

OUTSTANDING GEOLOGIC FEATURE OF PENNSYLVANIA

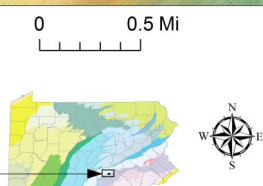
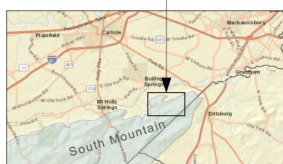
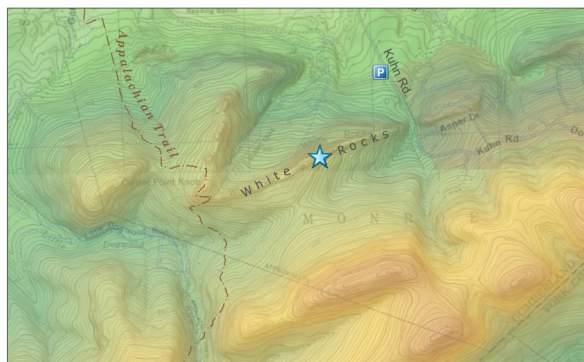
WHITE ROCKS, CUMBERLAND COUNTY

Stuart O. Reese, 2016



Location

Off Kuhn Road, lat: 40.13205, lon: -77.08817 (trailhead parking);
Cumberland Co., Monroe Twp., lat: 40.12604, lon: -77.09407;
Mechanicsburg and Dillsburg 7.5-minute quadrangles



Geology

White Rocks is a rugged ridge of 540-million-year-old bedrock pinnacles called Antietam quartzite along the northern edge of the South Mountain section of the Ridge and Valley physiographic province. This rock is a resistant unit made predominantly of white interlocking grains of quartz. The rocks have stood tall against the forces of erosion and weathering. Jointing is well displayed in the quartzite outcrops, and bedding is near vertical. The Antietam Formation is known for its good examples of the trace fossil *Skolithos*, although at White Rocks they are difficult to find. These tubelike fossils are the remains of vertical worm burrows.

The ridge affords an excellent view of the Great Valley to the north and across South Mountain to the southeast, especially when the leaves are off. The rocks of South Mountain represent the southeasternmost anticline (upfold) in the Ridge and Valley. Although connected to the Blue Ridge physiographic province to the south of Pennsylvania, the rocks of South Mountain have differences in origin and composition compared to their southern counterparts.



From left to right: Pinnacles of quartzite; southern view of the interior of South Mountain; examples of the trace fossil *Skolithos* in Antietam rock float on the White Rocks Trail.

White Rocks can be accessed from the Appalachian Trail or from the White Rocks Trail. White Rocks trailhead parking is located off of Kuhn Road, as shown on the location map.

Recommended Reading

Root, S. I., 1978, Geology and mineral resources of the Carlisle and Mechanicsburg quadrangles, Cumberland County, Pennsylvania: Pennsylvania Geological Survey, 4th ser., [Atlas 138ab](#), scale 1:24,000.

Way, J. H., 1986, Your guide to the geology of the Kings Gap area, Cumberland County, Pennsylvania: Pennsylvania Geological Survey, 4th ser., [Environmental Geology Report 8](#), 31 p.

[White Rocks Land Acquisition](#) web page of the South Mountain Partnership website.