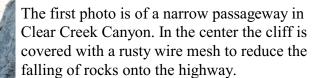
On Top and Inside

Friday evening, after reading the report of the mountain trip last weekend, CSM student Hope (Chunlei Liu) said that she wished that her mother and herself could have joined the others. So on Saturday I took Hope and her mother (who was about to end her three-month visit to America) on a similar trip into the mountains. This time Jiahuan Xu, a visiting scholar also at Colorado School of Mines, joined us. The route again went through the Clear Creek Canyon and followed the Interstate-70 (I-70) highway to the Loveland Pass exit. We went to Loveland Pass, then to Dillon for lunch, back eastward through the Eisenhower tunnel on I-70 to Idaho Springs. This time we went to the Phoenix Gold Mine rather than Echo Lake and Mount Evans (the road is now closed for the cold season even though it is still warm). We returned through the Clear Creek Canyon. I gave them a brief tour of our home, yard and garden, plus a short walk for an overview into the future park that I manage.





middle of the view the gray trees are dead, killed by the pine beetle. Large areas of Colorado suffer this great damage, increasing the fire hazard. There are no trees on the top of the high mountains because above the "tree line" the climate is too cold and the growing season too short for tree survival.

From left to right are Hope, her mother, and Jiahuan at Loveland Pass, with I-70 far below. We then hiked about 1 km (0.6 mile) up to a ridge for good views. Along the way we photographed each other, some flowers, and a small animal named a pica.











The ridge crest was mostly barren, far above the tree line. Precipitation falling on the left side of that photo flows towards the Pacific Ocean, while that on the right side goes towards the Atlantic Ocean. That is the meaning of "Continental Divide". Hope sits in front of a view of the Keystone Ski area. The Breckenridge Ski area is visible on the far mountain range in the original photo. The view of the top of the Arapahoe Basin Ski area was to the left of the previous photo. (Its bottom was shown in last week's trip report.)



We stopped again at Pass Lake (left side of photo). This plant cluster has short spruce trees, willow shrubs, and flowering fireweed.



A safety feature of some mountain roads is a runaway truck ramp for trucks whose brakes have failed. This one consists of an uphill ramp

of loose and coarse gravel to slow the truck, with plastic bins of sand and gravel at the top for a gentle crash if needed.

Lunch was in Dillon at "Noodles & Co." The selections were good and appropriate. Chinese typically like noodles, and there were several international styles available.

At Idaho Springs we visited the Phoenix Gold Mine. It has not been operating for decades because of pollution problems during smelting of the ore. The owner, Al Mosch, said that the mine could still produce much valuable ore if the smelting problem could be solved. So we saw

some of the mineral veins and old mining equipment during our tour inside the mine.



The bluish color is from a copper mineral in the Resurrection Vein inside the mine. The richest gold concentration is the brown in the middle of the blue bands. The equipment scene shows an old drill used to make holes in the rock for insertion of dynamite. It is called the "widow-maker" because it created so much dust that the operators died of lung disease in a few months. Later injections of water in the drilling operation reduced the dust problem.

When we finished the tour we were entertained by the small animals who loved sunflower seeds.



Ed Holroyd, 8 December 2013