

Introduction, Part 1: Coal Country, West Virginia

You now know that your job is to piece together the story of the Montcoal, West Virginia, region. Since Montcoal is not far from Shenandoah and has similar characteristics, you can use your notes from studies of Shenandoah to help construct your story.

Questions to keep in mind as you put the story together are:

1. What geologic features define this region?
2. What processes formed coal?
3. What is the future of this area, especially regarding coal mining?
4. What geologic evidence do scientists look for to learn about coal country?

The Appalachian Trail is a hiking trail that goes all the way from Georgia to Maine—over 2,000 miles (3,000 km) long. Some hikers attempt to hike it all in one season. The trail is home to many animals, such as black bears, snakes (including venomous rattlesnakes and copperheads), deer, elk, moose, and mice.

The Appalachian Trail goes through Harper's Ferry National Park. The town of Harper's Ferry is headquarters to the Appalachian Trail Conservancy. This is actually the midpoint on the Appalachian trail. The view in Google Earth™ shows that Harper's Ferry is at the confluence of the Potomac and Shenandoah



A section of the Appalachian Trail that passes through West Virginia.
Map: courtesy of the U.S. National Park Service.

Rivers, with islands in the Potomac that are the result of deposition of sediments carried by the river.

The Gauley River National Recreation Area includes about 25 miles of the Gauley River, with scenic gorges and valleys.

There's trout fishing, and if you're a white-water enthusiast, the river has some class 5+ rapids—some of the most exciting white-water boating rivers in the eastern United States. Photo: kayaker "getting some air" at Pillow Rock Rapid on the Gauley River, courtesy of the U.S. National Park Service.



Introduction Part 2: New River Gorge National River

The New River Gorge National River is an area where the New River flows through an extensive geological formation. There is about a 1,000-foot difference in elevation between the river bottom and the adjacent plateau.

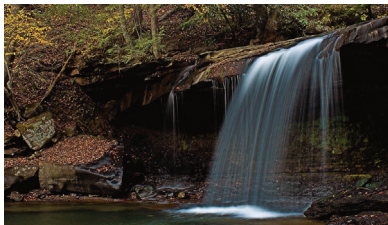


Photo: courtesy of the U.S. National Park Service

The coal mines of West Virginia are vital parts of the economic well-being of the people living in the region. However, this benefit also comes with costs—environmental risks and safety risks to coal miners by way of mining accidents. A mining accident resulting in the death of three or more miners is officially classified as a mine disaster. The New River Gorge was the site of three major mine disasters. Of the 21,000 West Virginia coal miners who have died since 1883 when fatality records were first documented, most perished one at a time in roof falls and machinery accidents.



Remnants of Ovens at Red Ash. On March 6, 1900, in the Red Ash Mine on the New River, naturally occurring methane gas was ignited by the open flames of the miners' headlamps. The flames ignited explosive coal dust in the air and kegs of powder used to blast the coal from its underground seams. Forty-six miners died in the explosion or suffocated in the carbon-monoxide atmosphere that occurred afterward. On March 18, 1905, sparks from a mine car ignited coal dust that was suspended in the air of the reopened Red Ash Mine, leaving 13 miners either trapped or dead. The following day, a rescue party of 11 men entered the mine, only to face yet another explosion. Ten days later, all 24 men were found dead. Photo: courtesy of the U.S. National Park Service.

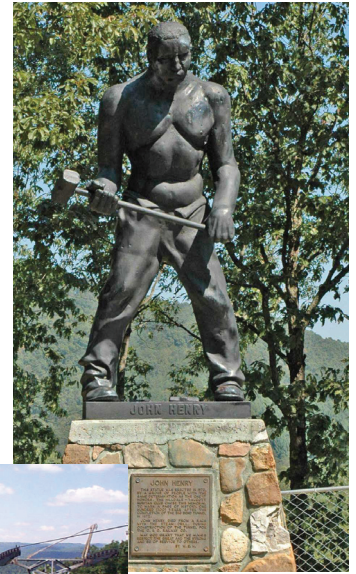
Introduction, Part 3: A Railroad for Coal

Mining of coal would be nearly pointless if there were not a means to transport the coal across the country to customers. That means of transportation would be the railroad. The original Chesapeake and Ohio Railroad line was constructed along the New River Gorge between 1869 and 1872. The railroad transformed an isolated and sparsely populated land of subsistence farmsteads into a booming area of company-owned logging and coal-mining towns. These towns supplied the natural resources that fueled our nation's industrial revolution, and they were melting pots for diverse groups of new peoples. The C & O Railroad was built primarily by thousands of African-Americans freed from enslavement and Irish Catholic immigrants. The C & O railroad took three years of digging, grading the rail bed, hand drilling, blasting the tunnels, building bridges, and laying tracks. The work was done by using hand tools and explosives, with horses and mules helping with the heaviest loads.

The Bluestone National Scenic River, named for the deep-blue limestone streambed of its upper reaches in Virginia, has created a 1,000-foot deep gorge. At the confluence of the Bluestone and Little Bluestone rivers, the community of Lilly flourished.

Statue of John Henry

The legend of John Henry, "The Steel Driving Man," is set during the construction of the Great Bend Tunnel on the C & O Railroad at Talcott, W.V. It tells of John Henry in a fierce race against a drilling machine. In the end, Henry "dies with his hammer in his hand" from the exertion of his great feat of strength. Historical research supports John Henry as a real person, one of thousands of African-American railroad workers. You can find folk songs about John Henry on the Internet. Photo: courtesy the U.S. National Park Service.



Bluestone Gorge from top of aerial tram. Photo: courtesy of the U.S. National Park Service.

Introduction, Part 4: Moving Coal

Evidence of many mountaintop-removal mines are visible in the vicinity of Montcoal, West Virginia.



Coal Burning Power Plant. More than half of the electricity produced in the United States and 99% of the electricity in West Virginia is generated by coal-fired power plants. Photo: courtesy of the U.S. Geological Survey.



Coal Truck. The first step in getting coal transported is by the coal trucks.



Coal Train. The way that coal gets from the mine to the power plant is by truck and train. There can be well over 100 cars in a typical coal train. Our society's appetite for electricity is enormous and requires daily deliveries from these coal trains to the electricity-generating power plants where the coal is burned to create heat to boil water to make steam to turn the turbines that turn the electric generators. Photo: courtesy of the U.S. Department of Energy.