



# The Rockhounder

by Sandy Eldredge

## *Agate, chert, jasper, and petrified wood between Capitol Reef National Park and Caineville, Wayne County*

### **Geologic information:**

Agate, chert, and jasper are varieties of microcrystalline or cryptocrystalline quartz (quartz having crystals that are too small to be detected with a hand lens) that have either a waxy or a dull luster. They can form in different ways; one of the most common is through ground water action by the leaching of highly siliceous rocks, filling rock fractures and cavities, and re-crystallizing. Petrified wood is fossil wood in which the organic material has been replaced by cryptocrystalline quartz during the process of fossilization. Much of the delicate structure of the wood is preserved because of the small crystal size.

More than 100 million years ago, the area near Capitol Reef National Park was alternately covered by water from oceans, streams, and lakes in which muds, silts, sands, and mixtures of sediment were deposited. These sediments eventually became mudstones, sandstones, and conglomerates; cavities in these rocks were later filled in with the quartz. Weathering of these rocks has released the agate, chert, and jasper that now are scattered on the terrain. These ornamental rocks are attractive for their colors, shapes, or as mementos of the geologic past.

### **How to get there:**

From Caineville, travel 8.5 miles west on Utah Highway 24 to where the road crests over a pass. At this spot, you can see the towering sandstone monoliths in Capitol Reef National Park several miles to the west.

### **Where to collect:**

On the north side of the road, collecting can begin next to the road and continue up the hillslopes. Scattered on the gray- and brown-colored hills are pieces of agate, chert, jasper, and petrified wood, as well as large black boulders deposited by ancient streams. The agate and chert at this location are white, gray, green, purple, orange, and red. The jasper is typically red due to iron content. Many specimens are broken nodules or pebbles. The petrified wood is tan and found in small pieces. Petrified wood is more difficult to find, probably because the larger specimens have already been collected.

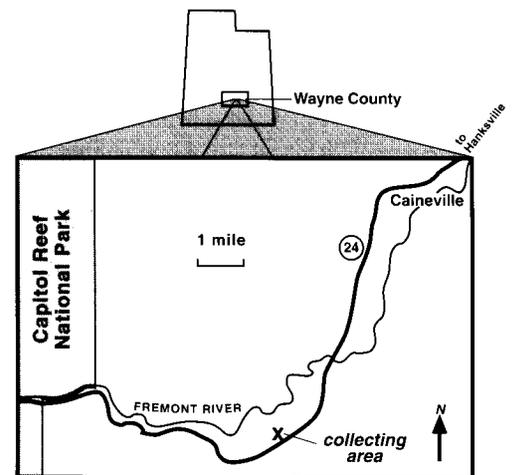
### **Useful maps:**

Loa 1:100,000-scale metric topographic map.

Caineville 7.5-minute topographic map.

### **Land ownership:**

Bureau of Land Management (BLM) public lands.



### **BLM collecting rules:**

The casual rockhound or collector may take small amounts of the agate, chert, jasper, and other rocks from unrestricted federal lands in Utah without obtaining a special permit if collection is for personal, non-commercial purposes. Collection in large quantities or for commercial purposes requires a permit, lease, or license from the BLM. Petrified wood may be collected for non-commercial use in quantities up to 25 pounds plus one piece of any size per day, with a yearly limit of 250 pounds.

### **Miscellaneous:**

Easy parking can be found off the road. Specimens can be found within yards of your car, or you can hike up the hills. A hat and hiking shoes are recommended. Have fun collecting!

Visit our Rockhounder web page at <http://utstdpwww.state.ut.us/~ugs/rockhndr.htm>