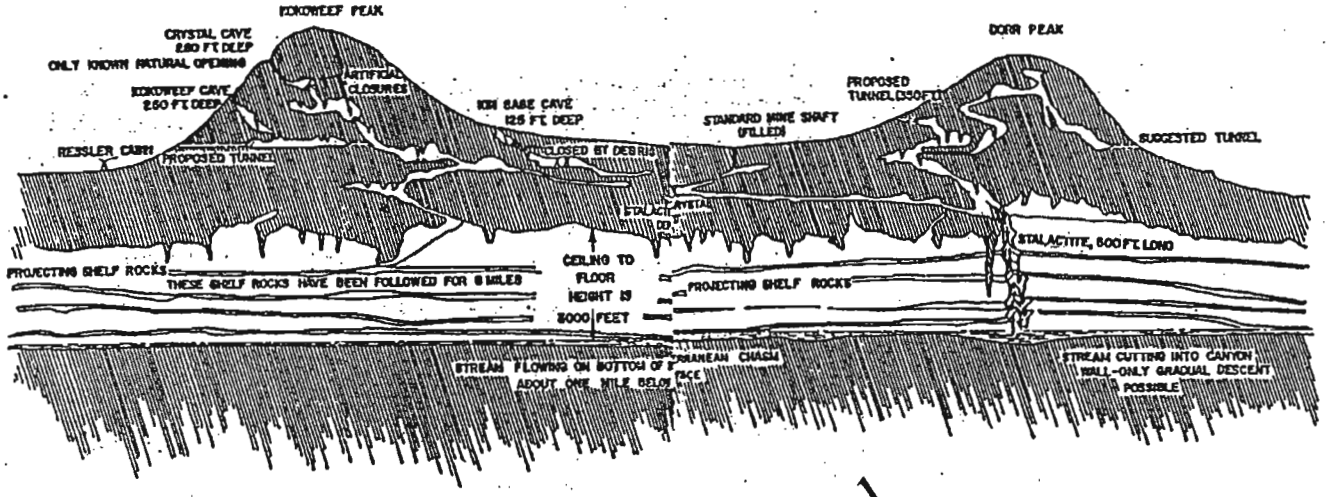
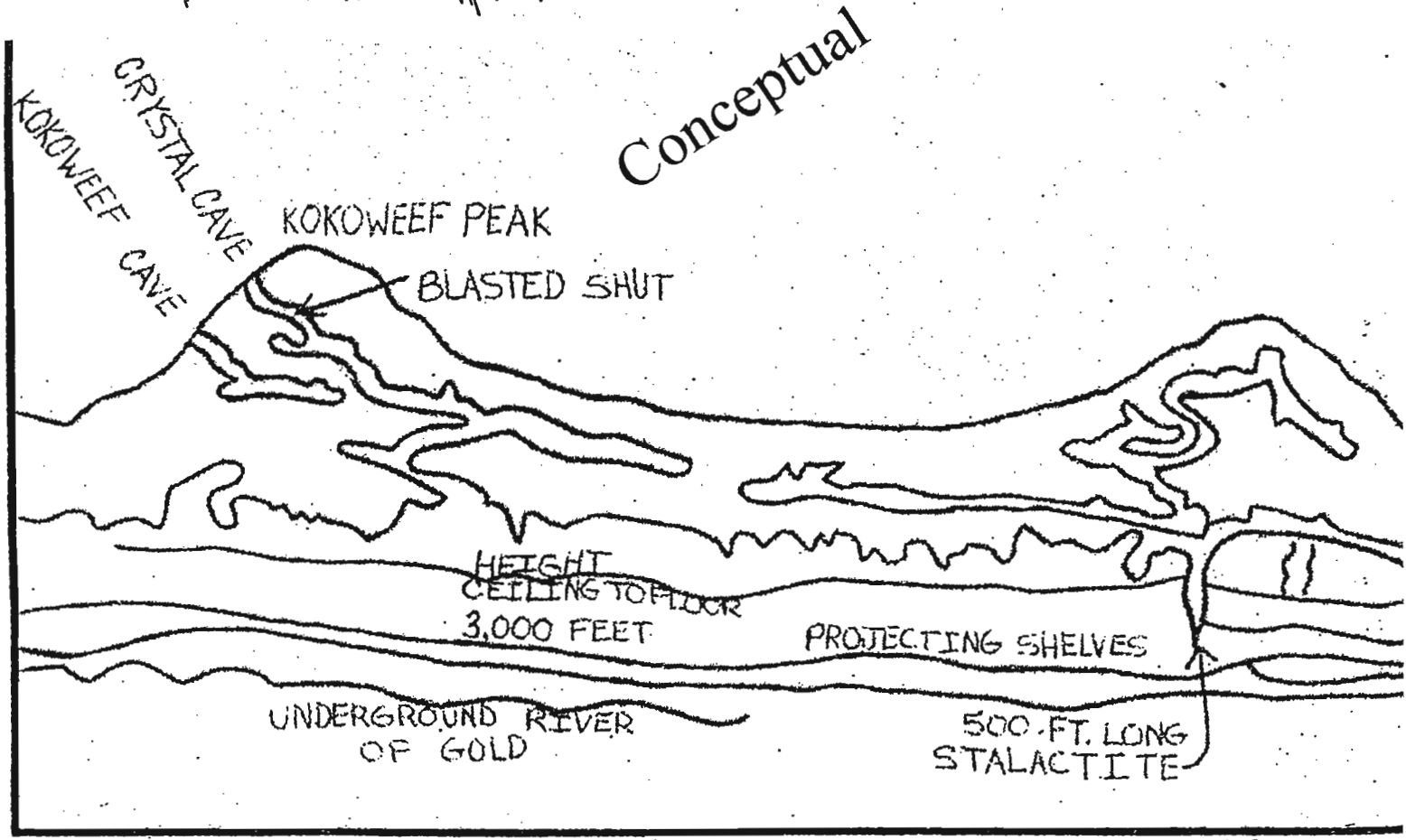
Where's the River?

I believe what Dorr was showing us in his sketches of an underground canyon with ledges is a water table system cavern. Water table caves form by the dissolving away of the limestone at a stable water table through a process called mixing corrosion. This process can produce large caverns that always have a river at their bottom which is at the water table of the surrounding country. Mammoth Caves in Kentucky is a good example of a water table cave.





(Above) Kokoweef Peak lies among the Ivanpah Mountains in California's Mojave Desert. The map, drawn for Earl Dorr, shows where the gold is.

This is a profile view of the Demanovska Caves in Czechoslovakia. These caverns are water table system caves in steeply dipping limestone. Note the similarities in these caves with what Dorr tried to show us with his sketches. The dimensions of length and height compare favorably and Kokoweef has steeply dipping limestone.

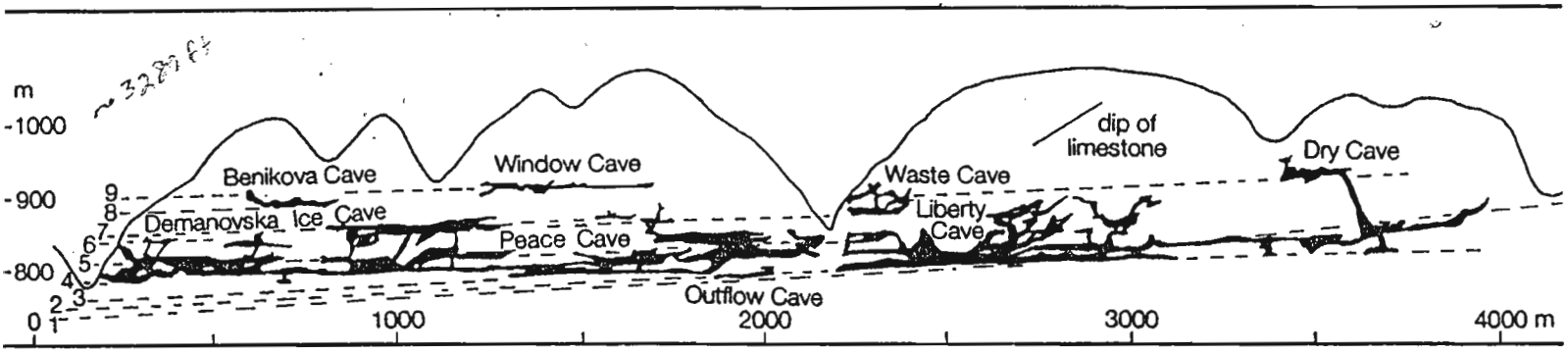
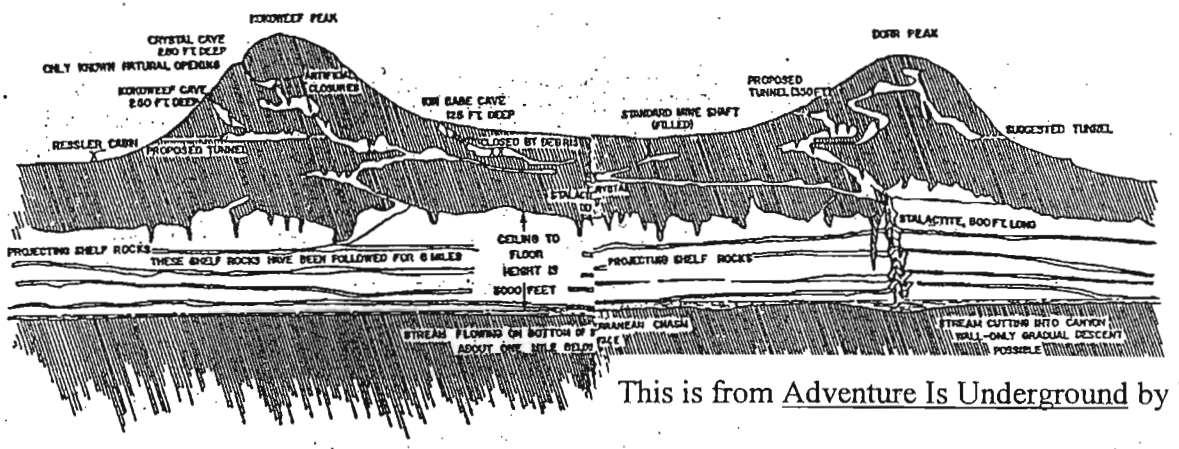


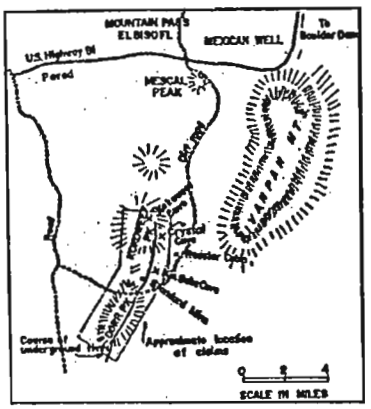
Figure 89 Demanovska Caves, Carpathians, Czechoslovakia, after Droppa (1966).

Actual

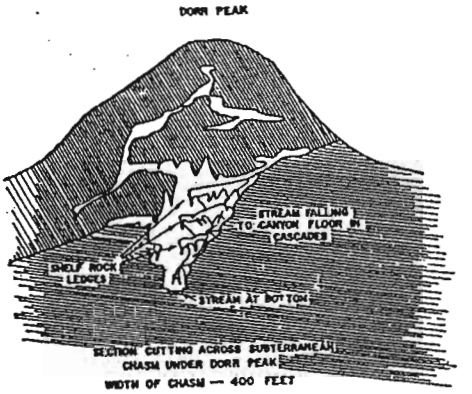
The water table of the surrounding area (Ivanpah Dry Lake) is 2515 feet above sea level. We find that in USGS Water Supply Paper 450 (W-450-C). That agrees with Point 1 of Dorr's affidavit where he states: "1. From the mouth of the cavern we descended about 2,000 feet. There, we found a canyon which on our altimeter, measured about 3,000 to 3,500 feet deep." Some folks think this means he went down a total of 5,000 to 5,500 feet and that error is reflected in some of the sketches. If he went down 5,000 feet below the natural entrance (at 5810' above sea level) then he'd have been a couple of thousand feet under water! But the difference from the Crystal Cave natural entrance to the water table is 3295 feet (5810 – 2515 = 3295). That's what Dorr was trying to tell us when he wrote ". . . we found a canyon which, on our altimeter, measured about 3,000 to 3,500 feet deep".



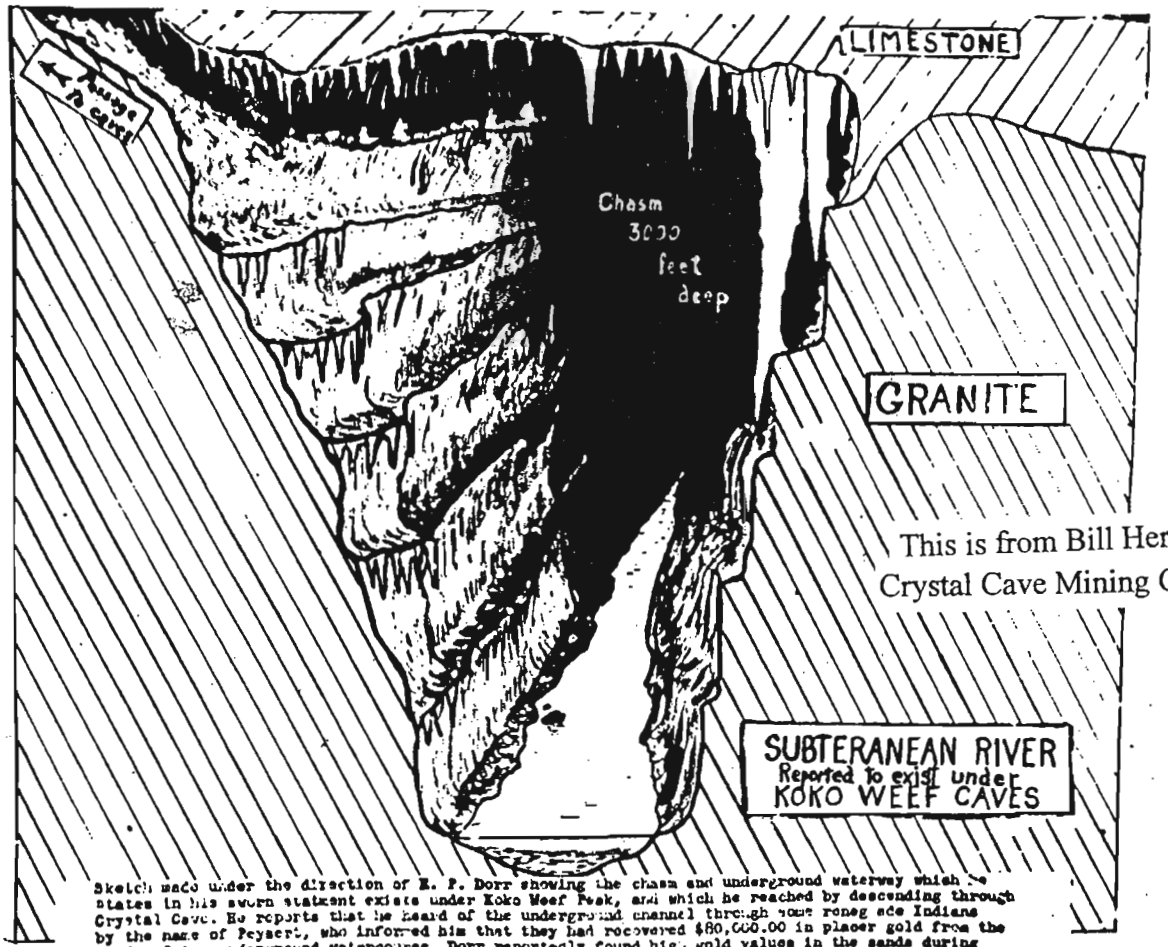
This is from Adventure Is Underground by W. R. Halliday



Conceptual



The Cavern of Gold beneath Kokoweef Peak and nearby ridges. Original drawn by Herman Wallace, Jr., under the instruction and personal supervision of E. P. Dorr. Redrawn by A. Kelners, and used through the courtesy of Herman Wallace, Sr.

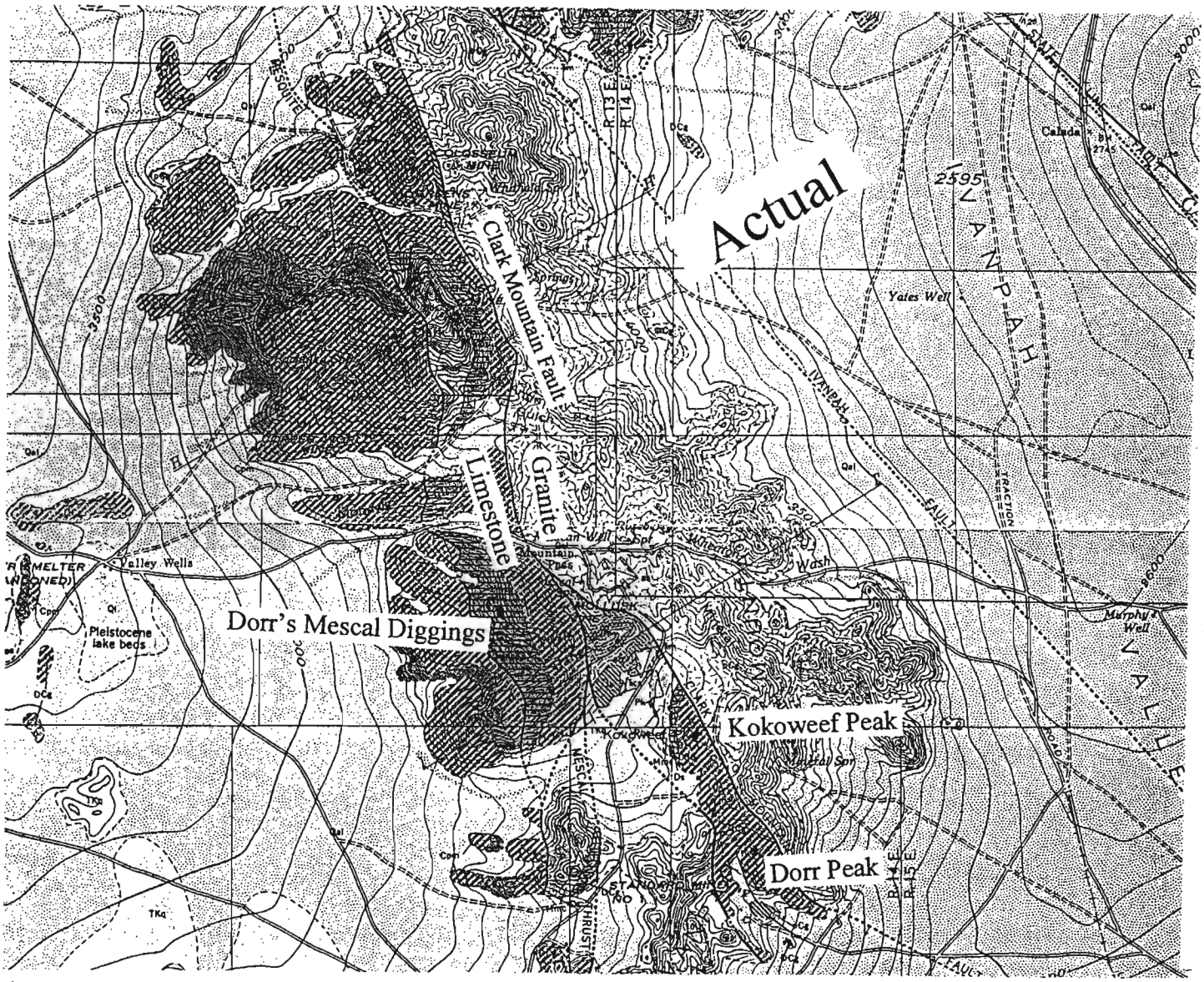


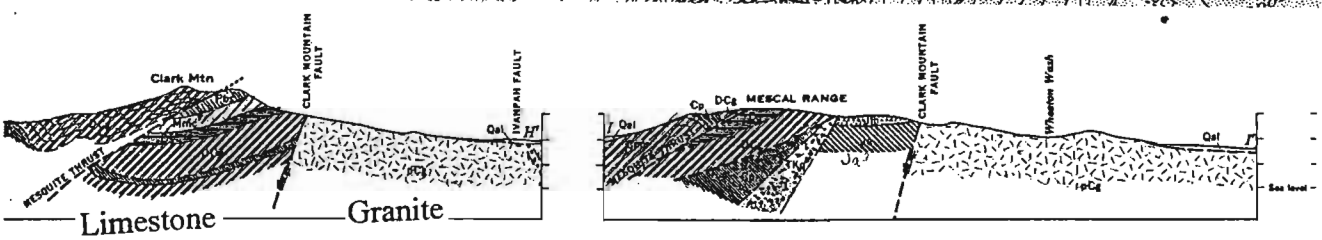
This is from Bill Herkert's Crystal Cave Mining Co. files.

Sketch made under the direction of E. P. Dorr showing the chasm and underground waterway which he states in his sworn statement exists under Koko Weef Peak, and which he reached by descending through Crystal Cave. He reports that he heard of the underground channel through some roney ade Indians by the name of Peysert, who informed him that they had recovered $80,000.00 in placer gold from the sands of the underground watercourse. Dorr reportedly found high gold values in the sands during his one and only trip down to the watercourse in 1927. He was accompanied by W. P. Norton and closed the openings with dynamite so that the stream is not now accessible. Crystal Cave and Koko

’s the River?

I believe the clues Earl Dorr left us indicate that the River is on the Clark Mountain Fault. In his affidavit he wrote: “Accompanied by a mining engineer, I visited the caverns in the month of May, 1927. We entered them and spent four days exploring them for a distance of between eight and nine miles.” The sketches copied here show the underground canyon running under Kokoweef and Dorr peaks on a fault-contact between limestone and granite. In a communication with Howard D. Clark, Earl Dorr said “. . . on down into a fault in granite and quartz underlying the lime formation.” What Dorr is telling us is that the River is on (1) a fault that is (2) a contact of granite and limestone that (3) goes for a distance of more than eight miles. That’s a dead on description of the Clark Mountain Fault.





This map is a geological map from the Geological Survey Professional Paper 275, Geology and Mineral Resources of the Ivanpah Quadrangle California and Nevada, by D. F. Hewett. The profiles are from PP 275 also.