Tree-Ring Dates of Boards and Beams from Block-Bergmann Structures, Jemez Springs, New Mexico

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In June, 2022 I obtained 7 core samples from old boards and beams from buildings currently owned by Bill & Shelli Bergmann in Jemez Springs. The samples are all 3/8-inch diameter cores obtained with an electric drill. Core samples labeled #1, and #2, were from boards of the window casement on the east side of the stone wall of the current patio on the south side of the Bergmann house (see photo below). This wall appears to be the original external south wall of what was probably the barn building associated with the Block Hotel. I will provide a brief history of the Block family and their Hotel in Jemez Springs at the end of this report. Core sample #3 was from the lower door sill in the center of the same wall as described above. Core sample #4 was from the western window casement in the same wall. That core jammed in the bit and came out in many pieces; it was not examined. All cores were taken from parts of the boards that appeared to be waney edges. All sampled surfaces were highly weathered, so even if they were waney edges it is likely that one to several rings may have eroded away before sampling. Cores #1 to #4 were all ponderosa pine.



Core samples #5 and #6 were taken from a vertical beam in the Bergmann living room in the southwest corner of the ground floor, on the south side of the room. Core #5 jammed in the bit, and was not examined. Core #7 was taken from a similar vertical beam on the north side of the same room. Both of these vertical beams were Douglas-fir. Bill Bergmann stated that the former owner (or builder) told him they were taken from the original structure, but he (the builder) thought they were relatively new beams. Cores #5, #6, and #7 were all taken through waney edges on the beams with bark still attached.

The cores were mounted in wooden core mounts, and the transverse surfaces were sanded with successive sandpapers from 120 to 400 grit. All tree rings were examined under a binocular microscope (10 to 30X) and crossdated, where possible, using the graphical skeleton plot method and a local master tree-ring width chronology developed from more than 100 trees growing in the Jemez Mountains. The following summarizes the results of the tree-ring dating analyses:

Core #1: **Inside date: 1770** (not pith); OK crossdating; 1806, 1842, 1861 absent; good signature rings (small rings) in 1873, 1880, 1883, 1890, 1893, 1894, 1896; **Outside date: 1896v** ("v" code means that because of decay and weathering, this is not a cutting date but it may be within 1 to a few years of the cutting date).

Core #2: Inside date: 1793 +/- (not pith); not crossdated before circa 1883, due to missing rings; most signature rings show up from 1863-1896; Outside date: 1898v

Core #3: Inside date: 1781 (not pith); good crossdating 1781-1860; 1842 absent; break in the core circa 1863, so ring count after that, but possible signatures of 1870, 1873, and possible 1880 absent; Outside date: 1891vv++ (codes "vv++" indicates the date is an approximation because of the break in the wood and uncertain crossdating after 1860; actual cutting date is unknown).

Core #4: jammed and broken in many places; not dated

Core #5: jammed and broken in many places; not dated

Core #6: **Inside date: 1764** (not pith); good crossdating 1764-1822; 1873 and 1880 signature rings; possibly 1890 or one or more subsequent signature rings absent; **Outside date: 1902b+** ("b+"code means bark was present on the outermost ring, but the cutting date not certain because missing rings may have occurred near the cutting date).

Core #7: Inside date: 1721 (not pith); OK crossdating 1721-1780; 1822, 1842, and probably 2 or more other signature rings absent after 1842; Outside date: 1898b++ ("b++" code means bark was present on outermost ring, but missing rings and ring count only after 1780 means actual cutting date was an unknown number of years later).

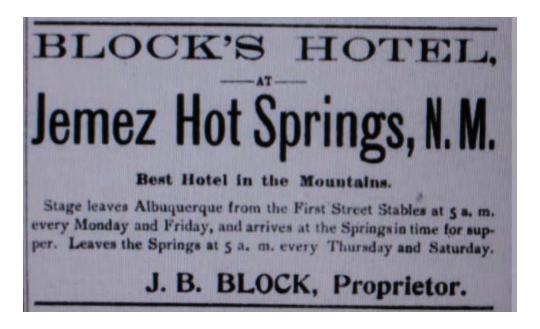
Summary of Tree-Ring Dating:

None of the dated cores provided exact cutting dates. Missing rings and other limitations of the samples precluded identifying the exact year(s) the trees were felled that were milled into the boards and beams. However, general interpretations are that the boards used for the eastern window and the door sill on the old south wall of the barn structure were likely from trees felled after 1896, and probably a year or two after 1898.

The vertical timbers in the living room of the Bergmann house were from trees felled after 1898, and probably in 1902 or 1903. I speculate that the vertical timbers are from the original construction of the barn and were re-used when the current Bergmann house was built. It is also likely that the windows and door on the south wall of the old barn, now the south patio wall, were built at the same time, i.e., around 1902 (or within one to a few years of this date).

A Little History About the Block's and Their Hotel:

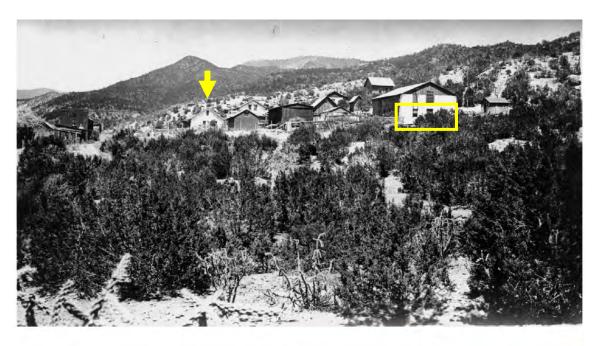
Mr. John B. Block and his wife, Ana, came to Jemez Springs in 1881 and built their home and Hotel there. Jemez Springs was experiencing a building and tourist "boom" at the time, with the construction of the "Stone Hotel" in 1881 by Mariano S. Otero. The Otero Bath House (the current Jemez Springs Bath House) was also built some years earlier, and other buildings were constructed in the 1880s to early 1900s, including a general store, post office and other buildings. Otero, the Blocks and others were speculating that a railroad line was going to be built from Bernalillo to Jemez Springs to transport tourists, hunters, and fisherman flocking to the hot springs and the scenic Jemez. The rail line up San Diego Canyon was never built, but many tourists came via regular stagecoach lines.



The advertisement above was in the Albuquerque Daily Citizen, August 4, 1900.

Old photos show the Block Hotel, and what was apparently a barn associated with Hotel. Block had a carriage and horses that he used to give the tourists rides up the Valley to Soda Dam, Battleship Rock, and other points of interest.

The photo below from about 1910-20, and modern view shows the Block Hotel and the Block residence (yellow arrow), and related buildings. I have an old postcard with a similar view that identifies the Block residence as the one indicated, and the building at far-left edge in this photo as the post office. Mr. Block was postmaster in the 1880s and 90s. Part of the barn structure with the south wall, windows and doorway still exist today as the patio wall of the Bergmann house (yellow box). Note that the current Bergmann house has a roof peak oriented west-east, while the old building's roof peak was north-south. It is possible that the west wall of the modern Bergmann house includes part of the original west wall of the barn.





Misc. photos of the Blocks:

These photos are by R.B. Townshend, 1903. Townshend labeled the photo at right with Mr. Block's name. I assume the photo at left are the Blocks, by their similarity in other photos. (Pitt Rivers Museum, Oxford University).





This photo is from the Jemez Valley History web pages. Probably about 1910. I am not sure but I think it may be at their residence in Jemez Springs.



These photos are from the Lohrer Family collection of photos at the Jemez Valley History web pages.

