



Written in the Stone: Petroglyphs

Many archeologists throughout history have claimed that the Ancestral Pueblo had no written language. But the rocks of the American Southwest say otherwise. Indigenous Americans carved petroglyphs into rocks that recorded astronomical data, farming and hunting techniques, and more.

0:11

Narrator speaking; clip of etchings on a rock; textbox introducing Koepp; clip of New Mexican desert

Textbox: Ancestral Pueblo; map of the U.S. zooming in on the 19 Pueblos of New Mexico

Map zooms in on Ohkay Owingeh; transition music; header: What is a Petroglyph?

1:08

Textbox introducing Martinez

Textbox: Mesa Prieta; clips showing New Mexican desert

Clip of New Mexican cliffs

2:05

Transition music; header: These are our libraries

2:45

Etched into these rocks are messages from the past. Hi, I'm Jerad Koepp. I'm Wukchumni, a tribe in Central California, and I'm the Washington State teacher of the year. I'm here at the Mesa Prieta Petroglyph Project and the Wells Petroglyph Preserve in New Mexico. Here, ancient Indigenous Americans recorded thousands of years of information in tens of thousands of petroglyphs.

The people who made them, known as the Ancestral Pueblo, are often said to have had no written language. That's what archaeologists often claim anyway. But this site, and others like it around the American Southwest, might challenge those claims. These rocks have a lot to say, and some of them, are talking about the sky.

I'm here today to speak with Matthew Martinez, a historian and a leader of Ohkay Owingeh Pueblo.

MARTINEZ: Good morning. Bepuwaveh, welcome. Sengi tamu', good morning. This is my homeland. And it's always great to come out and show you the place and talk about our history.

KOEPP: What is the name of this place and what makes it so special?

MARTINEZ: We refer to it as Mesa Prieta, which is a Spanish word meaning dark rock. In Tewa we call it Tsikw'aye, which means place up above, because we're up above in the hillside that overlooks the valley area.

KOEPP: What is a petroglyph and how many are in this area? And how long have they been made here?

MARTINEZ: So Indigenous people have always lived and traveled in the valley and there are petroglyph lives that date back at least eight thousand years.

We estimate this whole valley area to be over one hundred thousand rock images, and this area extends at least 30 miles out in radius.

Petroglyphs are essentially rock art, and the way those were done was by taking two, two pieces of rock.

One with the, with the more pointed, and I'm using this for demonstration purposes, just to, just to show you what that would look like. And it really is getting the point and a larger rock on to the basalt. And so it's, these are made by pecking and you would hit the top rock and it would pack into the larger basalt. And once these are pecked away, you can see the patina exposed.

So there's all these images are made by pecking around the basalt.

KOEPP: So, there is, there is a lot being communicated here, and when a lot of Western historians talk about history, they really privilege the written word, and that information, story, and history wasn't communicated in an equal way as our Indigenous ancestors did. How does the information provided on this site, counter the, the western narrative of sharing history?

*Images of portraying
indigenous culture*

MARTINEZ: Indigenous peoples have always been writing and documenting history and stories and experiences, and we see that in rock art, and all the petroglyphs here in the site, as well as pottery, as well as weavings, songs, ceremonies, all those oral stories and histories have always been told and have always been part of our stories. It's very different to think of it from a Western concept with an English word on a textbook.

3:43

These are our textbooks, and the stories come alive, and they've always been part of who we are.

*Images and clips of
petroglyphs*

So we see petroglyphs, these same images of deer, of elk, of arrowheads, of eagles, that are manifested in pottery traditions, and weavings, and jewelry designs, all of that has a continuous thread of how these stories continue to be embedded in our cultural traditions.

*Images of shields; graphic
highlighting petroglyphic
shield on a rock; images of
flute players*

We know a lot of the images focus on hunting traditions, so a lot of shields, a lot of arrowhead images, elk, deer, antelope are pretty common out here. There's also imagery relating to flute players and how we think about that relationship of leading into music traditions, fertility.

*Graphics highlighting a
petroglyph*

There's many different ways to understand those particular images, as well as snake images.

4:43

In Tewa what we call that *avan nu*, which is also a fertility symbol. It also embodies the movement of our river along this area.

*Photo of Martinez
and Koepp examining
petroglyphs*

It's also a lightning symbol, so when the lightning comes down and blesses the Earth, you know, you see this movement of a, of a lightning that mimics the back of a snake. These are very common, and what people were doing was, was carving out images that they saw and their reflective surroundings.

*Image of petroglyphic
horse, and crosses; clip of
more petroglyphs*

KOEPP: And what evidence is left here of contact with the Spanish?

MARTINEZ: There's a lot of evidence, and we can point to images of horses, images of Spanish shields, images of crosses when Christianity was introduced into the region. So people again were documenting their stories of what they saw around them.

KOEPP: With all the symbols here, are there common symbols throughout the Pueblo communities that people would recognize?

MARTINEZ: One of the most common symbols, and it's really ubiquitous and it's a universal, worldwide, is the swirl spiral symbol. And so, you see that a lot here on the Mesa, you see that other petroglyphs in New Mexico, and really, you know, other regions worldwide where it's a very common symbol.

5:41

*Image of a indigenous
symbol on a rock; photos
of similar symbols from
different cultures*

And we interpret that from a Tewa perspective as the print of our fingerprints. So if you look very closely at your thumb and that swirl that it makes, it is really your human print on this marker.

*Transition music; header:
Astronomy*

And that's a basic way of connecting the human to the art form.

6:29

*Images of an indigenous
civilizations and their
farms*

*Photo of a handprints and
moon art; photo of the sun
behind a stone wall; clip
of the stars moving above
indigenous architecture*

KOEPP: Given that there's a lot of historical and cultural knowledge, um, embedded in this site, what, what sort of astronomical teachings and knowledge do we know is being conveyed by these petroglyphs today?

MARTINEZ: So as, as Pueblo people we come from a planting culture. Knowing when to plant, when to harvest, was always part of our traditions.

Knowing that, we had people, and we still do, who watch the movement of the Sun, the movement of the shadows, and knowing when is a particular time to plant. And so, those are obviously connected to this larger landscape as markers. There are astronomical markers, equinox and solstice markers, that the shadows move and people knew when these particular times kicked in to conduct planting and harvesting.

7:27

Photo of the swirl symbol

*Images of spirals in
different lights*

KOEPP: What sort of evidence do we have here that demonstrates the tracking of astronomy?

MARTINEZ: There's a lot of evidence here that supports this marking of astronomy. We can point to some of the, the swirls and the spiral symbols.

These are basic markers that captured shadows moving over equinox and moving over the solstice time.

So these spirals, at a particular time, were marked by these shadows. We also know that some of the images in the petroglyphs and their backs and their formations were also shadow markers.

KOEPP: You mentioned the celestial events and astronomical events that the ancestors tracked. Why did they track those ones? Why do they think those were important to monitor?

MARTINEZ: One significant marking of time here happens in mid-June during the summer solstice.

8:23

*Photo of a spiral; time
lapse of indigenous
architectures*

So we know that, that is the longest day of the year, and there's, that's the more focused time when you think about the light and the planting season and what needed to be done during the month of June. So New Mexico, as we know now, is a very dry arid place. And so there's a method of how these planting rituals and traditions were done and orchestrated because it depended on your survival. And so the marking of time and knowing when that was appropriate to plant and to harvest and to cultivate would be why these markers existed.

KOEPP: So the image, the images are a reflection of scientific knowledge as well as cultural values being passed down to each generation through these images?

MARTINEZ: Absolutely. And we believe that our cultural traditions are based in science, and there's, a there's a basis of how we think about an informed decision. That there's a method and a tune to the Earth movements.

9:23

*Photos of the sky and stars
at night*

We come from a tradition where we have practices of skywatchers, of knowing when these movements happened in the larger body in the larger universe. We see our traditions come alive through song and ceremony, through clouds, through rain, through thunder.

*Transition music; header:
Collective Learning*

And those images are projected here on the Mesa, but they're also part of who we are, in our DNA as, as humans.

9:57

Photos of the stars at night

KOEPP: Generations of Pueblo astronomers recorded detailed, astronomical data through oral traditions and passed this knowledge on to their descendants. They use this knowledge in their farming, their architecture, their roads, and their cultural practices.

Pueblo societies across the American Southwest retain and build on the knowledge of their ancestors.

Outro music; OER Logo

On clear nights, we can still peer into the same night sky that was visible to Pueblo astronomers a thousand years ago.



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