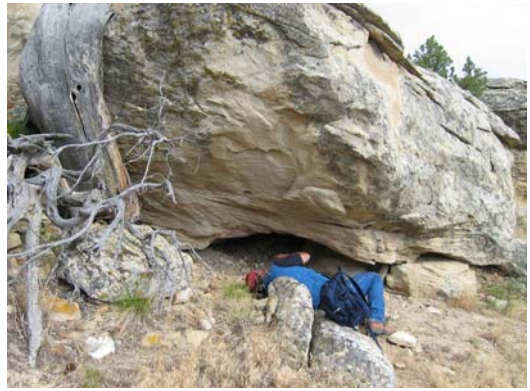
This sequence of colors fits well with our findings of paint stratigraphy in central Montana. At Notches, blue and green were found to sandwich between the already established Montana ordering of liquid paint colors and well before solid crayon application, which is typically late and not used at

this site. This is consistent with the model that fingerlines and smears are early in rock art production on the northwestern Plains and adjacent mountains.

The topic of rock art function is always challenging, whether dealing with late period panels of the Biographic Tradition, where stories are portrayed in a system of character interaction more familiar to us, or when dealing with fingerlines and smears. Ethnographic sources and oral histories often provide analogical assistance for representational figures, especially those drawn near or during the Historic Period, but such records are not particularly helpful for elucidating site function for fingerlines and smears. Although we cannot read a story in the fingerlines and smears as we can with biographic rock art, or compare recognizable figures to important persons, real or mythical, within a tribe, we can make suggestions about the function of these nonrepresentational figures.



The location of the Notches site, and most particularly the placement of figures on the ceilings of very low, constricted cavities, indicates that the paintings were not made as a public announcement. The interiors of small shelters were deliberately selected over exterior mouth areas and surrounding open faces that would have been seen by anyone approaching the area. It is, therefore, unlikely that the paintings functioned as territorial markers, warnings to foreigners, or as billboards announcing some event, belief, or historical fact. It is also unlikely that they were teaching or information aids for passing on stories to others because most of the shelters are only big enough for a single person. The openings have not filled with deposits through the years but instead are as large as exposed bedrock will allow. Thus, this choice of secluded location and the placement of figures on the ceiling suggest that the paintings had a private purpose. The pictographs do not contain the kinds of figures — particularly naturalistic or even common geometric motifs — usually found at sites used by shamans engaged in trance activities. And there are no figurative portrayals that could be construed as related to hunting magic. These small cramped shelters and openings were specifically selected for painting, almost certainly by only one person at a time. It is possible that these could have been stop-off places either coming or going from an event, such as a vision quest, and it may have been at such locations



that pre- or post-rituals involving paint were conducted. It is known that traditional vision quest sites and rock alters occur nearby and in surrounding areas. The amount of paint in these shelters and the variety of colors indicate there was considerable preparation time and energy involved in gathering ingredients for the paint, transporting it to this location, and then mixing it for final application. It is

unlikely that these pictographs represent doodling by children or people idly passing time, and the lack of representational figures suggests that paintings were not done as simple decoration. The most likely model for the function of Notches Dome at this time is that it was painted by several different individuals who were practicing the same cultural rituals over many (or several) years. Such rituals could be only one aspect of a larger cultural practice, such as a vision quest, and this may only have been a temporary stop between a home base and another final destination.



In conclusion, paintings in the 17 clustered shelters at Notches Dome display a uniformity that suggests they were painted by a single culture with an overriding tradition that continued north approximately 1000 miles. The kinds of figures and setting are typical of Foothills Abstract Tradition, and thus, the Notches site supports an extension of this distribution as far south as central Wyoming. The

paint stratigraphy suggests they are some of the earlier paintings in the region, and their placement in cramped shelters indicates they functioned in a private context, although the nature of that function has not been determined. However, the site appears to be a short-term ritual use location rather than the final destination for an event. Notches Dome also expands the database for the use of green and blue paint in rock art. Future studies of these pigments should add to our knowledge of distances traveled for paint sources as well as possible connections between the Foothills Abstract Tradition and other rock art, particularly to the southwest.

