

Mesa Verde Voices

Episode 1: Revealed by Fire

Host, Cally Carswell: *Mesa Verde Voices* is made possible by a grant from Mesa Verde Country, Colorado, where one day just isn't enough. Find out more at MesaVerdeCountry.com.

(chime sound effect)

INTRO –

Cally Carswell: We are confronted on a daily basis with questions about what do to regarding the big issues of our time: climate change, food security, migration...

(music begins playing)

Cally Carswell (continued): It's easy to assume that these are particularly modern problems with only modern solutions but we're not the first people to face them. Looking back in time can bring the present into greater focus. It can give us perspective on the challenges we face, and maybe even help us devise solutions.

I'm Cally Carswell and this is *Mesa Verde Voices*, where we explore the past and present of the Four Corners region. Elsewhere in North America, much of the archaeological record has disintegrated or has been willfully wiped away, but here in the Four Corners, the high elevation, dry climate, and modern descendants of ancient societies have helped to preserve the past in remarkable ways.

And it turns out that the people of the Four Corners today share a lot in common with Ancestral Puebloans. For example, about the same number of people live around Mesa Verde that lived here a thousand years ago, and the climate was changing rapidly back then, too, only it was getting cooler and drier on the Colorado Plateau. This presented challenges for communities dependent on farming, as the warming climate does today.

For more than 600 years, Ancestral Puebloan people occupied the Mesa Verde region, which covers southwest Colorado, northwest New Mexico, southeast Utah, and northeast Arizona. In this podcast, we're going to look at a few different issues that connect ancient and modern people: wildfire and water, farming, and migration.

First up: wildfire and water. Mesa Verde National Park has experienced several large wildfires in recent years. You'll see their scars as you drive through the park. Wildfires pose a threat to archaeological sites, but they've already revealed new things about the past, like the sophisticated ways in which people managed water.

Here's our story:

(chime sound effect)
(music ends)

(wind sound)

Shanna Diederichs: It was late August and I was standing on Big Mesa, which is the furthest mesa in the park on the east escarpment.

I was there with about six other archaeologists and it had been extremely hot and extremely dry. The entire park was on edge knowing that there was a possibility that we had one more fire to suffer through, and I saw the smoke all the way over here on Chapin Mesa.

ARCHIVAL AUDIO: Sometimes wildfire, especially in the West, truly lives up to its name.

(music begins)

ARCHIVAL NEWSCAST: Among the worst fires is the one in Colorado's Mesa Verde National Park. It's not just forestry on the line – it's history.

Diederichs: Mesa Verde National Park suffered at least five large wildfires, and they really occurred from 1989 to 2002. For almost 100 years, the policy was fire suppression. So by the time the 1980s and 1990s rolled around, many of our lands were just choked with overgrowth forests that hadn't gone through natural fire regimes. So fires that would've been fairly small ended up scaling up to huge fires that impacted cultural resources and visitors.

(music ends)

Diederichs (continued): The six of us that were out on Big Mesa, we saw that spiral of smoke, and we started listening to the radios because we knew that the park would start fighting the fire, the fire crews would head out there. And the hope was that they would be able to put it out while it was still really small.

(fire burning)

Diederichs (continued): Over the next half hour, we watched it grow from a half-acre to probably 30 acres.

We listened to this on the radio, we decided we were no longer going to be in the backcountry by ourselves surveying. So we got into the cars, we drove up to Far View Lodge. And we were suited out into fire gear to go out with firefighters.

I remember it was my first fire that I ever fought...

(vehicle ignition starting)

...and I remember they loaded us up into the vans and we were driving down the mesa toward the fire.

(vehicle engine, tires crunching on gravel road)

And at this point it was probably 50 to 100 acres. And it was terrifying.

We stopped about a couple hundred meters from the actual fire line. And you could feel the heat.

ARCHIVAL AUDIO: Building the fire line is tough, grueling work. It's chop, trim, scrape, dig, shovel, sweat and sweat some more.

(shovels working the fire line)

Diederichs (continued): We were attached to different fire crews to help them figure out where archaeological sites were so they didn't dig trenches through them, or put bulldozer lines through them. That was the biggest danger.

The park had not done a very good job at trying to protect cultural resources. So that meant that alcove sites, we had trees growing all the way up and into them. So all of that wood, perishable materials, all of the seeds and cotton that was left over from occupation 800 years ago had a chance of going up in flames.

(fire sounds fade away)

(birds chirping, shoes crunching on the trail)

(Cally Carswell, chatting on the trail: "oh, nice clouds today.")

Diederichs: So we are on Chapin Mesa right now, and Chapin Mesa was burned over in 2002.

My job was to go back to these sites and determine what kind of condition they were in, and how they were being affected right after the fire. When we would go to work every day there was just danger in being out here, even after the fire had gone through. Basically if you can picture, these canyons were covered with ash, like 6 to 8 inches deep. It was almost like being on the moon. It was so fine, it was like moon dust. And you wouldn't see your feet all day long because they'd be buried in ash. And all of these dead trees were still standing. And we called them snags. For the first probably three months we wore hard

hats because these trees were falling constantly. And a friend of mine would always sing this song called The Snag Song, so that we would remember to look up.

How did it go?

Carswell: And how did it go?

Diederichs (laughing): I wish I could remember, but it started out like, 'Snags, snags, remember to look up!'

One thing that happens with a wildfire is that the soil actually becomes what they call hydrophobic. So all the waxy material that's in plants and trees, during a wildfire, that gets infused into the soil so it creates a waxy layer over the top of the soil. When you put water on top of that soil, it runs right off the top of it. But what that means is that water starts moving very, very quick. And it rushes into gullies, canyons and into rivers.

In Mesa Verde National Park that meant that those gullies started to downcut. The soil started to erode away out of them. And they started to cut back into archaeological sites. So rooms started to erode away. And we even in some cases we had burials exposed.

ARCHIVAL NEWSCAST: Working side by side, archaeologists and firefighters have been able to protect the ancient cliff dwellings of the Anasazi Indians, many of which are over 1,000 years old. But as the dense underbrush fueling this fire has burned away, a piece of the past has been uncovered.

Diederichs: So the upside of having a wildfire come through an area like Southwest Colorado with a lot of archaeological sites is that for a very short period of time, it makes all of those sites visible.

(boots crunching on the trail)

Diederichs (continued): So right now we're standing on the edge of a canyon but in a small drainage. And what prehistoric folks have done is build small walls across the drainage in order to impound soil behind it. And they're probably holding not only soil but also moisture. And these we would call them check dams or terraces, and they're all about farming.

Basically any like small draw, sort of wrinkle in the mesa's edge, was filled with these check dams. And that's what we found after the fires.

(music begins)

We found sites where there was 250 check dams in a row, so all the way from the bottom of the canyon half a mile to the top of the canyon.

We had thought that agriculture was mostly happening in the valley bottoms or up on top of the mesas, where you would do dryland agriculture. But to realize that people were investing so much time into building farming terraces, it made us realize that there was a large population and that they were very invested in their farming techniques.

This wall is only about 3 feet tall. It's sort of dry-laid, stacked sandstone. And behind it, you only have about five feet of space before the next wall is built. So much labor went into them, if you think about it. Collecting all of this rock, fighting gravity, fighting water erosion to create these tiny little plots in these drainages. It was really intensive work.

They really are a feat of engineering by a people that were trying to intensify agriculture when their population was growing very quickly.

(music fades out)

(music begins)

Carswell: Thanks to archaeologist Shanna Diederichs and to Mesa Verde National Park.

Mesa Verde Voices is made possible with a grant from Mesa Verde Country, where one day just isn't enough. Discover archaeological sites, go on an agricultural adventure, embrace the great outdoors. Explore all Southwest Colorado has to offer at MesaVerdeCountry.com.

(chime sound effect)