Anthropology and Environmental Studies of the Southwest: The Integration of People and the Land through Time

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Anthropology and Environmental Studies of the Southwest:  
the Integration of People and the Land through Time

by

Terri S. Ross

FINAL PROJECT SUBMITTED IN PARTIAL FULFILLMENT 
OF THE REQUIREMENTS FOR THE DEGREE OF 
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ABSTRACT

The indigenous peoples of the American Southwest are so culturally integrated with their environment that it is impossible to separate the land and the people. Personal interviews with three Navajo women provide an original and native voice illustrating their relationship to the environment. Five different topics chosen from their interviews have been researched to provide academic information for a more complete picture illustrating the integration of the people and the land through time.

I claim to understand the relationship between anthropology and environmental studies of the American Southwest. The people must be viewed in their native environment, and their voice must be heard.
INTRODUCTION

Charles Yazzie Morgan (Navajo)

"We think of the Earth as Our Mother. The Sky is Our Father. From the time the sun
rises, to the time the sun sets and all through the night, not a day comes out too short. Not a
day comes out too long. All is balanced, and this, I think, is what is meant when we say in the
Blessingway Ceremony, ‘Sa’ah Naaghaii Bik’eh Hozhoon.’ All is balanced. Without balance
there is no life” (Evers 245).

The Colorado Plateau and its people are unique in that to fully understand either, it’s
necessary to view them as one. The people of the Plateau are so deeply integrated culturally
with their environment that it’s impossible to separate them from the land. This relationship
lies in the American Southwest in an area known as the Four Corners region. Here the four
states of Utah, Colorado, Arizona, and New Mexico meet. The Ancestral Pueblos (Anasazi)
and the Navajo are two of the cultures that have shared this land through time.

I have concentrated on the people and their relationship to the land--how the land sustained
them and how their presence affected the environment by what they left behind. I have based
my study on the components of my MALS program for Skidmore College: Anthropology and
Archaeology of the Southwest, Rock Art of the Southwest, Native American Myths and
Legends, Navajo Weaving, and Environmental Ethics. In addition to traditional research, I
have relied on quotations and interviews to provide an original and authentic view of the
subjects covered by the people who live there today.

In the course of my study, I was extremely fortunate to have the opportunity to record
three Navajo women from the Navajo Indian Reservation on the Colorado Plateau. Out of
respect for the oral tradition of the Navajo people, I asked a question and then sat quietly with no interruptions. The interviews are the result of this technique. Although they may seem to meander at times, for the integrity of the work, I have left them intact in their original form. To protect their identities, I used the first names only of the individuals I interviewed.

Sally is the oldest of the three women, probably in her early sixties. She is short and stocky. Her iron-grey hair is severely pulled back in the traditional manner. Even though it’s August in the desert, her clothing includes a heavy ankle length skirt. She grew up in Canyon de Chelly and continues to live there near her family. This was the first time she had ever been recorded. While she spoke, she looked into the distance away from the tape recorder as her mind drifted back to her childhood.

Eloise is the youngest of the three, somewhere in her late twenties. Taller than Sally, she also has a stocky build. Her long black hair is neatly parted down the center and hangs freely. She has also been raised as a traditional Navajo in southeastern Arizona. She was very hesitant to talk about herself or her family and claimed not to remember much of her childhood. This certainly may be true, but it’s also quite possible she wasn’t comfortable giving information, part of her traditional upbringing. I last saw Eloise in December climbing into the front of a pickup truck with her baby securely wrapped in a Navajo cradle board.

Virginia is probably in her late forties. She is tiny and slim. Her slightly graying hair is layered and stylish. Although she wears modern clothing, her home displays pictures of her with her daughters dressed in the Navajo traditional style. Virginia’s situation is different from that of the others because although she was raised traditionally, she married a Mormon trader. In her interview, she depicts the internal turmoil caused by the clash between her ancient
culture and the modern world. Her husband’s family has been involved in trading in the Southwest for generations, and he maintains a close relationship with the Navajo families around the trading post in southeastern Arizona. Both Virginia and her husband believe the Navajo culture should be kept alive and shared. She spoke with a quiet and confident voice while weaving a beautiful pattern on a family loom inside her husband’s trading post. Although typically guarded on some subjects, Virginia was happy to be interviewed.

Combining my academic research with informal interviews, I have sought to bring together some of the richness of the Colorado Plateau’s cultural past, together with the present blend of cultures of the people themselves who have shared the land through time and changing history. I feel I’ve been privileged to share a tiny glimpse of their present before it quietly disappears into tomorrow’s history.
INTERVIEWS

Sally

I have a little bit of broken English, but I will just explain that the Navajos had come down from Alaska and from Canada area and moved down. They were moving towards South, to the south of America or somewhere. They were moving down. That’s when they settled in this area. And they found the canyon deserted, so when they were coming down, they moved into the canyon here in Canyon de Chelly area. So, from the time they moved in, they found no one here. And there were ruins already in, but there was no one here. So they claim as their land. And they went through a lot in this canyon. The Navajos, they were raided out of the canyon by the soldiers. So they were out in their captive somewhere in Fort Sumner, New Mexico.

So, but my grandfather used to say that it’s our great ancestors. To interpret Anasazi in Navajo something like “the other tribe.” Other tribe is our ancestors, uh huh. “Ana” means other tribes and “zaza” means great, great ancestors. So the way my grandfather says it sounds to me that these were my great ancestors. But the archaeologists when I, uh, when they were explaining things to us said these were in the canyon. In the canyon and they settled in this canyon and Navajos are coming from there are north from Canada—so they’re not like close relatives.

If they were enemies--there used to be ruins not even destroyed. I’ve seen some big ruins still in good shape. If they were living like enemies, the whole thing would have been torn down. “Ana” means other tribes, “anai” that means enemy. They almost sound the same, but “anai” and “ana” --”Ana” means other tribes.

I was three or four when I started making bread. When I start learning to watch my mom
cook. It was mostly my grandmother who taught me a lot how to cook-- and about five years old, I was making dough and my grandmother, she was talking to my older sister who mother passed away when she was small, so she was four or five years older than I am. So she was talking to her and telling her that I’m doing-- I was about five years old-- she was about nine or ten years old. She said that your sister is doing better than she’s doing a lot better mixing dough for the bread and she can’t even do anything. She was telling my--we call them sisters. They’re cousins, my aunt’s children. They lost their mom, so we were all sisters. She was after my big sister. You can’t even mix dough as good as I was doing. And so I learned to, as young as I am-- I learned to mix corn. Make a corn bread and she was teachin’ us that if you don’t know how, when you get married and you don’t know how, the in-laws can send you home and say you don’t know anything.

I didn’t learn how to butcher a sheep until I was in my teenage years. You go out into the sheep corral and you pick out the best one that are fat and young. You pick out the best one, and you bring it out. And you tie their legs—the four legs together. Tie it all. You get the hind legs this way and the front legs this way and tie it. We get help from a stronger person like our brother, father, grandfather, whoever, who helps us tie it. And then we get the knife. I watched it. I watched my grandmother do it. My mother, my uncle, they do it, and they teach us to do it like this, “Do it this way.” So I pick up some. And then one afternoon Grandmother ran out of food, and she sent us up here on top to one of the neighbors that lives close by. So she gave me some money and some material and a blanket, and she told me to take it over to her and she’ll give you a sheep. So I went up there. I didn’t know how to butcher. I just watched them do it. So that was the time I had to do it by myself. So I went
up there. My sister was married to that family, so she was helping me how to do it. So I did it. “Do it this way” and I do it. That’s the way they were teaching me. So it took me almost three hours to take the whole sheep apart. So we did it. I did it. I learned and then next time I do it by myself. And to this day, my children always say, “Mom, come butcher for us.”

They bring whatever sheep or goat. They buy it and bring it over and I do it for them. You have to cut the throat first and then take off the skin. And then you have to take off the whole skin. And then you cut their arms off. And then cut it open here, and get all the intestines out. And then they eat the whole sheep. Even the intestines. They eat it. They clean it, and they make it with the chili, onion, chopped it up with all the vegetables. Bell pepper, celery, carrots, things like that. They just chop it up and mix it with the intestines. They do it. They put seasonings, salt and pepper, jalapeno pepper, chop it up and cook it with it. They’re good. Even the sheep brain, they eat it. Nothing is wasted. Nothing. Use the whole thing up. So we got to learn to do a lot when we were small. But now I have some teenage children, they don’t know how to butcher. They’re afraid to look at even cutting the throat of a sheep. They don’t want to see it. They want to go hide first. I had no choice but to do it. My mother was always by herself with the children and my grandmother—the men all had to go to work on railroad. At that time when they were working, I saw one of their pay stubs. I look at it and it said a dollar eighty-nine an hour. That’s how much they made on the railroad. That was in nineteen forty—from nineteen forty-four to forty-nine. Right in there someplace. So they used to really work. And we didn’t have enough cooking utensils. We didn’t have enough tools. Just my family I’m talking about. Just my family. I’m not talking about other families. So, us, we didn’t have anything. We didn’t have any horses. Mostly we
walk. Even down to the trading post, we walk.

Way back when my mother and my uncle were small, they were forced by government to go to school. They were picking up by force and they have to be put in school way up. I believe my mother said they went to school in Fort Apache. Probably they have a boarding school there. She says they were taken there when they were small and they went to school there. She only went up to third grade I think. That was enough. The three years was all she had and she learned how to write her name. She used to learn. She used to know how to write letters, but today she can't, she can't remember. She can't write anything down except her name. That's all she knows now. She has forgotten most of it. She's eighty-four years old, and she had three years of schooling and she has very little. Her English is real poor, and she can hardly say "get up" in the same words. She would say something like, "woke up, woke up." And she never pronounced things plainly. Like "wrapper," she would say, "woppo." It was hard for her, but she used to write things and I used to look at it and could understand what she's trying to write down. But she says can't do it now. Even if I write her a note and give it to her, she wouldn't know. She wouldn't know what it says. But back then, when I was small when I went to school when I was in third grade, she would write down things and I would read and know what she was writing about.

For the Navajo, they had test years ago. My grandmother said if you can't mix a cornmeal-see, they use a boiling water to mix the corn. They use a boiling water. So if you can't put your hand in a real hot thing, then they'll say, "Go home." So they have hands that they dip into a hot bowl of boiling water and they mix it. And they didn't have any blisters on them. So I don't know how they did it, but my mother used to just mix it for me when I was young.
And then I just pat it and make it into a small round and put it on the hot grill and turn it over and cook. I used to make those for her. But I never did mix any of the cornmeal. But I know how to make buckwheat, fry bread. We didn’t have, we didn’t have a lot of flour, the one we have in stores now. My grandmother, my mother, my sister, they used to grind their own corn. Every night they used to do it. Sometimes when we ran low, they do it all night. They had a stone, big, heavy stone. The top one is just a narrow and short. And they put their hands on the small one. The big one is down and sort of tip up and you have to do it by your hands on your knees and you have to go down. Put the corn there and you grind it. Sometimes they grind it three or four times to get it close to a flour type of soften.

They have their own herb of seasoning in their food. They make their own. And today none of the Navajos, I don’t think they go out and make these herbs for the seasoning in their food except for just one that everybody still use. Probably most the older people still use it and that’s the juniper tree. That they break a branch and put it in the fire and when it’s burning, they take it out and the ashes fall down into a bowl. And when the ashes have finished, they sift it and then the good ones fall down. And then they mix it with water and they put it in a strainer and then they put it in the cornmeal. And that’s how they make blue grits. The color turns blue and the taste--it brings out the taste. So we call it blue bread. That’s what we were raised on when we were small. But the other...the trading post had flour, but there’s always not enough for all the Navajos that wanted to buy. The trading post doesn’t hold much. Just bring back a little and then be sold out two or three days. So my grandmother didn’t really depend much on the trading post. She had to grind her own corn.

My grandmother did the weaving and trade it in. I learned how to do that, and my mother
weaves. Most of my sisters weave. All daughters have to learn how to weave. You have to learn how to weave. Back in the 1940's, '50's, '60's to this day people still weave. They trade in the weave they do and back in '40's, '50's when I first realized the way my grandmother used to do, she took some wool off the sheep, shaved the wool off the sheep and then laid it out to dry. After it's dry, then she card it out and then roll it up. And just lay it. And used to have lots of boxes in line with the wool that's card out. Then one would come with a spindle. Made out of...They cut out a round and make a hole in the center. And in the hole they have a small, about my finger size, into the hole and then they make it tight. And they spin the ones they card out into about the size of my finger and then after they card it out, then they roll it up. And then, another one has the same kind of spindle and then they make it a little narrow--close to a shoe string--your shoe string size. And then, when they finish with that they make it into--they put it on their feet and hold it right here and go round and round until it's all rolled up like that. And then, they wash it. After they wash it, they have a hot pot or a bucket, and they have their own dye from the plants. They use some kind of plants here--and then, they put it in the bucket and that would be boiling. It would be real hot. It turns the color brown or tan or orange type or a real dark brown. They make their own dye from the plants. And the white one, they wash it real good--wash it real good, and they mix it with a clay-type of clay that they find in little ways toward Chinle. They find the clay there and they bring it back and wash it with the wool, and it turns out white. So they use it, and they make their own dye--but not ones who have to buy it from the store. And they dye their wool with it. And the grey is from the natural color of the black sheep and then mix it with the white and then card it out and they got their grey color. And they set up the loom. And they spin it real tight and
they use that for the string part when they put it up and then they weave. And when they finish, they take it to a trading post or somewhere where they know they can get a better price for it. They take it there and sell their rug. Sometimes, the trading post would trade in for food or clothing or anything the weaver wants. They give it to her when they trade in. Sometimes they buy groceries, clothes, cook utensils, material, blankets--they get a lot, buttons--they get a lot.
Eloise

I took two of my kinds about four or five years ago to see the ruins. I liked to go see them. It was very exciting to see all that and comparing it to where I was raised and all that stuff.

The way I looked at it was they were ancestors.

My grandma had a hogan. It was made out of logs and mud and she had a dirt floor. And my mom used to have one of those too. It looked the same as my grandma. I don’t know how many sides, but they covered the logs with sand. It has to be covered often. I took a shovel and threw the sand up on the top of it, to reach the top of it, with a huge shovel. For the bottom and in between the logs you have to mix it with water. The inside is just plain logs that trim off all that stuff that they have, and it was just plain. My grandma kept her bed roll that she used, a sheepskin, and my grandpa had one of those. And they didn’t even have a table, so they had to set the food on the ground. And we would eat with her and all that stuff. She kept her dishes, her loomstand and the water. She used to cook in there. She had a wood stove. She cooked mainly blue bread and blue mush. I never made any of it. It was too complicated for me. I don’t even remember how to make it. She had a plywood door which my dad made for her.

When I was young, my grandma and my mom did the weaving. They had to shear their own sheep and the wool that they get from the sheep—they had to—um—card them, then spin, then color and all that stuff. They used to buy commercial dye from this one trader. To make different colors, that’s what they used to buy—like red, brown. And the grey, the black, and the white—that was natural. We get those from the sheep. We used to have black sheep and grey sheep. To this day, we still own our own sheep. My grandma used to do her own
designs when she was weaving and my mom did her own designs. And, if a trader wanted a certain rug or pattern, then she would make that—that order. She would weave about three or four hours in the morning, and then she would take like a couple of hours break in between and then in the afternoon, she would weave like another two hours. I usually help her for—like oh, thirty minutes.

I learned to weave from my grandma on my mom’s side. I started learning how to weave when I was like eight years old. Well, when I was eight, I started carding the wool and I started learning how to spin, spin the wool into yarn so that I can use it on my rug. So, it took me a while to learn how to do those and when I was about ten, I did my first rug with my grandma. It was a real funny one. My grandma had it, and I think one of my uncles took it—so I don’t really know where it’s at right now. On the sides, they were crooked and all that stuff and my design—it kind of got out of hand. It wasn’t really a perfect rug for me.

When I was young, my grandpa told the traditional stories and my grandma did. They usually tell us in the winter. They were mostly like, um, how would I put it, culture stories.
Virginia

We were taught to stay away from the ruins because those were the--where the dead people were. And we were not to mess with it--not to bother it. And it was, you know--we should respect the dead. And, you, whatever we find there we shouldn’t take. That it was just respect for the dead. That’s what we were taught, not to mess with ruins. Some of the places out there you find all these pottery pieces and old ruins. We were just taught to have great respect for our ancestors, our dead ancestors and to leave things be. Whatever they were, they were ancestors. But my mother said some of them did call them Anasazi, I don’t know what--she said those were people before us. And, we came from them somewhere along the line. My ancestors, my grandmother and my uncles--they were medicine men--they taught us that those dwellings were our ancestors and people who lived there long before we have. They were sure we came from them.

My grandmother used to, one time told us that those (petroglyphs) were, what it’s like is a poem. That they didn’t learn how to write like the white man’s way, and so they put pictures on to remind them of things that they have seen or something, or some thing that had meant something to them. I think so.

A hogan is a traditional home of the Navajo. Traditional hogans are made out of logs, and they get cedar logs and trim them really nice and smooth and then use those to stack and make--oh--build a hogan. A hogan has six sides. Well it also depends on how big. Sometimes it’ll have a little more because--eight sides. Some have eight, I guess most of them have eight sides. And then, there are some that would be smaller. You know--with less. And, then the door that they make always faces the East. They never make door any other direction. That’s
also a culture tradition that the Navajos have where they say that we’re supposed to get the first sunlight into our home. You know—as soon as the sun comes up. The roof on the hogan is also made out of logs, and then in between the logs they put, the traditional ones, put cedar bark. They soften the cedar bark and then mix it with mud and put it in between the logs. Chinkin’ is what they call it. And we—they—do it with the cedar bark so it doesn’t crumble and fall out. And, it stays a lot longer. And then, they put a lot of dirt on the outside on top of the hogan to keep it cool—to insulate it. You know, for summer to keep it cool and for winter to keep it warm. And, everybody there sit in the hogan. It just, you know, they have a stove right in the center of the hogan that we use and then we have our kitchen. Everything’s in the one room, the whole—like my family, I have five sisters and one brother and my mother. We all were raised in the hogan. And every day, you learn so many things from living in the hogan because you have everything in the same room, you know. When you go to bed at night, you make your own bed. And then, in the morning, you have to pick up your bed and put it away. And then, pull out the table. We used to have a little table that looks like a Chinese table that my mother—you know—we had it for all our life. It’s about maybe five inches high. And then, we put that in the center where we’re going to eat, and we all sit around it and eat off of that little, tiny, flat table. And then, if we have visitors and stuff, we put everything up and leave it for a living room.

The other day we were driving through the reservation and I was so amazed that, my husband and I, I guess, were both thinking the same thing when I was looking around. Every hogan had a street light now. Out there where we never used to see electricity or running water and stuff, you know. I guess they’re all getting it. Here they have street lights out there
and every hogan had electricity. It looked like little, small towns all the way through the reservation. It made us really sad. It made me really sad because, you know, I was telling my husband at the time when we were driving through, I said, “You know, I used to, when you couldn’t hardly see when there was a dwelling before because most of the hogans don’t have windows. Some of them have little tiny windows or some--and you can just barely see a faint light in the window of a hogan or from the door opening at night. You know, from a kerosine lamp. And I used to, and the only way you know somebody’s home is the smoke coming out a chimney, because they have a chimney that goes straight up in the middle of the hogan, the center of the hogan. And there’s a chimney up there so you know they’ve got a fire going.

My mother still has sheep today. She raised sheep and cattle. We grew up drinking goat’s milk and eating mutton. And then, a lot of the other things that we ate was just off the land. Like, we would gather wild spinach and onions and certain, I don’t remember, I don’t know what they call the English name for some of the plants that we used to dig up. And, we used to use the roots of vegetables and ate them. And then, my mother also grew a lot of--she had a big corn field and we grew squash and corn and potatoes. And some of the Navajo squash, you know, they last all year long. They have real hard skin, and so when they grow about the size of pumpkins or bigger and you pick them--when the skin gets really hard. And then, you can store those through the winter. And that’s what we ate a lot of. Going to the store was very rare. In fact, a lot of the people on the reservation didn’t have vehicles. You never heard of someone saying, “Well we’re out of bread. We need to go to the store,” or “We’re out of this. We need to go to the store.” We just did with what we had. When my mother did go to the trading post, she went maybe two or three times a year. When she does, she makes sure
she has enough of the basics. Which is like flour, beans, baking powder, salt, coffee, and sugar. And that’s what they—that was the basics. You didn’t go to the store and buy meat and, you know, vegetables and things like that, or bread. She might bring home a package of chicken to cook at home and that was a real treat, you know—to have chicken. I think that’s why—that was the least expensive thing that they could buy from the store. A lot of Navajos love chicken. I got to thinking that’s probably the reason because, you know, my mother bought chicken once in a while and it was a treat. And we had chickens. My mother brought home chickens one time, and we had our eggs. We pick eggs up. My cousins and my relatives used to steal all the eggs from us. But we never did eat the chickens cause my mother said, “Well, those chickens lay eggs. We can’t eat ‘em.”

My grandmother used to tell me, tell us, some stories. I don’t remember a lot about the stories that she told cause we were all very young. My mother didn’t tell us a lot. Most the stories were told in the winter time at night. In the evenings as soon as you would finish dinner, then we’d sit around and Grandmother would tell us all these stories of the Navajo. You know, there’s a lot of teaching in the stories, why we shouldn’t do certain things. They’re parables. You know, just like when reading the Bible. They’re parables that we learn from. I used to—they’ve written a book now on the myths and legends of the Navajo people, a lot of the stories that we used to hear. So I used to read it to my kids. None of my sisters ever read to their kids, and they don’t know any of the stories that my kids do. My sisters all have kids, but I don’t think they tell them any of the stories or read them stories like my husband and I do. People are getting in the fast lane and, you know, modern. Everything’s become the modern, the white man’s way. The kids are not speaking Navajo. Like our children don’t
speak Navajo. Our kids understand a little bit of it, but they won’t hardly talk it. But most of
the people that I know either don’t have, um their kids don’t talk Navajo. They don’t know
any of the stories, the old time Indian stories.

We believe earth is our mother, and it gives everything we need to exist. You know, food,
water, the land for our livestock and herbs that grow heal people. There’s a lot of medicine
that my grandmother and my uncles were some of the medicine men and they would, it was
very sacred to them, you know. They do special ceremonies and stuff to go gather herbs up in
the mountains and in certain places where they never did tell us exactly where they went. But
they did go up to the mountains and gather all kinds of herbs. And most of them were used for
healing purposes. It was very, very sacred for the people. The land, when you take something
from the land, you know, they always take corn pollen and give it back as, like a sacrament.

When they take wild game, they kill wild game to eat, you know, they used to do a lot of that.
The men would go out and have a special ceremony. They have to keep themselves clean for
four days, and then they go out hunting. They would take corn pollen and, you know, go with
a prayer. And then where ever they have a kill, then they leave like some kind of a shrine sort
of thing. They take like an offering to the land. It’s like corn pollen and then they take corn
meal and then they take like little tiny pieces of like chips or coral, turquoise, mother of pearl,
and jet. And they would leave it there as an offering and giving thanks for the kill they had
My uncle used to tell us about that. My uncle was a medicine man and he had all boys. And
he would, he taught them to do things like that. But I think now, the younger generation, you
know, like our kids have no idea what goes on any more. You know, they don’t they do, but
we just, like my husband and my son-in-law go hunting. They go out there and just kill and
bring it home. And all those things are—people are just getting away from it. That’s what she used to tell us. I don’t remember—my kids, they’ve been asking me about that. I raise my kids with stories of traditional belief. I never really got a hold of the Creation Story, so I haven’t teached them that, but my dad does. He does all of them, the Creation and the Coyote Stories. I tell them something that has to do with our clans and stuff. Like that and how my grandma used to teach me how to weave and stuff. That’s what I usually teach my kids.

My mother used the plants for medicine. I know them, but she told me not to pass it on. That’s what she told me. And she said they have certain meanings to her and to heal a person to have certain songs or certain prayers to ask that medicine to heal that person for this and that. So she told me just to keep it to myself. And my kids, they’ve been asking about it saying I don’t share what I learned from my grandma with them. She said it was very sacred. A lot of people that she helped, they’re still enjoying life.
ARCHAEOLOGY AND ANTHROPOLOGY OF THE SOUTHWEST:
EARLIEST INHABITANTS

Barney Mitchell (Navajo)

“My grandfather, a well-known medicine man, used to say he didn’t understand why people speak of the Anasazi as some foreign race. ‘We ourselves are Anasazi,’ he would say. He believed that pure Navajos once existed, but from time to time across the years they were joined by others who were refugees or had left their homes to find food. And surely some people always moved from place to place and did not settle in towns. In time they all came to speak Navajo and so called themselves Navajos. This can be seen in the stories of Navajo clans.

“There are supposed to be four original Navajo clans, but there is no agreement on these. Other clans we know came from other people in other places. They carry the names of ancient ruins, of other tribes and the clans of other tribes. So you can’t point back in time and say, ‘here the Anasazi ended and there the Navajos began.’” (Evers 83).

Rita Swentzel (Pueblo)

“The adobe structures flowed out of the earth, and it was often difficult to see where the ground stopped and where the structures began... As we are synonymous with and born of the earth, so are we made of the same stuff as our houses... The structures were interactive. We built them, tasted them, talked with them, climbed on them, lived with them, and watched them die... The entire community was the house” (Trimble 44).

The Navajo women interviewed grew up on the site of spectacular Anasazi ruins, artifacts, and rock art. Early in Sally’s interview, she talks about the Navajo migration into the area once inhabited by the Anasazi. But then she goes on to describe an ancestral connection. Both
Eloise and Virginia also describe this relationship. Although the Navajo have inhabited the same land and adopted some of the cultural practices that blend into their own culture from the Pueblo, an Anasazi-Navajo continuum is mythical. However, the Navajo have survived on the Colorado Plateau using the products of their environment, as described in their interviews, just as the earliest inhabitants used their skills to survive on the Plateau before them.

The first inhabitants of the Four Corners area were the Paleo-Indians. Around eleven thousand years ago they made their way into the area hunting big game with stone tipped spears. At this time, the Colorado Plateau supported big game animals such as mammoth, camel, horse, and sloth. The animals were butchered with stone knives and roasted on open fires. Bones were used for spear shafts to hunt other animals. Smaller game which added to their diet included elk, deer and wild sheep as well as rabbits, squirrels, and pocket gophers. The Paleo-Indians also gathered the wild plants growing in the area such as berries, nuts, seeds, greens, and tubers (Jones and Cordell 10).

In addition to food, hunting and gathering also provided skins for clothing and plants for basketry. Hunting techniques were improved as the atlatl was developed enabling an increase in the distance a spear was thrown. Religious ritual was probably practiced during this time. The people continued to live together in small groups and traveled with their dogs according to the seasons and the available food supplied by the land. Eventually the environment began to change to a drier climate which resulted in the formation of the Southwestern deserts. This meant a change in available food supply. The environment was no longer capable of supporting the large game animals hunted by the Paleo-Indians. When the game they had always hunted became too scarce, they migrated out of the area (Lister and Lister 185).
Around 4000 B.C. the people of the Archaic culture inhabited the Four Corners area. They were also nomadic hunters and gatherers, but they stayed in one location longer than the Paleo-Indians had. They hunted smaller game with their atlatls such as elk, deer, mountain sheep, antelope, rabbits, and rodents (Jones and Cordell 11). They also gathered wild plants to supplement their diet. Because they were less nomadic, they built hearths for their fires and made more elaborate stone tools. Choppers, scrapers, and hammer stones were used. Early manos and matates were used for grinding (Figure 1). Other artifacts that indicate a less nomadic lifestyle were woven from fiber such as baskets and clothing (Lister and Lister 188).

The Archaic culture experienced a dramatic change somewhere between 500 B.C. and 1 A.D. They developed the method for the domestication of plants. No longer would they be completely dependent on the old lifestyle of hunting and gathering with the necessary migration patterns. Corn, squash, and pumpkin were cultivated, and a more sedentary lifestyle was now possible (Lister and Lister 188).

1-400 A.D. is called the Basketmaker II period. These early ancestral Pueblos, or Anasazi, lived along the edge of the canyons where they were able to hunt game in the mountains and grow crops in the bottom of the canyons. Their diet was similar to their predecessors’, but agriculture had developed to the point where storage was necessary. They lived in rock overhangs or along cliff bases and in the floor of the shelter, and they built storage cysts of stone and mud (Lister and Lister 33).

Optimum conditions for preservation of artifacts in the Four Corners area has provided a great deal of information about its early people. In addition to the food preserved in the storage cysts, beautifully preserved objects shed light on how the people used the products of
their environment, not only for subsistence, but for improvement or enrichment as well.

Among the articles found are an abundance of woven baskets. They produced large conical baskets used to carry food and other items on the back. Other woven materials include round containers, bags, and trays. Woven bands, aprons, and sandals are examples of woven clothing made from the fibers of the yucca plant (Figure 2). Unusual blankets were also made from twining yucca fibers with soft turkey feather. Stone tools used by the Basketmaker II people include projectile points, drills, knives, milling tools, and hammer stones. But in addition to artifacts necessary for work, gaming pieces and beads from bone as well as pendants made from shell, seeds, and stone reveal a changing culture (Lister and Lister 33, 189).

The Basketmaker III period is from approximately 400-700 A.D. Because the climate has remained conducive to preservation, bodies were often naturally mummified. At death, bodies were flexed and placed under homes, in refuse mounds, or in storage pits (Lister and Lister 32). Because of the natural mummification, some of the physical makeup of these early people is known. Average height for men was around five feet four inches. The women were slightly shorter. The build was stocky. The life span was short by today’s standards but comparable to that of Europeans of that same time, about thirty or forty years. Common cause of death was due to malnutrition, exposure, disease, or poor sanitation (Lister).

As the population increased, people clustered together more and settlements usually consisted of two to fifty pithouses (Lister and Lister 34). Pithouses were dug from eighteen to twenty-four inches into the ground. The upper walls and cribbed roofs were of wood and dried mud and had earthen walls and floor. The opening for the pithouses was found on the southeast side of the house or through a hatchway in the roof (Jones and Cordell 24). The
pithouses were round or oval with a central hearth. Behind the hearth was a ventilator shaft for air circulation. Near the wall opposite the ventilator, was a small hole in the floor believed to be the sipapu. It represents the spiritual place of emergence (Jones and Cordell 24). The pithouses were small and used primarily for inclement weather, sleeping, and some food preparation (Lister).

In addition to food common to the Basketmaker II period, the Basketmaker III people now cultivated beans and domesticated turkeys (Lister). The bow and arrow began to take the place of the atlatl and spear (Ambler 2). Turquoise was used more in making jewelry, and pottery began to replace some basketry (Lister and Lister 34).

It was once thought that pottery came to the Southwest by the accidental burning of a mud container while parching seeds. Today it’s thought that the firing technique was introduced to the Mogollon from Mexico, who then passed it on to the Anasazi sometime between 300 or 400 A.D. (Lister and Lister 9). Early pottery was often small and globular-shaped. The clay was placed inside a basket which served to shape or mold the piece. The interior was then smoothed (Lister and Lister 10). Later pottery remained small and was shaped like baskets or gourds. The Anasazi pottery was a unique grey color. The color was due in part to the absorption of smoke and carbon during firing (Lister). Decorations were usually black geometrics although undecorated grey pottery was common too (Lister and Lister 34).

Pueblo I period is dated from 700-900 A.D, the population continued to rise and living quarters passed through a major transition. Instead of being partly submerged, the Pueblo I dwellings were now built on the surface (Lister and Lister 192). The locations for Pueblo I villages were similar to Basketmaker III locations. In fact, some pithouses were modified or
remodeled in Pueblo I villages. Homes were rectangular and built in a linear pattern. They were single or attached. At first they were simple ramadas, and then the walls and ceilings were enclosed with mud plastered over poles or brush. Later masonry was used (Lister and Lister 34).

The partly-submerged pithouse evolved into the kiva, changing the function from home to place of religious ritual (Jones and Cordell 26). Pueblo I kivas had a bench encircling the interior wall, roof support posts, a ventilator shaft, a firepit, and a sipapu. The year round temperature in a kiva is about 50 degrees Fahrenheit (Lister). An opening in the roof allowed smoke to escape and acted as an entrance and exit using a ladder. Each village had a few kivas and possibly a Great Kiva (Lister and Lister 34).

Cotton was now domesticated and the true loom developed. The manufacture of objects that had been made in the past began a decline. Hard cradle boards were used for infants, causing a flattening of the skull (Lister and Lister 35).

Ceramics became more advanced. The majority of cooking jars were now corrugated, and black on white pieces were decorated with finer lines and more intricate designs (Lister and Lister 192). Some brown ware and red on orange and black on red is from this period. Jars, bowls, ladles, and utility jars with neck banding were also common (Lister and Lister 35).

The Pueblo II era is from 900 to 1100 A.D. During this period, the Anasazi population was probably at its peak. Favorable weather conditions for crops, a better strain of corn, and more refined methods of water control added to the success of the population. Small masonry pueblos consisted of twelve to twenty rooms with one or more kivas per pueblo (Figure 3). Kivas were masonry lined (Figure 4). Great Kivas became more elaborate with large
supporting columns, masonry fireboxes and vaults, and occasionally small rooms around the outside possibly for storing ceremonial materials (Lister and Lister 35).

More villages were built along the mesas and canyons (Ambler 2). Ornamentation became more elaborate and ceramics continued to evolve (Figure 5). Gray corrugated ware, black on white, black on red, red, and brown with smudged black interiors are found at these sites (Lister and Lister 35). Designs were bolder (Ambler 2). Sometimes there was a combination of techniques such as corrugated on the outside and painting on the inside of bowls (Lister and Lister 41).

At this time the Anasazi living in Chaco Canyon advanced culturally far beyond the others in outlying areas. They learned to control runoff water and established many new villages and towns. Roads and outposts provided rapid communication. These changes are referred to as the “Chaco Phenomenon” (Lister and Lister 35).

The Pueblo III era was from approximately 1100-1300 A.D. Population continued to increase, but instead of continuing to spread, populated areas became more densely populated (Lister and Lister 36). Locations chosen were primarily mesa tops and caves, possibly for defense due to a reduction in natural resources or raids by the ancestors of the modern Utes and Paiutes (Ambler 3). The masonry villages became larger and were built with multiple stories around plazas. Kivas were still associated with the villages and were either circular or square. Great Kivas sometimes were built in a location convenient to serve several communities (Lister and Lister 36).

Advanced techniques were applied to the creation of jewelry, basketry, weaving, and ceramics. Black on white pottery reached new heights. Also significant were different pottery
types traded from other places such as reds, black on reds, black on oranges, red on browns, and polychromes (Lister and Lister 36).

Trade among the Anasazi and between other cultures excelled during the Pueblo III era (Ambler 3). Items included in trading were ceramics, turquoise, materials used for making ornaments and artifacts, and macaws, metals, stones, and shell objects from Mexico (Lister and Lister 36).

Sometime in the 1100's, the Anasazi began to leave the Four Corners area (Ambler 4). The migration is thought to have been gradual and due to several different reasons. With the success of the people came an increase in population. Over time, their resources in the area became depleted. More variation in summer rainfall affected resources as well. Available wood for heating, cooking, and building became scarce. Social ties necessary for trade began to fail, and it’s possible disputes due to resulting difficulties may have led to migrations to the tributaries of the northern Rio Grande, Upper Little Colorado River drainage, Hopi Mesas, and the Zuni Plateau (Jones and Cordell 59).

Mesa Verde and Chaco Canyon are two sites of Anasazi occupation that have provided many insights about these early people and their culture. The Anasazi first lived in pithouses at Mesa Verde and then moved to above ground pueblos between 700 and 900 A.D. They began to develop techniques to control water and soil to increase their crops. Over a thousand stone-check dams were built along streams to slow the runoff from rain and snowmelt. Trapped soil from the dams was used for growing crops. During this same period the Anasazi built Mummy Lake, a stone lined reservoir on Chapin Mesa. It is fifty-one feet in diameter. Several ditches brought the water to a natural drainage head (Jones and Cordell 33).
Around 1150-1200 A.D. the people began to move into large pueblos. Those built in large rock shelters are today known as cliff dwellings (Jones and Cordell 33).

Cliff Palace is the largest cliff dwelling in North America (Figure 6). It had two hundred seventeen rooms and could house 200-250 people. Cliff Palace is constructed of hand chipped sand stone blocks with mortar made from water and mud. Along with the mortar, tiny pieces of stone used for chinking filled in the gaps, and a thin coat of plaster was then spread over the masonry. During its occupation, building and remodeling was always in progress at Cliff Palace. The rooms are small with doors that could be closed with a woven mat or hide. Storage areas in the back could be sealed off with a stone slab, probably to prevent the invasion of rodents. The kivas have a varying number of solid pilasters, ventilator openings above and a stone deflector for the fire (Jones and Cordell 32).

In the Mesa Verde region two or three story towers are common and are often connected to kivas by a tunnel. Archaeologists have different theories about their functions. Some think they are defense lookouts, others say they are astronomical observatories, and still others think they have religious significance (Jones and Cordell 33).

Mesa Verde potters used kilns lined with stone which measured four feet wide, ten feet long, and a foot deep to create their pottery. They used mineral paint for their black on white decorations specific to this area. Pots were created for a number of different uses. Many beautiful mugs have been collected from this area. Potters from this location also created the only Southwestern pots with lids thought to have held ceremonial items. These are called the Mesa Verde "kiva jars" (Ambler 37, 41-42, 45-46, 52).

In time the land had become denuded. The people had not developed a way to fertilize and
the soil became depleted from overuse. Added to this was a devastating 20-year drought. Slowly, the people began to leave Mesa Verde. They took most of their portable belongings with them (Jones and Cordell 34). Because of some construction techniques found at the larger villages at Mesa Verde, it is possible that this area may have served as a Chaco Outlier (Ambler 18). Later remodeling at Chaco in the Mesa Verde style suggests some of the people may have migrated there. In time, all left and Mesa Verde was completely deserted by 1300 A.D. (James and Cordell 34).

By 1000 A.D. tremendous cultural growth was taking place in Chaco Canyon. Referred to as the Chaco Phenomenon, achievements during this time were unparalleled in the Anasazi culture. They were able to harness runoff waters, establish a network of several hundreds of towns and villages, and build roads and signaling outposts for rapid communication. Communication and trade with their neighbors from the South brought new ideas and materials to Chaco, which is evidenced in the architecture and artifacts of that period (Lister and Lister 35).

The towns at Chaco Canyon were built during the tenth and eleventh centuries. They were the product of well organized and skillful laborers. The sites always faced south and were constructed around plazas. Each town included several small kivas. In addition to the small kivas, each town also had a large kiva measuring more than fifty feet in diameter. Sometimes a town might also include a tower kiva (Jones and Cordell 34).

Kiva construction at Chaco included many unique features. Pilasters were constructed with a horizontal log placed between pilasters, unlike the Mesa Verde kivas, which had solid pilasters (Lister). Other features include antechambers used as an entrance and exit, a central
stone firebox with rectangular stone vaults on either side, and a high bench along the interior. Above the bench, small niches in the wall sometimes contained artifacts such as pendants, stone, and shell beads (Jones and Cordell 35).

Timber and wooden beams were used in construction throughout Chaco. One collapsed kiva roof had more than three 350 timbers alone (Jones and Cordell 35). It is estimated that over two hundred thousand timbers were used at Chaco, an area where no timber trees existed (Lister). The closest area to obtain lumber was over ninety miles away (James and Cordell 35).

Lumber and other artifacts were probably brought into Chaco along the prehistoric roadways. In all, two hundred forty miles of roadways lead to Chaco Canyon. They range from twenty-five to forty feet wide and are lined with burms or stones. Occasionally to continue the road over sandstone formations, stone steps were cut into the stone. An example of these carved steps is the Jackson Staircase (Jones and Cordell 36).

Chacoan Outliers were connected to Chaco Canyon by these prehistoric roads. The Outliers were small villages with much cruder construction, usually one story structures with small kivas. Dry farming was practiced instead of the intricate irrigation systems found at Chaco Canyon. There were no luxury goods and very little turquoise. Their purpose may have been a greeting station or for communication with Chaco (Lister).

One of the most outstanding examples of construction from the Pueblo III era is Pueblo Bonito at Chaco. Pueblo Bonito is a combination of architectural styles. The oldest section, built in the late 800's to 900 A.D., is constructed of simple masonry with no core and veneer technique. This section was used as a burial area for people of status. Bells, turquoise, and
feathers were found among the skeletons (Lister).

By 1000 A.D., Pueblo Bonito had approximately twenty masonry rooms (Figure 7). By 1100 A.D. it had expanded to over 800 rooms and kivas and stood four stories high (Ambler 15). Core and veneer masonry contributed to the increase of multiple stories at Pueblo Bonito. Wall exteriors were built by alternating layers of thick and thin masonry. The interior of the wall was filled with a combination of rocks, rubble, sand, and clay (Ambler 18). Along the upper stories, corner windows opened to the outdoors and were used as solstice markers. The sun could shine through the opening and hit special areas on the wall (Lister).

Around 1132 A.D., for unknown reasons the Chacoan construction ceased. Many of the people left. The later remodeling of architecture reflects a Mesa Verdean style which suggests possible occupation of that branch of the Anasazi people. By 1300, the Chacoan towns had all been deserted (Lister).

Many years of work have gone into piecing together the story of these ancient people through the intensive painstaking study of their dwellings, their artifacts and their remains. From these studies we have learned that their legacy is rich. The Anasazi used bone gaming pieces to gamble, and also made miniature pots and clay figures which might have been ceremonial but could have been toys. Women probably worked together to grind corn. Because of the grinding method with stone manos and matates, eventually their teeth were ground flat from the sand. Some of the people suffered from arthritis, rheumatism, malnutrition, and pneumonia. There were broken limbs, crushed fingers, injuries from cactus thorns, and insect bites. Migration took place when a new environment was desired (Ambler 56-57). Similarities between this past culture and the present one bring these ancient people
closer. Today study continues not only on the ancient sites but with descendants in the
pueblos of the Southwest to continue to piece together the story of the people and their
interaction with the land.
Dibe Nitsaa (Navajo)

"There was a time when wild bighorn sheep roamed all over Navajo Country. The Anasazi drew their pictures on rocks and caves and left behind white bones of sheep they had killed with spears. Stories from the Night Chant told by Navajo elders say that one of the Holy People, Ghaa ask idii, is in charge of the bighorn sheep, and that they follow him wherever he goes" (Evers 46).

Neither Sally nor Eloise mention the wonderful rock art found on the reservation, but Virginia relates her grandmother’s explanation. She describes it beautifully as being “like a poem” left to remind the artist or others of something important.

Interpretation of the ancient rock art may reveal important information about the early inhabitants of the Four Corners area. Perspectives on interpreting rock art have been provided using both scientific and cultural viewpoints. Alex Patterson has gathered information through extensive and systematic surveys of rock art sites and literature (Patterson). He has been endorsed by William Lipe, professor of anthropology and director of research at Crow Canyon Archaeological Center. Sally Cole, M.A., is an anthropologist and author specializing in rock art. Ken Hedges, M.A., is an archaeologist specializing in the shamanistic aspects of rock art. LaVan Martineau was raised in his teens by Indian families. He speaks several Indian languages including Indian sign language. Polly Schaafsma, M.A., is also an anthropologist and author who specializes in rock art.

Unfortunately, a Webster’s dictionary definition for rock art isn’t available (Patterson,
x). There are, however, many interesting attempts to bring meaning to rock art. In *Rock Art Symbols of the Greater Southwest*, Alex Patterson has created a field guide to rock art. Although he admits that there is no proof his ascribed meanings are correct, data has been collected to attempt possible interpretations. This was done by gathering together commentaries on symbols. Then a word or phrase was chosen that most closely summarized the symbol meanings. Information was gathered from the writings of archaeologists, anthropologists, researchers, Native American informants, and other writers. Patterson often presents a selection of meanings, because there may be a conflict of interpretation due to different locations or cultures involved. In addition, some symbols may have more than one meaning. A stick cross may represent a star or the Star Clan. A spiral may mean wind, water, or a journey of the people in search of the Center.

In *Legacy on Stone*, Sally Cole makes associations between rock art and past cultures and says that rock art function and interpretation are still experimental because records are incomplete. Historic and ethnographic data contributes significantly to interpretation but only if there are clear associations between sites and cultures of the past and historic present (Cole, 36). Emphasis must be placed on context and symbolism. Abstract art removed from its original cultural context is the most difficult to interpret. Studies have suggested possible interpretations from nature, social groups, and concepts. A pecked line or row of dots may be a means of joining things or relating concepts (Cole 38-39). Animal tracks may describe animals or their movements or ancestors and their movements (Cole, 39). Early Anasazi rock art has been interpreted as being symbolic of shamanism (Cole, 38). According to Cole, “Shamans are specialists in the sacred, able to call upon
the powers of animal helpers, to see spirits, to go up into the sky or upper world and meet the
gods, and to descend to the underworld to meet gods and fight demons, sickness, and death. Accordingly, shamans are identified with acts of transformation and rebirth.” They serve as specialists on fertility, health, sickness, and death. They attempt to balance the universal forces for community well-being (Cole, 38).

Ken Hedges of the San Diego Museum of Man also looks to shamanic practice as a major influence on rock art. He defines shamanic practice as the acquisition and use of supernatural power. This supernatural power is gained through the technique of ecstatic trance. The shaman possesses familiar spirits. He is able to take their form or be accompanied by them. Examples of particular importance for rock art are anthropomorphized animals, especially birds such as owls, hummingbirds, and eagles (Hedges, 85). Rock art may reflect the metamorphosis of transition. Examples show the shaman possessing both animal and human characteristics (Figure 8). In addition, images may be added to portray an alter ego shown within or in association with an essentially human representation (Hedges, 86) (Figure 9). He also describes anthropomorphs with sharp, curving horns or in feathered headdresses as a basic example of shamanic power. Rays from the head also represent power and any symbol appearing to be wings may signify shamanic flight.

LaVan Martineau takes a very different path to understanding the significance of rock art. He classifies Indian pictography as an actual writing system not to be appreciated as simply an art form, but to actually be read. While serving in the U.S. military, Martineau had the opportunity to study cryptography. Cryptography is used by the military to
decipher codes and ciphers. It requires time, imagination, and an abundance of material. Like Patterson, Martineau gathered and categorized as much rock art as possible. And, like Cole, he believes an understanding of cultural traits and time periods imperative to reading rock writings (Martineau, 31). Martineau discovered the relationship between sign language and rock art. Universal sign language was historically used as a means of communication between all Indian tribes from Mexico to Alaska. This enabled communication or understanding despite all the different languages used. Martineau believes that rock art was a combination of sign language, written symbols, and abbreviations. For example, a wavy line may represent the cupped hand of sign language for water. The actual representational drawing of a moccasin is more efficient to create than a sign language version. A pair of eyes are the abbreviation for looking. Thus, Martineau describes the combination of techniques used to enable more efficient communication between the different peoples.

He began his interpretations simply with locators. Locators were created on a conspicuous rock to direct others to out-of-the-way panels. Examples are two dots lined up to point the way or a straight line pointing in the direction of a hidden panel. He also interpreted an upward spiral to mean “going up,” a reversed spiral, “going down.” And a cross to indicate something must be crossed to reach a hidden panel (Martineau, 19).

Using Martineau’s method of interpretation, it is essential to keep in mind a basic principle of sign language, as well as almost all hieroglyphic systems of the world—the principle of developing the concept of a symbol beyond the basic meaning. Again, attention to time period and cultural influence are essential.
Placement of objects on a panel play an important role. Objects placed in descending order may represent a time frame such as the succession of certain chiefs. Superimposition may indicate ideas such as behind, in front, and association. To illustrate the concept of movement, Martineau uses the quadruped. The horns extend in the direction of movement (Figure 10). In addition, open horns may mean nothing there, and a single arc may mean “hidden”. Shield figures are used to represent defended positions behind rock dwellings or fortifications (Martineau, 135). Martineau interprets birds with different meaning— as figures of salvation or meaning “to take flight” or “to seek safety” (Martineau, 129).

In Polly Schaafsma’s book, *Indian Rock Art of the Southwest*, she, like Cole, stresses the necessity of the ethnological record whenever interpretation is possible. She, like Hedges, uses the example of shamanistic symbolism. Because there is a history of shamanistic beliefs found throughout the world, general interpretations have been made by “comparing elements in the rock art with various aspects of shamanistic symbolism” (Schaafsma, 10). Like Patterson, she cautions against assigning a single interpretation to a single design because she feels there can be a variety of possible meanings. She believes one method of interpretation made “with a reasonable degree of certainty” is to use as ethnographic sources the same cultures existing today such as the Pueblos and Navajos. In addition, Schaafsma disagrees with the possibility of Indian rock art as a form of writing and calls it a “misconception.” She refers to Martineau’s work as a hypothesis that is “not substantiated by archaeology due to a lack of universal meanings for symbols” (Schaafsma, 13).
Each of these researchers—Patterson, Cole, Hedges, Martineau, and Schaafsma—has added an additional dimension to the possible interpretation of rock art. Because data necessary for accurate interpretation is lacking, it is only possible to define these interpretations as opinions. However, research continues. Jim Judge, an archaeology professor at Fort Lewis College, is compiling information based on descendants of ancient cultures existing today in the Southwest, a method mentioned previously by Polly Schaafsma. His work centers around interpretation of Anasazi rock art through the eyes of Hopi and other Pueblo people. In time, through the efforts of preservation and continued study using Native American descendants, the interpretation of rock art will add to our present knowledge of the early inhabitants of the Colorado Plateau.
NAVAJO WEAVING

Kalley Musial (Navajo)

“I started to weave when I was six. My grandma was going blind. One day she couldn’t see and she said, ‘It’s your turn. There is no other way we can get food.’ She didn’t teach me, she just said, ‘You’ve seen me weave all these years; you should know if you’ve got it in you’” (Trimble 148).

One of the most important cultural traits the Navajo learned from the Pueblo is the art of weaving. Both Sally and Eloise describe weaving in their families, Sally at great length. She describes the long, painstaking process necessary to produce the famous weaves. Weaving is so important to Navajo identity that she stresses learning the art twice in her interview, “All daughters have to learn how to weave. You have to learn how to weave.”

Herding sheep, processing wool, dyeing, patterns, mythology, and cultural influence on economics are all parts of the Navajo traditional way of life reflected in their weaving (Kent 4). Throughout history Navajo weavers have shown great adaptability in making changes in materials and design primarily for monetary return. But in addition to economics, weaving is also a prized art form among traditional Navajo people (Kent 5).

The history of this art form is divided by time increments based on transitions in the weavings. Sometime between 1300 A.D. and 1500 A.D. the Athapascan Indians, which would become known as the Navajo, migrated south from Canada (Kent 7). They were hunters and seed-gatherers when they first arrived in the Southwest where the Pueblo people were already established (Locke 160). The Pueblo were already cultivating plants and the Navajo soon adopted their techniques (Kent 7). In addition to crop cultivation, the Pueblo were weaving, using the wild cotton growing in the area. Soon the Navajo were weaving rough mantles and clothing too. In
addition to weaving with the wild cotton, the Pueblo and early Navajo may have used the fine under hair from the wild mountain goats (Locke 34, 160).

Spain first introduced sheep into the Southwest around 1598 (Locke 34). The introduction of the sheep was part of Spain’s colonization policy to make the colonies profitable and self sustaining. The type of sheep introduced to the Southwest was the churro. This small, scrawny animal was brought in by the thousands in the sixteenth century (Locke 34). The wool was long and straight, and once cleaned from the thorny debris of the arid Southwestern environment, the people found it ideal for weaving (Dedera 15).

Soon after the sheep were introduced, the Navajo began to raid the herds and discovered them good to eat. By raiding and barter, they built up their own flocks and by the mid 1500’s the Navajo culture had changed. Introduction of the sheep changed the culture from primarily hunters and gatherers to farmers, traders and sheep herders (Dedera 8).

The period of time from 1650 to 1865 in weaving is called the Classic period. During the late 1600’s, the Southwest was undergoing a transition brought about by social upheaval and cultural exchange. The usually submissive Pueblos, joined by the Navajos, rose up against their Spanish masters and drove them back to Mexico. Afterward, to maintain strength and safety, the Pueblo and Navajo people stayed closely allied. The resurgence of the Spanish army in 1692 served to further strengthen the alliance. It is assumed that during these decades of close association the Navajos began to weave with wool (Dedera 8).

By the beginning of the nineteenth century, Navajo sheep and goat herds had destroyed most of the wild cotton previously used for weaving. The Navajos began weaving almost exclusively in wool. The earliest examples of Classic weaving were found in Massacre Cave in Canyon del
Muerto. In 1805, the Spanish raided the Navajo, killing over one hundred people. Mostly the bodies of women and children were found. With them were fragments of the Classic period weaving including half a Navajo dress (Locke 35). The earliest weavings known are tightly woven from hand spun wool. The pieces are white with stripes woven from either black or brown sheep which were found in the churro herds (Locke 36). The Classic striped pattern of white with black stripes about two inches wide was just one style created by the Navajos. By the mid-1800’s other patterns began to emerge. In addition, the weave became so dense that the weaving could actually hold water. The Navajos created serapes which could protect them from the rain. These pieces were highly prized and were probably valuable as trade items (Kent 10-11).

The Southwest became part of the United States in 1848. Instead of Mexico, the United States authorities began measures that would result in great cultural change for the Navajo. The changes are reflected in their weaving and are referred to as the Transition Period, 1865-1895 (Kent 13).

At first the government created treaties with the Navajo. Different treaties were drawn up for various groups to ensure peace. With the failure of the treaties, the U.S. Army established two posts at Fort Wingate and Fort Defiance to enforce peace (Kent 13). This effort also failed. The result was the decision by the U.S. government to capture and move all the Navajo and Mescalero Apache to a reservation at Bosque Redondo near Fort Sumner.

In 1863 Colonel Kit Carson led his soldiers into Navajo land. Carson’s army destroyed the crops and killed the animals which belonged to the Navajo people as he traveled, effectively destroying their subsistence base. Eight thousand Navajo men, women and children survived the long walk to Bosque Redondo (Kent 11).

During the four years of Navajo captivity at Bosque Redondo, the transition from the Classical
period of Navajo weaving to the Transitional period began to take place, mostly the result of cultural influence. Because the Navajo sheep had been destroyed, the weavers had to rely on issued materials for weaving. The army supplied the Navajos with cotton string and commercial yarns. The commercial yarns were both natural and aniline dyed wool. Many colors that were new to the Navajo were now available. In addition, four thousand blankets were distributed to the Navajos from an outside source. These blankets had been woven by Hispanic weavers from the Rio Grand Valley. It is possible this cultural influence was responsible for the transition from the terraced designs of the Classical period to the diamond designs of the Transition period (Kent 12).

In June of 1868, the Navajo people at Bosque Redondo were allowed to return to their home land. The reservation created for them was only a fraction of their traditional land. Approximately seven thousand Navajos survived the walk back. Upon return, the governing agent had changed. Instead of the governing force of the United States army, the Navajos would be under the administrative authority of the Bureau of Indian Affairs (Kent 13).

During the Transition years the economic base of the Navajo people changed. Prior to their long years of captivity at Bosque Redondo, the Navajo primarily were hunters, gathers, farmers, and herders. Once they were back on their traditional land, herding and trade became the main sources of economic gain. Only a minimal amount of farming continued. Trade was concentrated in two areas, the traditional trade pattern with other Native Americans and with the trading posts. The Navajo were able to trade their livestock and blankets to the Pueblos, Utes, Apaches, and Hispanics for baskets, horses, buckskin, and food items. The finer blankets, wool, pelts, and goat skins were traded for flour, coffee, yarns, chemical dyes, and other items they had come to know since Bosque Redondo (Kent 15).
Government items issued to the Navajo from 1869 to 1879 included commercial cloth and blankets and items for weaving such as cotton string, aniline and indigo dye, and commercial wool yarns (Kent 14).

Following the Civil War, there was a great demand for wool. The Navajo were able to prosper from its sale. It was very time consuming to go through the traditional process of cleaning, spinning, and dyeing the wool themselves; therefore, many Navajo opted to sell their wool and then purchase commercial wool for their own weaving (Kent 17).

About two-thirds of the blankets woven during this period were coarsely-woven blankets that were used for wearing. The more finely woven blankets were made specifically to be sold for profit. These blankets were often woven in the colorful commercial yarns with patterns influenced by the traders themselves. These blankets woven from the bright synthetic wool are called “Germantown” weaving. The trading posts became suppliers to tourists and retail outlets in the East (Kent 17).

The Rug period was a change largely due to trader influence from traditional blankets to the heavier rugs. In the 1880’s, the Navajos were better off economically than ever before. But by the 1890’s, changes brought a sharp decline. The Navajo sheep herds increased in size to the point that their environment could no longer support the large numbers. The ranges became overgrazed. Then, a drought occurred in 1891-92 that devastated their large herds by starvation. On the East coast, the financial panic of 1893 further complicated matters by drastically dropping the price of wool. These events plunged the Navajo people into economic trouble (Kent 17).

The traders looked for economic adaptation and found the expanding interest in the growing American West and Indian people to be the answer. They decided to capitalize on the market and
worked with the Navajo weavers to supply the American East with the products they wanted. Instead of the traditional blankets, dealers encouraged the weavers to produce rugs with colors and designs compatible with consumer tastes and home decor. Trading posts became centers for weaving, and the Navajo weavers would design according to the traders' direction. Natural wools were encouraged instead of the commercial “Germantown” wools (Kent 19).

During the early days of the Rug period, the traders paid the weavers for their rugs by the pound, and the result is seen in the weaving. The weavers worked quickly and the wool was no longer prepared as it once had been. The yarn wasn’t cleaned well and the quality of the spinning and dyeing declined (Locke 37). Since they were being paid by the pound, the Navajo women took measures to increase the weight of their weaving. They stopped washing the wool to increase the weight by retaining dirt and grease. Some would pound sand into the weaving to increase the weight (Locke 38).

Under the direction of the traders, trading posts interested in furthering the art of weaving became centers for quality rugs producing styles for specific consumer tastes. Certain patterns and styles became associated with regional trading posts. Today regional styles are woven all over the reservation, and more style types are available that are patterned after the original weaving regions (Kent 19).

The weaving regions on the reservation are responsible for the origination of characteristic rugs. These include Coyote Canyon, Teec Nos Pos, Lukachukai, Red Mesa, Chrystal, Chinle, Wide Ruins, Ganado, Keams Canyon, Coal Mine, West Reservation, and Shiprock. Each region produced a unique style. The Yei Blanket, first produced in Shiprock, was a controversial pattern for many Navajos. Its colorful pattern depicted the Yei, which is a religious figure used in sand
paintings. Even though the rug itself had no religious or spiritual significance, the older Navajos objected to the depiction of the holy figure in the weaving (Locke 38).

Although the rug patterns may not have spiritual significance, the art of weaving itself has a long history in Navajo mythology. Navajo weavers believe that weaving was a gift to them from Spider Woman, one of the Holy People. “Spider Woman instructed the Navajo women how to weave on a loom which Spider Man told them how to make. The cross poles were made of sky and earth cords, the warp sticks of sun rays, the healds of rock crystal and sheet lightning. The batten was a sun halo, white shell make the comb. There were four spindles: one stick of zig zag lightning with a worl of canned coal; one a stick of flash lightning with a worl of turquoise; a third had a stick of sheet lightning with a worl of abalone; a rain streamer formed the stick of the fourth, and its worl was a white shell” (Dedera 7).

The Navajo believe the sheep providing the wool are also gifts from the Holy People (Trimble 133). Even the act of weaving integrates peace and patience with everyday life. “The patience has to come from you. The rug cannot teach you to be patient. Whatever is happening in your life, that’s where you get your peace from, and peace will give you patience” (Trimble 148).

Even today the relationship between the Navajo weavers and Spider Woman is apparent in songs, prayers, taboos, and in the weavings themselves (Trimble 148). In tribute to Spider Woman, the Navajo weaver would traditionally leave a small hole resembling a spider web in the center of a blanket (Figure 14). This custom continued until traders refused to purchase these blankets. Instead of the center hole, the Navajo weavers switched to a different “spirit outlet, usually a thin line from the center of the blanket to the edge. There are different purposes for the spirit line. One is to pay tribute to or acknowledge the debt to Spider Woman. If Spider Woman is
refused the weaver may experience “blanket sickness.” Some weavers believe Spider Woman will spin webs in the head of the weaver if she is denied (Locke 34). The traders sometimes use the phrase “the devil’s highway,” which allows evil spirits to leave the weaving as a description for the spirit line. Some weavers place the spirit line in the weaving because the custom has been passed down from their mothers or because the traders and buyers prefer it (Dedera 94). In a study by Noel Bennett entitled *The Weaver’s Pathway: A Clarification of the Spirit Trail*, the author concluded the following: “To most women the wefted gesture allows a pathway so that a weaver’s ‘spirit, mind, energies, and design’ will not be trapped within the completed rug. In a sense the pathway line says, ‘May the next weaving be even better.’”

According to Locke in *The Book of the Navajo*, “No two Navajo rugs are exactly alike” (Locke 38). This refers not only to design and technique, but also to the unique dyes used through the years. One of the great strengths of the Navajo people is their gift for adaptability (Dedera 97). The change in the availability of materials for dyes is seen in the weaving through the years.

Natural wool from the churro cheep which descended from Spanish herds was dyed with available plants and set with urine as an acid (Dedera 18). In the early 1800's indigo dye was sent from Europe. The Navajo weavers used the indigo to produce a rich, deep blue wool which was woven into end stripes on early blankets. By the mid 1800's, green and yellow wool was woven with the natural colored wools. During the Classic period, the black wool was darkened by combining sumac, ochre, and pinon pitch. Green vegetal dye was made by mixing goldenrod extract with indigo. Vegetal dye from rabbit brush blossoms produced yellow (Dedera 25). Red flannel was unravelled and twisted when available, and commercial dyes became available, introducing a wide range of new colors (Dedera 18).
In the 1930's, many Navajo weavers began to return to the more traditional Navajo style of weaving using their native dyes. Today, many traditional Navajo weavers use only wool dyed by themselves or family members using the old techniques (Locke 38). Vegetal dyeing is sometimes done carefully each day for a week to achieve the desired color of their ancestors, and then they set the color with either a chemical or natural acid (Dedera 18). The native vegetation found in the region where the Navajo live provide a vast selection of materials for the women to make natural recipes for their dyes. These include roots, bark, flowers, fruit, leaves, and dried plants (Dedera 25, 58).

It's primarily the women who not only dye the wool and weave it, but also own the sheep. Because of this, they became the main contributors to the economic stability of the Navajo people (Trimble 134). Long before Navajo women were weaving, the Pueblo men were raising cotton and weaving. After sheep were introduced, the Navajo raided the Pueblo for sheep and eventually for the Pueblo weaver as well to learn their weaving skill (Trimble 134). According to Kent in *Navajo Weaving*, it was the Navajo women instead of men who became the weavers because of the established gender roles in the Navajo culture. The men were involved in active roles which took them away for periods of time. They were raiding, hunting, and trading. The women stayed at home and developed crafts such as coiled basketry. Early basketry patterns are similar to patterns found in weaving from as early as the 1700's (Kent 9).

When sheep were obtained by the Navajo, it was the more sedentary lifestyle of the women which made them the better caretakers of the animals. It has been suggested that the Navajo men felt it was beneath them to spend time caring for tame animals. In any event, the Navajo women eventually became the main proprietors of the sheep and wool in their society, which resulted in
the women themselves controlling a very important segment of the Navajo’s economy (Dedera 10).

Navajo weaving remains an important staple of the Navajo economy, but it’s also a reflection of the social and political history of the Navajo (Kent 2). Dedera summarizes the essence of the weaver and her craft in *Navajo Rugs*: “Into the Tribal Arts and Crafts Center at Window Rock a weaver brings her newest masterpiece of weaving, a three-by-five-foot rug. She receives a whole sale price of $3000 for her work. Tourists gasp. “They do not realize that for her $3000 the weaver raised her sheep, sheared them, washed and carded the wool, spun the yarn, and spent every available minute of eighteen months in weaving a fabric that in many respects symbolizes the soul of the undaunted Dine” (Dedera 5) (Figure 15).
clan brother of George Blueeyes

“When you want to hear a story, when you want to have a story told to you, this is the proper way of going about it: If you really want to learn, you would go to the storyteller’s place and you would put on a pot of coffee. You would lay out mountain tobacco. Then you would roll one, using a corn husk, and give it to the storyteller, and you would light it for him, saying, ‘I want you to tell me the story. I want to know this...’ Then he would tell you. Coffee will be boiling. Maybe you might even make haniigaii, stew with corn And you would ask him, ‘Now tell me the story.’ If you are the person who is saying, ‘I want to know this story,’ if you really are sincere about it, then you would do this.

“The storyteller will tell you a story here, then skip one or two and tell you another story, then tell you another. If there were another person there, he would tell that person the part that he didn’t tell you, and the part that he told you, he will not tell to him. Then after he has finished telling you everything you wanted to know, he will say, ‘Go, go tell each other the stories that I have told you.’ In that way, the complete story does not come from his mouth. So no two people hear the complete story from one man. That is the way it is. You cannot tell everything. This protects you and shields you. You walk behind this shield. It protects you, and you walk behind it. It is like that” (Evers 89).

Native American myths and legends of the Colorado Plateau again emphasize the bond between the people and their environment as illustrated in subjects, characters, and even the proper season to tell the stories. Eloise and Virginia both discuss the subject of story telling in their families. An interesting point that Eloise makes is the importance of correctly relating the
stories by the story teller when she says, "I never really got a hold of the Creation Story, so I haven’t teached them that, but my dad does. He does all of them, the Creation and the Coyote Stories." Virginia discusses the important role of Navajo myths and legends to the traditional Navajo identity and the slipping away from the oral tradition. She worries that many Navajo children aren’t hearing the stories that are part of the Navajo identity.

Myths and legends are an essential component of Native American culture. The characters and experiences are always a part of everyday life (Farella 23). In Navajo Coyote Tales, Father Berard Haile suggests they might be referred to as religion as long as religion in the Native American sense is understood (Haile 4). The concept of religion for the Pueblo is described by Frank Guy Applegate in Indian Stories from the Pueblo. He states that there is no single anthropomorphic supreme being, but rather a cosmic spirit which spreads throughout the universe. This cosmic spirit becomes a part of all things. Through prayer, ceremony, and incantation the cosmic spirit can be drawn out for special purposes (Applegate 5-6). In Native American myths and legends all parts of the storytelling process are important. These include not only the stories themselves, but also the purpose for the story, how the stories are told, and the storytellers.

The stories often describe the most common, everyday acts. These include birth, death, farming, eating, and any other human act which might be considered "sacred". The stories both describe and are contingent on experience. It is said that if a person hears and listens to a story and applies it to his life, he knows it to be true. The more experiences that are applied, the better the stories are understood (Farella 24).

There are several uses for stories in Native American culture. Primarily they are used to
teach survival. Emphasis is placed on both the independence of the individual and the importance of cooperating for the success of the group (Bruchac 93). Teaching for cooperation through stories has been used for children as well as adults. Instead of coercion or punishment, storytelling is used to instruct the correct way to behave. A story might also be used to show the consequences of improper actions. Only if the storytelling proved ineffective were other means taken. The most serious offenders were either shunned or banned (Bruchac 93).

Because the existence of the group depended on coexistence in a state of cooperation, storytelling has historically been extremely important and taken very seriously. For this reason, the story had to be memorable, entertaining, and creative. In addition, the meaning had to be clear to be effective. Hence, the stories handed down generation to generation were powerful and had great meaning for the people. In the book, *Keepers of the Earth*, stories are compared to food. For the Native American, they are both enjoyable and necessary for survival.

Even jokes are listened to very carefully and the meanings given full consideration. Because Native American people tend to believe in non-interference with others, indirect action is often taken through joke telling to make a point (Bruchac 94). In addition to teaching lessons, stories are also used as part of healing rituals. The Navajo create sand paintings using figures from stories for Healing Way ceremonies. The patient lies on the painting and, in doing so, becomes a part of the story for healing purposes. (Bruchac 95).

Using art as part of storytelling is also seen in murals, petroglyphs, and pictographs (Figure 11, 12). Interpretations of those from the ancient Pueblo people are done based on cultural context of the Pueblo people who have had a long history of oral tradition. These stories hold the memory of powerful and important myths that are the foundation for their culture.
Just as in the oral tradition of the storyteller, where every nuance adds to the richness of the message, in rock art all details play an important role. “Position, texture, proximity, repetition, abbreviation and rock incorporation are all factors of contextual significance. Each rock is also considered as part of the context, with every crack, curve, bump and crevice examined to determine if it may also be included within the context of the panel (Patterson-Rudolph xxii).

Animals are often used in Native American stories to illustrate the belief in the equality of various beings through the sharing of a common spirit. The spirit world figures strongly in Native American stories. The spirits travel effortlessly between this world and the spirit world. The human body is divided, one side tied to the natural world and the other to the spirit world. The sipapu is an opening in the earth through which the first people emerged. In the ceremonial kiva, the sipapu is an opening through which spirits pass from one world to another. Many beings in the natural world are able to transform from human to animal form and back at will. Native Americans view death as a transition from one level of consciousness to another (Pijoan 13). These themes are often evident in the stories told.

The use of Native American stories is a sacred responsibility. Because of the unique nature of these stories, more non-Indian storytellers have become interested in telling the stories. This, according to traditional American Indians, can cause some problems which could be avoided. Many non-Indian storytellers get their stories from written sources. Because these stories are from oral tradition, inaccurate or incomplete interpretations for recording are common. It is recommended to get the stories by actually listening to a Native American storyteller (Bruchac 93).
To develop a proper relationship with the stories, it is necessary to have a knowledge of the intellectual or material culture of the Indian nation behind a specific story. By following strict guidelines, we can share these powerful stories wisely. Hopefully, in doing so, we will prevent them from being harmful to the tellers and listeners (Bruchac 93). During healing, the Navajos believe that a single mistake can cause loss of hearing, sight, or paralysis (Locke 49). Stories are structured into prayers which then become the medicine of the singers. This story medicine is used when someone is ill, troubled, or thrown out of balance by contact with ghosts, witches, corpses, or whites (Trimble 128).

Because of the seriousness and importance of storytelling, choosing storytellers or story holders is done carefully. In *The Main Stalk*, John R. Farella quotes a Navajo, Grey Mustache, describing the importance of the storyteller to children: “If you would only come to know our words and would take the time to think them over, you would come to know that they were true and valuable. These teachings are of a kind that you would someday want to use in teaching your own children. But hardly any of you will listen to us anymore, even though there are now so many of you. And so it is up to those few of you who do want to learn. You will never be alone. You’ll learn one thing after another and the old people will help you. Then, the more you learn, the more you’ll be able to tie things together and to understand. And so it is up to those of you who are really interested to listen and to make sense for yourselves of what we say. Then you will come to be respected and sought after for advice...people will think of you as a living, sparking fire. And then here’s another thing. Others will speak of the dead in the past tense, but you knowledgeable ones will say ‘So and so says this,’ even though the teller is dead. Though the person had died, the knowledge has been passed on and is alive” (Farella 24).
Teresa Pijoan is a good example of an authentic Native American storyteller. When she was chosen by her pueblo to be a storyteller, she was the only girl out of eight children selected. After the traditional ceremony was held in the kiva, she became a story holder for life. She remembers long hours of training while other children played after school. Over and over she practiced the stories until they were told correctly. Pijoan, in the oral tradition, was taught to learn, remember, tell, and share the stories (Pijoan 10).

Each storyteller brings a different flavor to the story. The following stories are my interpretations from sources on Native American myths and legends. They give the stories relating to subjects mentioned in the interviews: Creation Story which Eloise’s father tells, the myth of the Navajo hogan, and why corn is considered sacred and used in ceremonies.

Four Worlds: The Dine Story of Creation (Navajo)

(from Keepers of the Earth)

Long ago, in a world far below this world was First World. In First World there was only darkness and six beings. They were First Man, the son of Night and the Blue Sky over the sunset; First Woman, the daughter of Day Break and the Yellow Sky of sunset; Salt Woman; Fire God; Coyote; and Begochniddy. Begochniddy, the child of the Sun, was both male and female.

There was nothing in First World, and then Begochniddy began to create. In the east a white mountain was created, in the south, a blue mountain. In the west Begochniddy created a yellow mountain and in the north a black one. After the mountains were complete, Begochniddy
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continued to create. He created ants, insects, and the first plants. Fire God became jealous and
began to destroy by fire.

Begochiddy told First Man to gather the plants and other beings and went to the red
mountain where Begochiddy planted the Big Reed. The Big Reed began to grow, and the First
Beings climbed it until they reached the Second World.

Begochiddy created more things in the Second World, more plants and mountains, clouds,
and beings such a Swallow People and Cat People. The color of the Second World was blue.
The Cat People fought Begochiddy and others, but First Man repressed them with his magic.
For awhile all was well, but when things began to go wrong, Begochiddy again planted Big
Reed. Again First Man and the others put creations on Big Reed which carried them to Third
World.

Third World was more beautiful than First and Second World. Although there was no sun
and moon, light was provided by the mountains. Here, Begochiddy created rivers and springs
and the water animals that would live there. In addition, he created birds, trees, lightening, and
all kinds of humans. Everyone spoke one language, but again there was trouble. First Man
placed streaks of red and yellow in the sky which represented disease to the people caused by
evil magic. Soon the men and women began to quarrel with each other. Begochiddy decided to
separate them, men on the right bank of the river and women on the left bank. After some time,
they wanted to be reunited. Begochiddy agreed to reunite them, but warned that if there was
anymore trouble, Third World would be destroyed by flood.

One day Salt Woman was walking by the intersection of the two big rivers. There she saw
what appeared to be a baby with long, black hair. When she returned to the people, Coyote
heard her tell the others about the baby. Coyote is always curious, even about things that are none of his business. He went to the place where the rivers crossed, pulled the baby out of the water, and hid it under his blanket.

Four days later the sound of a great flood was heard. Begochiddy knew someone had done something wrong. Great storms came from all directions, a black storm from the east, a blue storm from the south, a yellow storm from the west, and a white storm from the north. Again Begochiddy used Big Reed to save the creations, this time from flood.

But Big Reed stopped growing before it reached Fourth World. Spider People wove a web to bridge the gap, but they were unable to break through. When Ant People tried unsuccessfully to dig through, Begochiddy asked the Locust People to try. The Locust was able to break through and Begochiddy looked into the Fourth World. He was on an island with only water surrounding it. There were other powerful beings in Fourth World. Talking God was in the east, First Bringer of Seeds in the south, House God in the west, and Second Bringer of Seeds in the north. Begochiddy asked for help and the waters receded leaving mud.

Begochiddy returned to Big Reed and asked for someone to walk in Fourth World. Badger volunteered, but his feet slipped into the mud right away. Today, all badgers still have black feet. Next, the winds volunteered to help. They went to Fourth World and blew until the people could walk there.

When Begochiddy looked back down to Third World, he saw the water was still rising. He asked the people who had angered the Water Monster. When Coyote pulled his blanket tighter around himself, Begochiddy told him to open his blanket. When Begochiddy was the water baby, he told Coyote to drop it back to Water Monster in the Third World. Immediately the
water began to recede.

In the Fourth World Begochiddy hung the sun, moon, and stars. The mountains and all other creations were put in their place. But Fire God refused to give the people fire they needed for warmth and cooking. Again Coyote was thieving. This time he took fire from Fire God and gave it to all the people. Begochiddy instructed the people on the proper way to live, give thanks, and care for corn, squash, and beans. He gave them different languages and sent them in different directions. Changing Woman came to be and gave birth to the Hero Twins who destroyed the monsters.

Three worlds were destroyed when harmony was not maintained. The same destiny waits for the fourth world unless the people live properly. This is what the Dine say.

The Sacred Microcosm of the Navajo Hogan
(from Wisdom of the Elders)

The first hogan was created by First Man and First Woman after their emergence to the earth’s surface. This ceremonial house stood at the emergence place or center of the universe and represented the universe. In the first hogan First Man and First Woman created the beings who would go on to populate the earth. Its sacredness is evident in all aspects of its design. The architecture mirrors the architecture of the universe. The dome shaped roof reflects the sky. The dirt floor is a connection with the earth itself. Four vertical wooden pillars used to support the roof are placed in the four directions of the sun’s path, east to south to west to north. The hogan has only one door that always faces east. For the Navajo, the sole opening of
the world lies in the east. The outer walls of the hogan are circular. The shape represents the circular horizon, the shape of the sun, nature’s annual growth and fertility cycles, and the turning of the seasons. Inside the hogan, the Navajo walk in the direction of the sun, chanting and praying to restore the earth to balance and beauty. This is the story of the hogan.

Navajo hogans are still in use today. They are dome-shaped and spacious. Their construction of logs and mud provides the insulation necessary for year round use. In addition to ceremonial use, the hogan is used for cooking, weaving, sleeping, child bearing, and storytelling.

The Kuaua Murals
(from Book of the Hopi)

The Hopi corn has small ears and grows on short stalks on sandy and rocky hillsides with little rain. This miraculous plant is important in the myths and culture of the Hopi people and often is included in the stories told. Murals are painted on the walls of a rectangular kiva in an historic pueblo near Bernalillo, New Mexico. One of the murals depicts the Head of the Corn Clan. The Head of the Corn Clan has power over all the directional colored corn: red, yellow, white, and black.

The Hopis believe that corn was a divine gift created for them in the first world. As each world was destroyed, corn again would be given in the next world. Prior to ascending to the Fourth World, the Creator decided to test for greed and ignorance among the different groups
of people. He laid out all different sizes of corn. The people were told to choose an ear of corn according to their wisdom. Some groups chose the longest ear and some the fattest. But the Hopis chose the smallest shortest ear because it was most like the small, humble corn given to them in the First World, and they knew it would always grow.

As each storyteller relates a story, it continues to change and grow. Elders used knowledge of the past to provide strength for the future. The stories themselves are often complicated and difficult to learn. In addition, it's easier today to turn to books, tapes, T.V., and radio for essential information. At one time there were many willing to tell the stories, but today there are far fewer (Evers 89). Even so, storytellers and the stories themselves remain essential for the continuation of a traditional and unique culture.
ENVIRONMENTAL ETHICS:  
A NAVAJO RESPONSE TO LAND USE

Charles Yazzie Morgan (Navajo)

"We people think of ourselves as something very important. Mother Earth is the same way. She is made of the same things as we are. The way we hurt, that is the way she hurts too. The way we live, that's the way she lives too. Those things that are within us, those things are inside her too. From her, plants grow. We eat of those plants. Because of her we are able to eat and drink. We are like children who still suck at the mother's breast. Water is like the milk from Mother Earth. We still suckle Our Mother" (Evers 245).

Environmental ethics is the most critical subject to the traditional Navajo. Eloise discusses the sacred role of the environment in the healing plants it yields. But Virginia takes the subject much further by sharing the bond the traditional Navajo has with the earth as mother and relating a sacred ceremony taught by her uncle, a medicine man. Like many other traditional Navajo people, she is concerned about losing the old traditions. Without the traditions, the sacred bond between man and the earth may be lost. This is a growing concern among the traditional Navajo people.

The Southwestern environment is rich in natural resources. It has been, and is still, coveted for its productivity. Because of the unique relationship between the Navajo people and their environment, mining and logging have caused a serious problem for the traditional people. In the past, increased income has been a strong motivation for allowing outsiders to use their land. Today, however, more traditional Navajo are trying to prevent destruction of sacred sites. Their activism is grounded by their Native American identity and their unique spirituality (Goodman).
One grass roots organization on the Navajo reservation that is making a difference today is Dine C.A.R.E. “Dine” is Navajo for “The People” and C.A.R.E. stands for Citizens Against Ruining Our Environment (Gabriel 81). The mission of Dine C.A.R.E. according to the 1995 Winter/Spring Dine C.A.R.E. Newsletter states: “Dine C.A.R.E. is an all-Navajo environmental organization, based within the Navajo homeland. We seek to empower, provide a voice for, and protect the interest of grassroots and traditional citizens. We promote alternative uses of natural resources and seek sustainable development which is in harmony with the Dine philosophy of Beauty Way” (2).

In 1988 in the southwestern part of the Navajo Nation, Waste-Tech wrapped up plans to build and install a forty million dollar “state of the art” hazardous waste incinerator and toxic waste dump (Goodman). At that time, the Navajo leadership endorsed the chemical waste project. But other Navajos recognized the tremendous burden on the land and the possible health hazards involved. Consequently, a volunteer grassroots organization was formed.

In a July 1995 interview, Lori Goodman of Dine C.A.R.E. explained the education and mobilization techniques involved. Both native and non-native groups, including Green Peace, were engaged to help educate the Navajo people. Previously, the Navajos were led to believe that Waste-Tech was going to build just a different kind of waste dump. The focus was on job prospects and community prosperity. Because visual and verbal communication is most effective with the Navajo people, meetings were held directly in the communities. Radio was used and trusted medicine people volunteered to broadcast necessary information. Young people were educated and sent out to isolated homes to generate informed involvement. They wanted the people to understand the tradeoff for economic development.
Prior to this, no one had told the Navajos the truth about the effects of toxic waste. Side effects of the plant including burning skin, breathing problems, or cancer were de-emphasized or not mentioned. The Navajo were not informed that poisoning of the land and water could be caused by leaking in the landfills. Through the efforts of the newly formed Dine C.A.R.E., the Navajos took on a major corporation and won by overturning the previous approval. The vote was 99-6 (The Birthplace of Dine C.A.R.E. 3).

Originally, Dine C.A.R.E. had not intended to continue as a group after the success against Waste-Tech. By making such a major win, however, they were now considered an inspiration to other native Americans involved in similar struggles across the nation. According to Goodman, the realization of the injustice involved and the great sacrifices already made on the land encouraged activism.

In the 1920's, the U.S. Secretary of Interior replaced traditional leaders with tribal governments. This facilitated agreements with the oil companies who wanted to begin drilling on Navajo land (Goodman). Coal was also mined to provide the electrical power plants with fuel. The electricity generated power to Las Vegas and Southern California. The power plant, located on Navajo land in Arizona, desecrated sacred sites and created smog and other pollutants which destroyed ceremonial herbs and polluted depleted groundwater (Goodman).

The U.S. Atomic Energy Commission mined uranium at Monument Valley in Arizona and Utah for national defense purposes. The uranium was used in the creation of the first atomic bomb. In 1958, the B.I.A. reported that over 90,000 acres had been leased for uranium exploration and development. For each ton of uranium oxide-yellow cake marketed, between 1000 and 40,000 tons of waste is left behind. The waste contains up to eighty-five percent of its
original radioactivity contaminating soil, air, and drinking water as well as causing cancer. It takes 77,000 years for fifty percent of the original radioactivity to decay (Goodman).

The government recruited young Navajo men and boys to work for nuclear defense in the drilling and dynamiting of uranium. Nonunion pay was approximately two-thirds of the off-reservation rate, about $1.60 per hour. Ventilation failures underground were reported on several occasions. In one report, the radiation level had been allowed to reach ninety times the "permissible" limit (Jaimes 247). It wasn't until the late sixties before the government warned the miners of the possible medical dangers involved. The New York Times reported in 1993 that in the two mining communities of Cove and Red Valley, Arizona, most of the two hundred thirty miners were now dead from either cancer or respiratory diseases (Schneider 1).

In 1991, Leroy Jackson of the Navajo Nation began a crusade to prevent another injustice to the land, the overcutting of the Navajo forests (Goodman). With Dine C.A.R.E, he negotiated with the Navajo forestry enterprise for more responsible management of the Chuska Mountain forests. According to an article in the October 31, 1994 issue of High Country News, Navajo forests have been cut more intensively than any other forests in the Southwest. The environmental impact on the Navajo reservation has been significant. Logging on the Navajo reservation began in 1880 southwest of the Chuskas on Defiance Plateau, with the first mill at Fluted Rock, Arizona. Twenty-seven years later, another mill was built in Toadlena, New Mexico for logging on the eastern side of the Chuskas. In 1946, the predecessor to the Navajo Area Office of the B.I.A., the Navajo Service, funded surveys and studies to aggressively develop long-range plans for harvesting the Navajo woodlands. The Navajo Forest Products Industries (N.F.P.I.) Venture was established and began by processing approximately thirty
eight million board feet of ponderosa timber to be harvested annually from the Chuska-Tsaile portions of the Navajo Forest (Fullum 26) (Figure 16).

The N.F.P.I. operated to provide a profit for the Navajo tribe through payment of stumpage fees and provided employment for the Navajos. For the next thirty years, the N.F.P.I. stripped the pine forests on the 595,000 acres of the Defiance Plateau and Chuska Mountains.

From 1880 to 1975, no replanting was done. In 1981, the tribal forestry department estimated it would take approximately 160 years of regeneration for the forests to return to a condition able to support sustainable-yield harvests (LaDuke 36). As of 1994, *Wild Forest Review* reported that 20,000 acres needed replanting, creating a backlog growing at more than 1,400 acres per year (Fullum 26).

The B.I.A. is not only responsible for overseeing the timber harvest on the reservation, but it’s also responsible for enforcing environmental laws. Even though the Navajo Tribal Council declared the forests were being undercut, huge timber sales were allowed to continue (Fullum 27).

Between 1982 and 1992, approximately thirty four million board feet were cut annually in the Chuskas alone. Despite record timber supplies to the N.F.P.I., the tribal company lost money due to mismanagement. The company reported a loss of fourteen million dollars from unpaid loans, stumpage fees, and retirement benefits. The result was a reduction of workforce from 640 employees to 400. Between deforestation and unemployment it became obvious to many that the logging business was failing (Fullum 27).

Leroy Jackson of Dine C.A.R.E. took on the challenge presented by N.F.P.I. after visiting the Chuskas and witnessing the devastation of the logging operation. He chose to act
independently from the tribal government to expedite change. Much of the difficulty in
bringing about change lies within the tribal method of governing. The Navajo Tribal Council
was originally established by the U.S. government as a more familiar political structure to
negotiate with along with the B.I.A. for economic purposes. This government is very different
from the original or traditional form of sovereignty (Traditional vs. Political 5). Traditional
sovereignty, according to Dine C.A.R.E., is living in the way of their elders and ancestors in
what is referred to as the Navajo Way. The clash between political and traditional makes
change both difficult and confusing (Traditional vs. Political 5).

Dine C.A.R.E. provides a voice for the traditional Navajo. The goal was to encourage the
people to recognize the sacred value of the forest-- not just the temporary economic gain. In
addition, certain facts were brought to light. Nearby national forests with almost identical
commercial timber base, elevation, and precipitation, yielded only one-sixth the timber
harvested from Navajo forests. B.I.A. area directors hired to represent the Navajo people had
asked the Fish and Wildlife Service to exempt Navajo forests from the minimal protection
standards for threatened and endangered species that are enforced in the national forests
(Goodman). In addition, forestry had been conducted without studies on environmental or
cultural impacts or long term plans (Goodman).

Wild Forest Review reported that the first two years of work done by Jackson and Dine
C.A.R.E. to bring criticism of existing logging practices to the Tribal council, B.I.A., and
N.F.P.I. made little impact. But in May of 1992, Dine C.A.R.E. was able to make an impact
when the B.I.A. closed a timber sales as a result of an administrative appeal. Soon Jackson filed
a lawsuit which reduced lumber sale in one location from 36 million to 18 million board feet.
N.F.P.I. responded by announcing layoffs and eventually fired eighty employees. Angry rallies and protests took place and Jackson was hung in effigy by mill workers (Fullum 27).

In response to the future of the unemployed mill workers, Jackson presented a plan for future employment. He proposed to start up value-added industries such as furniture products businesses to create new jobs and keep Navajo wood on the reservation, thereby maximizing profits for the Navajos themselves (Fullum 27).

Next Jackson demanded a thorough, independent audit of N.F.P.I. Dine C.A.R.E. charged N.F.P.I. with financial and operational mismanagement, ecological mismanagement, and culturally inappropriate practices (Goodman). According to Wild Forest Review, the extravagant off-reservation board meetings of the mostly non-Indian Board of Directors were exposed, as well as the regeneration backlog and continued desecration of sacred sites. Dine C.A.R.E. charged that over-expansion, unsustainable logging, and a particle board plant failure were responsible for the financial crises experienced by N.F.P.I., not the environmental challenge (Fullum 28).

The tribal council ignored proceedings and drafted a new timber sale providing for the removal of more than fourteen thousand acres on the east side of the Chuskas. This desperate act to keep N.F.P.I. afloat would destroy much of the best remaining habitat of the threatened Mexican spotted owl (Fullum 28). After intervention by Jackson and Dine C.A.R.E., the tribal council reduced its sale and N.F.P.I. announced the lay-offs of another eighty-two workers (Fullum 28). The B.I.A. inflamed the situation when, in 1993, it requested the Fish and Wildlife Service exempt the reservation from the Endangered Species Act (LaDuke 36). The B.I.A. officials were concerned that the presence of the spotted owl would interfere with future
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N.F.P.I. cutting programs in the Chuskas (Fullum 28). The request was made based on the fact that the reservation enjoyed “sovereign status” and that “cultural and religious issues are entwined as well since the owl is held in low esteem by the Navajo, Apache, and many Pueblo people (Fullum 28).

Jackson and Dine C.A.R.E. reacted to the misinterpretation of religious beliefs by contacting the Fish and Wildlife Service. They believed the B.I.A. used sovereignty “to pursue a path of wildlife destruction” and found the statement to be a “self-serving and enraging distortion of our philosophy” (Fullum 28). Jackson decided to go to Washington, D.C., to discuss Navajo forestry practices and protection for the Mexican spotted owl. In addition, he planned to ask for an audit of N.F.P.I. and to investigate the B.I.A.’s failure to enforce environmental and cultural protection laws (Fullum 28).

According to Outside, for his involvement as a leader of Dine C.A.R.E., Leroy Jackson had acquired enemies. He had succeeded in cutting the timber harvests on the reservation in half, resulting in layoffs of reservation loggers and mill workers in an area where the unemployment rate ran forty percent. In addition, the per-capita income rate was only one-third the U.S. average. Jackson had also threatened the Navajo Nation’s political sovereignty by circumventing the tribal bureaucrats and appealing to Washington, D.C. (Gabriel 80).

A few days before he was scheduled to fly to Washington to present his concerns for responsible environmental management on the Navajo reservation, Leroy Jackson disappeared (Gabriel 81). On October 9, 1994, he was found dead in his van on a remote road in New Mexico (Gabriel 80).

Outside reported that Leroy Jackson loved the Chuskas. He found it to be a land of
spectacular landscapes made up of ponderosa pines and Gambel oaks and immense sandstone mesas. Runoff from the southwest side of the Chuskas created Canyon de Chelly. Shiprock can be seen in the distance. According to Navajo mythology, Shiprock and the famous formations in Monument Valley are sacred bodies of prehistoric creatures (Gabriel 83).

Ruth Rudner wrote in Wilderness that when Jackson saw the Chuskas, he saw them not as a source of income, but as a source of life as do other traditional Indians. In the traditional culture, balance provides the ultimate order in the universe. To the Navajo, this balance is seen in life and death, autumn and spring, negative and positive, and male and female. The Chuskas are the male deity and Black Mesa, west of the Chuskas, is the female deity. It is this interrelation that makes life prosperous (Rudner 15) (Figure 17).

According to Dine C.A.R.E Newsletter, Leroy Jackson knew the medicine people still go to the Chuskas to gather sacred plants and herbs. People go there to pray and make offerings of white shell, turquoise, abalone, and jet. The old growth ponderosa pines rising up some hundreds of years before are known as Grandfather and Grandmother trees who watch over sacred ceremonies and show the younger trees how to grow (Chuska Mountains: An Issue of Sovereignty 5) (Figure 18).

The newsletter continues by explaining that the owl, described by the B.I.A. as held in low esteem by the Navajo, is actually an integral part of the culture. The owl, according to Jackson, is a messenger. If an owl goes to a person’s home, it’s a warning to seek a Protection Way ceremony. Because the owl represents the negative or aggressive side of human nature, the feathers are used in a number of Protection Way ceremonies. Owl feathers on a war cap provide protection and an aggressive spirit to the wearer. As animals of the sacred Chuskas,
they are part of the web of life and are a vital part of culture and ritual (Chuska Mountains: An Issue of Sovereignty 5). Jackson also believed that if a sacred site is desecrated or destroyed, the spirits will leave and the power of the place is gone (Rudner 14).

Leroy Jackson was buried in the Chuskas on October 14, 1994, under a ninety foot Grandfather tree. The publicity from his death has brought attention to the work of Dine C.A.R.E. in the Chuskas and facilitated progress on nearly all the issues he was involved in (Gabriel 199). The Navajo tribal council has ordered a financial audit of N.F.P.I. and has agreed to an environmental impact statement on logging operations. The U.S. Fish and Wildlife Service will not exempt the Navajo Nation from the Endangered Species Act, and more that $70,000 has been donated to Dine C.A.R.E. (Gabriel 199). Even more importantly, Jackson’s ultimate goal continues. Dine C.A.R.E. will continue to encourage the people to see the sacred value in the forests that the Navajo elders recognized (Goodman).
CONCLUSION

Archeologists have provided important information on the relationship between the earliest inhabitants and the land. Today cultural studies add to our understanding through the study of the rock art left on the Navajo sandstone along the canyons. Someday perhaps the purpose and meaning of the ancient rock art will provide a wealth of new cultural information. Today the Navajo have the largest population on the Colorado Plateau. Understanding historic and contemporary Navajo weaving reveals a history of change, both environmental and cultural, which has taken place in this area. Their myths and legends keep the sacred tie between the people and the earth strong. Because of their unique relationship to the land, environmental ethics are a very personal issue. For the traditional Navajo, to save the earth is to save oneself.

Interviews with the people living on the Navajo Reservation today reflect the individual nature and culture of the Colorado Plateau. The way the people view themselves and their history adds a richness that traditional research can’t provide. Their personal stories relating to each subject area reinforced the issue of the constant tie to the land.

This relationship between the people and the land is facing many challenges. Outside interests continue to compete for natural resources. Tribal government is faced with difficult choices to provide economic opportunity while preserving cultural integrity. The influence of television has introduced challenges for cultural preservation as the art of story telling becomes threatened. Grocery stores and modern conveniences are also changing the patterns of life on the Colorado Plateau.

Because change is inevitable, the people of the Colorado Plateau and their environment will continue to adapt. But from the past to the present, the people have maintained a
unique and intimate relationship with their environment. To separate one from the other is to see only part of the whole. For the traditional people of the Colorado Plateau, they will evolve as one.
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