

Shell Falls

The Thundering Heartbeat
of the Bighorn Mountain Range



WATER AND ROCK – THE STORY OF SHELL FALLS

Sixty million years ago, the area that is now the Bighorn Mountains began to bow up and the basins on either side began to sink. Today, the highest point in the Bighorns is Cloud Peak, rising to an elevation of 13,175 feet. In contrast, the town of Greybull in the Bighorn Basin sits at 3,788 feet.

GEOLOGY OF SHELL CANYON

The exposed rock layers of Shell Canyon are:

Precambrian Crystalline Granite

- Igneous rock formed within the earth's core 2.5 billion years ago
- Look for pink and grey colors
- The last uplift was 65 million years ago

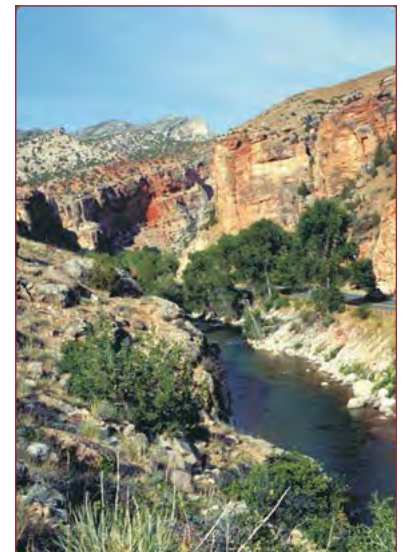
Sedimentary Rock Layers

- Shallow seas covered this region several times in the past billion years
- Sediments compressed into hard rock layers under the weight of ancient seas

Bighorn Dolomite

- Sedimentary rock formed under water
- Composed of the mineral dolomite, and shelled marine animals, and plants
- Look for tan or grey colors
- 500 million years old

Over the past 1 million years, Shell Creek has incised a deep chasm through the sedimentary stone and ancient granite. The water of Shell Falls, dropping at a rate of 3,600 gallons per second, follows fractures in the resistant granite.



Shell Canyon is named for the shell fossils found in the sedimentary rock walls of the canyon.



Bighorn National Forest
Caring for the Land and Serving People



THE PEOPLE OF SHELL FALLS

- 11,000-8,000 years ago— Indigenous hunting societies depended on mammoth, camel, horse, or bison for food
- 5,000-3,500 years ago— Increased use of grinding tools indicate shift to more plant life in diet
- 2,000-500 years ago— Introduction of bow and arrow
- 1820s— Fur traders and trappers camp in the area
- 1870s— Military expeditions explore this area
- 1909— The Burlington Northern Railroad reaches Greybull
- 1920s— Tourists begin to visit Shell Falls
- 1932— First road built to Shell Falls
- 1960s— Modern highway through Shell Canyon is completed



The Apsaroke (Crow) people were early inhabitants of the area (Edward S. Curtis, Library of Congress)

The journals of many settlers in the Bighorn Basin mention Shell Falls. Families escaped the summer heat of their lowland ranches and farms to visit the Falls.



Copman's Tomb (© mddd)

The massive dolomite and limestone promontory rising above Shell Falls, Copman's Tomb, takes its name from an early local settler and inventor. In 1879, Jack Copman arrived in the Bighorn Basin working for a cattleman although he later became a trapper. Long before the invention of the airplane, visitors to Copman's camp were amazed to see his "flying machine," a model glider. Copman dreamed of constructing a full-sized glider and knew just where to launch it—the wedge-shaped prow of a nearby butte.

Copman never fulfilled his quest, but asked that when a flying machine was finally invented, his ashes be scattered over the butte. At his death in 1907, Copman's family was in Europe so his wish was never granted. He is buried in the Greybull cemetery, but his monument remains Copman's Tomb.

ANIMALS OF SHELL FALLS

The water ouzel, or dipper, gets its name from its method of searching for food.

- Eats aquatic insects and larva
- Oily plumage protects it from frigid water
- Builds a moss-insulated nest close to the water



Water ouzel (© Tom Reichner)



Rainbow trout (© mikedray)

Look for rainbow trout swimming in the pools directly below the Falls as they wait for food.

- Eats aquatic insects, larvae, and smaller fish
- Named for the pink and blue coloring on its sides
- Native to the Sierras; introduced throughout the West



Moose (© Wesley Aston)

Moose are often seen grazing the willow bottoms between Shell Falls and Burgess Junction.

- Largest antlered animal in North America
- "Scoop shovel" antlers; curved nose
- Introduced to the Bighorns in 1948 from other parts of Wyoming

Look for mule deer as you drive through Shell Canyon.

- Named for their large prominent ears
- Prefer mountain mahogany, serviceberry, and other brushy species



Curl-leaf mountain mahogany (©Vanessa Richens/Bugwood.com)

The curl-leaf mountain mahogany you can see growing at the Shell Falls Visitor Center looks like it has been pruned. It has! Hungry mule deer love the tender leaves of this plant

WELCOME TO THE BIGHORN NATIONAL FOREST!

The three highways traversing the Bighorn Mountains are so extraordinary that they are designated Scenic Byways by the US Forest Service and the State of Wyoming. A visit here usually includes one or more of these special drives.

Bighorn Scenic Byway, US Hwy. 14

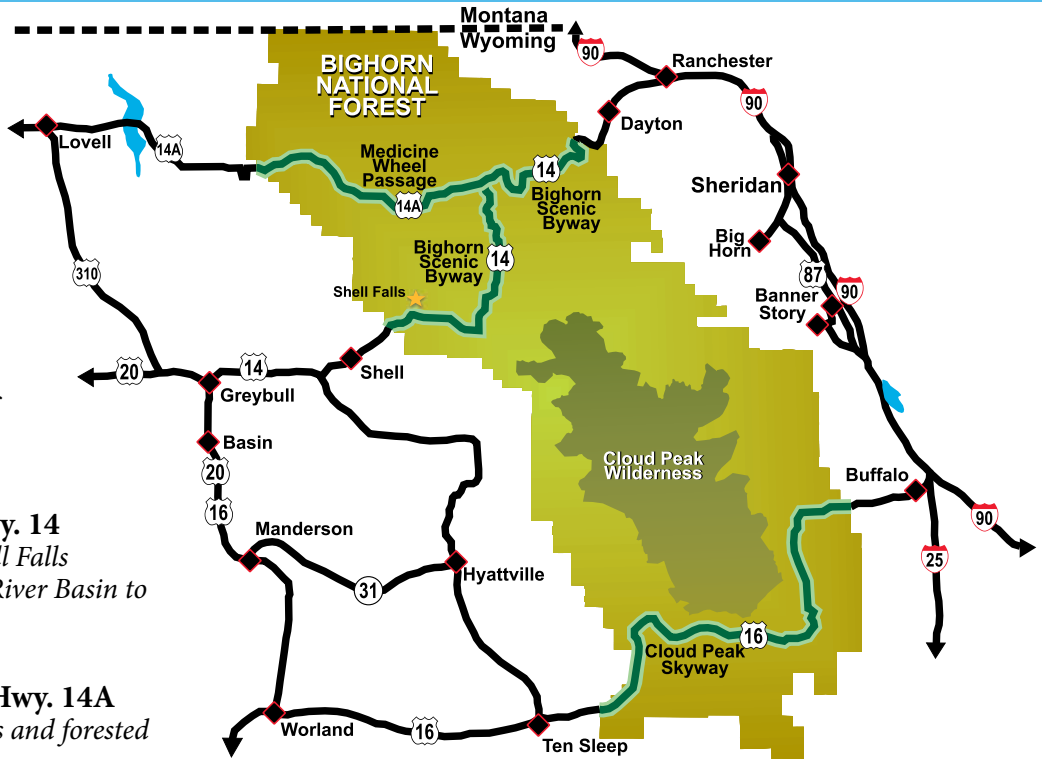
- Accesses Shell Canyon and Shell Falls
- 100-mile views of the Powder River Basin to the East

Medicine Wheel Passage, US Hwy. 14A

- Passes through alpine meadows and forested slopes
- Passes the Medicine Wheel National Historic Landmark
- Descends the dramatic, steep, west face of the Bighorns

Cloud Peak Skyway, US HWY 16

- Climbs the beautiful Tensleep Canyon
- Traverses high cool forests of lodgepole pine
- Spectacular views of the jagged skyline of Cloud Peak Wilderness



The National Forests, including the Bighorn (est. February 22, 1897), were established through the support of early conservationists, such as Teddy Roosevelt, George Bird Grinnell, Gifford Pinchot, and countless ordinary Americans.

The US Forest Service manages your national forest to provide wood, water, wildlife habitat, forage, and recreation resources in a balanced way to meet the present and future needs of the American people. The Bighorn National Forest is managed by the district offices listed below. Please contact any of them for more information about this special part of the west—Bighorn Country!

Medicine Wheel Ranger District

95 Highway 16/20
 Greybull, WY 82426
 Phone: 307-765-4435

Powder River Ranger District

1415 Fort Street
 Buffalo, WY 82834
 Phone: 307-684-7806

Tongue Ranger District

2013 Eastside 2nd Street
 Sheridan, WY 82801
 Phone: 307-674-2600



Fall along a Bighorn Mountain stream (© Sascha Burkhard)



Arrowleaf balsamroot (©zschnepf)