

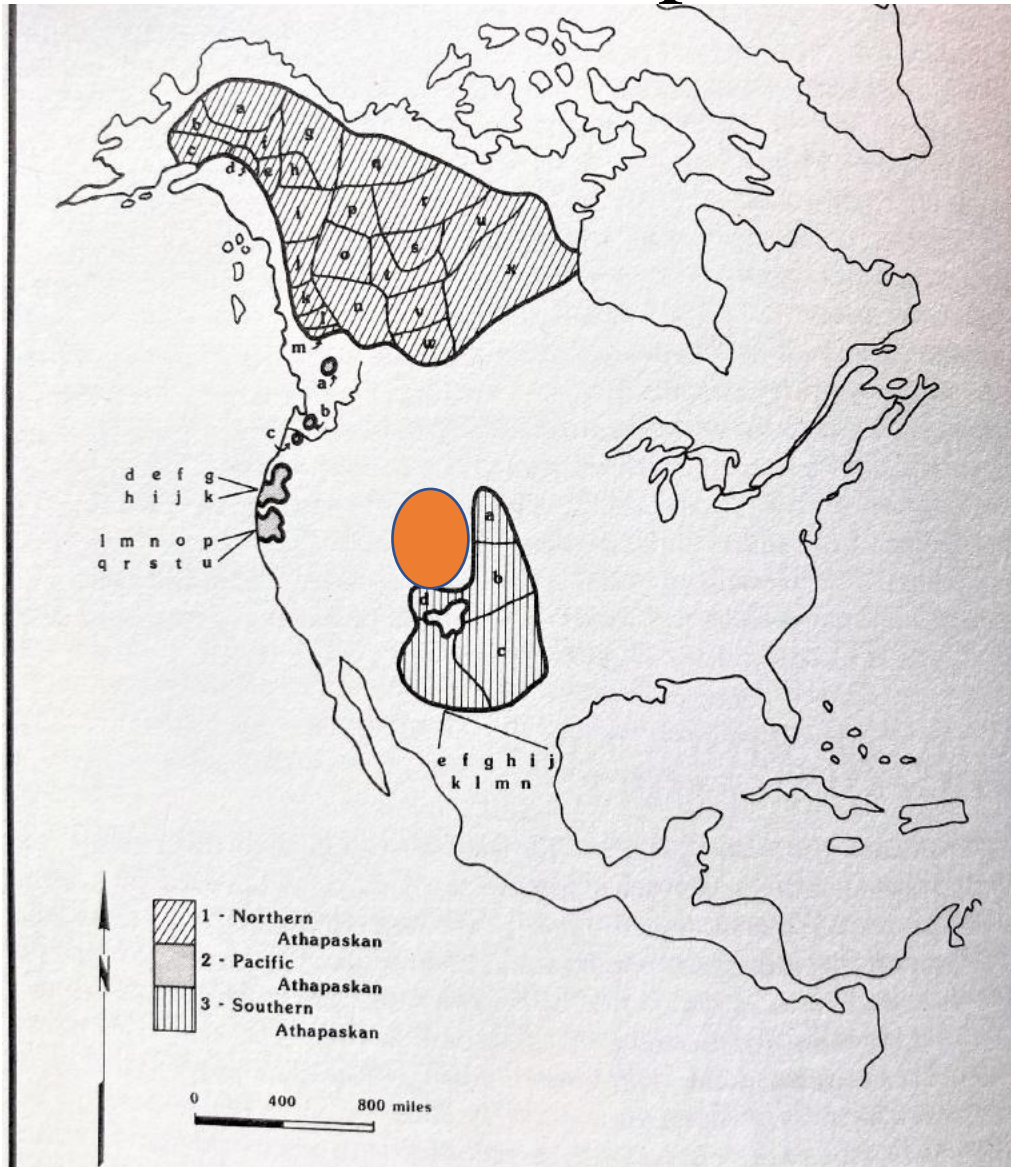


Athapaskan migrations

Ethnohistoric Interpretations

Carol Patterson, PhD

Who are the Athapaskans?



KEY

Northern Athapaskans

Pacific Drainage

- 1a Koyukon
- 1b Ingalik
- 1c Tanaina
- 1d Ahtena
- 1e Nabesna
- 1f Tanana
- 1g Kutchin
- 1h Han
- 1i Tutchone
- 1j Tahltan
- 1k Tsetsaut
- 1l Carrier
- 1m Chilcotin

Arctic Drainage

- 1n Sekani
- 1o Kaska
- 1p Mountain
- 1q Hare
- 1r Bear
- 1s Dogrib
- 1t Slavey
- 1u Yellowknife
- 1v Beaver
- 1w Sarsi
- 1x Chipewyan

Pacific Athapaskans

- 2a Nicola

Columbia Drainage

- 2b Kwalhioqua
- 2c Tlatskanai

Southwestern Oregon

- 2d Upper Umpqua
- 2e Upper Coquille
- 2f Chasta Coasta
- 2g Tutuni
- 2h Taltash-tune
- 2i Dakube-tune
- 2j Wishtena-tin
- 2k Chetco

Northwestern California

- 2l Tolowa
- 2m Hupa
- 2n Chilula
- 2o Whilkut
- 2p Nongatl
- 2q Wailaki
- 2r Lassik
- 2s Mattole
- 2t Sinkyone
- 2u Kato

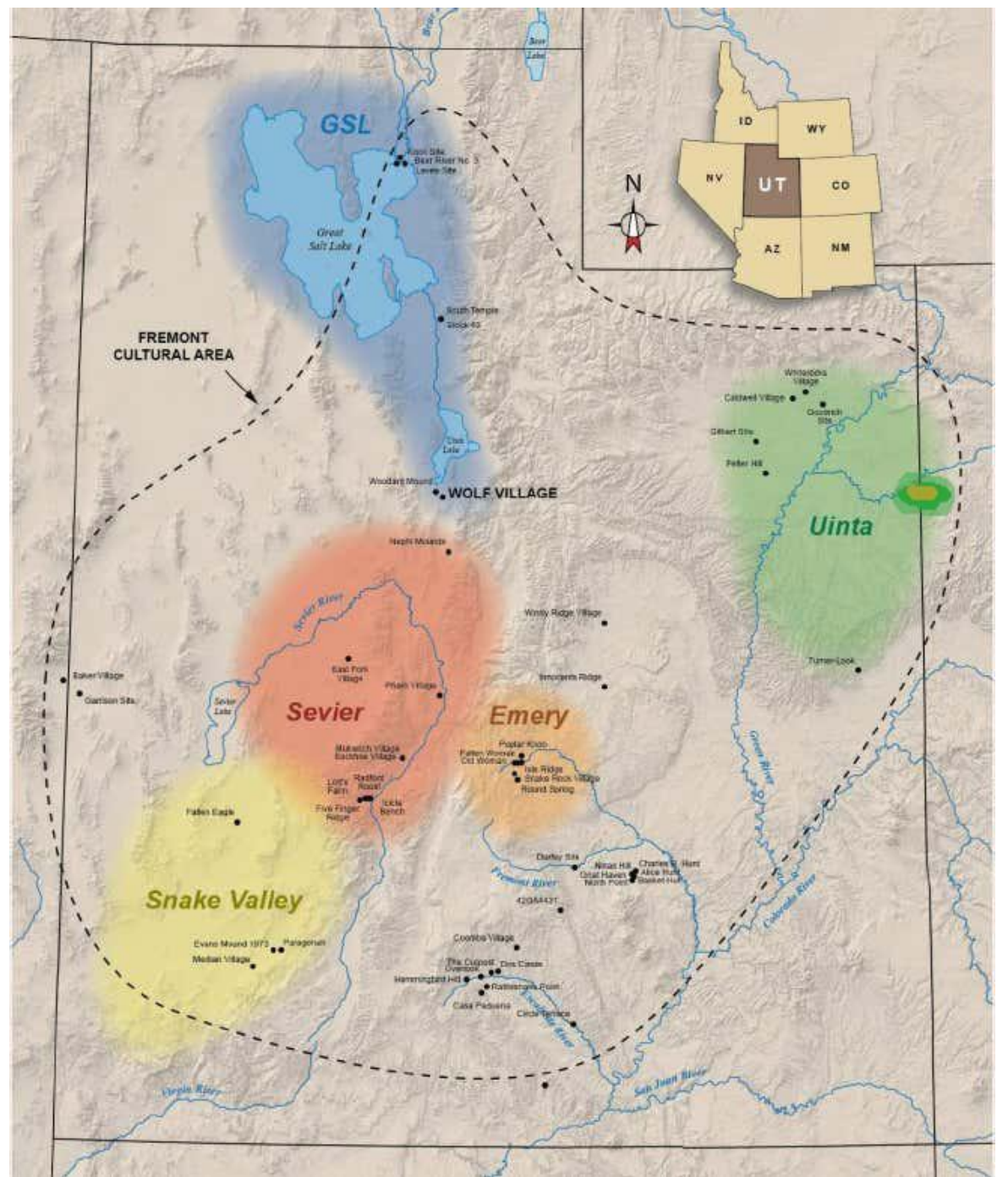
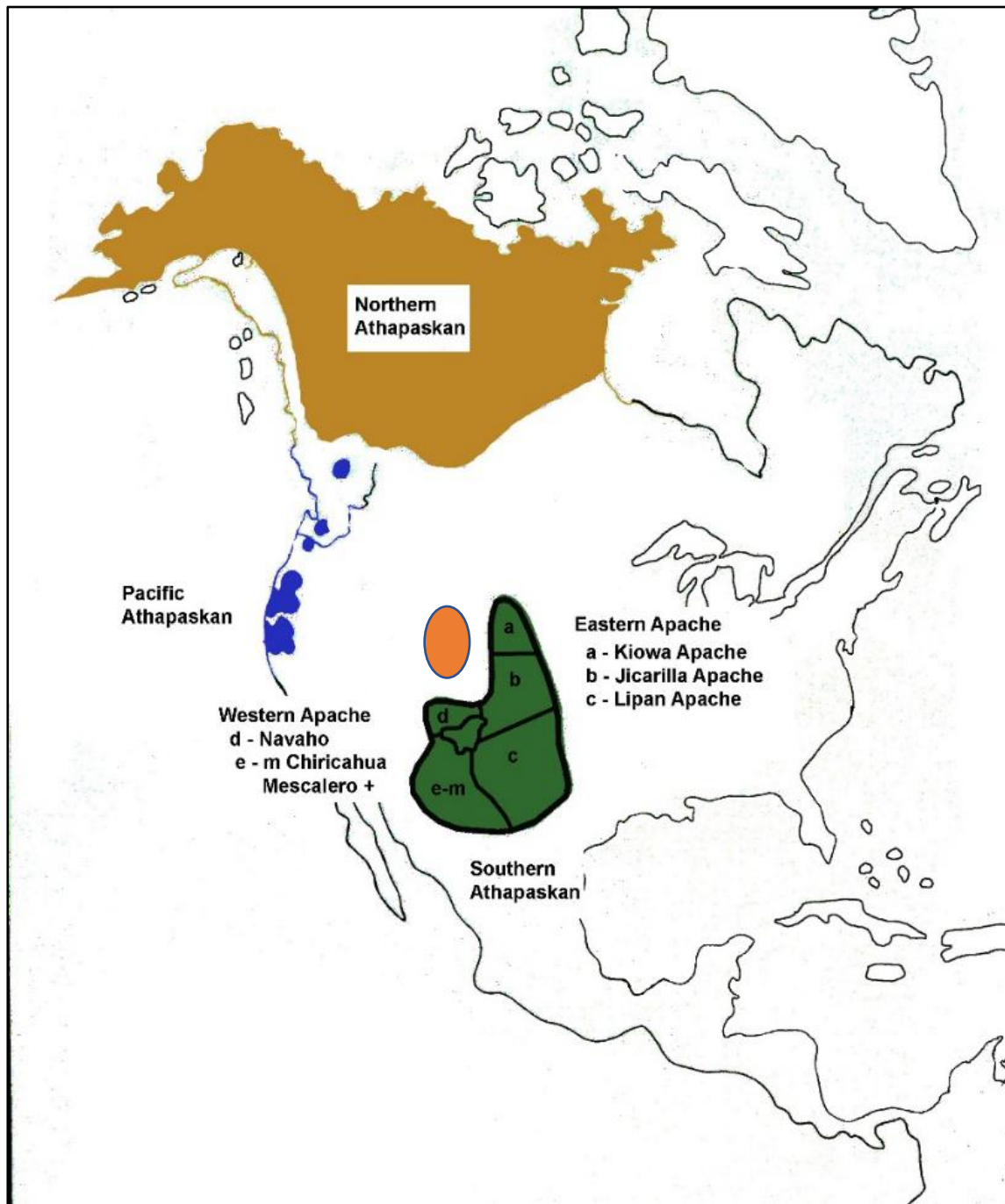
Southern Athapaskans

Eastern Apaches

- 3a Kiowa-Apache
- 3b Jicarilla Apache
- 3c Lipan Apache

Western Apaches

- 3d Navajo
- 3e Tonto
- 3f Coyotero
- 3g Pinal
- 3h Arivaipa
- 3i Pinaleño
- 3j Chiricahua
- 3k Mogollon
- 3l Gileño
- 3m Mimbrenño
- 3n Mescalero



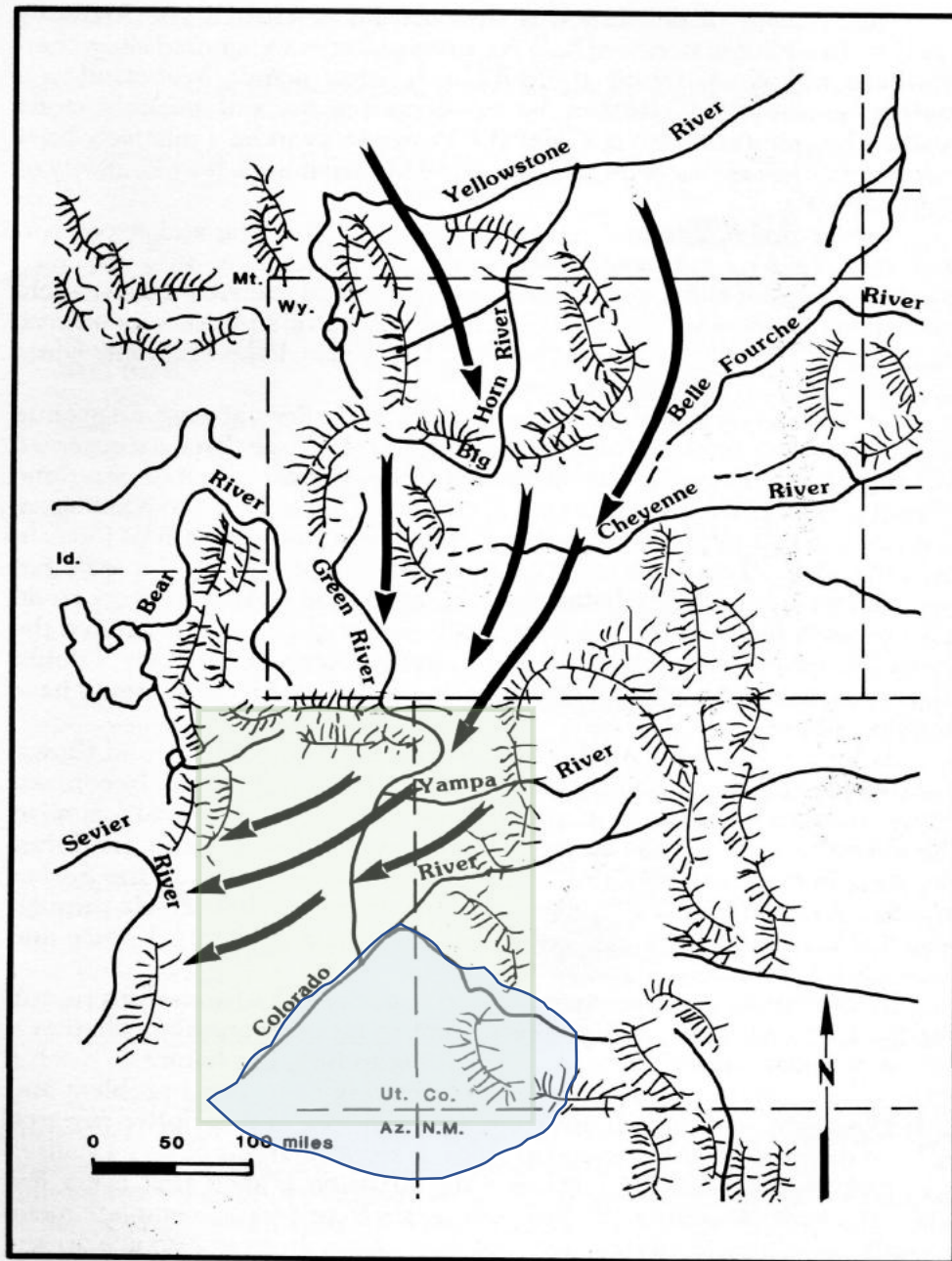


Figure 9. Map of the Middle and Southern Rocky Mountain Physiographic Provinces showing possible routes of Athapaskan migration.

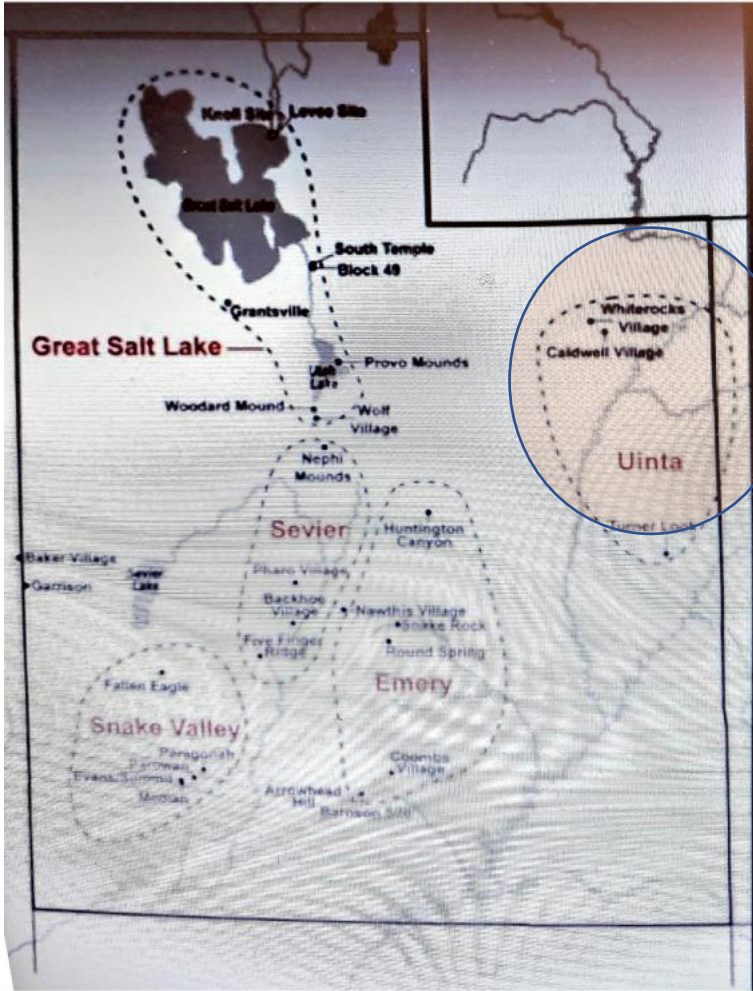
The Athapaskan inner-montane migration has been proposed in the 1960s and 1970s (Julian Steward, the Hushers, Grenville Goodwin, Oliver LaForge, W.W. Hill, Cal Riley)

Ethnography by Morris Opler (1971, 1975, 1983), the dean of Apachean ethnography, has steadfastly insisted on the inter-montane advance of Apacheans toward the Southwest.

Perry (1980) and Wilcox (1981, 1988) have the first opting for the intermountain, the second for the Plains route.

It is unquestioned that the Proto-Athapaskans were originally interior, mountain-oriented people. The Apachean advance, is both the intermontane and the Plains route are nearly equally in importance in Apachean prehistory and history.

Uinta Fremont and Avonlea II, AD 600-1100 (Apachean) Ancestral Jicarilla.



Schlesier 1987 fig 14.2

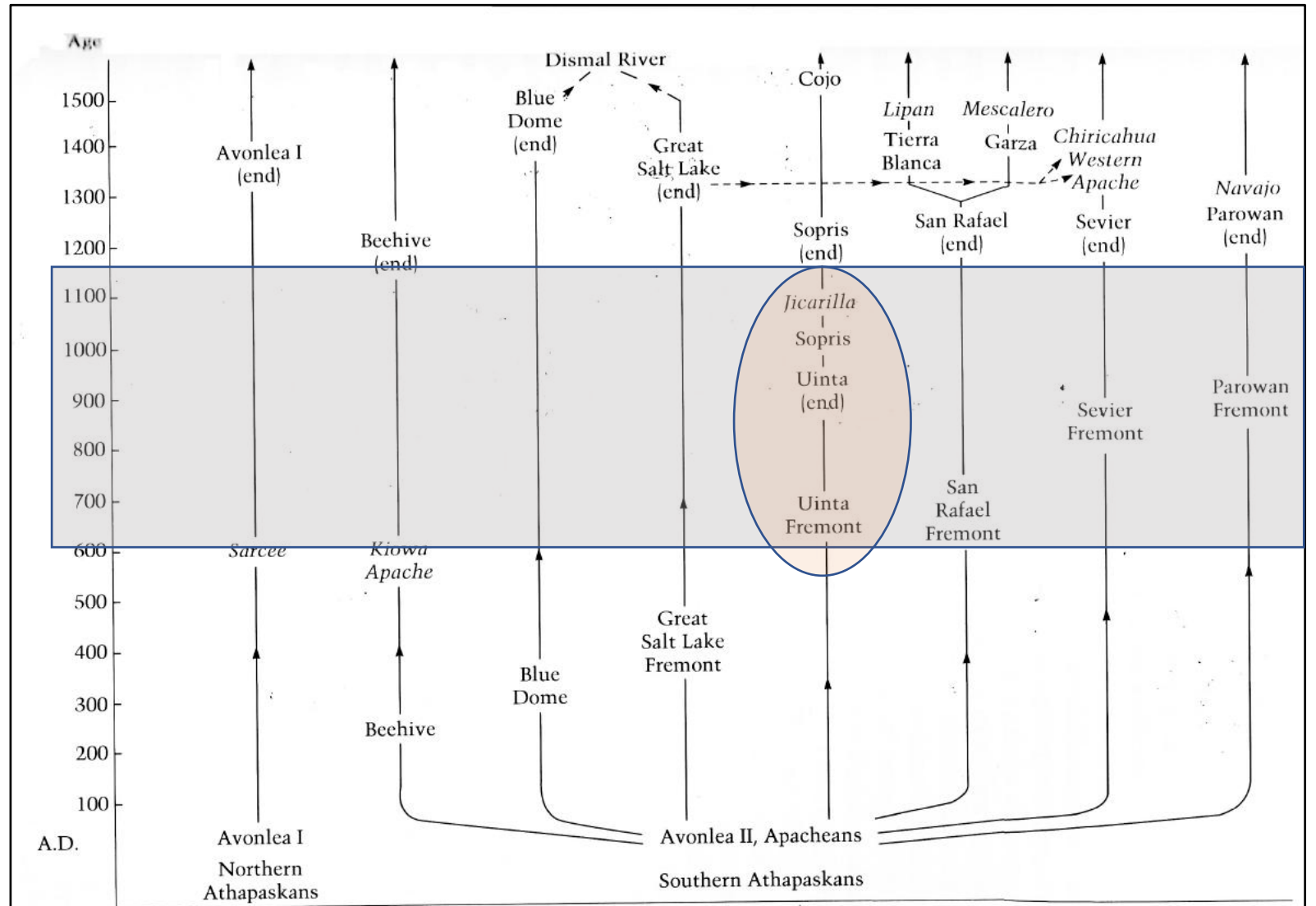
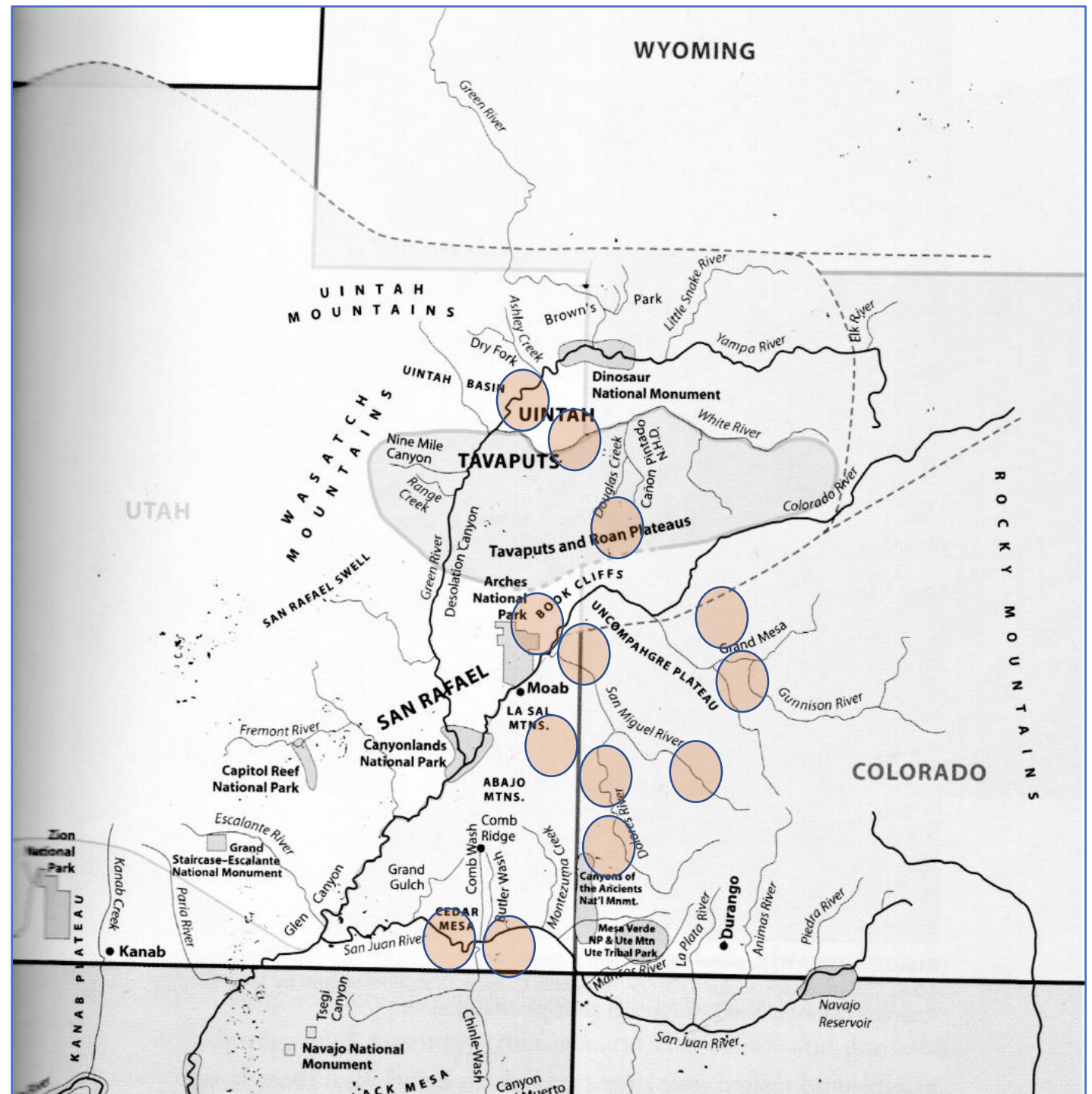


Fig. 14.2. Archaeological cultures to ethnic groups. *Sarcees* and *Southern Athapaskans*, A.D. 50 to 1550. Historic groups are shown in *italic*.

Study Area

- These sites contain images of anthropomorphs that have diagnostic elements consistent with all the other sites.
- Many are associated with archaeological sites of the Avonlea II period AD 1100-1300.
- Some are on high cliff walls and convergences of rivers that are not habitation sites.

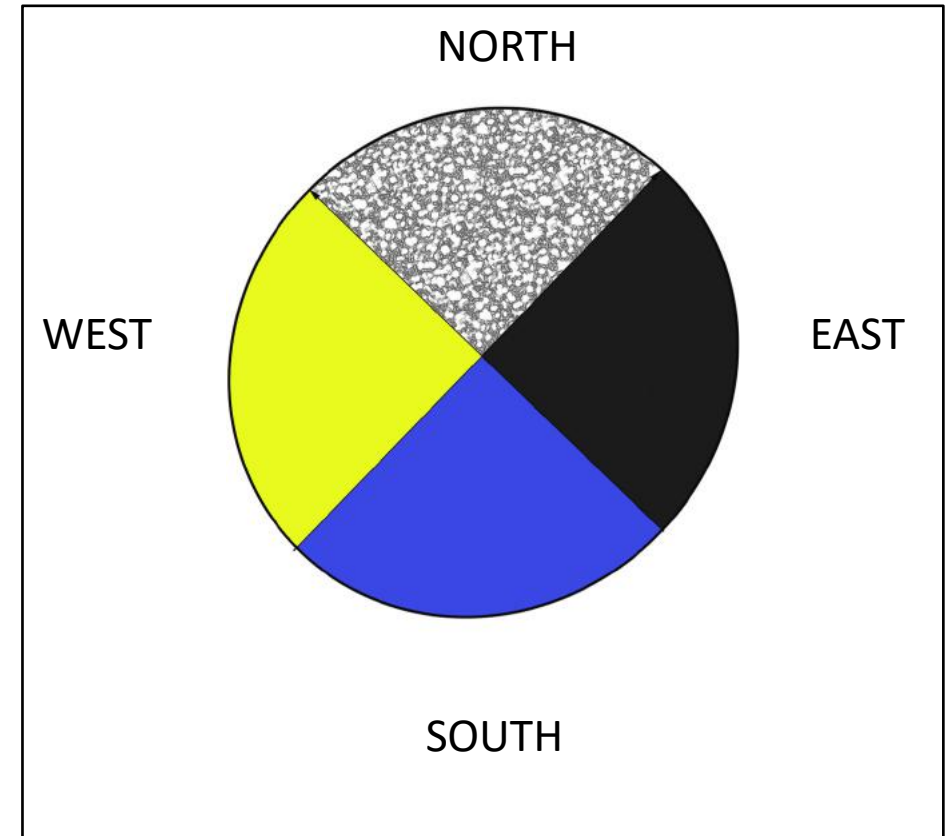


My Hypothesis of Inner Mountain Corridor

- Study area AD 600-1100 (Fremont Era)
 - Uinta Basin
 - Eastern Utah, Western Colorado
- Linguistic affiliations
 - Athapaskan (Apachean) Eastern Apache (Jicarilla)
- Archaeology and material items
 - Avonlea projectile points, bridge from atlatl to bow and arrow technology
 - Ribbed or corded Greyware pottery
 - Pit house dwellings and granaries
 - Corn horticulture and Game drive sites
- Ethnographic Literature Particulars (cultural diagnostics)
 - Specifically, Jicarilla Apache cosmology
 - Color, Numbers, Asymmetry, Rotation, Gestures, Postures, Spatial Positioning
 - Creator spirits, the Hactcin and Gaan dancers, Culture Heroes
 - Racers of the Sun (Game animals) and Moon (Plants)
 - Warriors, Runners, Farmers, Hunters
- Petroglyph Image diagnostics
 - Gestures in the human forms (head, neck, body, arms, feet)
 - Details of clothing, weapons, masks, (war caps, royal jackets, boots, sandals)
 - Feathers (up, down) stone, shell, bone necklaces, dot patterns

Particularism for all Apache

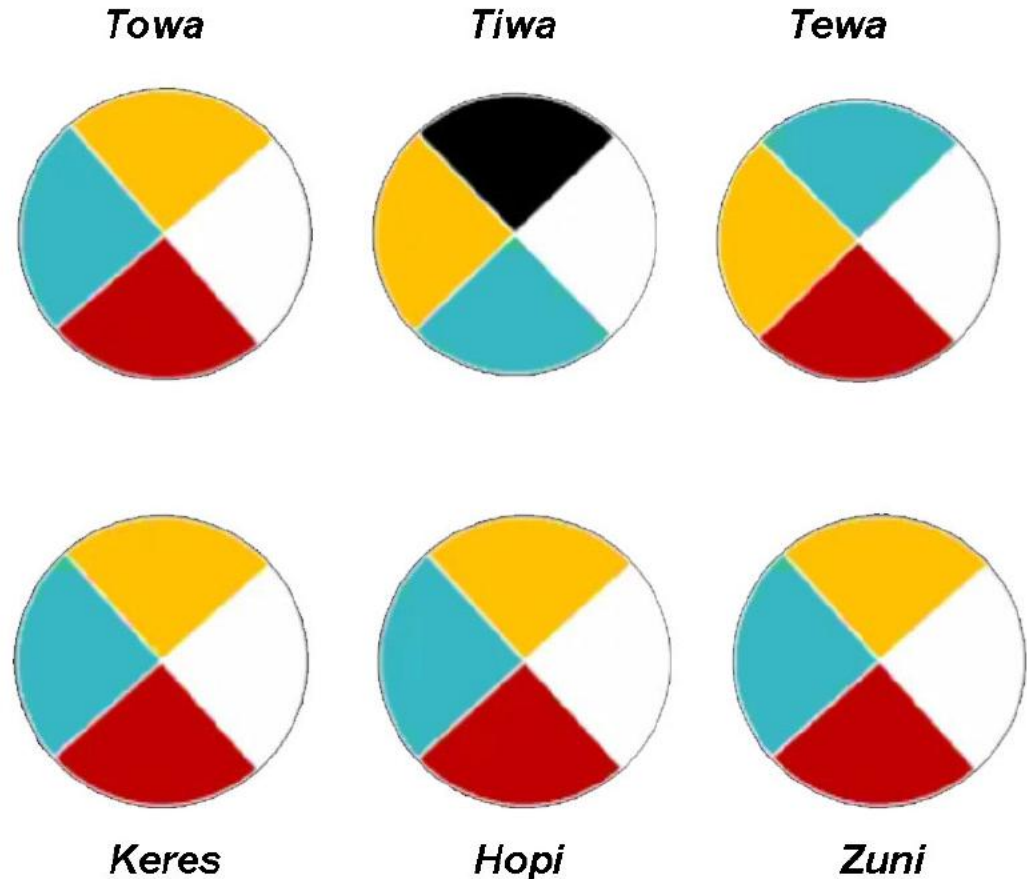
- Right To left geocentric orientation, beginning at the East. Rotate C/W
- East =Black , South=Blue , West=Yellow, North=Glitter or white
- Not the colors of Uto-Aztecan (Hopi) or Numic (Ute/Paiute) Rotate C/W
- Not the colors of Western Pueblos Tanoan, (Keres, Zuni and Tewa)



Color Particulars for Pueblos

Tanoan speakers of the same family but, each has a different set of directional colors.

Keres, Hopi, Zuni, all different language groups. But, all have the same set of directional colors.



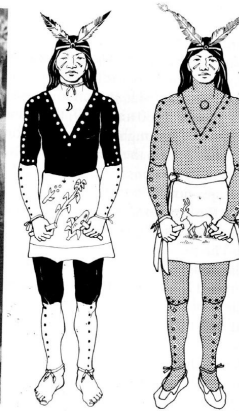
(After Hanna Mattson webinar 2022)

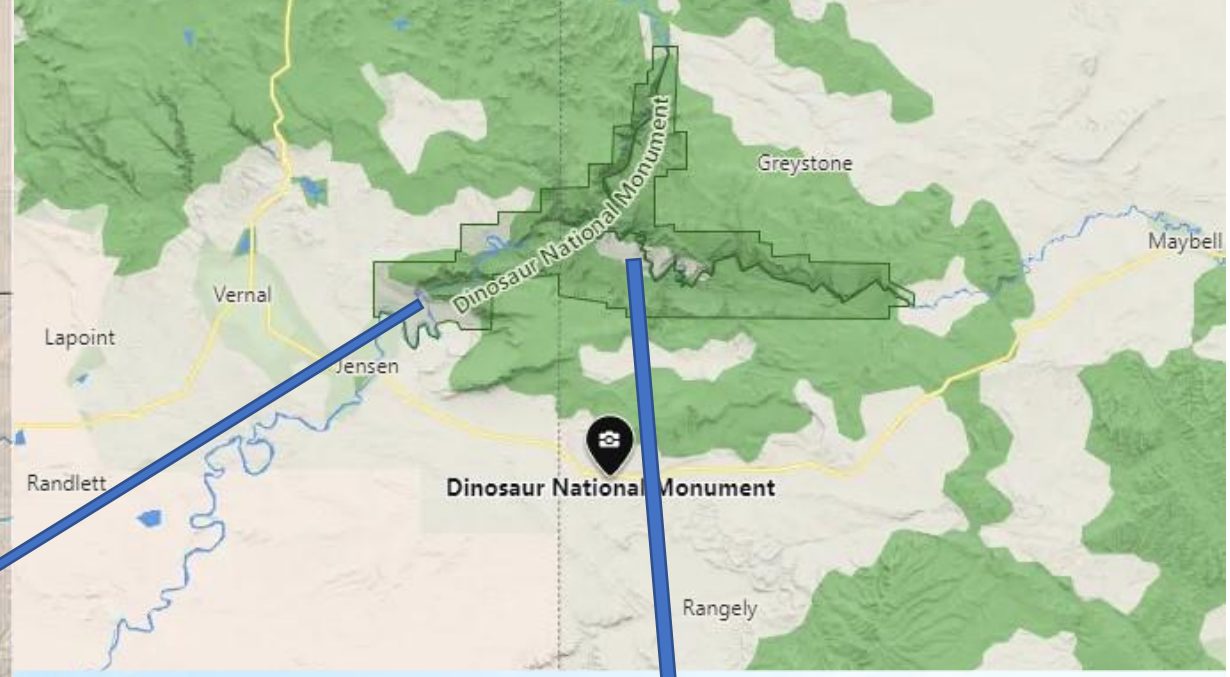
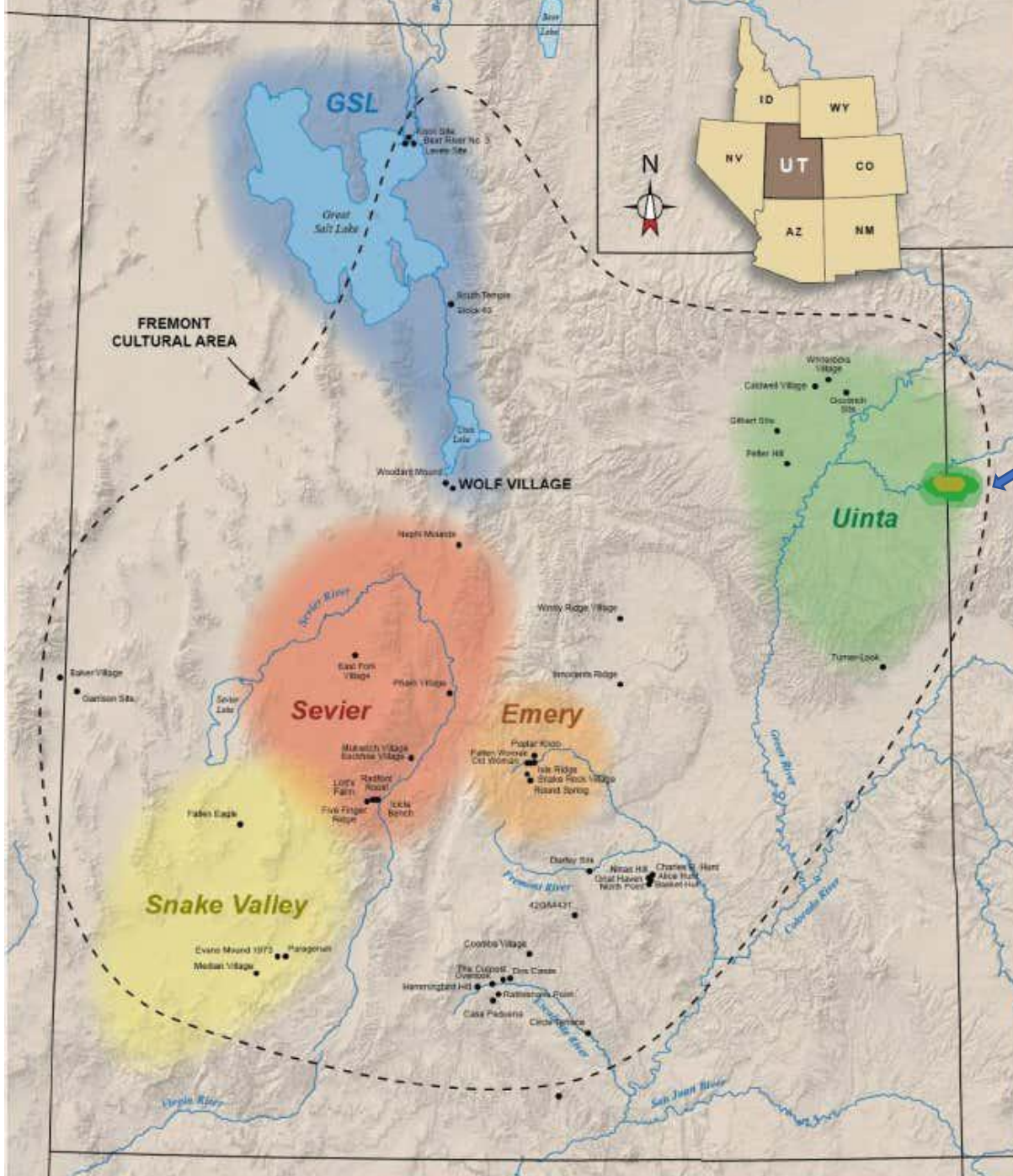
Particular Themes of Jicarilla Apache

- Black Sky Father, Earth Mother
- Creators (White Hactcin and Black Hactcin, Holy Boy and Red Boy)
- The Emergence Mountain (Spider and Fly, Hactcin and Gaan Dancers)
- Mountain Spirits, Moisture, and Rain
- Enemy Slayer and Child of Water
- Warriors and Scalps
- Ritual Runners
- Cloud Houses, Little Wind,
- Farmers and Corn
- Sacred Hoop and Pole \Games
- Holiness Rite (Bear and Snake sickness)
- Gray Hactcin and His Dog



NAA: Ms. 2847, right, after Opler 1946:129
Runners in the annual relay race. left, Runners painted, decorated with feathers, and with yucca leaves tied around the ankles and
graph by Frank Russell, 1898. right, Dress and decoration of the lead runners: Llanero at left, Ollero at right.







Hactcin, are gods,
spirits, supernaturals

Blue dots are images of the
Hactcin, Mountain Spirits

Red dots are images of the
Hactcin Creator Gods.

Cub Creek in Dinosaur National Monument simulating the Emergence Mountain



Ethnography for Jicarilla Apache

The Hactcin and Gaans

- The *Hactcin* spirits that are within everything: Everything you can name
- In the Beginning there was Dark Sky Father (Hactcin) and Earth Mother.
- He creates White Hactcin, associated with the Sun. The Sun is white.
- He creates Black Hactcin, associated with the moon and night.
- Holy Boy, and Red Boy, play a part in the creation of the Sun, Moon, the Underworld and assisted in the emergence to this world.
- Black Hactcin made Ancestral Man and Ancestral woman.

“They are personifications of the power or essence of the objects of the natural world,” (Opler [1938] 1994)

Dark Sky Father, high above the Emergence Mountain

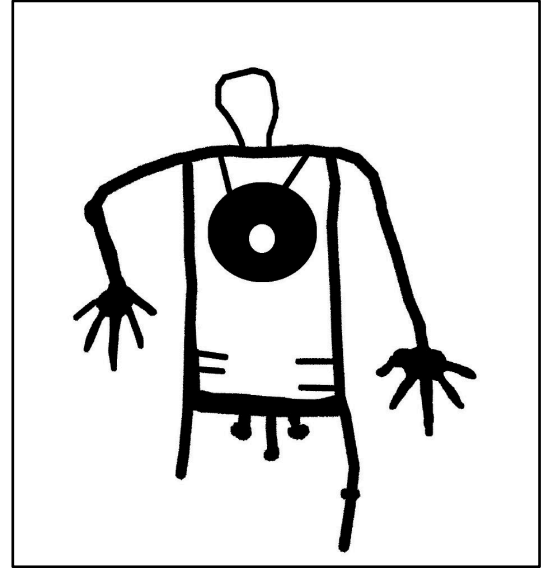
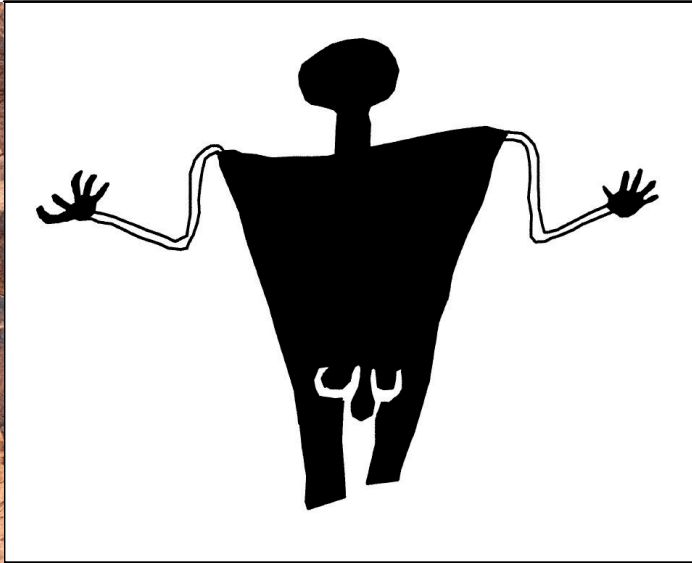


Particulars of the Jicarilla are the Mythic Text with Metaphors, and specific Ceremonies;



Cub Creek parking lot; left figure fully pecked and the right figure is outlined with a round disk on the chest. These panels are very old and partially spalled off.

Creators, Black Hactcin and White Hactcin

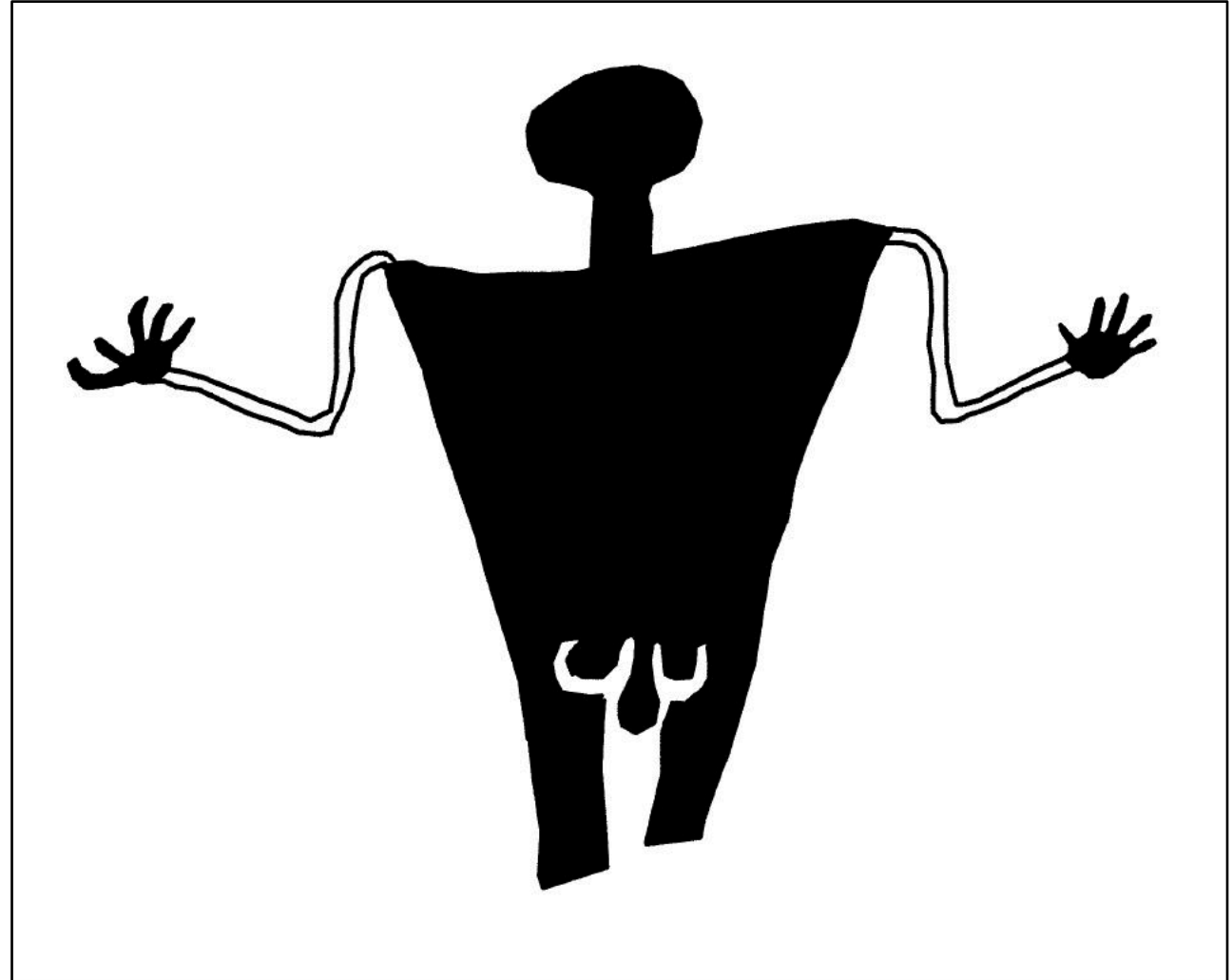


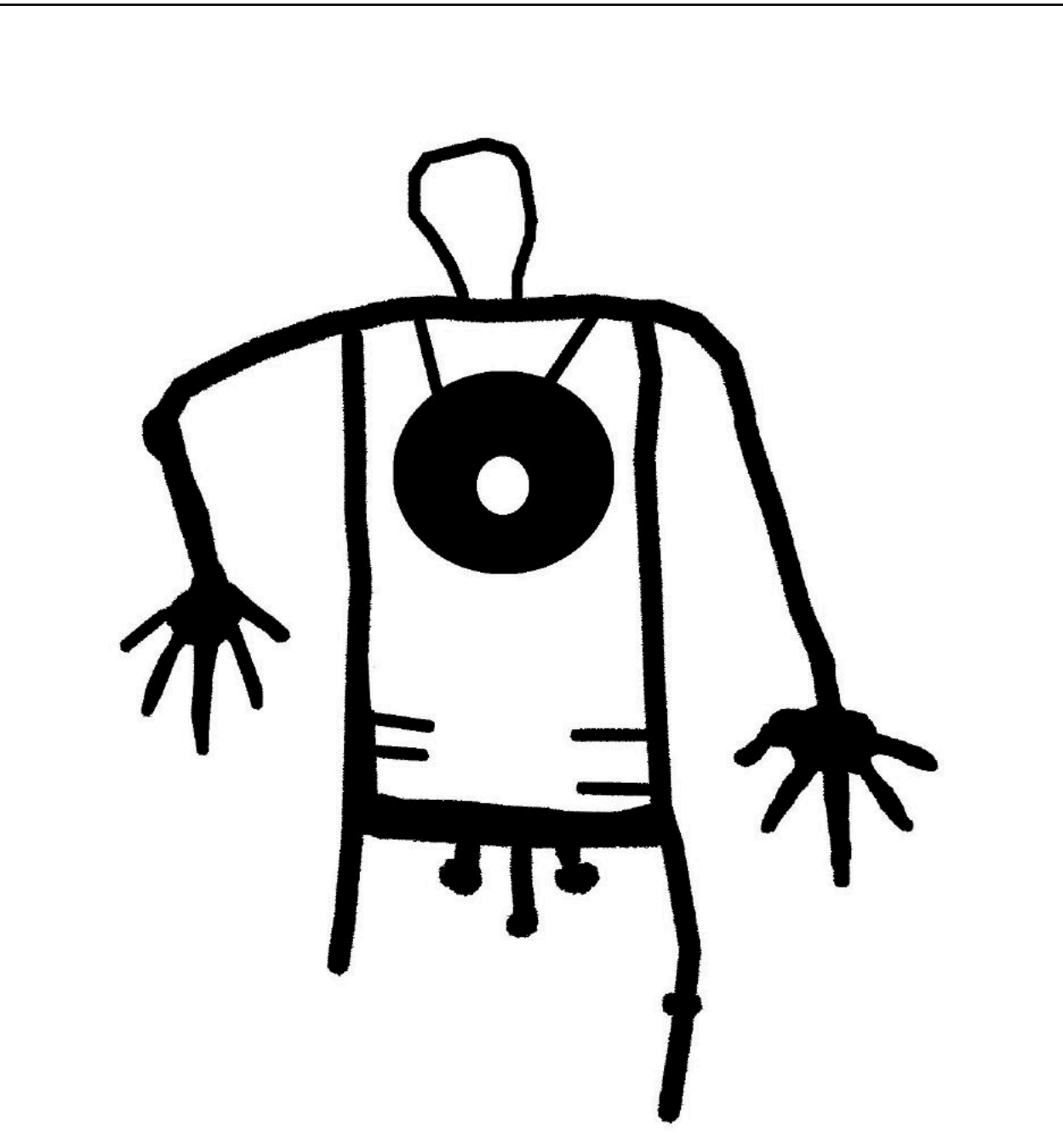
Black Hactcin is of the night sky and creates the moon. He is most powerful. He creates all the animals. He is shown gesturing with his arms and hands ‘creating’. He asks for rain so the plants and animals can grow and lifts his fingers upward. White Hactcin is of daylight sky and creates the sun. He wears the sun disk around his neck. He provides rain from the sky and is gesturing downward towards the earth with fingers open as if casting light and rain down on everything. (Opler pg 1-12) The contrast with these two figures is purposeful.

Sand drawing of the Jicarilla Holiness Rite

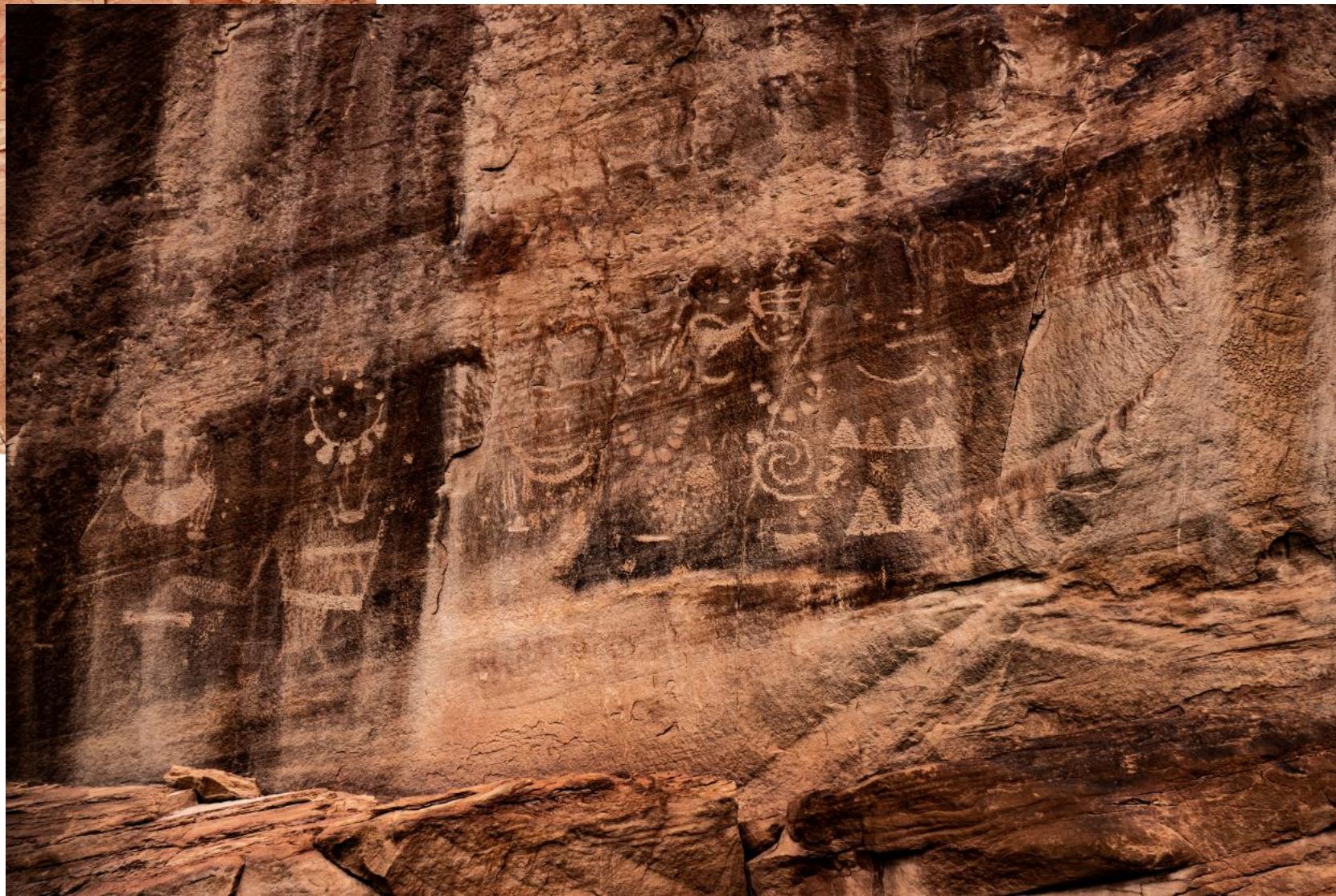
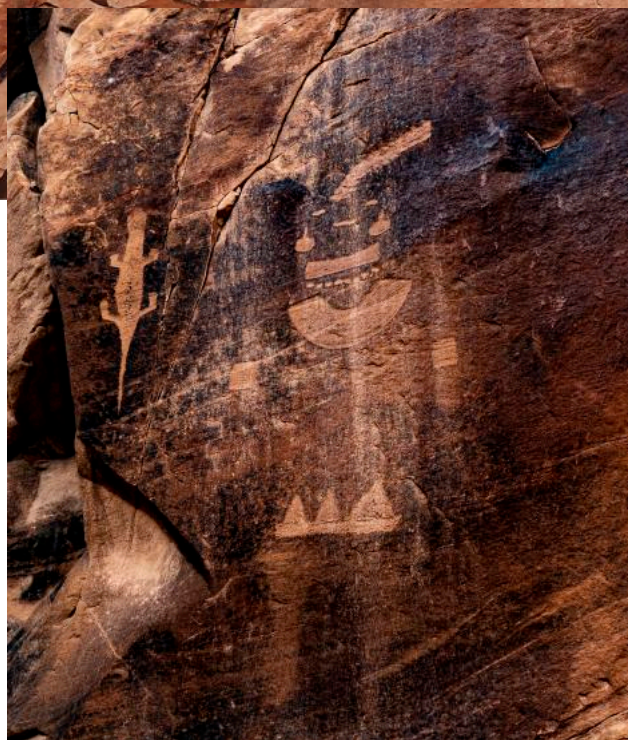


Contemporary sand drawing showing the double outline of White Hactcin on the right and the dark outline of Black Hactcin on the left. They are similar to the old engraved depictions at Cub Creek.



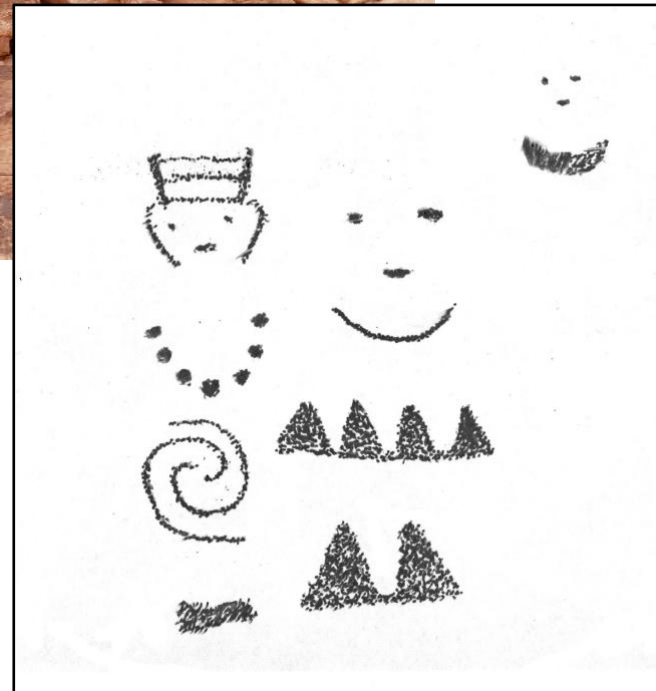
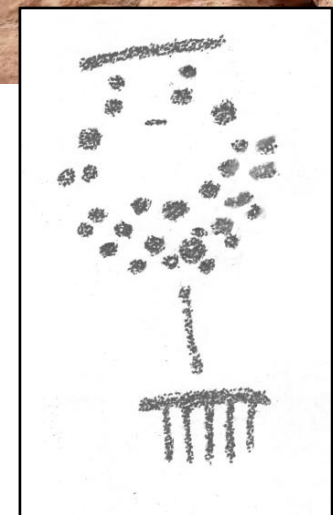


Mountain Spirits



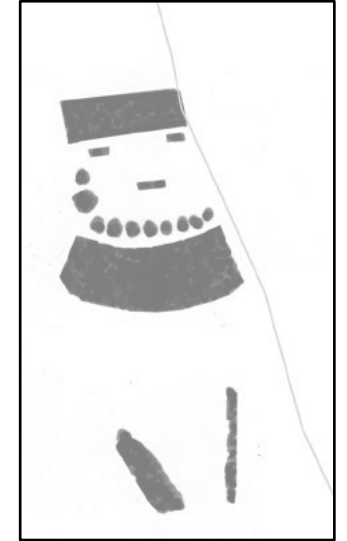
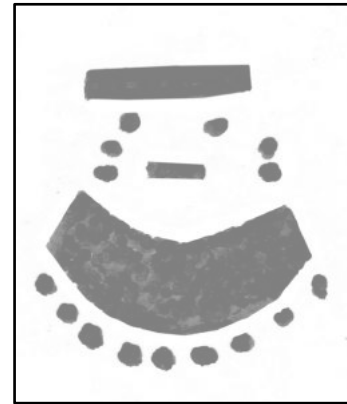
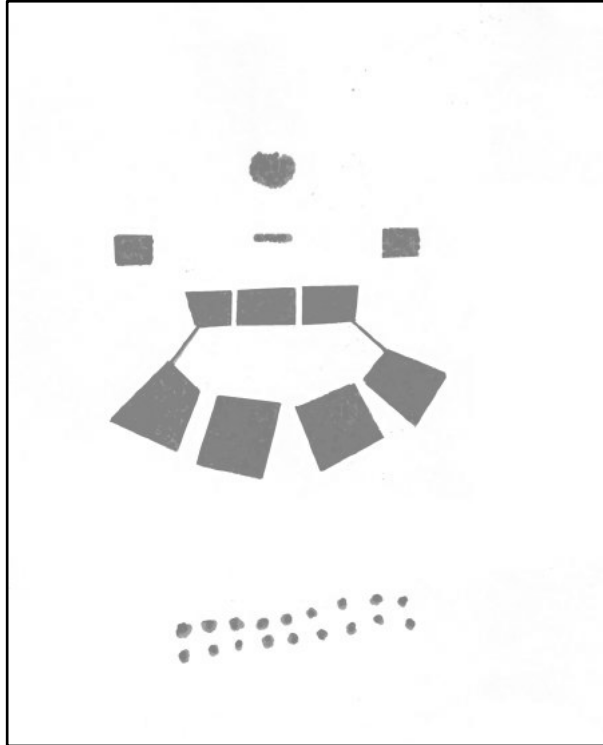
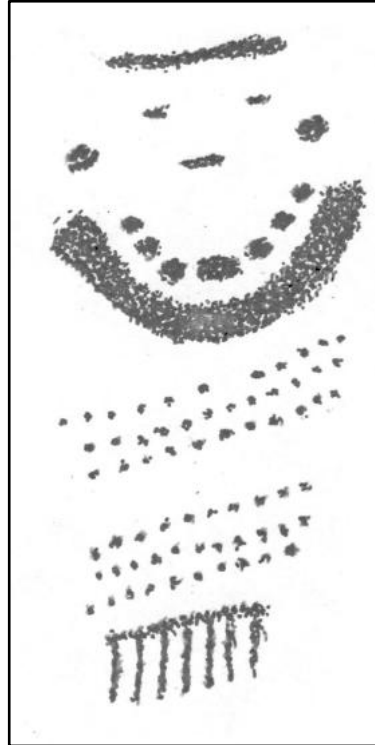
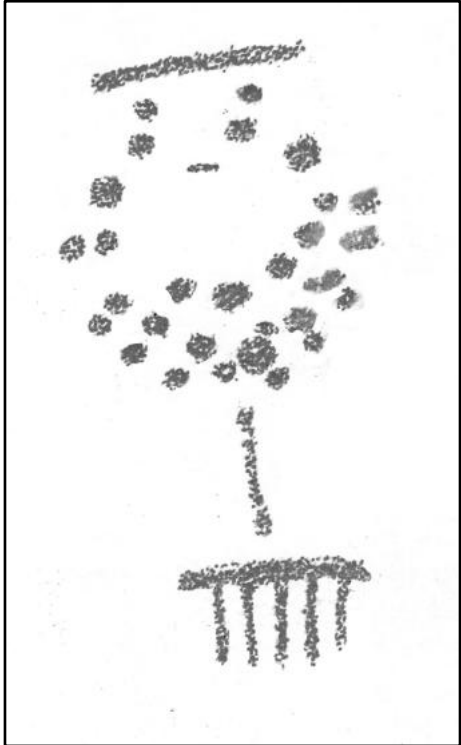


Mountain Spirits

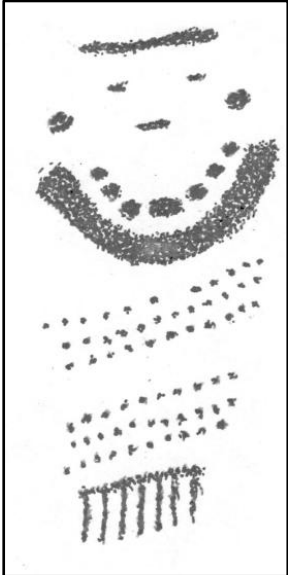
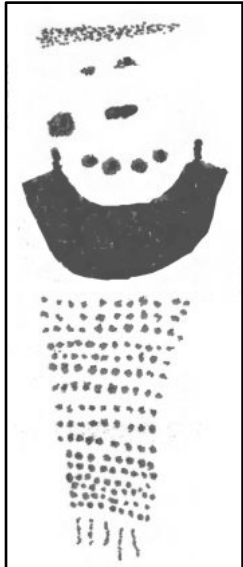
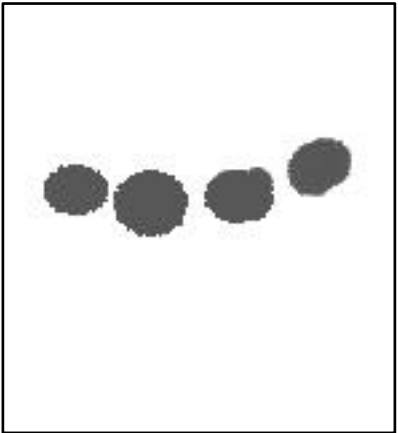
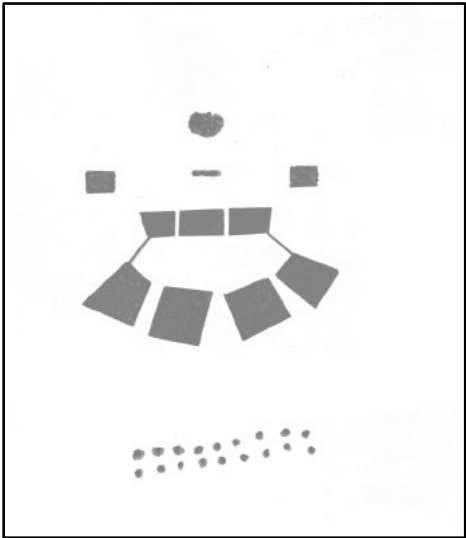
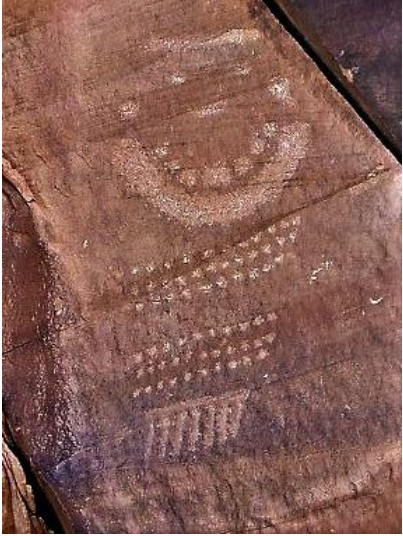
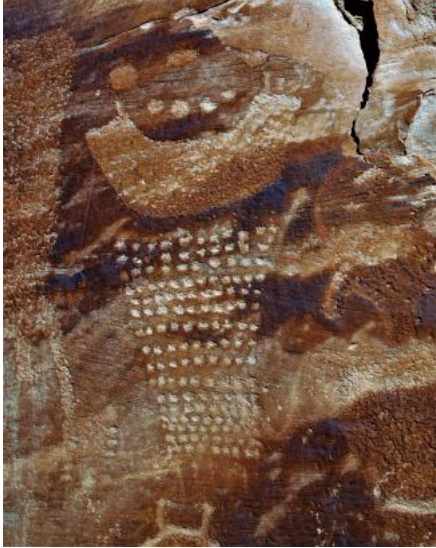
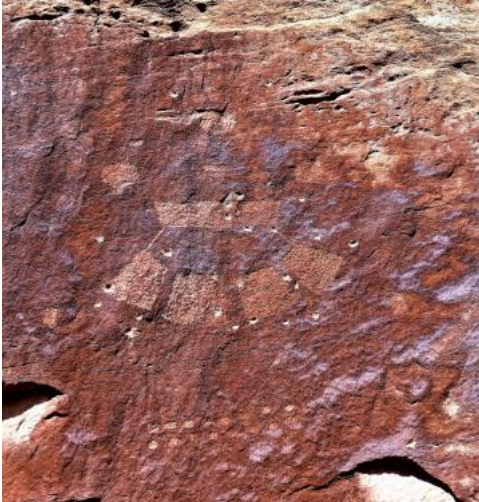


Rain and Moisture
Wind and
Mountains

The Hactcin Mountain Spirits



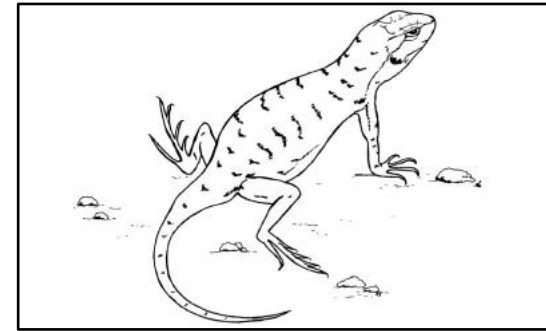
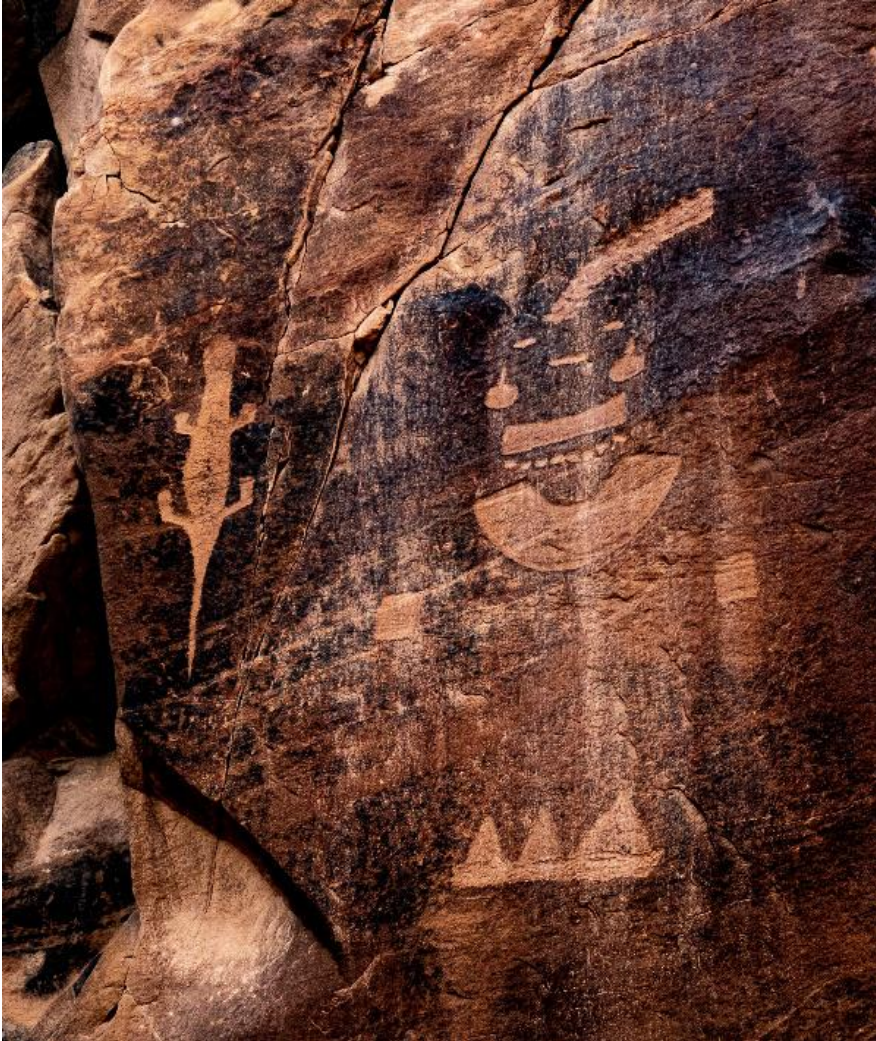
High status Hactcin with turquoise, shell and bone necklaces





Mountain Spirits enlist Salamander to bring rain

Salamander or Lizard?



Lizards have long toes and back feet face backwards.

Salamanders have stubby toes and back feet face forward.

Salamanders are associated with rain and part of the Rain Ceremonies

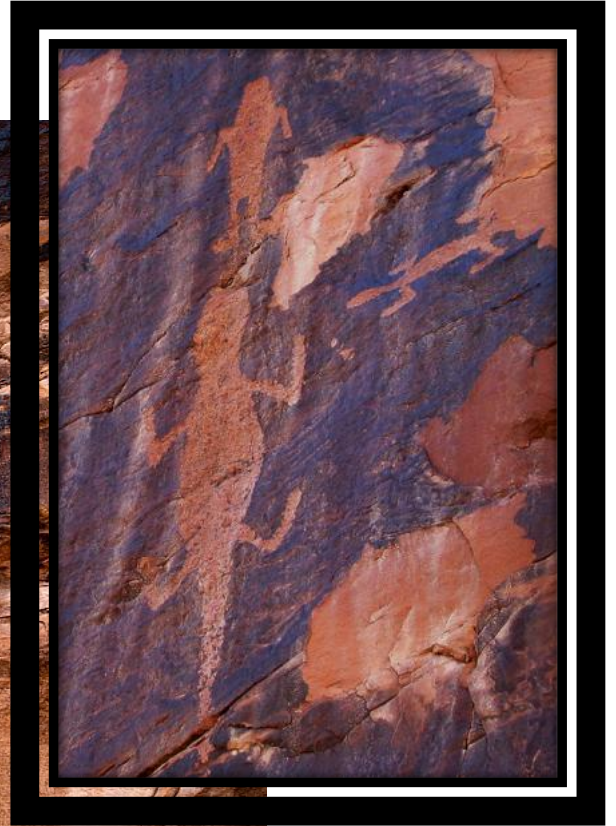


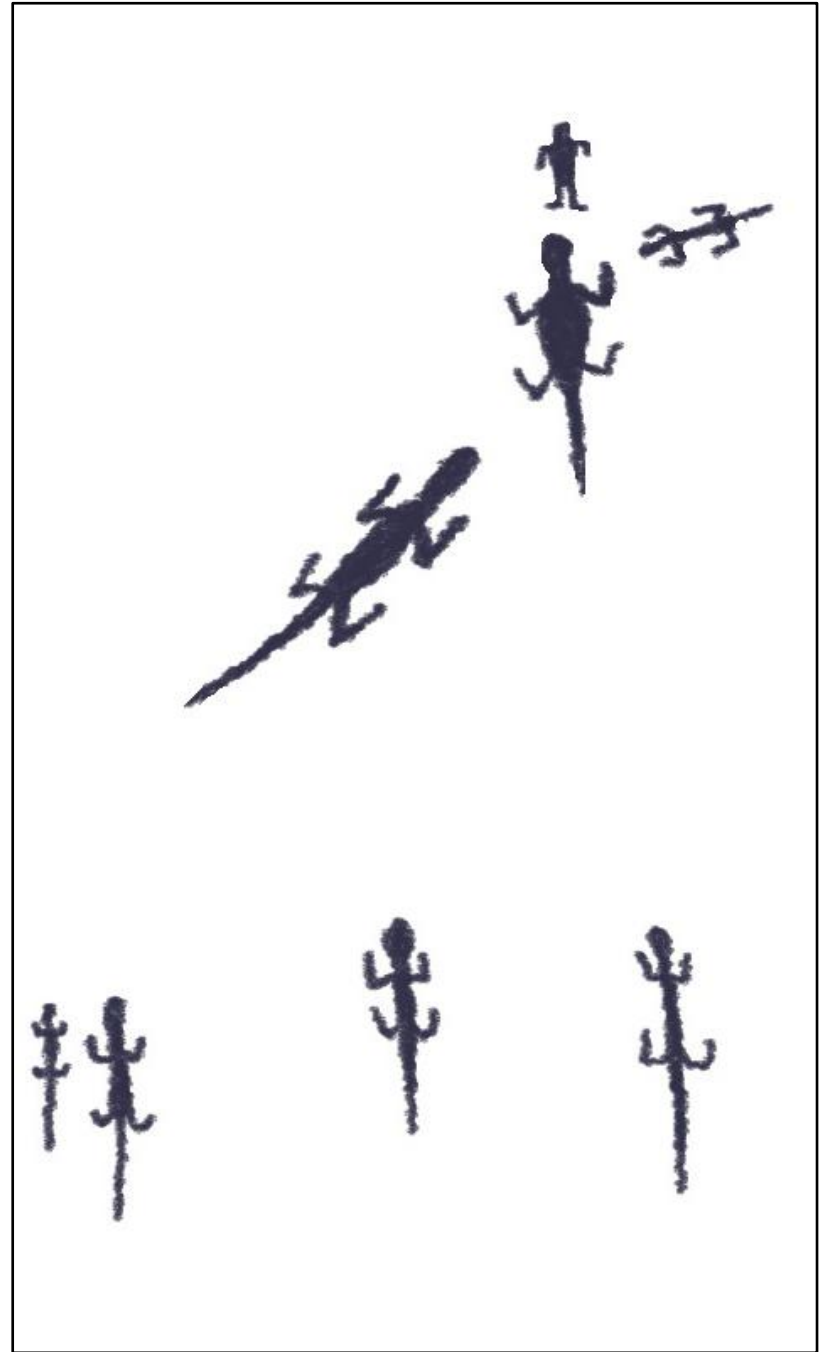
Lizards have long toes and back feet face backwards.

Salamanders have stubby toes and back feet face forward

Salamanders are always included in rain ceremonies. They attract water.

Seven salamanders posted all over this rock.

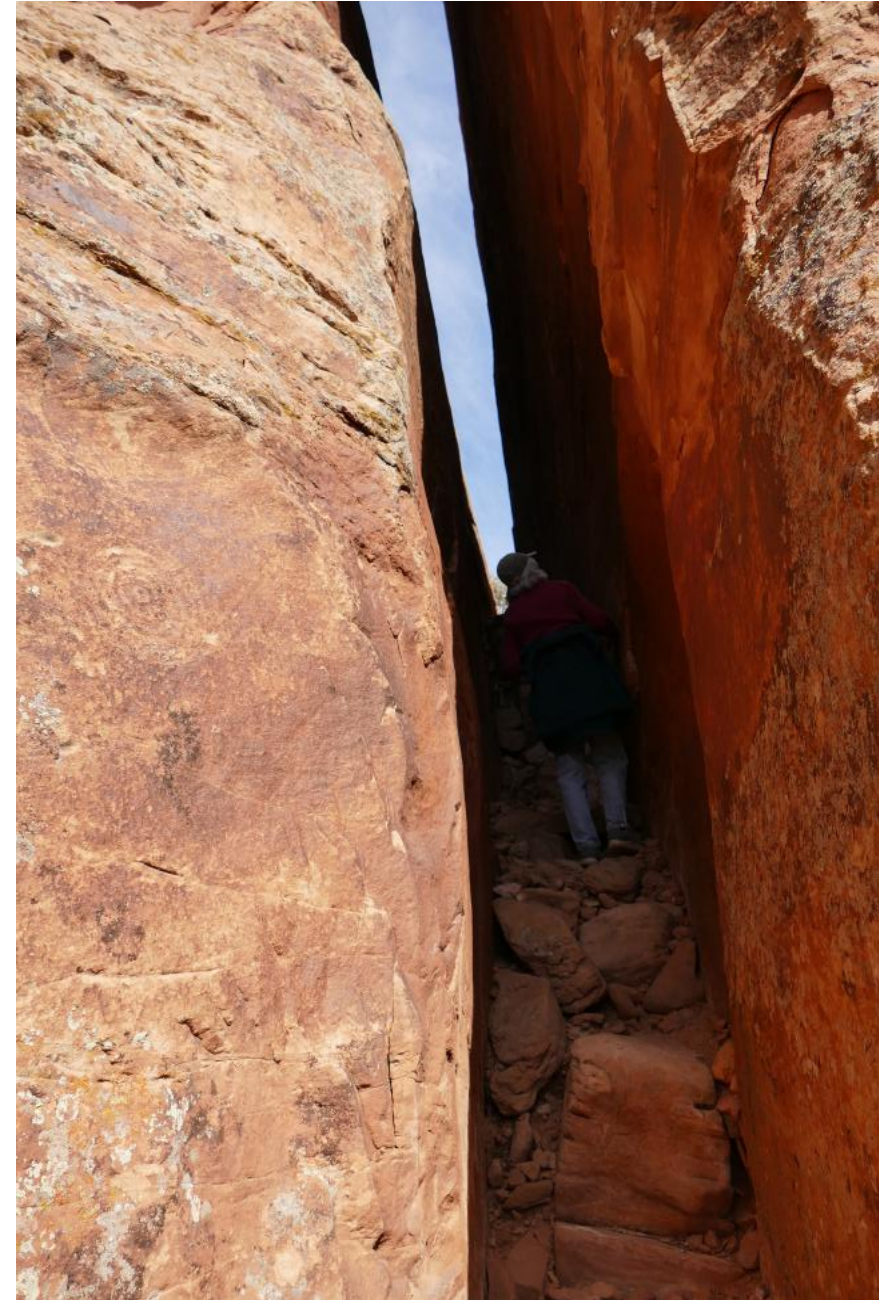




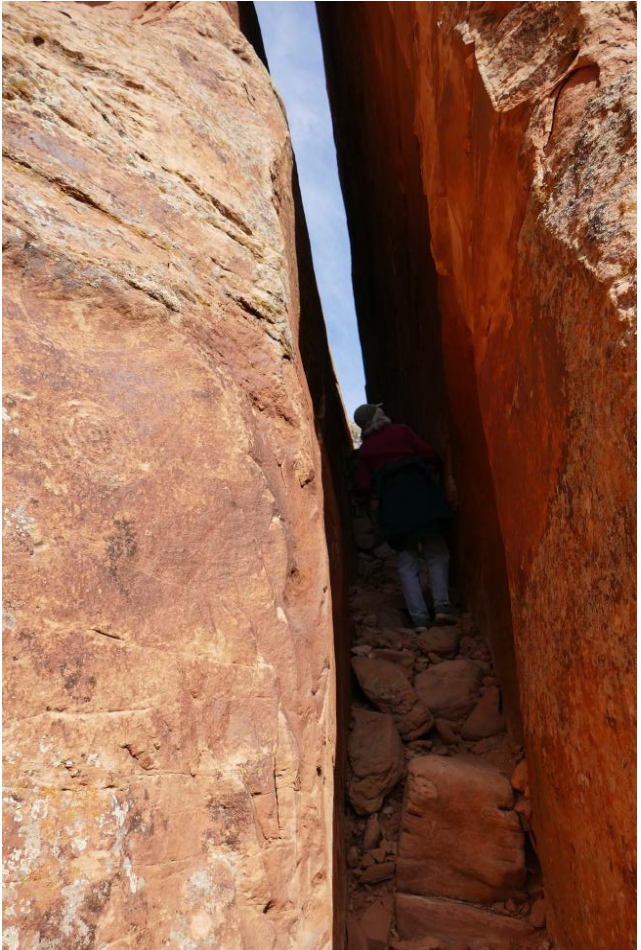
Split Rock Site a few miles to the east



Ancestral Man and Ancestral Woman



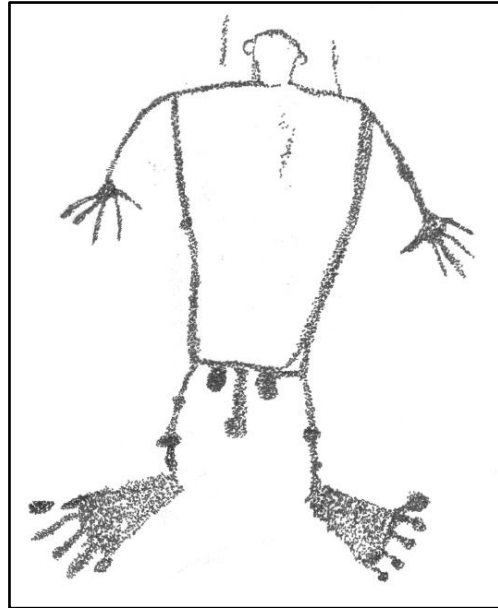
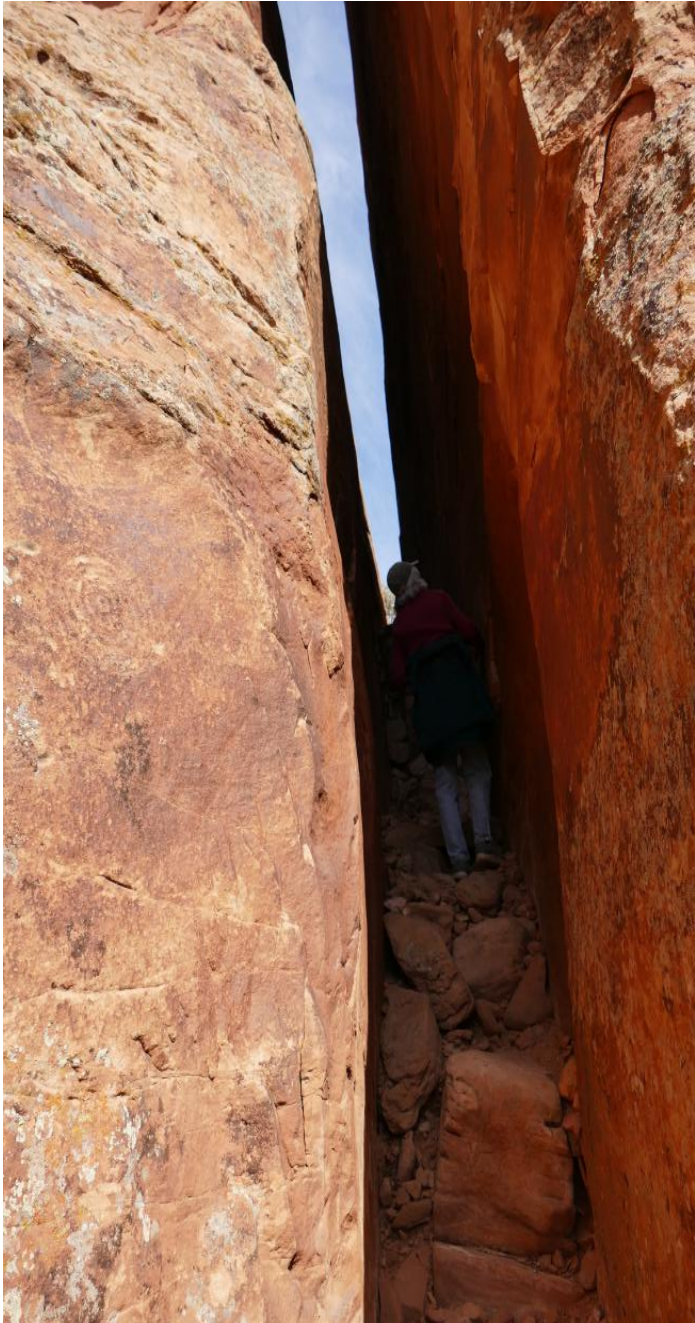
Engraving of a male on the left and female on the right



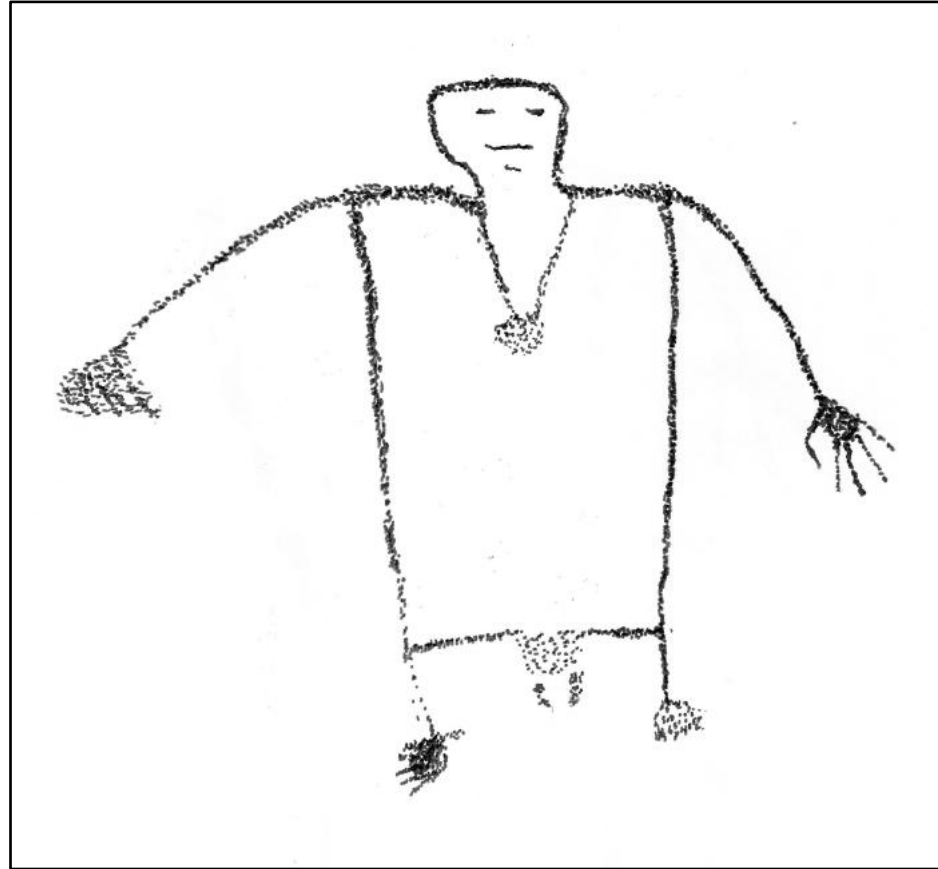
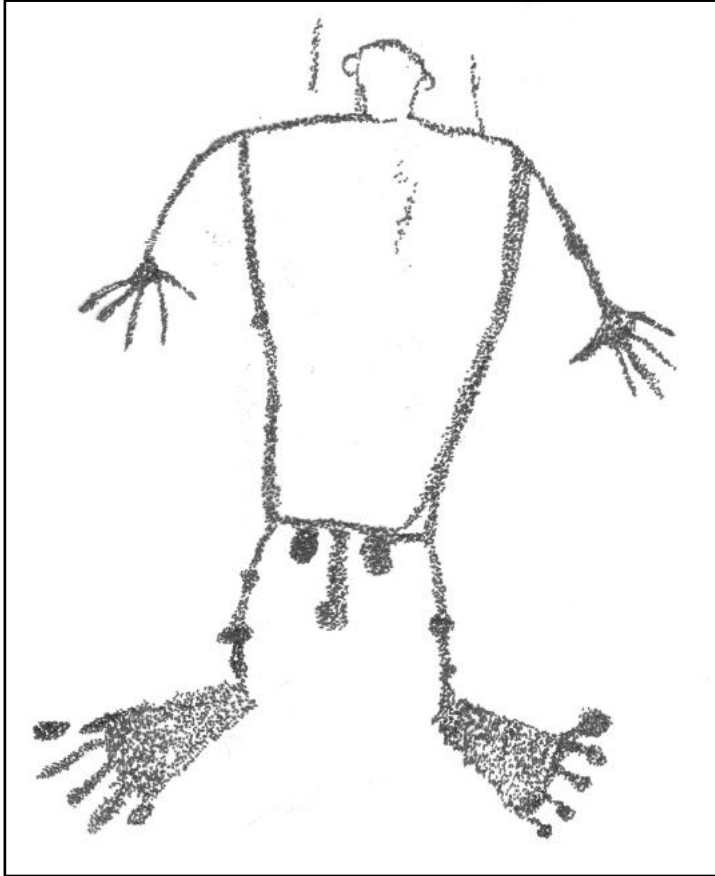
Ancestral Man faces East



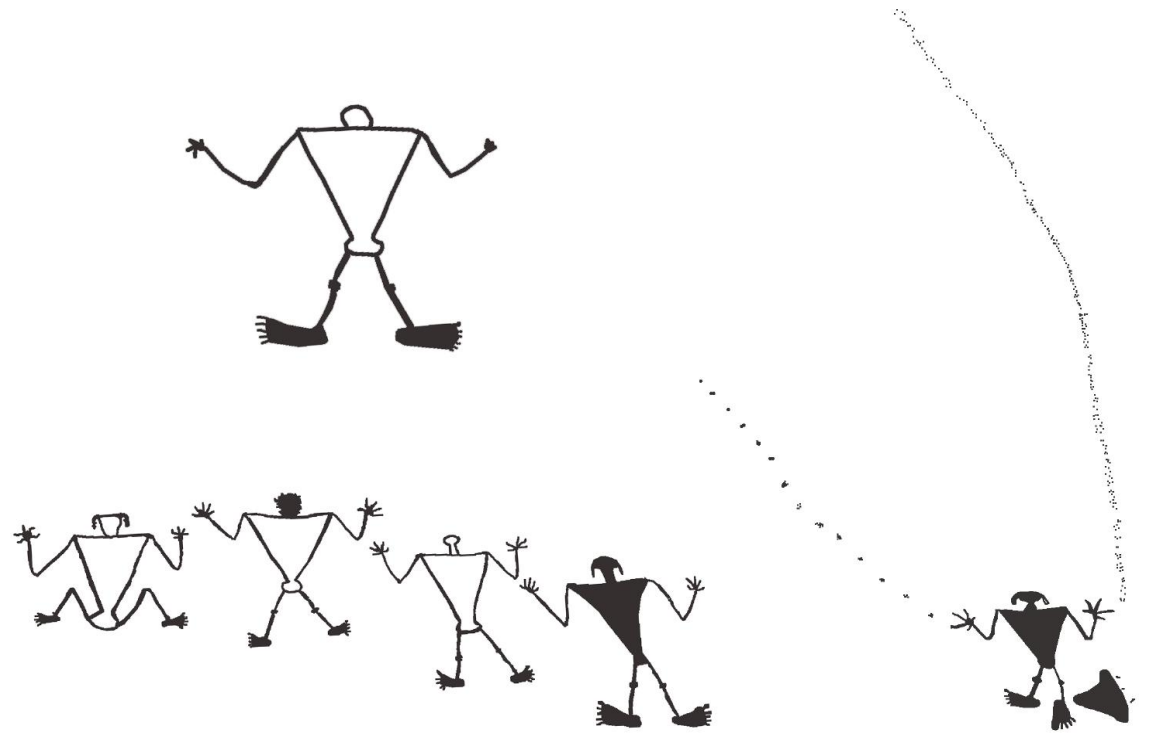
Ancestral Woman faces West (Opler, pg7)

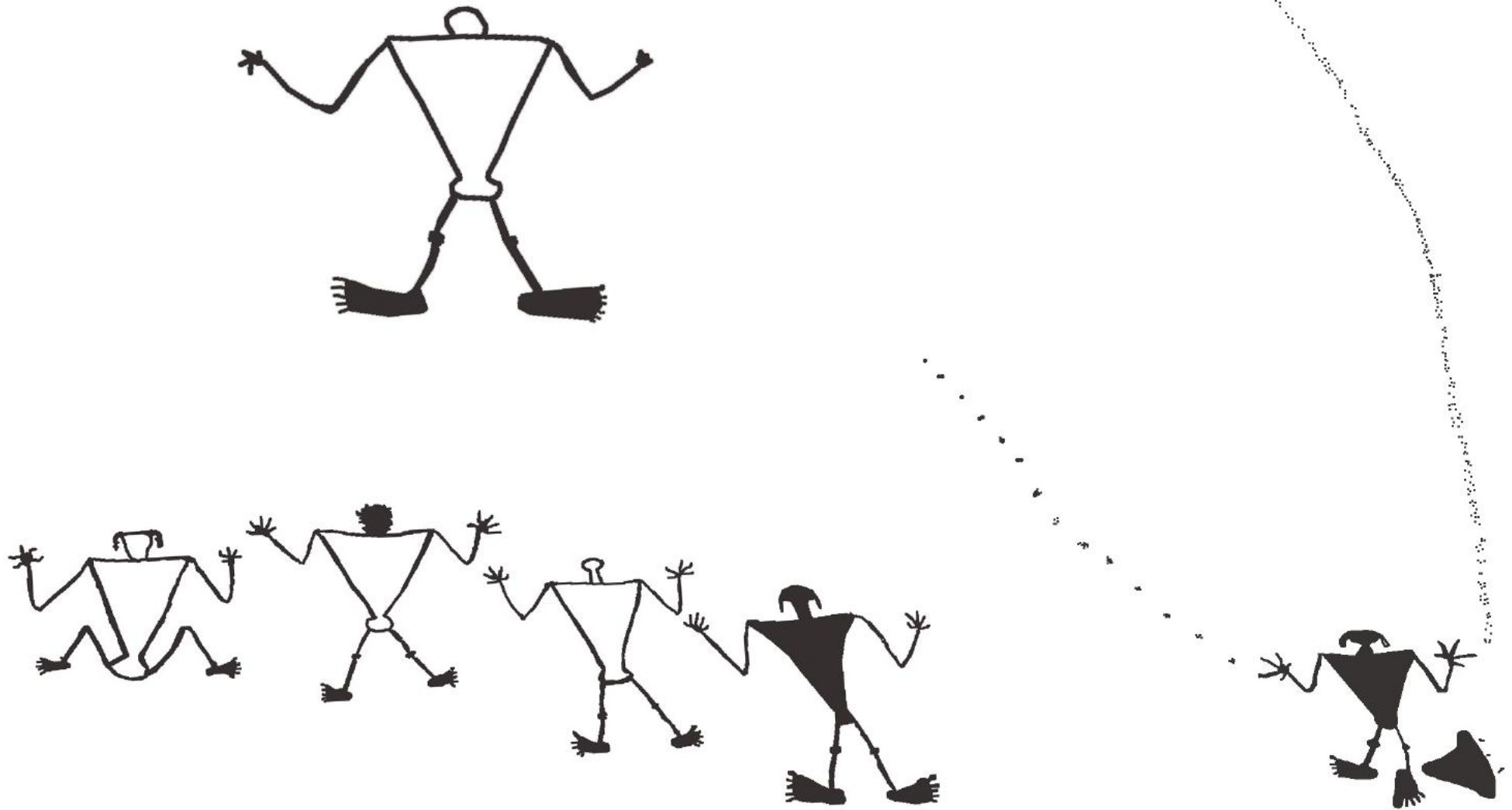


Ancestral Man and Ancestral Woman



Black Hactcin is told to draw the outline of himself in the sand. First a Man and then a Woman. He then asks the man, who lying face down, to sit up. Then to stand up and he takes a black cloud and puts it on his head for hair. That's why it turns white when you age.





Creation of First Man

The Mythical 'Emergence Mountain' Narrative



Formative Era – Fremont Era (AD 400-1100)

Petroglyphs are very old, yet some are pecked more deeply while others are very light.

This is not from re-pecking, its for distinguishing a character or physical condition of the subject.



Major characters are the Spider and Fly, two Hactcin, and Whirl Wind.

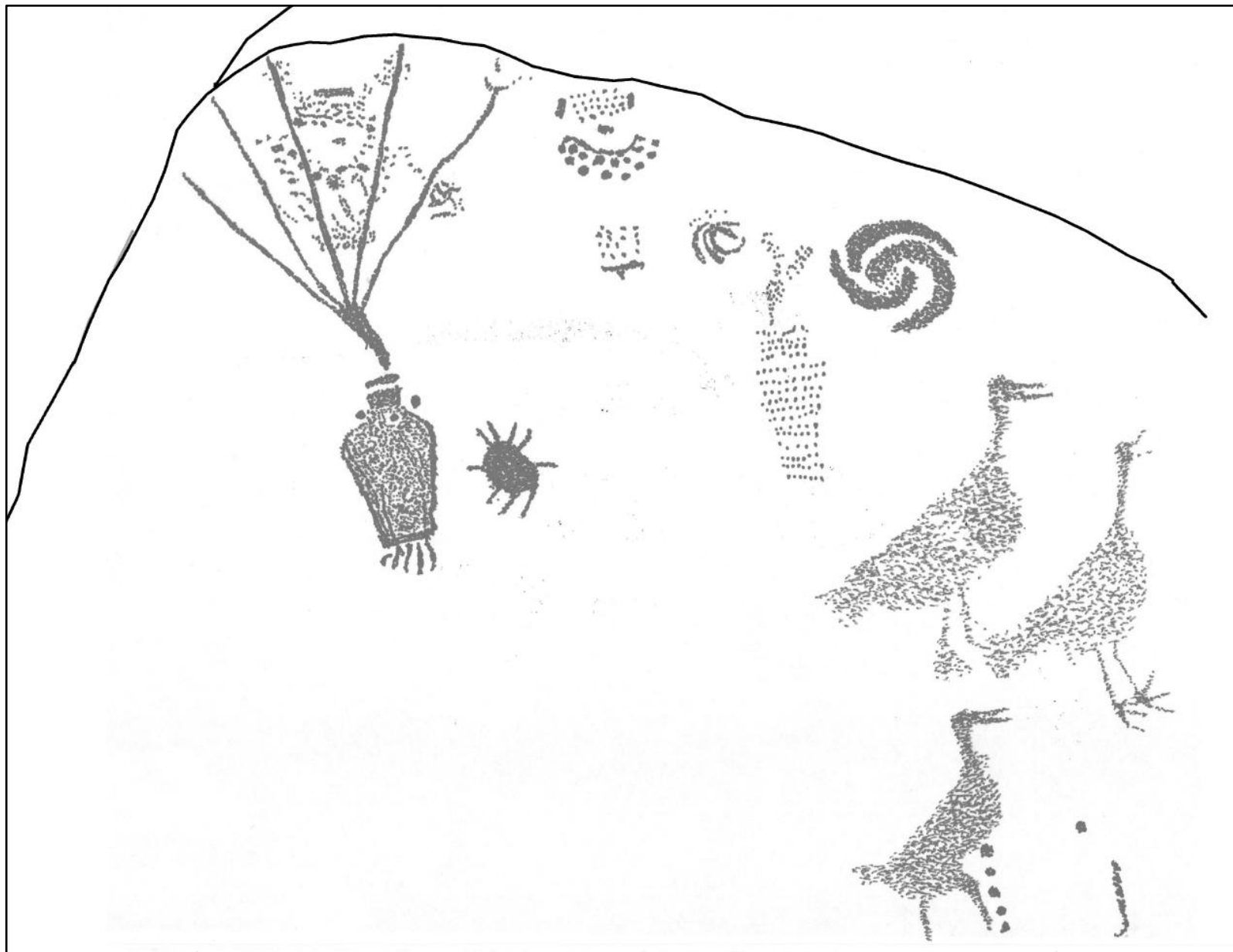
Spider puts up silken ropes to the top of the mountain so that the two Hactcin can climb up into the next world.

They determine the mountain is not high enough for the people to reach the next world.

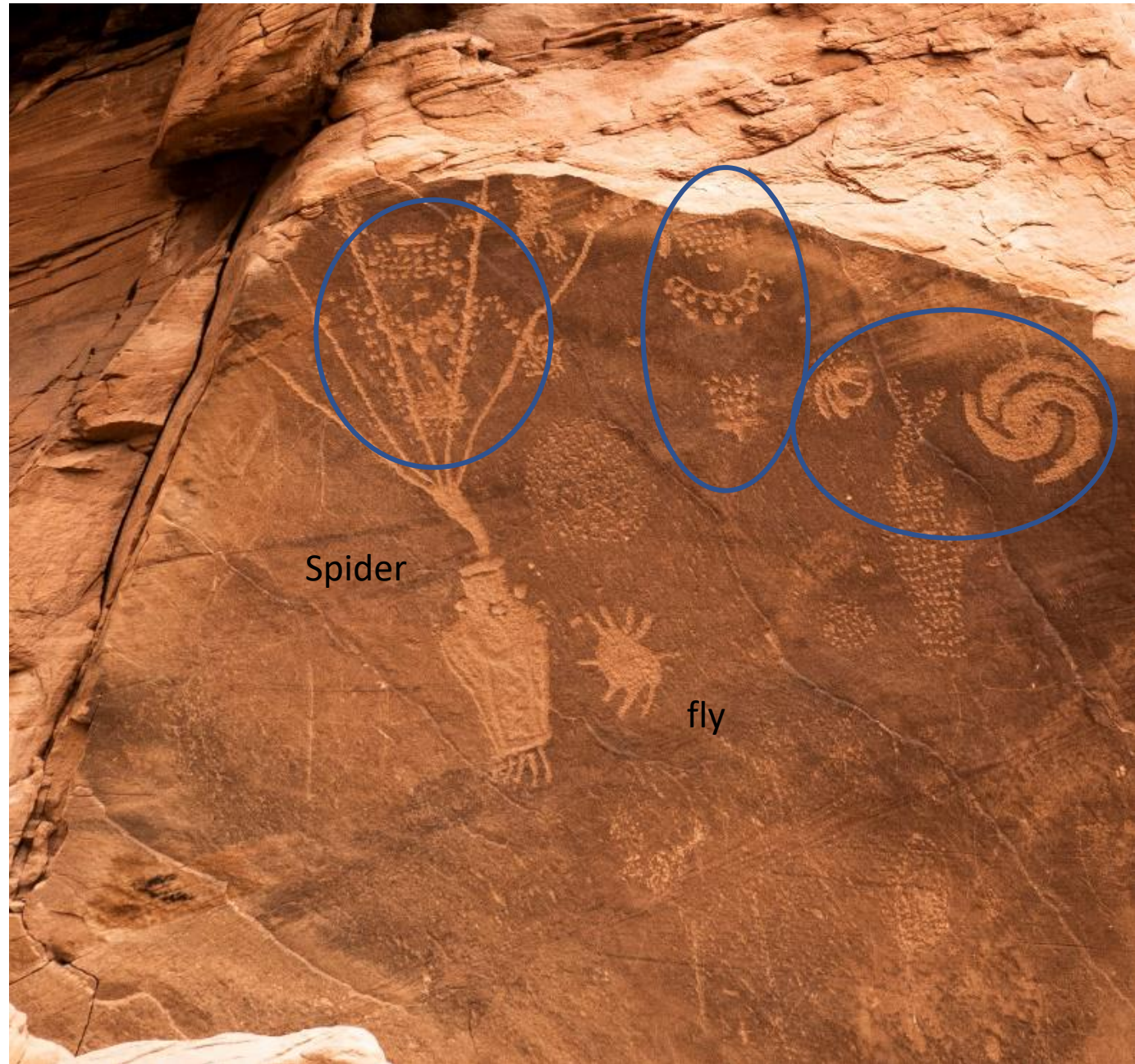
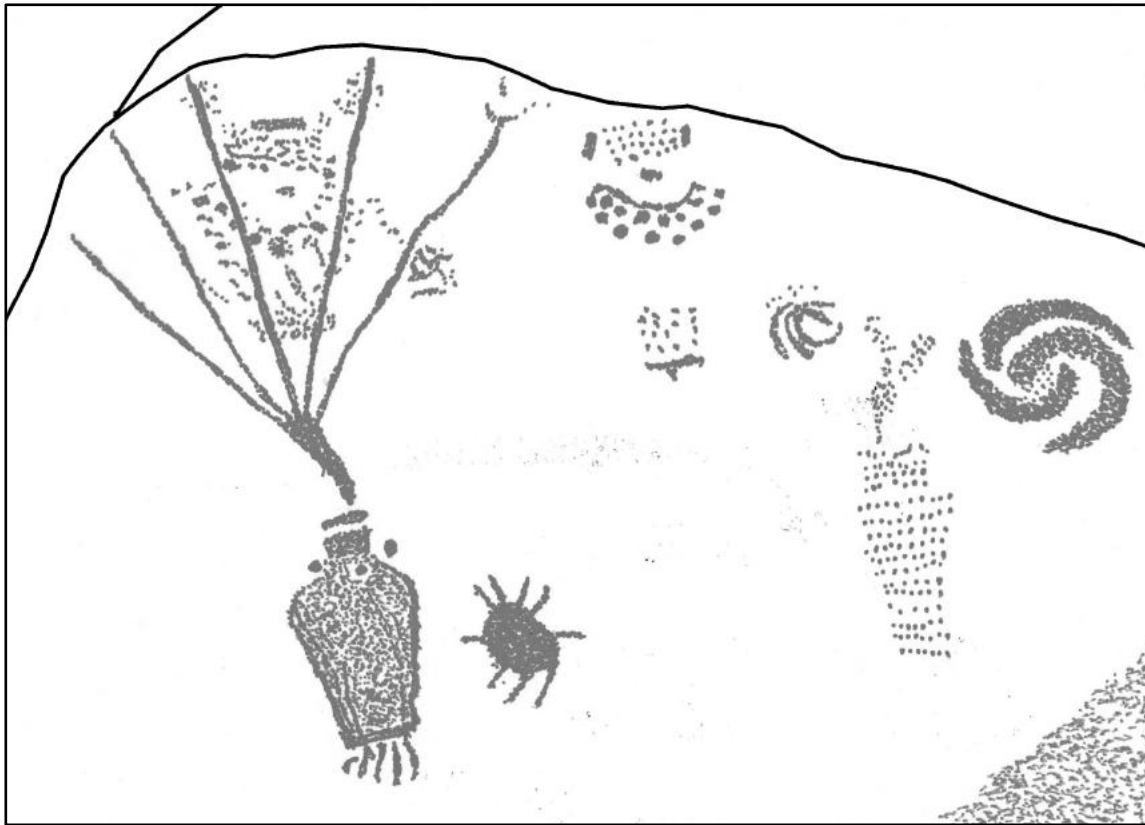
Lightly pecked are the spirits of the animals and birds.

‘Making the Mountain Grow’ from the Emergence

- Spider and Fly help the Hactcin up into the next world.
- Whirlwind is a messenger for the supernaturals.
- Birds and animals are called on to help grow the mountain with their own special powers
- (Opler 1934,11-26)



Spider and Fly



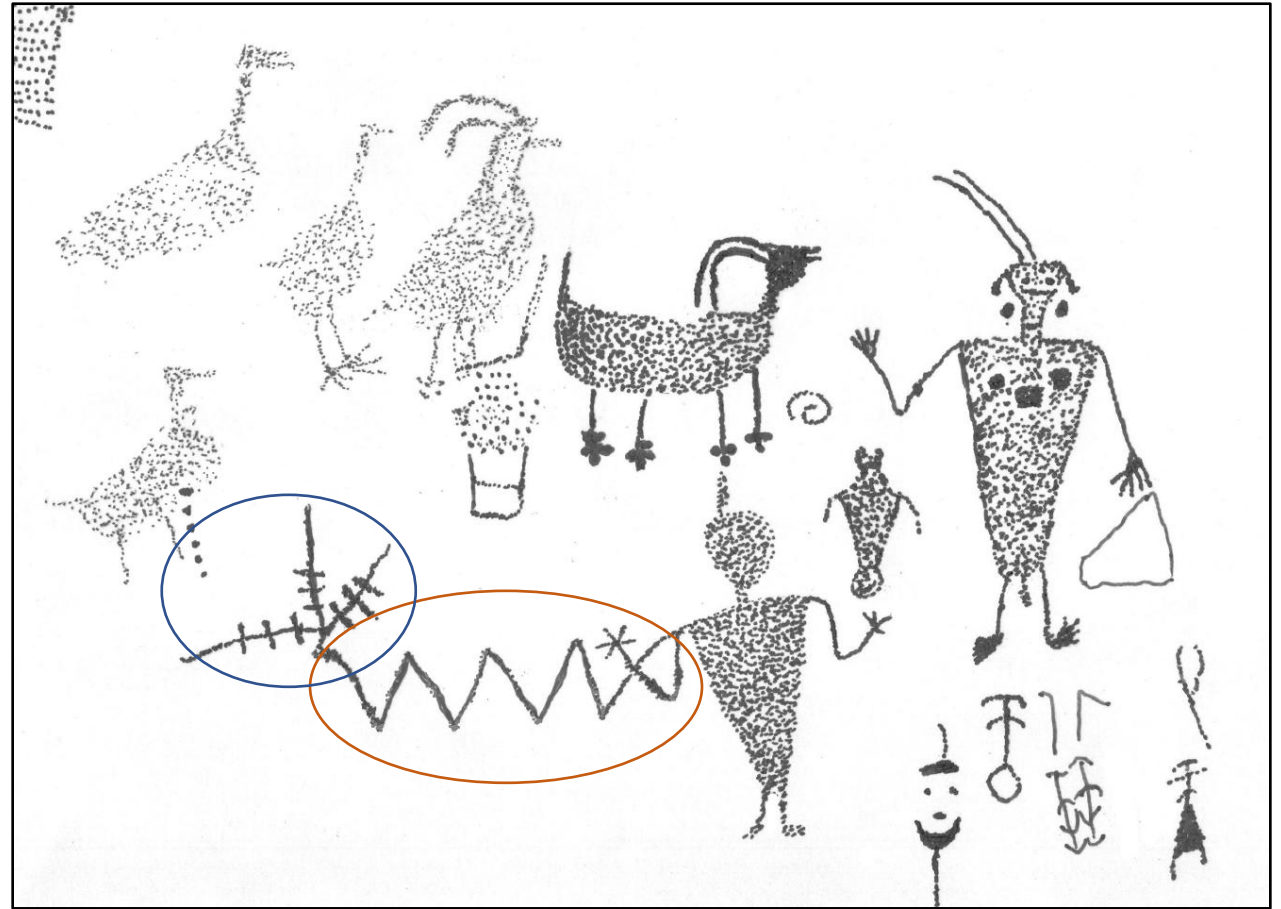
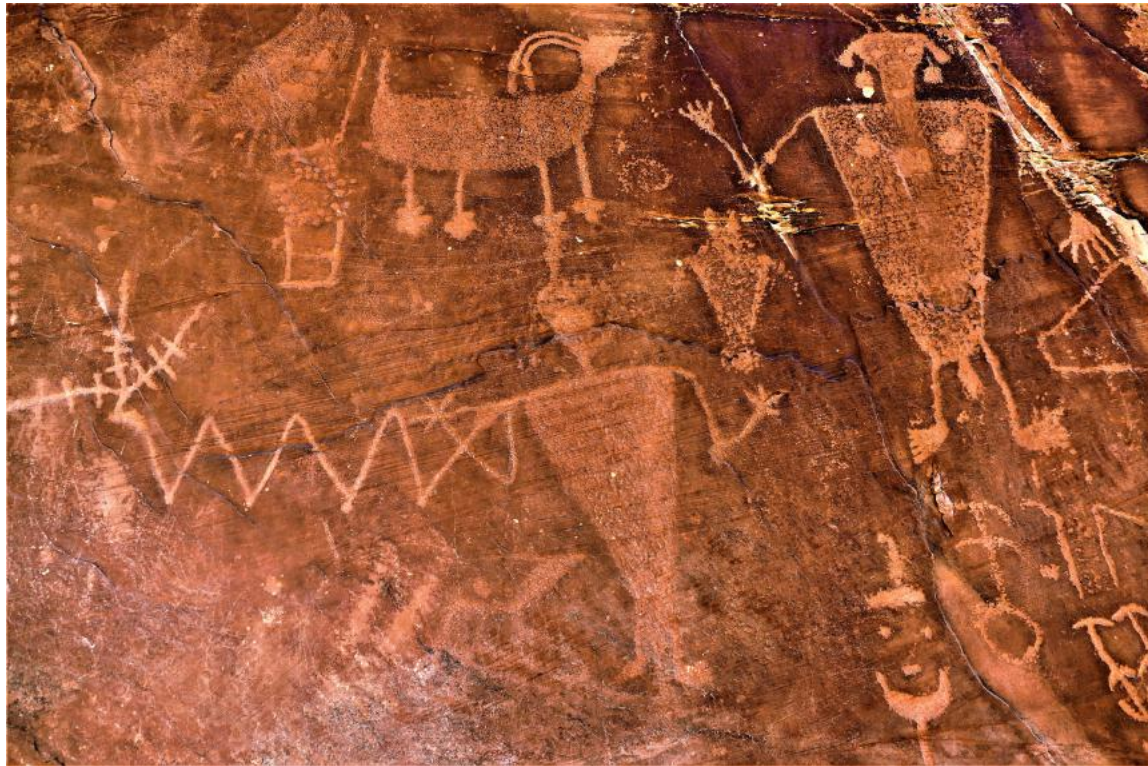
Gesture - throwing up the ropes

Spatial positioning – rock incorporation - Hactcin on the ropes

Particulars within the mythic text – Spider and Fly help the Hactcin ascend to the upper world.

(Opler pg 14-27)

The animals are called to help with their powers



Gesture = a generic anthropomorph demonstrating the gesture *Tsanati* needed to amplify 'power'.

Gesture = 'calling on the power each animal has to help make the mountain grow.'

Ceremony with *Tsanati* gesture and Gaan sticks.

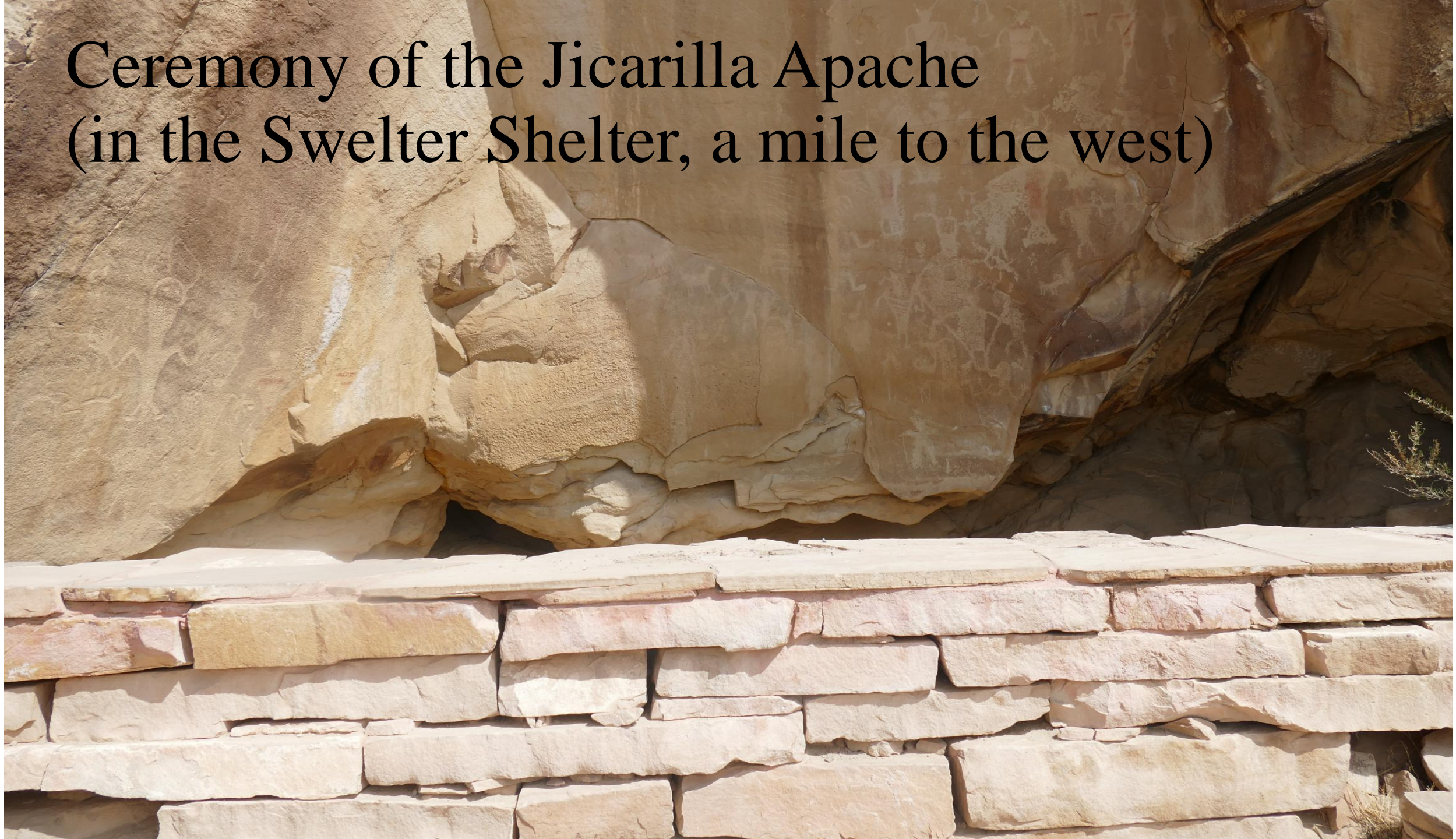
Opler

Moving the arms back and forth, holding Gaan sticks



Gesturing with the Gaan wands.

Ceremony of the Jicarilla Apache
(in the Swelter Shelter, a mile to the west)

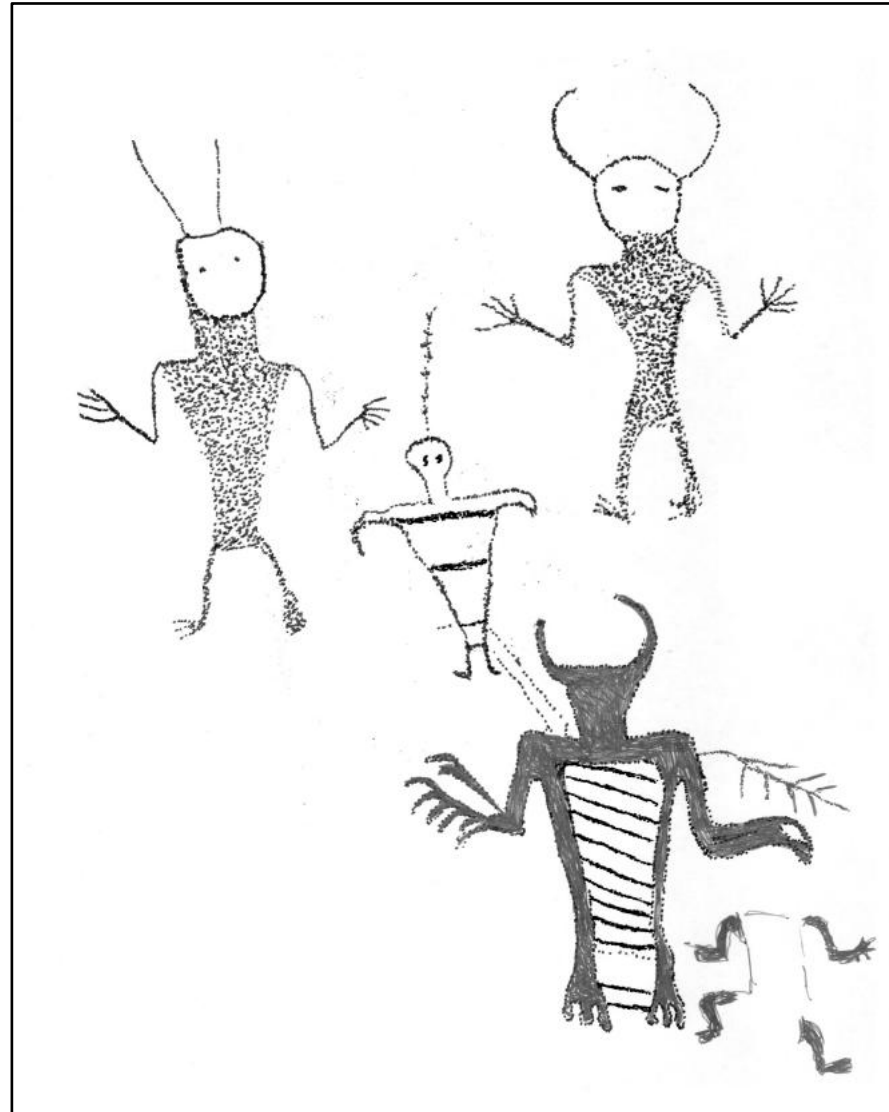




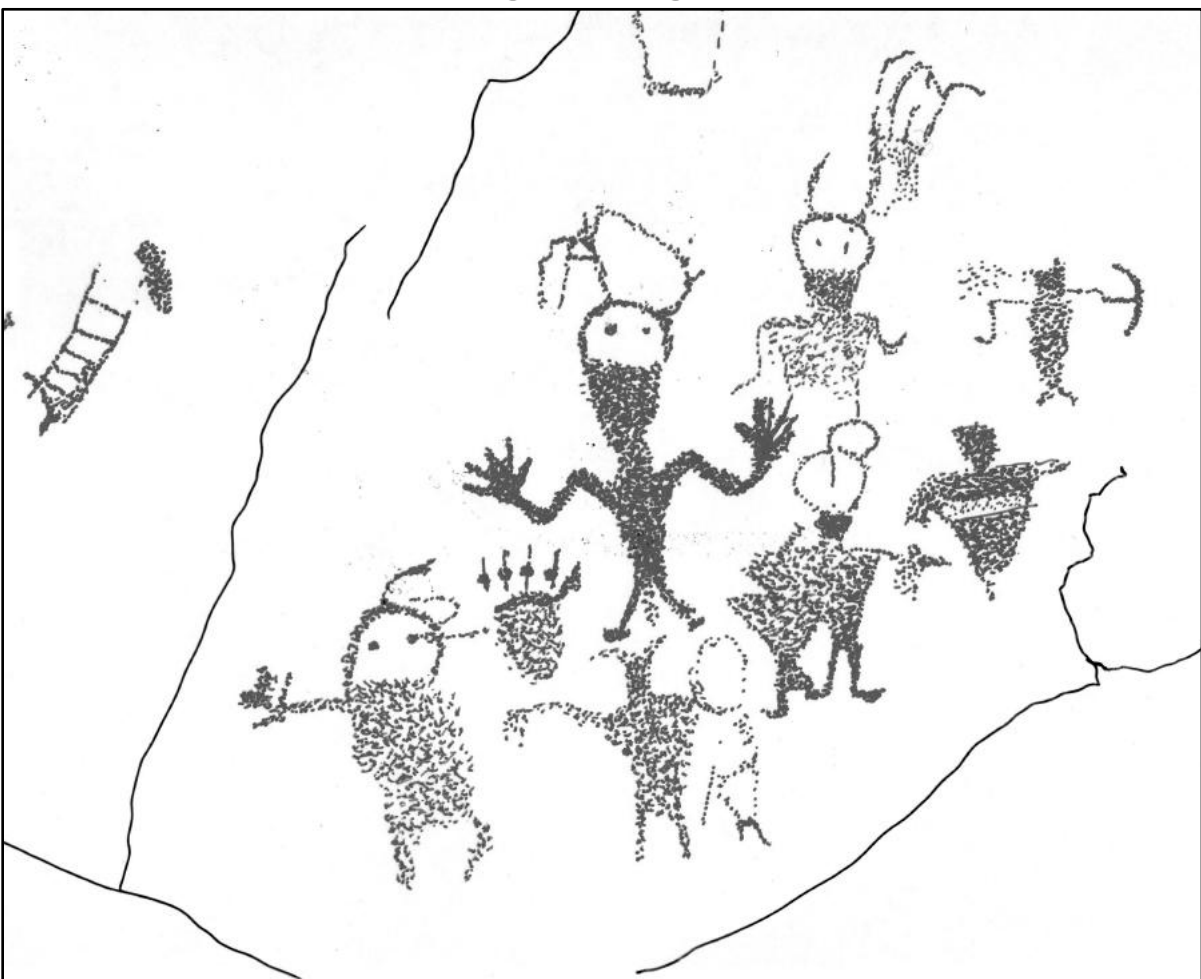




Gaan Dancers and Clown with spruce boughs



Gaans gesturing *Tsanati*, and wearing bag-like masks

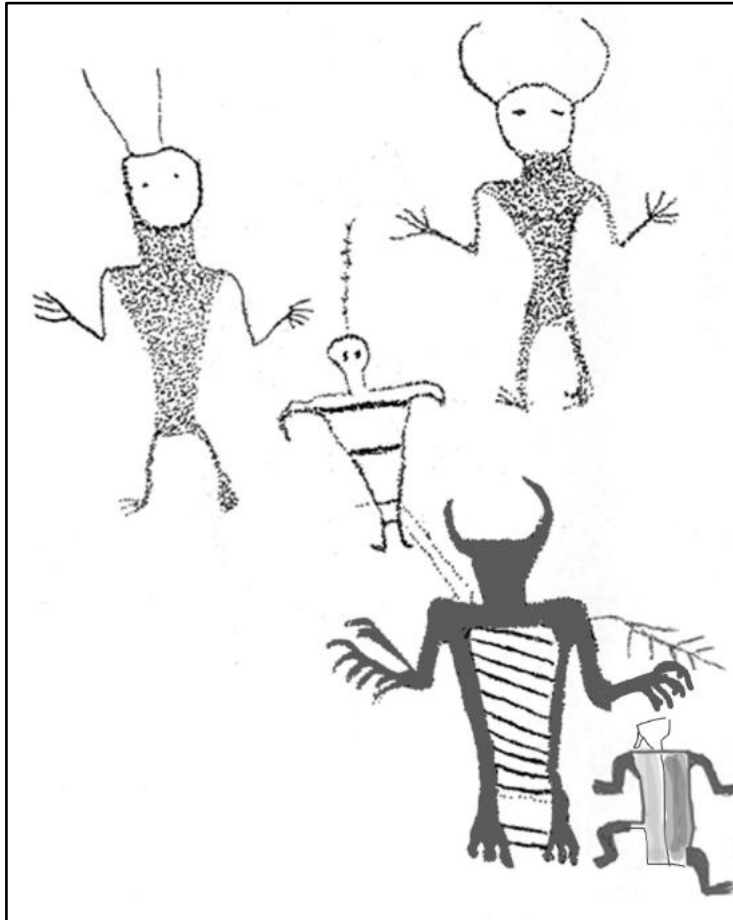
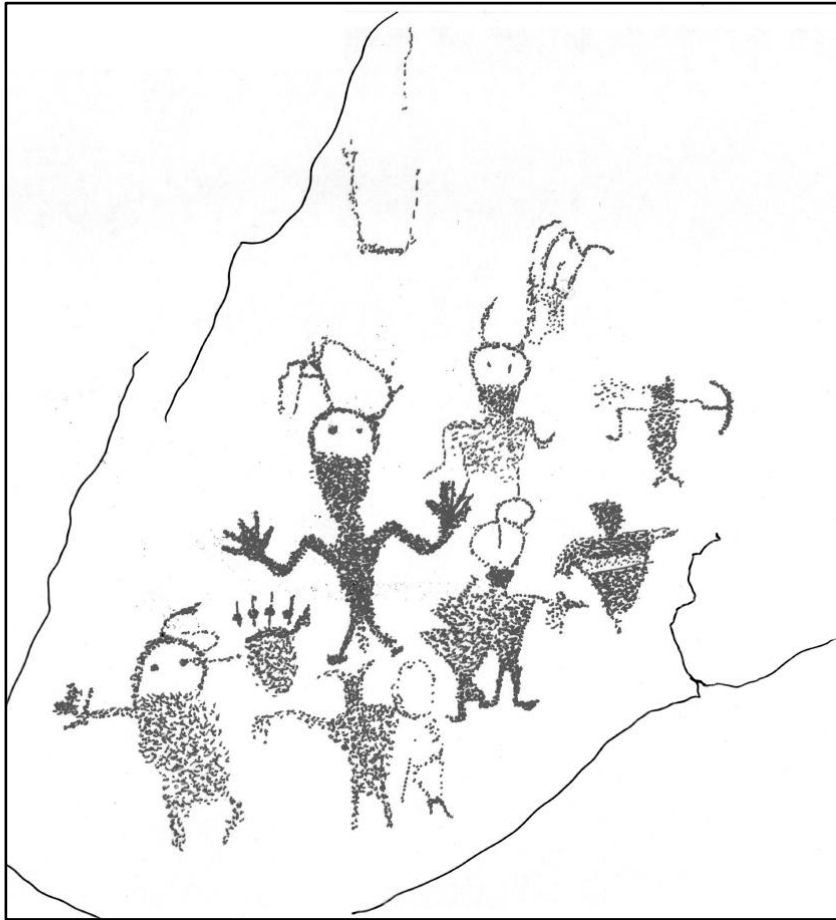


The word "*Tsanati*" refers to ritual gesticulation.

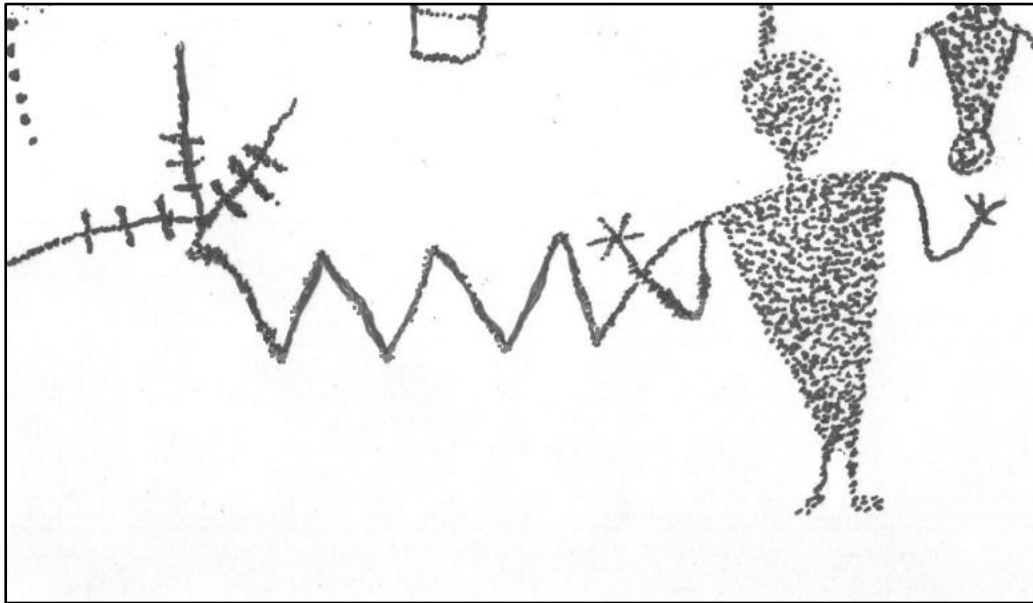
Bag-like Mask



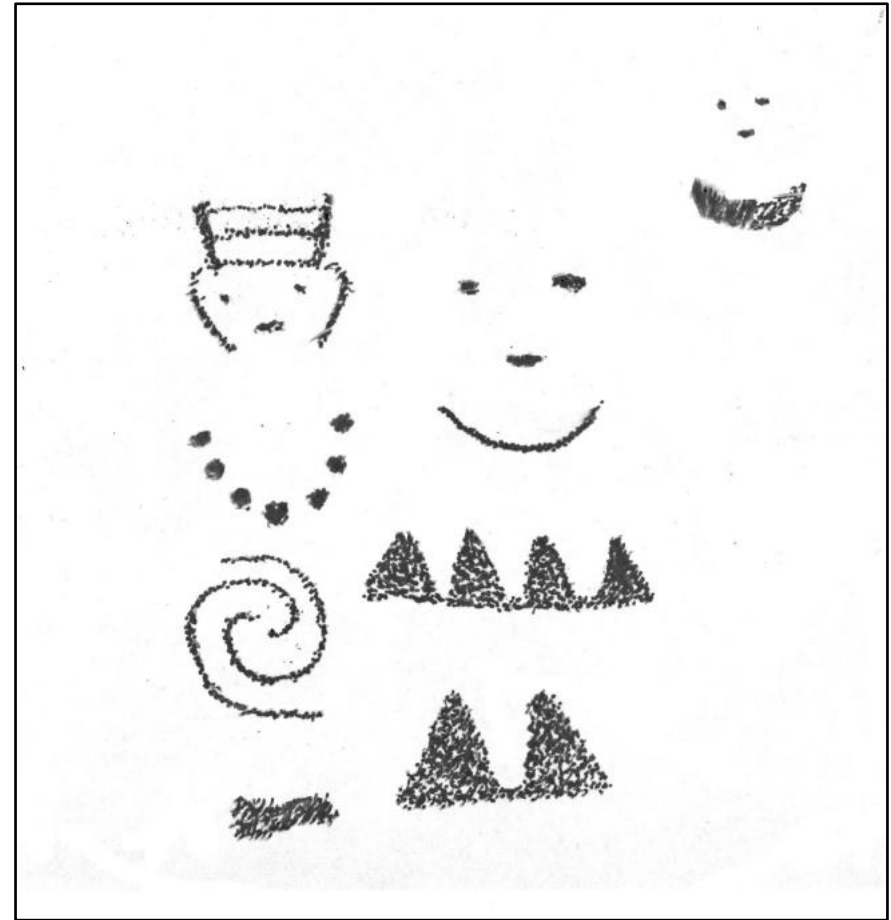
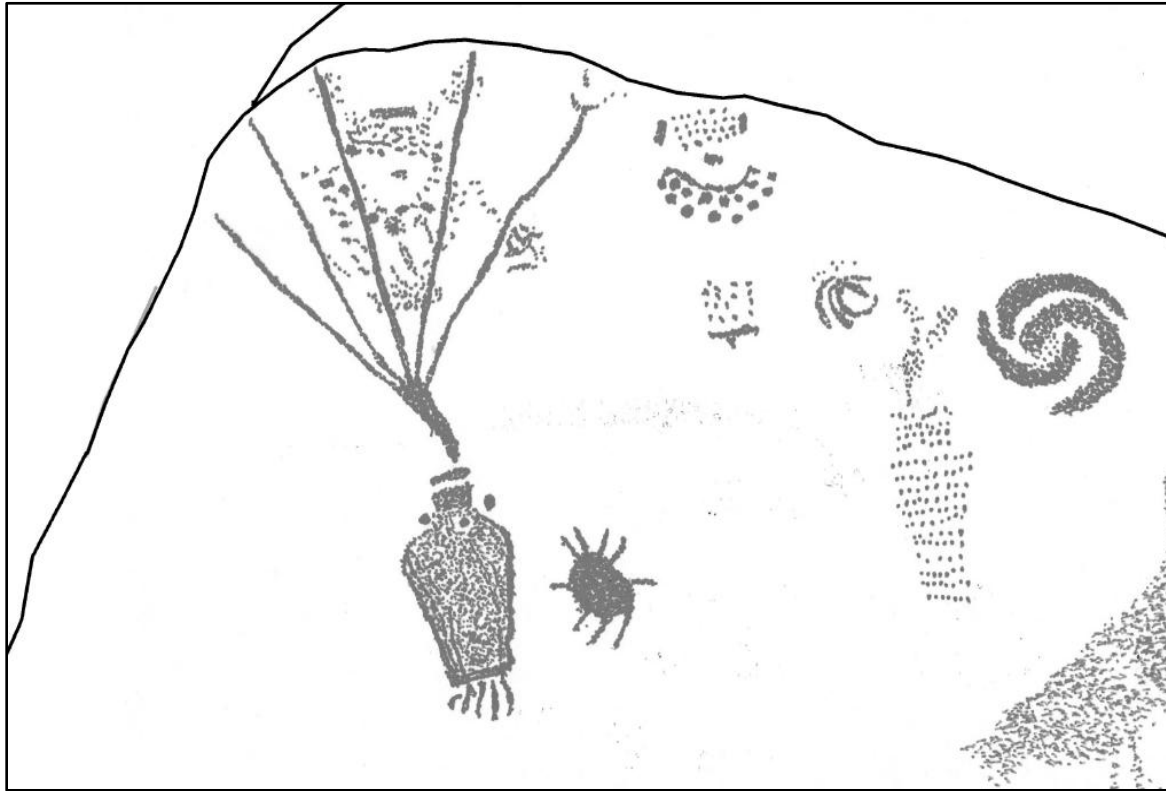
Gaan dancers with bag-like masks



Gaan Dancer and Gaan sticks



Particular; Wind

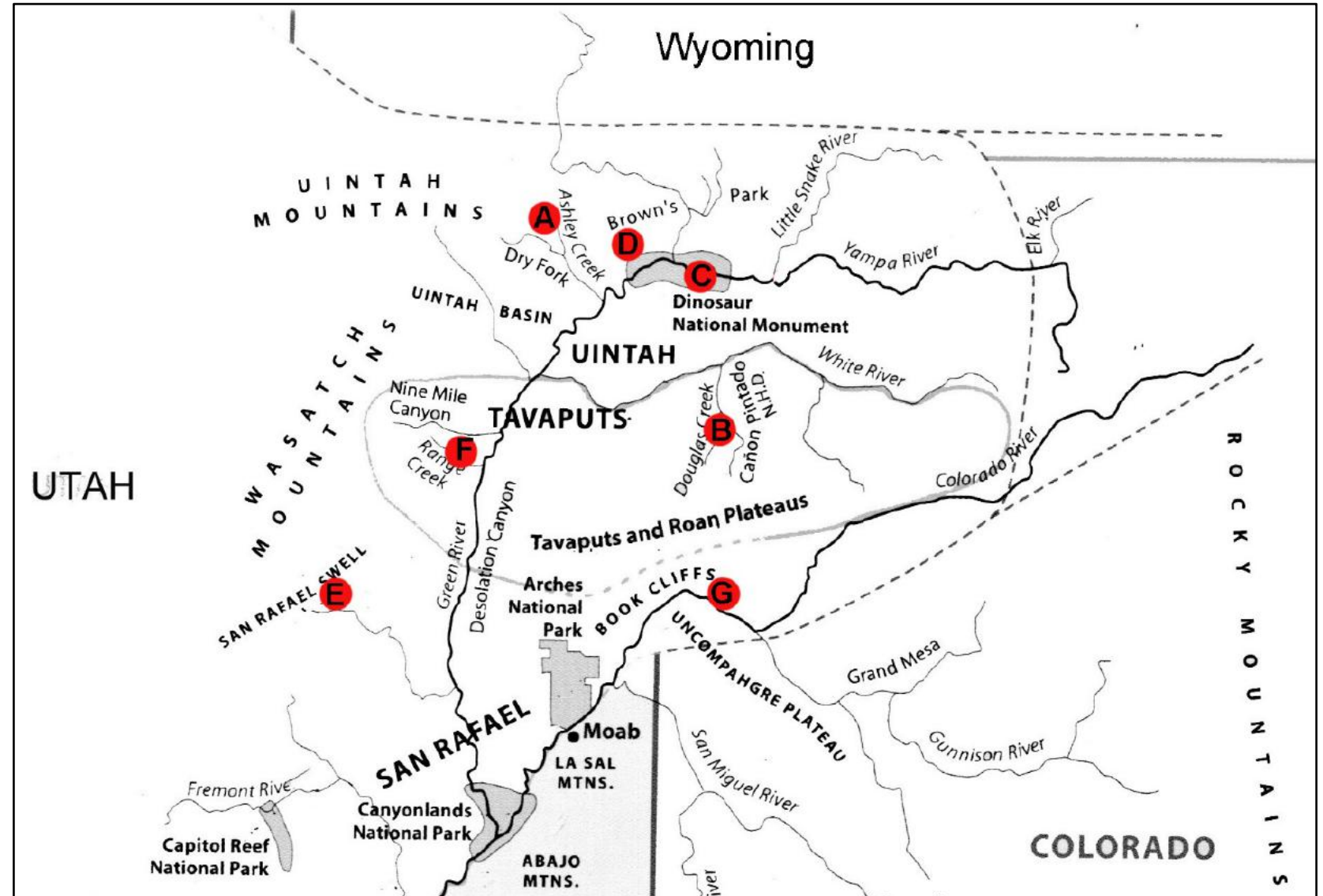


The 'Emergence Mountain' panel shows Spider and Fly, the two Hactcin spirits using the ropes to climb up. Wind was present in the beginning. Wind knows everything." Wind is represented by the whorl.

Culture Heroes, Killer-f-Enemies and Child-of-the-Water

Map (after Cole 2009) shows petroglyphs' locations depicting the Cultural Heroes, killer-of-Enemies, and Child-of-the-Water.

- (A), Ashley Fork;
- (B), Douglas Creek;
- (C), Green River;
- (D), McConkie Ranch;
- (E), Ferron Box;
- (F), Range Creek;
- (G), Thompson Springs.

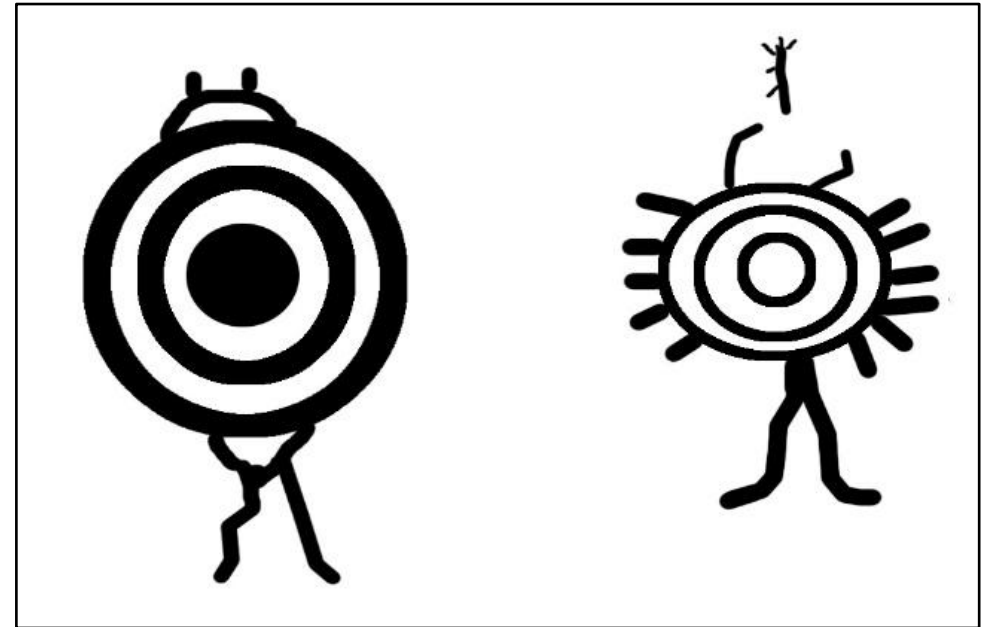


- *At first, all the animals and plants were still talking at that time. The stones and the trees and all other things talked to...*
- *There were two girls who went out somewhere and were lost during their travels. The people were looking for these two, but they could not be found. The two girls had gone up a mountain. They lived there on the fruit of all kinds. Those girls stayed there a long time. They were not afraid of anything.*
- *One day while one of them was sleeping, Sun came and slept with her.. the same night Water came to the other girl and slept with her. soon the girls learned that they were with child.*
- *The girl that spent the night with Sun became known as White-Painted Woman. The sun dressed her up as the pubescent girl is dressed now, with white paint on her dress and yellow ochre on her face. The other girl was White-Shell Woman, the mother of Child of Water. She must not look up at the sky when she has her ceremony, to do so might bring rain.*
- *For three days the girls carried their children, and on the fourth day, the children were born. The two children were boys, and they began to grow rapidly.*
- *Holy Boy knew what was going on at the mountain. “Those girls have become White-Painted Woman and White-Shell Woman,” he told the people.*
- *Whirlwind always finds out what is happening and brings the message to Holy Boy. That is how he knew. Holy Boy was with the Jicarilla Apache at this time and didn’t do anything about it, for he was protecting the Jicarilla on their journey.*

Athapaskan Culture Heroes

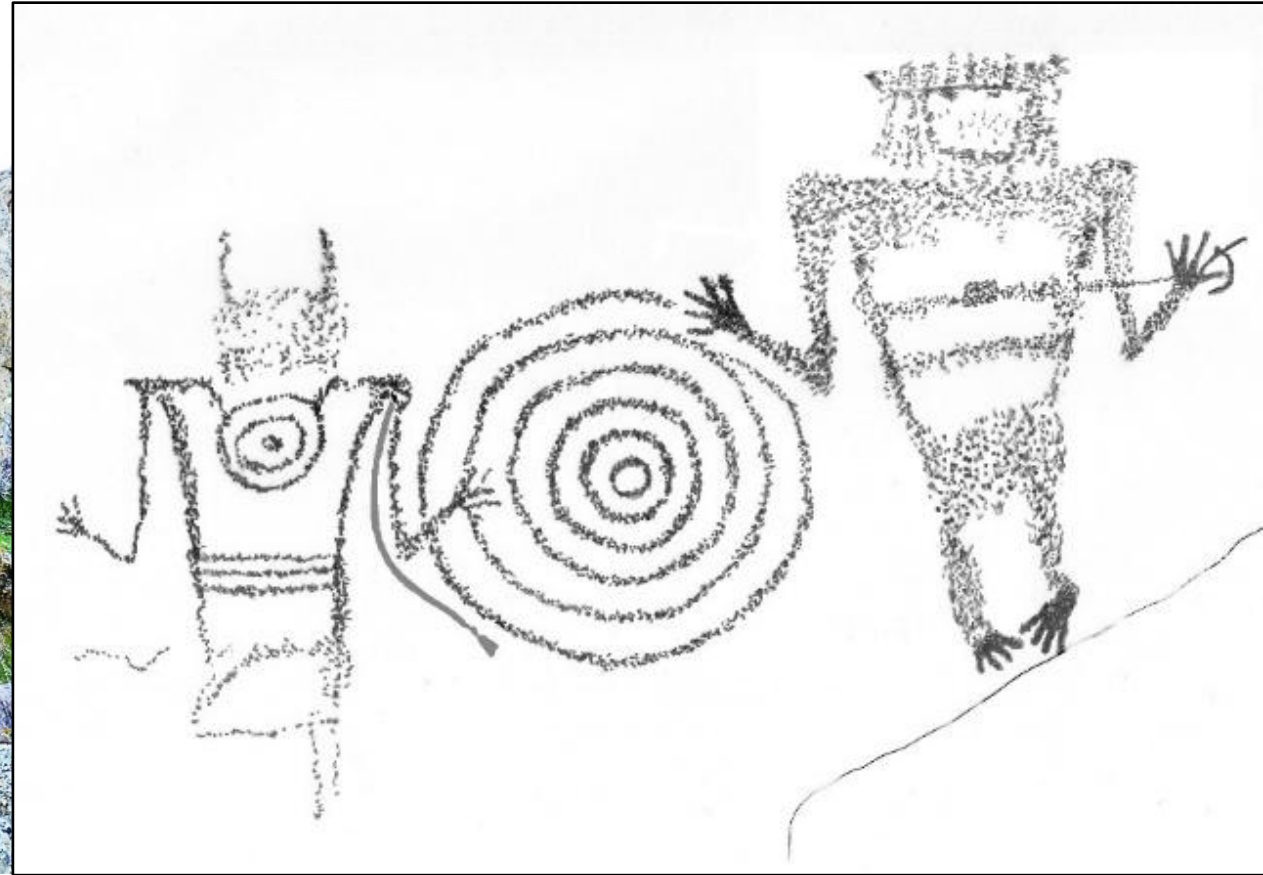
- All of the Southern, Western, and Eastern Apache groups including the Navaho have similar myths of the two War Gods. Their names vary with the firstborn; Enemy-Slayer, Killer-of-Enemies or Monster-Slayer; and second-born; Child-of-the-Water, and Born-of-the-Water. For this study of the Uintah Basin, the Jicarilla name for the child of the sun is Killer-of-Enemies and Child-of-the-Water is the second born. Their birth and journey to the sun are reproduced here with some parts paraphrased from Morris Opler, an early anthropologist who recorded many volumes of Apache myths and lifeways. (from Opler 1938, 47-57). It contains essential details that shed light on the symbols depicted in the petroglyph panels.

Child-of-the-Water and Killer-of-Enemies



B) Panel showing these two, near Ranglely up on Dragon Road west of Canyon Pintado. Child-of-the-Water is son of the Moon, and Killer-of-Enemies is son of the Sun.

Child-of-the-Water and Killer-of-Enemies

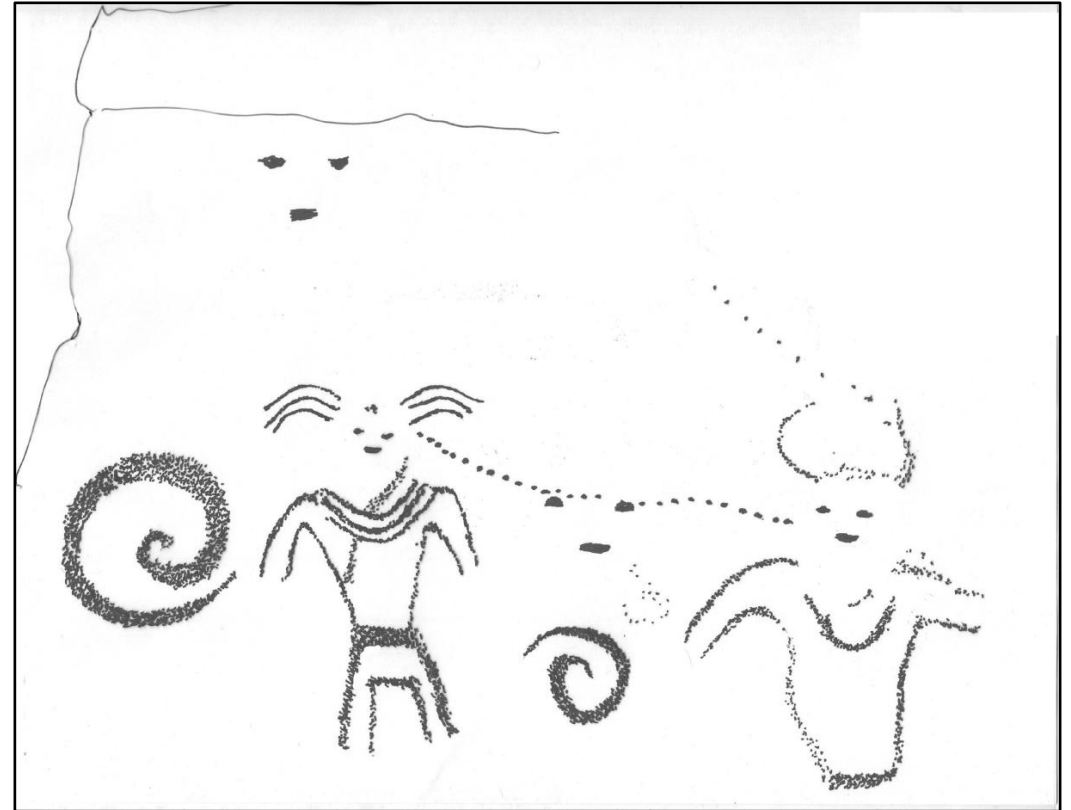


C) Along the Green River Child-of-Water with horns (strong) and Enemy-Slayer with flicker-feather headdress. (dispersing)

The Twins Journey to the Sun

- *The two boys began to travel. There were all sorts of obstacles that the boys had to pass before they could reach the Sun. (Little Wind perched in their ear talks to them)*
- *They became very hungry and thirsty, but that point on their ears told them, “Your stomach is like a living person. Tell it why you came.” So the boys said, “We are going to visit the Sun.” The ear said, “Give it a present.” So, the boys gave their stomachs pollen and passed on with less hunger and thirst. After a while, their legs began to ache.*
- *The ear said, “Talk to your legs, tell them why you have come so far.” So the boys said, “Legs, we came so that we might visit the Sun and ask for playthings.” So the legs grew strong and carried them on.*
- *Then their throats began to ache. The ear said, “Tell your throats why you have come.” So the boys talked to their throats too and offered them pollen, and then their throats grew well.*
- *Then they became hot and sweaty. Because of this they also spoke and offered pollen. The ear told them, “Put pollen on top of your head and tell this heat to go away.” They did so and were relieved. Then they were seized with weariness. They both said, “Oh this journey is difficult!” But to this, too, they offered pollen and went on refreshed.*

Wind Hactcin is the messenger that sits on the point of your ear.

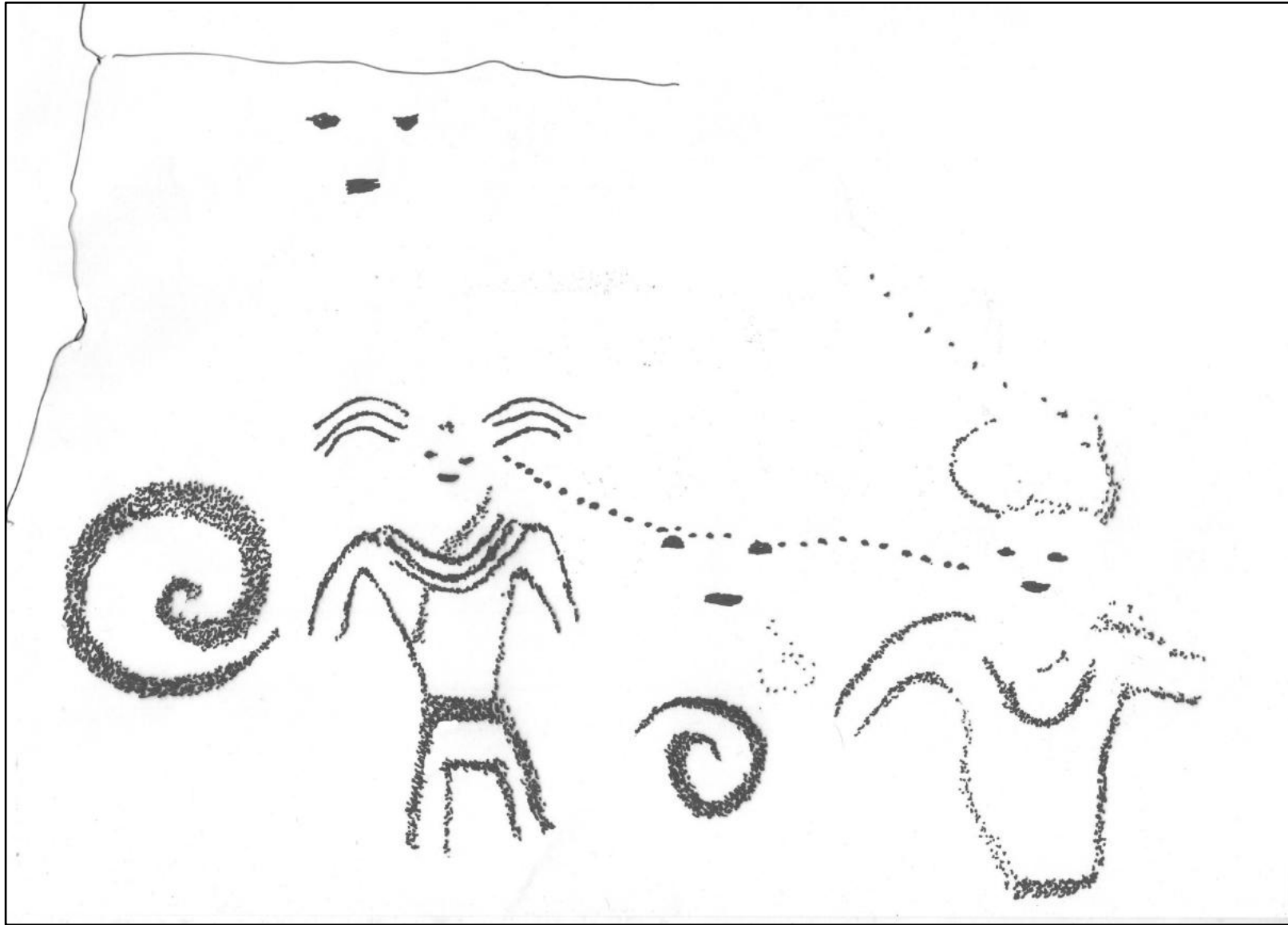


A), west of McConkie Ranch with wind traveling between the ears of Child-of-the-Water and Killer-of-Enemies

Information Given Passes from Killer of Enemies to Child-of-the-Water

- *Then they met Night. He was so dark they could not pass. Their eyes turned against them and would not pierce the darkness. Their eyes became heavy, sleepy.*
- *The ear told them, “You must sleep for a little while,” They slept a little while, and then they started again. But the darkness made them imagine all sorts of things and frightened them. Sticks looked like snakes and all sorts of things seemed ready to harm them.*
- *Then the light came, and dawn brought dew and cold. They suffered from the cold. The dew made them wet. Again, the point on the ear told them to speak and tell Dew of their errand. They did so and were relieved.*
- *Then they met Big Rain-Storm. They were soaked by the rain. Thunder came and frightened them too. The ear told them not to fear, and they would not be harmed. So, they went on.*
- *In every danger that was connected with the water in any way, Child-of-the Water heard from his ear. So, he learned about Thunder-Storm and Lightning.*

Wind



Child-of-the-Water

Enemy Killer

Child-of-the-Water dominates

- *Before this, Killer-of-Enemies heard from his ear about the dangers and how to evade them. Ear now told Child-of-the-Water to go on. When they were confronted by Heat Waves, it was Killer-of-Enemies who knew what to do. “I’m going to take care of it.,” he said, for he was the child of the Sun, and the heat waves came only when the sun was out.*
- *Then they met Winter. They had to pass through cold, frost, and snow. Child-of-the-Water spoke now. “I’ll take care of this; this is nothing but frozen water.”*
- *“What makes it freeze?” asked Killer-of-Enemies. “The wind, “answered Child-of-the-Water.*
- *“Oh.”*
- *Child-of-the-Water offered pollen to Winter, and then it was not so cold. Then they arrived at ice. It was so slippery that they could hardly stand up. Child-of-the-Water’s ear spoke and told them what to do. They met Big Hail, with hailstones very large and they were hit in the head and hurt. But Child-of-the-Water brought them safely through this.*

Wind speaks in the ears of both

- *Then they met a bear coming out of hibernation. He was about to swallow them up, but Killer-of-Enemies threw pollen in his direction, and he let them pass.*
- *They passed Snake, Mountain-lion, and Wildcat, who each stopped them, but Killer-of-Enemies offered pollen and they let the boys pass.*
- *They came to a large river they did not know how to get over. But Child-of-the-Water was told by his ear, to walk right on top of the water. So they did.*
- *They came to Fright. They met him there because they began to be afraid of seeing their fathers. Their journey was nearly over now. But they gave Fright pollen in his mouth and passed. Soon they were at the door of the Sun's house.*

The Sun gives the boys bows and arrows

- *The Sun asked; “What else do you want?” Then he thought for a while and said, “I believe you came to save your people. There are monsters around your home now.” So, he gave each of them a bow made of the rainbow and arrows made of lightning. He gave each a quiver and bow carrier of mountain-lion skin. They put them on their backs.*

Killer of Enemies and his Flicker Feather Headdress



- Site (D), the Three Kings panel from McConkie Ranch, depicts ‘Killer-of-Enemies wearing a flicker-feather headdress and holding his sunshield and scalp staff.
- A red and yellow flicker feather headdress that was found in Mantle Cave, in Dinosaur National Monument, dated around AD 996 to 1190 (Truesdale 1993). More than 370 feathers are in the headdress. Six feathers at the center of the crest are from the yellow-shafted flicker and the rest are from the red-shafted flicker. Long wing feathers adorn the ends.
- This headdress is also depicted in the portraits of Killer of Enemies at Green River, McConkie Ranch, Ferron Box, Range Creek, and Thompson Springs.

Red-shafted flicker feather

- The red-shafted flicker feather appears in the headband of Apache dolls of 1880. A silver stud and two pieces of eagle down are also affixed to the back of the headband. The significance of the red-shafted flicker feathers is not clear, but an informant noted that “Long ago, when they went to war, men used to stick a tail feather of red flicker in their headband or hat. It is also placed on the child’ carrying-jacket and serves “to keep away all sickness and misfortune” (Goodwin 1942:440-441 in Goodwin 1988, 89).

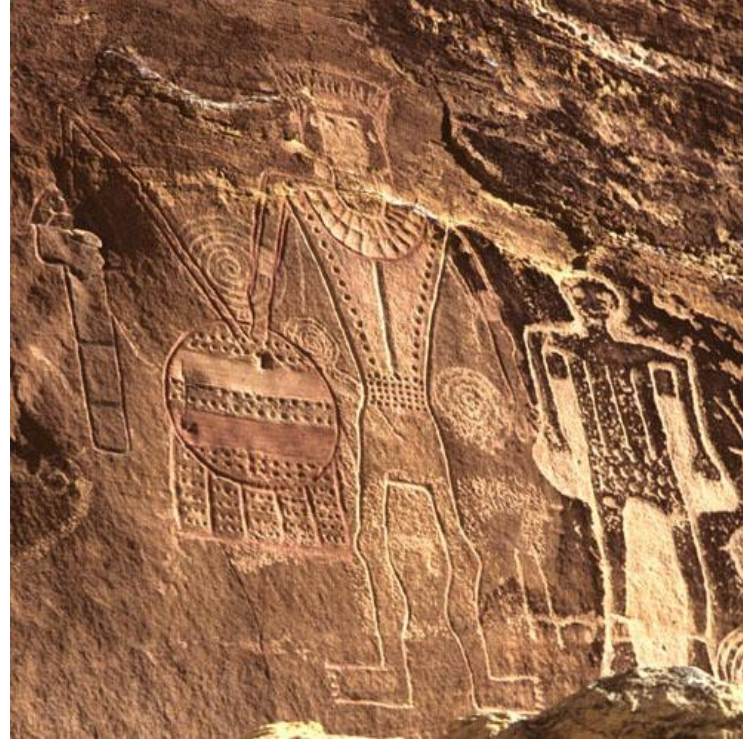
Buckskin War Jacket



- Site (E), Ferron Box, portrait of Killer-of-Enemies with his Buckskin war jacket and red and yellow flicker feather headdress with a long wing feather on each side.
- Child-of-the-Water with concentric circles and lightning.



Killer-of-Enemies



©2007 CU Museum

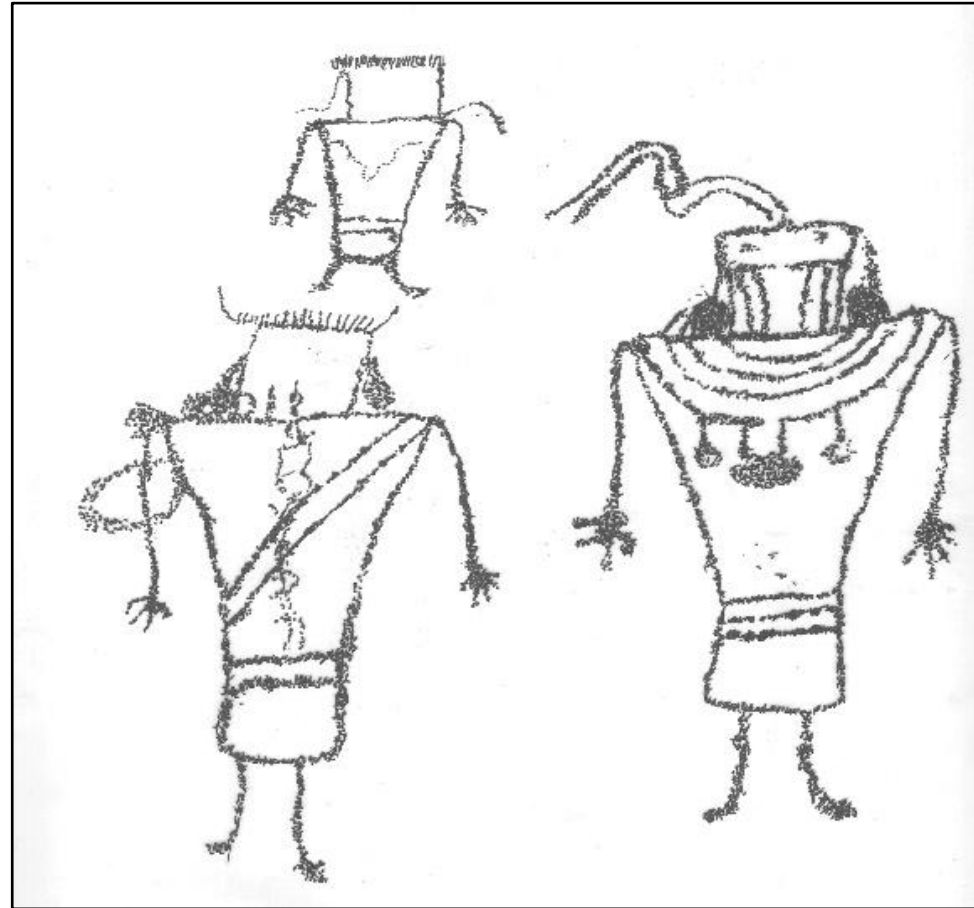
OPPOSITE:
Color Illustration 5.
Dolls with 1880s clothing, back view.
Fig. 6.2. ASM Neg. C-15115.)

Apache War Shield



Western Apache rawhide war shield depicts Killer-of-Enemies with his feather headdress and the Sun in the center. Child-of-the-Water is represented by the bat, creature of the night, and the moon symbols encircling the shield. (Ferg 1988, *The Goodwin, and Guenther Collections*).

Range Creek, Site F.



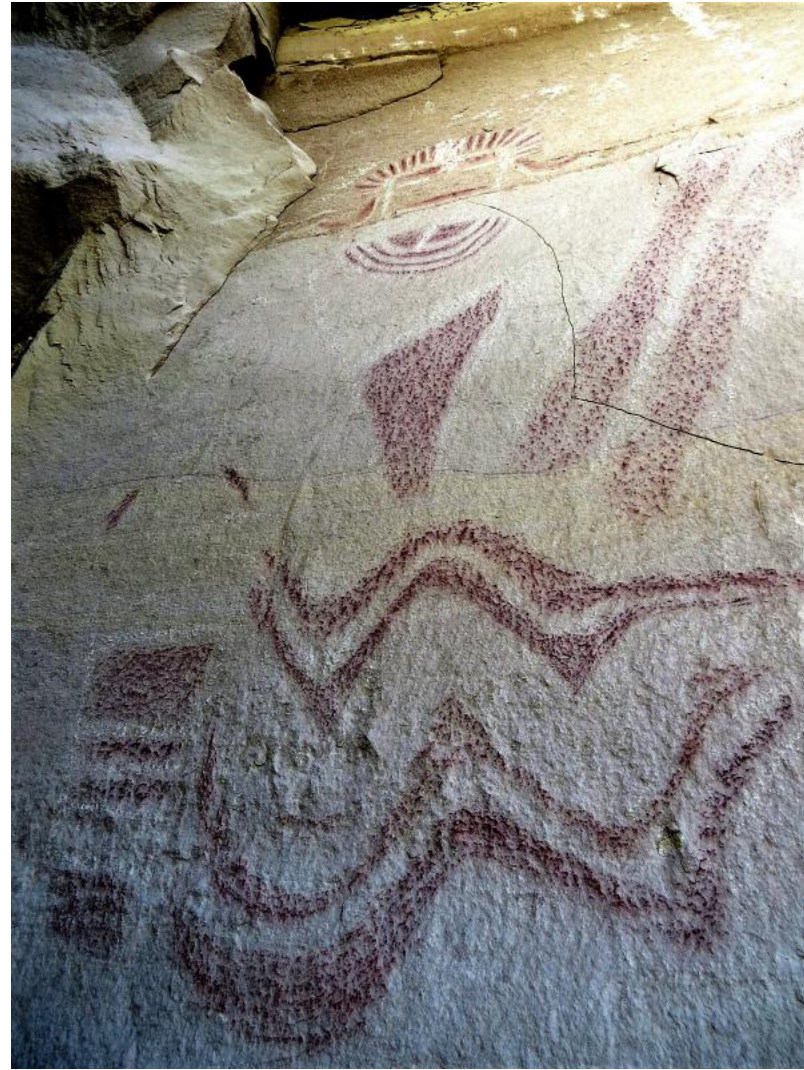
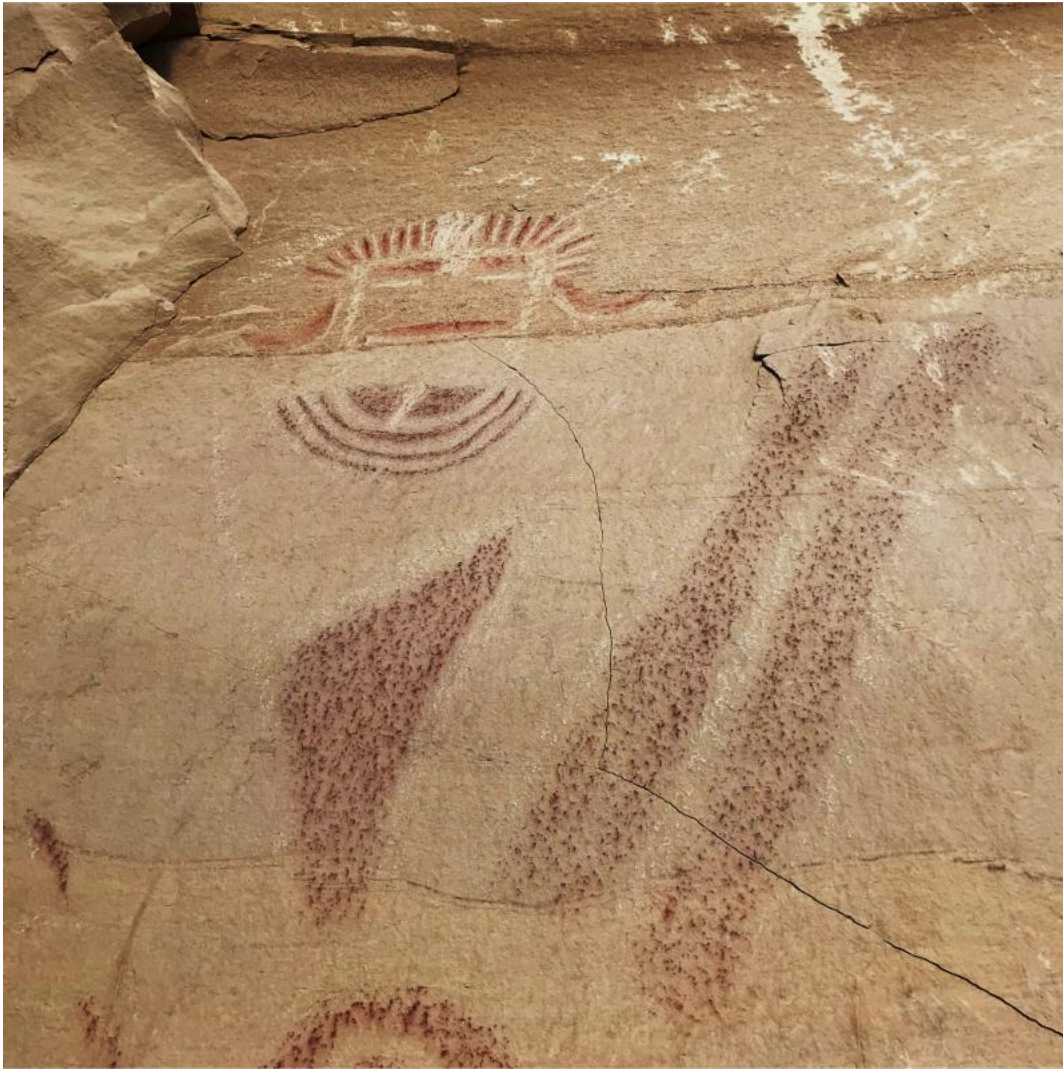
Killer-of-enemies with Flicker-feather crown, Child-of-the-Water with a double wavy line (water)

Site G, Thompson Springs



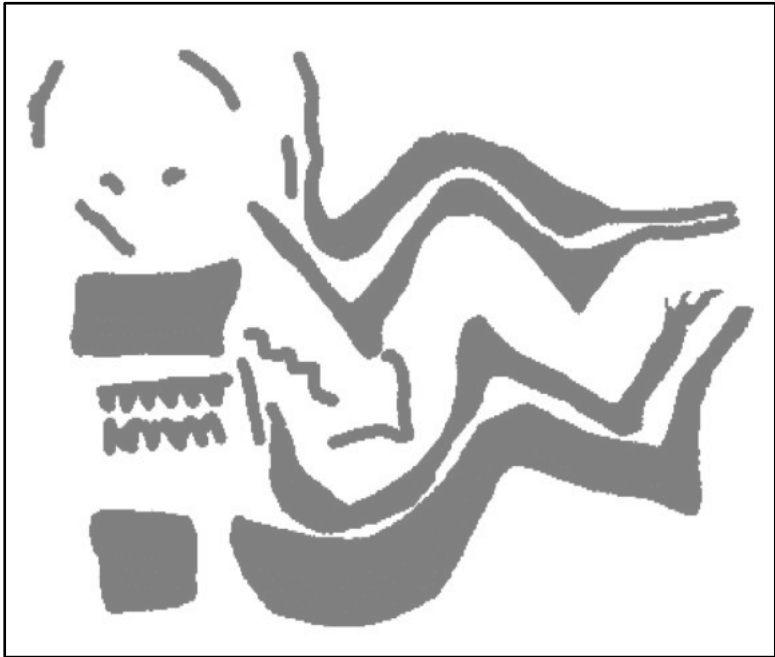
In Thompson Springs, Killer-of-Enemies is large and forefront with his red and yellow flicker feather headdress clearly delineated like the headdress from Mantle Cave. He has two red bow straps. Below him is Child-of-the-Water, a diminutive figure with a torso and head wearing a horned headdress. From him are two horizontal double wavy lines, symbols for water. (Photograph by Dave Manley)

Child-of-the-Water on lower left with horns and two wavy lines from his body.



Killer-of-Enemies with two bow straps. Child-of-the-Water with two wavy lines for water.

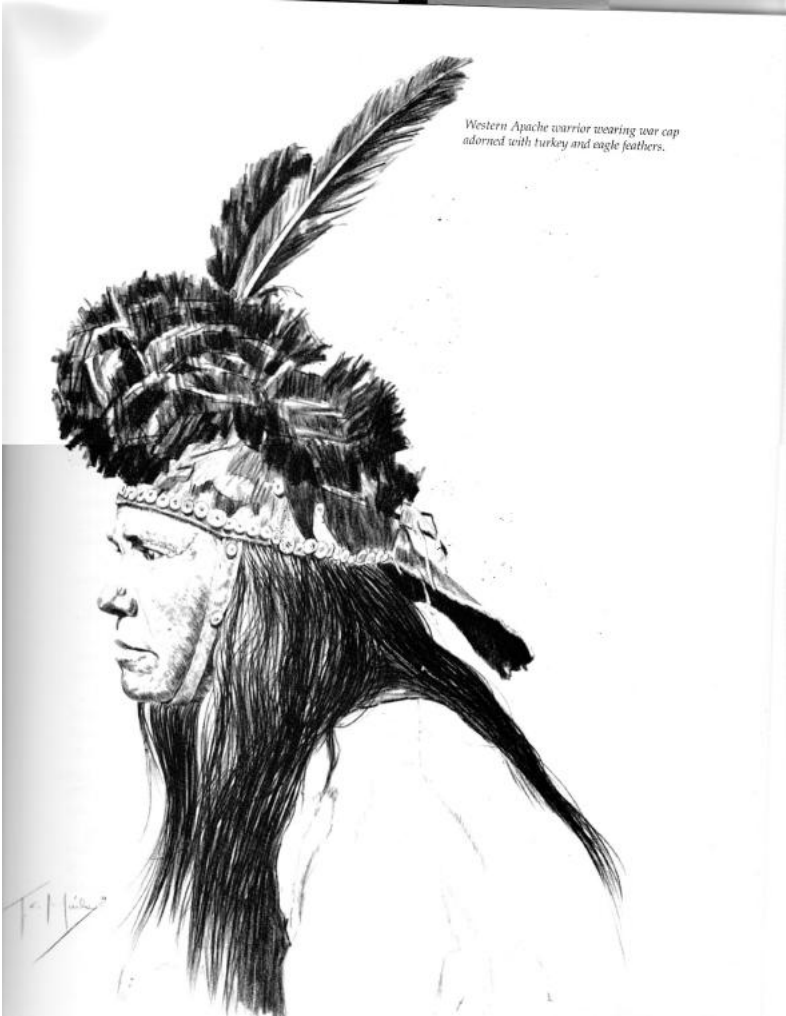
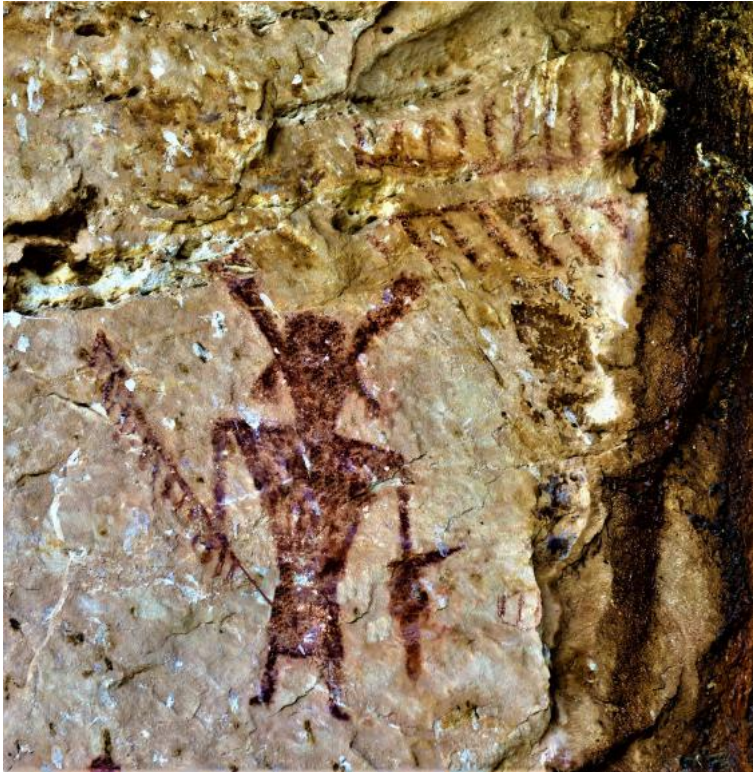
Child-of-the-Water



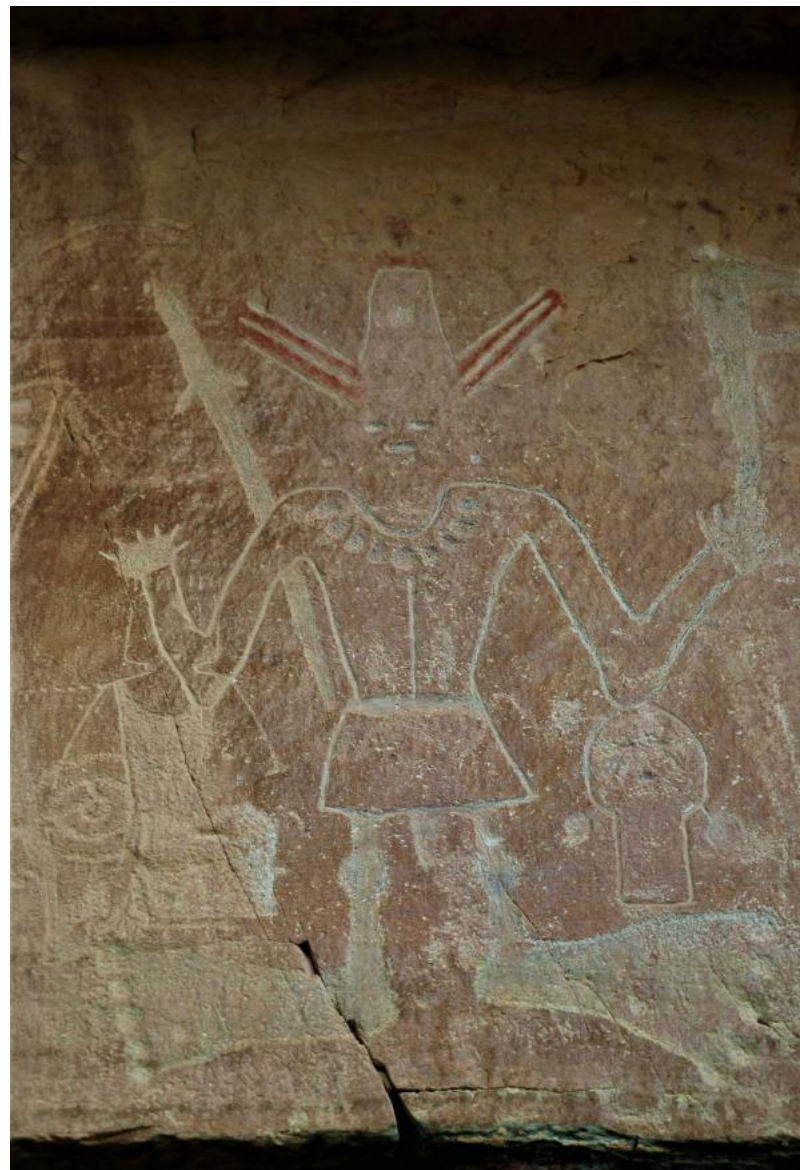
The War Twins



Warriors and Scalps



The Warriors and Scalp takers



Warrior has “cleaned out” “dispatched” etc.



White color makes you invisible

Warriors put white clay on their skin to make them invisible to the enemy.

Concentric circles mean to ‘disperse’, to ‘empty’, to ‘move out’

Circle with a dot inside means ‘holding’, ‘staying here’,

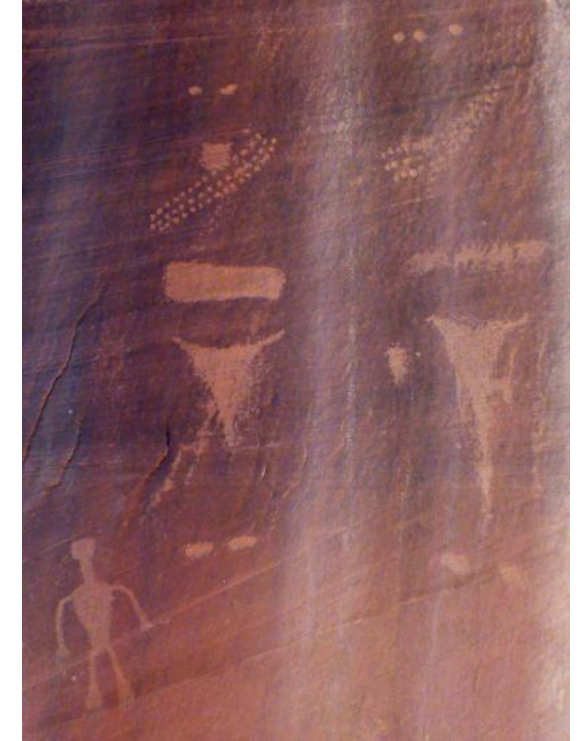
Child-of-the-Water with War Cap



Child-of-the-water, Lazy Dog, Killer-of-Enemies



Pueblo Runners



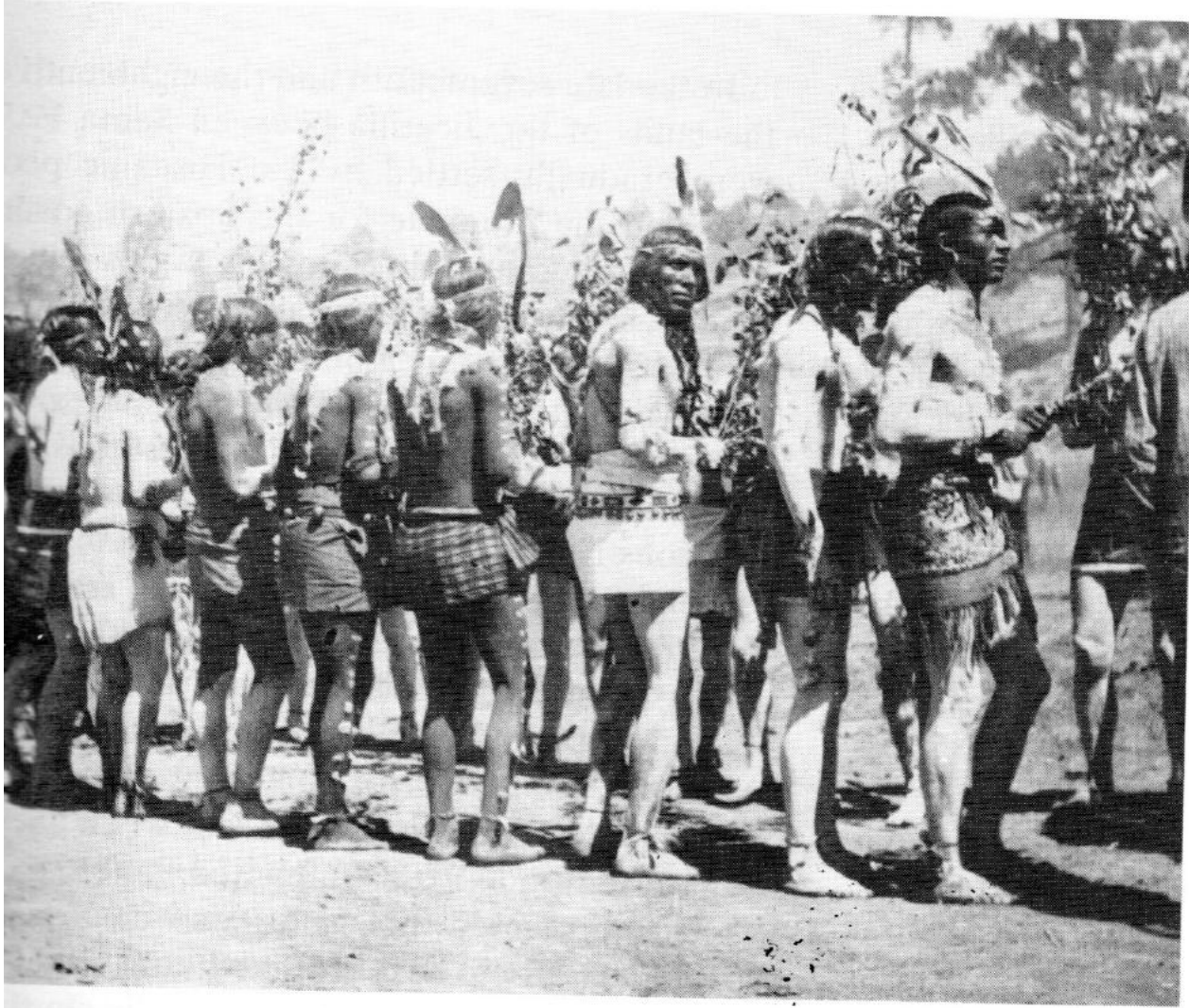
Runners from Acoma, Zuni, Hopi run at Night, and all you see is the ghostly image of their eyes, belt, and loincloths.

The Apache Runners



Jicarilla Apache relayers





NAA: Ms. 2847; right, after Opler 1946:129.

ers in the annual relay race. left, Runners painted, decorated with feathers, and with yucca leaves tied around the ankles and
 graph by Frank Russell, 1898. right, Dress and decoration of the lead runners: Llanero at left, Ollero at right.



Ashley Creek

Summary:

Particularism with Jicarilla Apache Mythology

(not found in Uto/Aztec or Numic, or Pueblo)

- Asymmetry = Spider and Fly, White Hactcin and Black Hactcin, Bear and Snake, Grey Hactcin and his dog.
- Bear gives or takes away Bear Sickness, Snake makes Snake sickness
- Spider's ropes are connected to the Sun
- Little Fly becomes Big Fly to Navajo
- Tiny spiders of each direction help those in big trouble
- Little Wind knows everything and whispers in your ear
- *Tsananti* gestures and Gaan sticks amplify power
- Animals and birds each have their own special powers

Conclusion

- Animism described through metaphor to enable us to see the unseen. That which archaeologists cannot understand without a physical presence. That which the cultural anthropologists, the ethno-archaeologists can survey, record and do comparative analysis on prehistoric settlement patterns.
- Only they can form a typology of concepts portrayed in the rock art, such as symbol systems that are rooted in gesture language of all indigenous cultures.
- They can see patterns of dominant themes such as ‘rain’ ‘lightning’ ‘wind’ and ‘thunder’ conveyed in emblems that have transcended time that is culturally contiguous with modern indigenous art.

Bibliography

- Is There Such a Thing as Animism__ Darryl Wilkinson - Academia.edu_files
 - Basso, Keith H., and Morris E. Opler eds 1971 *Apachean Cultural History and Ethnology*, in *Anthropological Papers of The University of Arizona* Number 21. U. of Arizona Press.
 - Ferg, Alan, ed. 1988 *Western Apache Material Culture, The Goodwin, and Guenther Collections* The Arizona State Museum, by the University of Arizona Press
 - Gunnerson, Dolores Alice 1971. *The Jicarilla Apaches: A Study in Survival*. Dissertation. Department of Anthropology, U of Utah.
 - Haskell, J. Loring 1987 *Southern Athapaskan Migration A.D. 200-1750* Navajo Community College Press, Tsaile, AZ
 - Martineau, LaVan 1973 *The Rocks Begin to Speak*. KC Publications, Las Vegas
 - Mallery, G. 1881. Sign Language Among the North American Indians. *First Annual Report of the Bureau of American Ethnology*. 1879-80. Washington, DC: Smithsonian Institution.
 - Martineau, LaVan, B.K. Swartz, Jr., and C.L. Houck. 1981. The use of Indian gesture language
 - for the interpretation of North American petroglyphs: A trial analysis. *Occasional Papers of the American Committee to Advance the Study of Petroglyphs and Pictographs*, 1. Harpers Ferry, West Virginia
- Opler, Morris Edward. 1994 [1938] *Myths of the Jicarilla*, Dover Publications, New York
- 1940 Myths and Legends of the Lipan Apache Indians. *Memoirs of the American Folk-Lore Society*, Vo. XXXVI. New York: Augustin.
 - 1943 The Character and Derivation of the Jicarilla Holiness Rite. *University of New Mexico Bulletin*, vol 4, no.3.
 - 1944. The Jicarilla Apache Ceremonial Relay Race. in *American Anthropologist*. N.S. 46, pg. 75-97
- Patterson, Carol. 2020 Katsina Runners in the Prehistoric Art of the American Southwest, 1000 BCE-CE 1300. in *Expression*, Vol 29-71, pg.
- Seymour, Deni J. ed. 2012 *From the Land of Ever Winter to the American Southwest*. *Athapaskan Migrations, Mobility and Ethnogenesis*. University of Utah Press. SLC
 - Wilkins, David. 1997. Handsigns and Hyperpolysemy: Exploring the cultural foundations of semantic association. *Pacific Linguistics*, C-136 413-444.
 - 2001. *A Metaphor in Three Modalities: An Arrernte teacher's description of the "learning Journey" in gesture, speech and painting*. Lecture given at James Cook University, May, 2001.