

Tree-Ring Dating of a Cabin Below Virgin Mesa & Logging History of the Benches in San Diego Canyon



Some years ago, Raymond Sandoval, a long-time resident of Jemez Springs, told me about an old cabin on the side of San Diego Canyon, below the cliffs of Virgin Mesa. I searched and finally found it in satellite and aerial photos on Google Earth. I hoped to hike up there someday for a visit. Fortunately, I don't have to wait to learn more about it because Misty Stacy and her family hiked up there, and she kindly shared photos of the cabin in Jemez Chat, the local Facebook group. I asked Misty, if she visited there again, to please collect samples from a couple of the old logs, and I would try to tree-ring date them to determine when the cabin was built.

Misty and her son Tanner recently made the trip again, and they collected two cross sections from old timbers on the cabin using a handsaw. I have now re-sectioned, sanded, and tree-ring dated those two samples, and here are the results:

The cabin was built in 1945 or 1946. One of the two sections (the largest one) has an outermost ring that was formed in 1945. That means the tree was cut that year, and so the

cabin was probably built then, or maybe a year later. The other, smaller cross-section did not crossdate as well (that is, the ring patterns were not as clear), but it also has an outer ring date sometime in the early 1940s.

I was not surprised by this construction date, as that was when loggers bulldozed roads onto the benches above Jemez Springs and northward to Battleship Rock. They targeted the large ponderosa pines that grow on these relatively flat benches below the cliffs. The timber rights on these lands, which were part of the old San Diego Grant, were privately owned at that time by a lumber company. The old roads remain visible from both the ground and Google Earth. Portions of those roads lead to the housing developments north of Soda Dam, referred to as Areas 2 and 3. I know some of this history through the study of documents, old aerial photos of the area, and tree-ring studies.

I will return to the old cabin and the tree-ring dating later in this report, but first, here is a summary of the logging history in San Diego Canyon.

Logging of the Benches

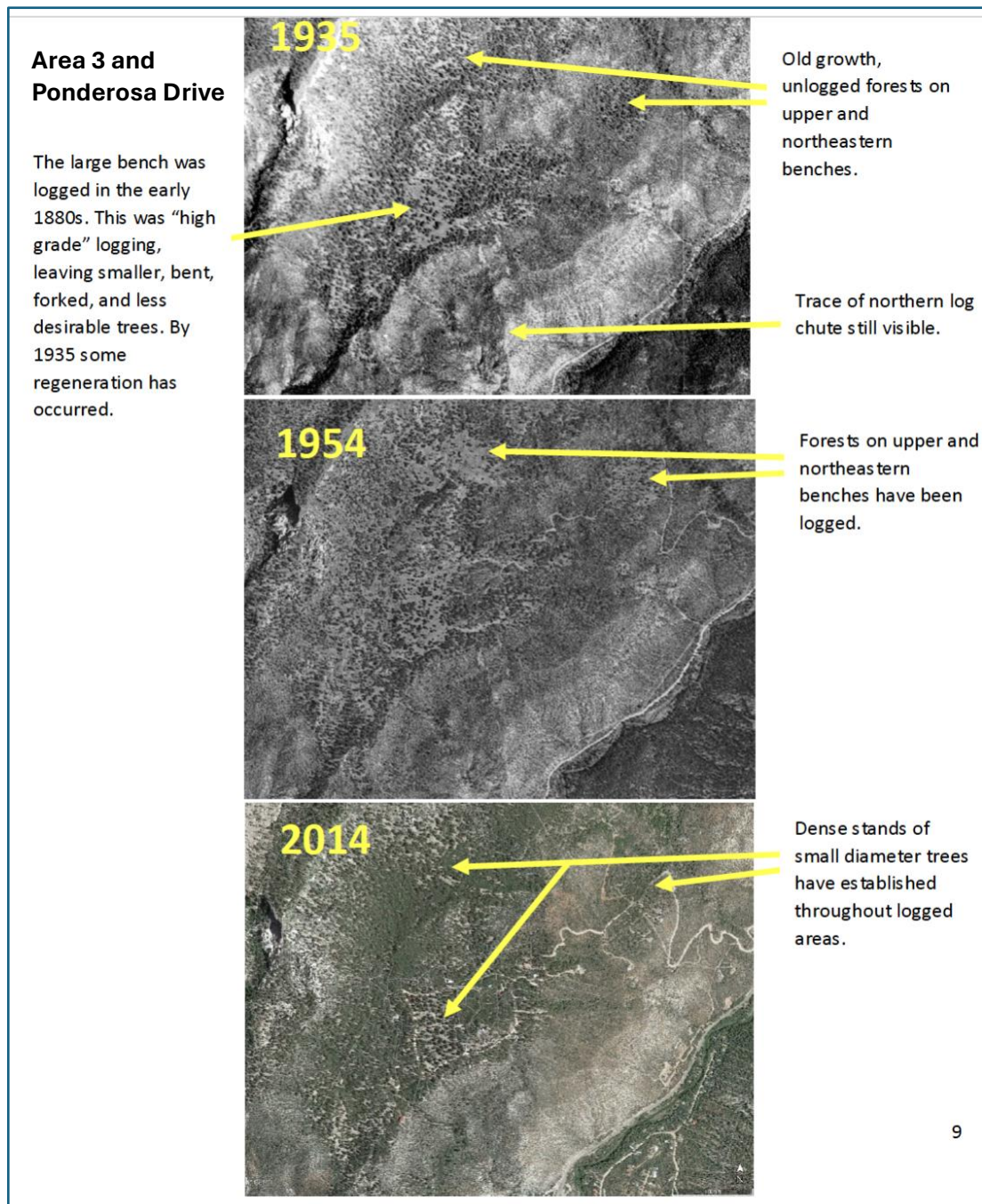
The logging history of the southern plateau of the Jemez Mountains has multiple eras. I recently summarized the railroad and truck logging history on the Rio Guadalupe, Banco Bonito, and the old Baca Ranch in another report [linked here](#). Beginning in the late 1870s, horses and oxen were used to haul timber felled in San Diego Canyon and likely other areas near the “Vallecitos” (i.e., Vallecito de la Cueva and Vallecito de los Indios). James Smith built a water-powered sawmill at Battleship Rock (where Camp Shaver is now located) sometime in the early 1880s. It is likely that the boards and beams currently in the Bathhouse, Stone Hotel (now the Bohdi Manda old building), the Presbyterian Church, and the Abousleman house in Jemez Springs originated from timbers felled, hauled, and milled by Smith at Battleship Rock.

James Smith abandoned his sawmill sometime after 1908, when the San Diego Grant was partitioned and sold by court order. Around that time, the U.S. Forest Service surveyed the area and determined that the sawmill was on National Forest land, not the San Diego Grant as Smith had likely assumed. Smith was married to Calletana Archuleta Williams, whose family members were heirs to the San Diego Grant, holding rights to use the community lands portion of the Grant where Smith obtained his logs and where he believed his sawmill was located. One of the locations within San Diego Canyon where Smith likely logged was on one of the broadest benches below Virgin Mesa, in what is now referred to as “Area 3.”

In an earlier essay posted on Jemez Valley History, [linked here](#) (and a chapter in my recent book), I describe the remarkable “log chutes” that loggers constructed to gravity-

slide cut logs down the canyon-side to the valley floor from Area 3. I discovered the wooden remnants of the log chutes on the slopes below the bench and used tree-ring dating to determine the construction date of 1884 or 1885.

From other tree-ring samples in Area 3, including for the reconstruction of fire history from fire scars (report [here](#)), I found multiple old stumps with cutting dates from the early 1940s. This led me to examine the available aerial photographs from 1935 and 1954, which confirm this history of a second logging on the Area 3 benches in the 1940s.



The 1935 photo (previous page) shows a partially cut stand on the largest bench in Area 3 (from the horse logging in the 1880s), with no road ascending to it. The 1954 photo shows the road, now called Ponderosa Drive, ascending to the bench on the north (where I live) and then on to the large bench that was logged in the 1880s, and finally to the upper bench just below the cliffs. The road building and logging there on the north and upper benches was done in the early 1940s.

Likewise, the 1935 photos show no roads ascending to the large bench above Via Coeli in Jemez Springs, or the bench above what is now called Area 2. However, the 1954 photo clearly shows those roads and cut-over ponderosa pine stands. Modern photos in Google Earth (after 1985) show these stands somewhat re-grown, but with many small-diameter trees in thickets beneath the few large trees that were left. And of course, all the homes built in Areas 1, 2, and 3. Some thinning work has been done recently in Area 3.

The Cabin near “The Flats” Beneath Virgin Mesa

When I was a kid growing up in Jemez Springs in the 1960s a favorite day hike, or overnight camping hike, was up the old logging roads to the bench above Via Coeli, then up the ancient trail to Virgin Mesa, and then to the large Hemish ancestral ruin near there. We called the logged-over bench at the top of the logging road “The Flats.” We didn’t know about the old cabin, or we surely would have hiked over there to check it out. The cabin is located to the north of The Flats, just beyond an old “two-track” road that stops on a ridge overlooking the cabin about 200 yards away (see below).



The cabin location is a bit strange because from The Flats it is a hike down into and then up out of a small drainage, and then up a small hill. However, it is a spectacular location with great views of the large tent rocks below Virgin Mesa. Why didn't the loggers build the cabin on The Flats closer to the roads where they were felling and hauling logs, and where it would be more easily accessible? I suspect the cabin was built in this spot because it was closer to a spring or seep down in the side canyon immediately below the cabin. That would have made hauling water easier. However, there is no sign of such a spring today, such as presence of cottonwoods. But maybe it is just a seep down there, or it went dry some time ago.

It is also possible that the cabin was originally built, or later adapted, to serve as a shelter for hunters. This usage is what Raymond Sandoval mentioned. A relatively recent-looking chain and hook are hanging from a log near the front of the cabin, which might have been used to hang a deer carcass. Alternatively, the person(s) who built the cabin might simply have appreciated this scenic and somewhat hidden location. Perhaps the identity of the cabin builders and the original purpose for it will remain an unsolved mystery.

In any case, the cabin construction was a serious endeavor. Many of the logs are 10 to 12 inches in diameter and more than 10 feet long. When these logs were cut and still green, they would have been very heavy. It most likely would have required a horse or mule to drag the logs from where they were cut to the cabin site, and at least two men to hoist the logs up onto the walls and roof.

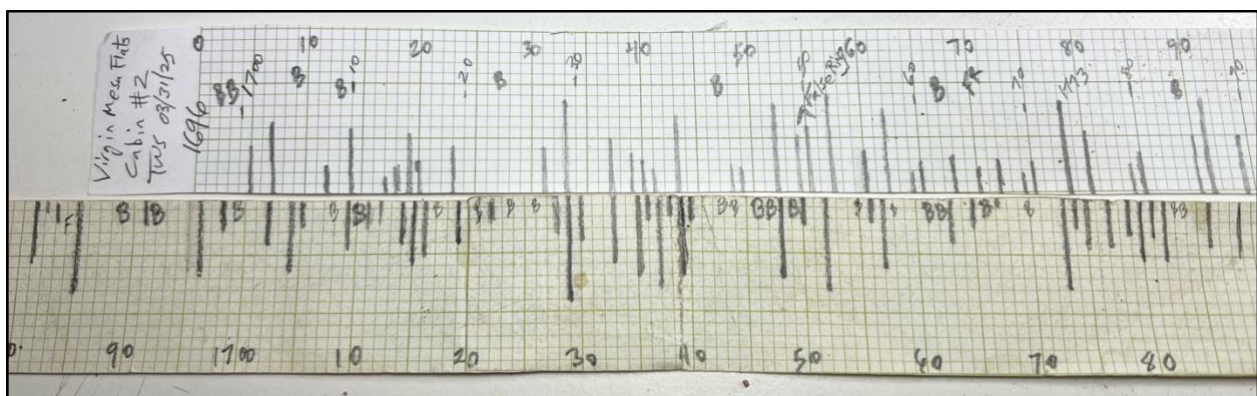
Tree-Ring Dating the Cabin



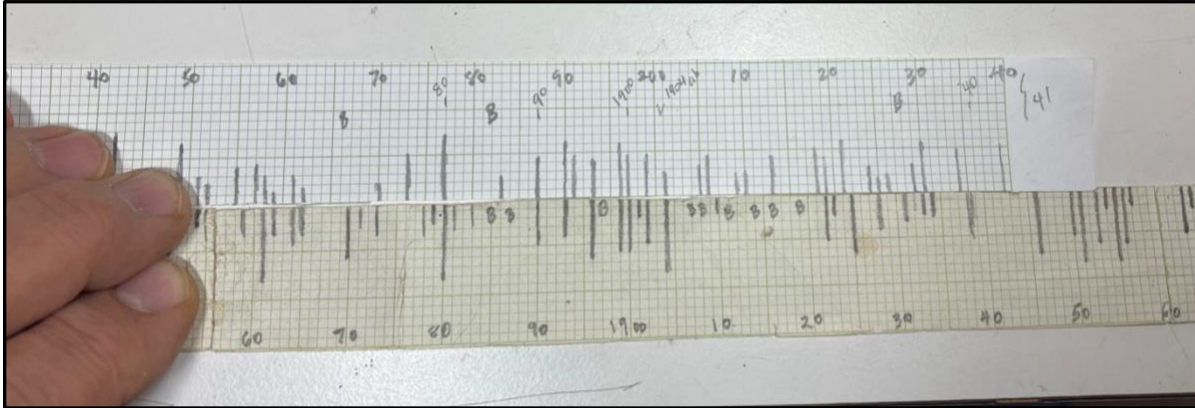


The smaller cross-section (Sample #1) came from a roof timber (at right, above), while the larger section (Sample #2) came from the wall log on the northwest corner (at left, above). The small section crossdated satisfactorily on the inside from the pith at 1830 to about 1880, and then there seem to be too many missing rings to see the match with the Jemez Mountains master ring-width chronology. A ring count from the last confidently dated ring to the final (bark) ring indicates a cutting date of about 1941. With missing rings added, this date could be 1942 to 1946.

The larger cross-section (Sample #2) dated satisfactorily on the inside 90 years or so, from the pith date of 1696 to about 1790. The 1747 (very wide ring) and 1748 (very narrow ring) sequence is obvious. This is a very common “tree-ring signature” throughout the Southwest, reflecting a very wet year in 1747, followed by a severe drought in 1748. Likewise, an earlier narrow ring of 1729 shows up in the sequence on this cross-section. The middle portion of the ring series appears to have as many as five missing rings. This portion is not exactly dated. After about 1880, the ring series crossdates well to the outermost ring of 1945, with 1904 apparently missing.



The skeleton plot (previous page) of the large cross section (#2), at the top crossdates fairly well against the Jemez Mountains Master Chronology at the bottom. In my plot of the rings of the specimen at the top ring number 55 is a “false ring” misidentified in my original plot as a narrow ring (long line). Note that with this extra, misidentified ring in my plot removed, the narrow rings of 1752, 1757, and 1773, 1786, and 1789 coincide between the sample plot and the Master Chronology. (To read about and try skeleton plot crossdating, see the tutorial [linked here](#).)



The above skeleton plot and master chronology shows the comparison of the ring series of the last few decades of rings in sample #2. Note that 1904 is missing. When that ring is added, the upper plot shifts to the right one ring/year, and narrow rings in 1922, 1925, and 1934 line up with narrow rings (drought years) in the master chronology plot (at bottom).



Many thanks to Misty and Tanner Stacy (at left) for obtaining the samples and sharing their photos.