

## **Search for Cranberry Iron Mine and Forge September 4, 2014**

Homage to Lowell  
By Ken Casebeer

Eureka! On my fourth trip to Cranberry, NC, including hiking all the way up Cranberry Ridge, I finally found the Cranberry Iron Mines, a spectacular site (precise directions available on request). All that is left of the Forge is the concrete foundations and the back walls built into the Ridge. Above these about 200 yards are the mines. Many large entrances were dug into the sheer cliff. In a Vee jutting between the cliffs is a high chain link fence topped with barbed wire. This has been erected to protect the endangered white nose bats living in the mines. The mines operated here from the 1870's until World War II. A narrow gage railway, the Eastern Tennessee and Carolina RR, operated to carry iron from the Forge to Boone, NC, and Elizabethton, Tn. Earlier, open pit iron ore mines in the area produced most the ore used by the confederacy for rifles and armaments.

## **Field Trip to Appalachian State Geology Boulder Garden and Roan Mountain State Park – August 31, 2014**

Homage to Joe and Ann Enderle  
By Ken Casebeer

The hastily arranged educational field trip found Joe driving Ann and I first to the Fred Webb Jr. Geology Boulder Garden at Appalachian State University in Boone. The Garden consists of 36 rather giant boulders (a ton or two each) arranged around a brick serpentine path. Each was labeled by type of geological formation and its geologic age. Unfortunately, the addresses did not include mineral content. The boulders ranged from a young 290 million years to a ripe 1.3 billion years for three inhabitants. The boulders had been collected and shipped to the garden by several quarries, the most from Vulcan Industries, from North Carolina, Tennessee, Georgia, and South Carolina. My

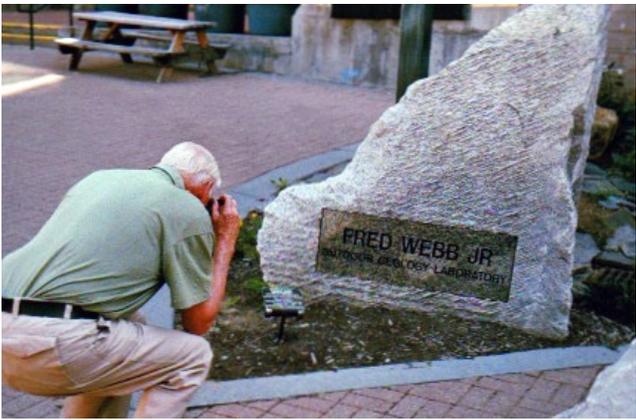
favorite was from the Wilson Creek formation, but I also thought some were very Gneiss.

After a coffee, we drove just inside Tennessee to the Roan Mountain State Park and the Pisgah National Forest toward the peak. We were looking for outcroppings of Metamorphic Gneiss and Sedimentary rocks that are the oldest surface rocks in the Appalachians. They were thrown up during the collision of the Gondwana and Laurentian tectonic plates around two billion years ago, producing mountains over 25,000 feet, as high as any in world geologic history. The rocks in the outcroppings have been dated at 1.8 billion years old, while the rest of the Roan formation dates a measly 1.3 billion years. I went back a couple days later collecting a few specimens trying to match photos from the net.

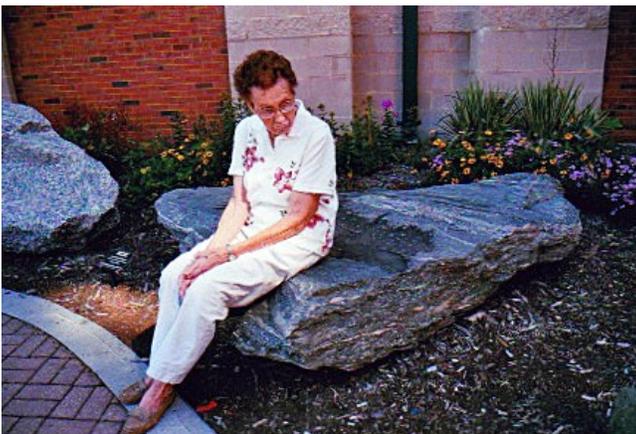
For me, the highlight of the trip was discovering in Roan Mountain State Park, the ruins of the Peg Leg Mine. Union General William Wilder (under Hooker) had managed an iron forge before the Civil War. Afterward he returned to Tennessee in 1870, buying 7,000 acres on Roan Mountain for around \$17,500. Wilder formed the Crabtree Orchard Mining Co. He started by digging shallow open pits assaying the iron ore. Some surface mining of ore extended back to colonial times. Whenever he found rich concentrations, he tunneled down into the ridge, creating complexes of the tunnels. The raw ore was carted relatively short distances to Roan Creek where a water wheel mill raised a 500 pound anvil hammer to crush the ore. For a short time the ore was smelted into sand forms across the creek. Later a railroad transferred carloads to Cranberry Forge. But for a mile or so of coincidental State boundaries, the Peg Leg would have been the first large scale commercial underground mine in North Carolina! (Lowell are you reading). In fact Gen. Wilder was part owner of the Cranberry Mines, even trying to tunnel a connection in vein between the Peg Leg and Cranberry (but became hugely wealthy). Aha! I sense a connection between the field trips and Homages. And of course I picked a few iron ore specimens from both Peg Leg and Cranberry.



Serpentine Path at Appalachian State Fred Webb Jr. Geology Boulder Garden



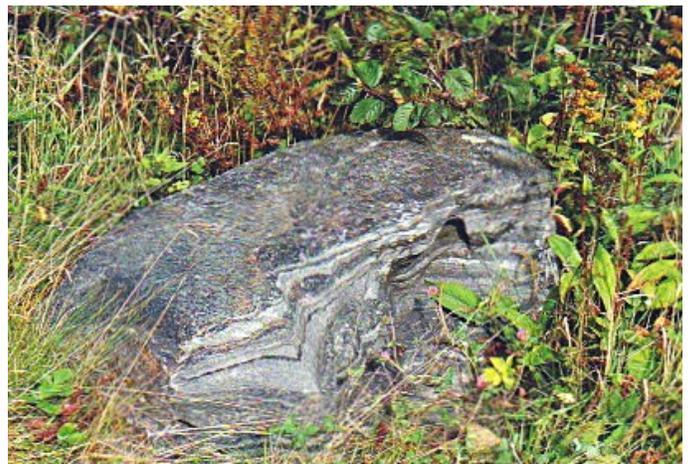
Joe likes Big specimens. Not taking Mt. Airy for Granite



Joe wanted this one in the Trunk – Ann indicates that is not happening



Peg Leg Mine Entrance



1.8 Billion Year Old Roan Mountain Gneiss



Roan Mountain Gneiss  
Outcropping



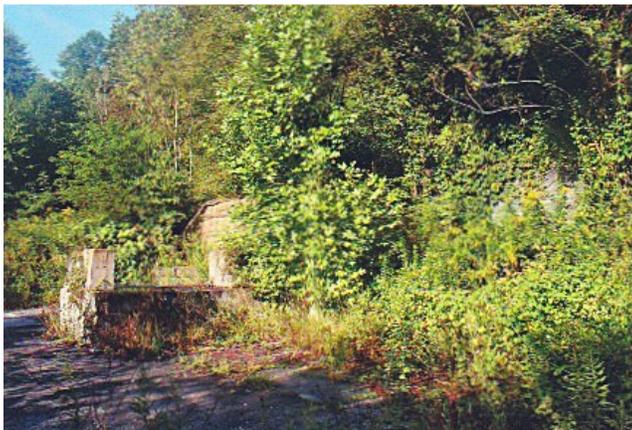
Cranberry Iron Mine Near  
Entrance



Water Wheel and Mill



Iron Mine Upper Entrance to  
Main Mine



Cranberry Forge Foundations