Wyoming's Cultural Geology Guide Takes Visitors Back in Time

Wyoming is a state with tremendous and varied geologic resources. These same resources have also contributed to our cultural identity, dating back to the days of early human occupation, about 13,000 years ago. Rock formations served as canvases for spiritual art, landforms served as markers for westward migrations, and minerals have led to the establishment of historic mining towns.

The Origin of Landscape: A Guide to Wyoming's Cultural Geology allows users to see and virtually explore the nexus between geological phenomena, landscape, and cultural beginnings.

This intelligent travel program includes a Wyoming State Geological Survey website with an interactive map, feature stories, photos, and video vignettes on each site represented on the tour. The videos include scientific experts discussing the cultural and geological significance of each site featured on the tour.

Funding for this program was provided by the Wyoming Cultural Trust Fund

www.wsgs.wyo.gov

Office of Tourism

By Chamois L. Andersen

Maps by Suzanne C. Luhr
Museums research by Andrea M. Loveland
Editing by Suzanne C. Luhr and Andrea M. Loveland

Wyoming State Geological Survey, 2015

The Origin of Landscape: Wyoming's Cultural Geology Guide

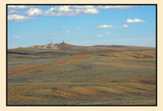
From the Oregon Trail to Paleo-Indian red ochre mining sites, Wyoming has many locations where culture and geology merge and stories unfold.

Trapper's Point

Trapper's Point was named for its location near the 19th century fur trappers' rendezvous sites where mountain men gathered to trade their goods. The narrow ridge on which an overlook is situated also forms a bottleneck on the route of the longest large mammal migration corridor in the lower 48 states. Archaeological evidence indicates that pronghorn antelope have used this route for more than 7,000 years. Today, near Pinedale, the route includes a wildlife corridor or bridge over the highway; a project designed and constructed by the Wyoming Department of Transportation.

Pinedale Anticline

The Pinedale Anticline and Jonah field are vitally important for the nation's energy needs. Looking out at the sagebrush landscape, when driving south of town, it is hard to believe that this geologic anticline includes one of the largest gas fields in the world. Since drilling began in the late 1990s, this area has provided nearly 40 trillion cubic feet of natural gas to the nation.



The Oregon/California Trails

The Oregon/California Trails, an over 2,000-mile long route from Missouri to Oregon and California, enabled the migration of nearly 400,000 early pioneers and farmers, as well as gold miners, traders, and businessmen to the West Coast in the 1840s and 1850s. The trail followed many natural travel corridors, including river valleys and mountain passes. The route was grueling with treacherous river crossings and navigation of the Continental Divide. Numerous geologic landmarks, such as Independence Rock marked the trail.

White Mountain Petroglyphs

Evidence of native people who inhabited the Green River Basin from about 1,000 to 1,500 years ago to the historic era, can be seen in the soft sandstone of the Wasatch Formation. This site contains rock art depicting hundreds of animals and people, from bison and bear to horses and warriors. This site was of great spiritual significance to Wyoming's early peoples who created the rock art.

The Beartooth Scenic Byway

Straddling the border between Wyoming and Montana is the Beartooth Scenic Byway, an auto route over one of the most formidable obstacles to modern transportation in North America. The Beartooth Plateau is the result of mountain building, 70-55 million years ago, and of the Pleistocene glaciation. In 1882, Gen. Sheridan crossed the plateau where the highway follows today.

American Indians of Yellowstone

The volcanic resources of Yellowstone have influenced American Indian cultures for thousands of years. Elders have described the geysers and geothermal hot springs as spiritually significant, and the use of obsidian derived from lava is a well-documented source for tool making. Recent discoveries also suggest that prehistoric people may have lived year-round at high elevations. Whitebark pine nuts, along with mountain sheep and deer, may have been important high elevation food resources for native peoples.

The Flight of the Nez Percé

Refusing to sign a treaty ceding their lands to the United States and move onto a reservation, in June 1877 more than 750 Nez Percé men, women, and children, with 2,000 horses led the U.S. Army on a 1,200-mile chase across the Pacific Northwest and the plains. The Army hoped to trap the Nez Percé as they left the Yellowstone Plateau near the impenetrable Clarks Fork Canyon. The Nez Percé executed a feinting maneuver and escaped north. They made it 40 miles from the Canadian border before surrendering. Chief Joseph said, "I will fight no more, forever."

Pumpkin Buttes and Uranium

These buttes contain uranium created from the ash of volcanic eruptions some 50 million years ago. This is the site where in 1951 J.D. Love first discovered uranium in a Wyoming sedimentary basin. Love's discovery led to uranium fever: Prospectors and ranchers postured for potential stakes. What historian T.A. Larson calls "the complex pattern of rights to land and minerals" in Wyoming led to confusion in all directions.

Paleo-Indian Discoveries

Between 11,500 and 13,000 years ago, this red ochre mine is considered one of the oldest mining sites in all of North America. Discovered at the historic Sunrise Iron Mine, near Hartville, red ochre mined by Paleo-Indians was used as a pigment. Similar red ochre has also been recorded at prehistoric burial sites around the world. Archaeologists excavating the ancient mine at the Sunrise location have also discovered Clovis points made of blue, agate-type material along with other Paleo-Indian artifacts. The area is rich in all sorts of hard source rock known as chert, along with the limestones and dolomites of the Guernsey and Hartville formations.

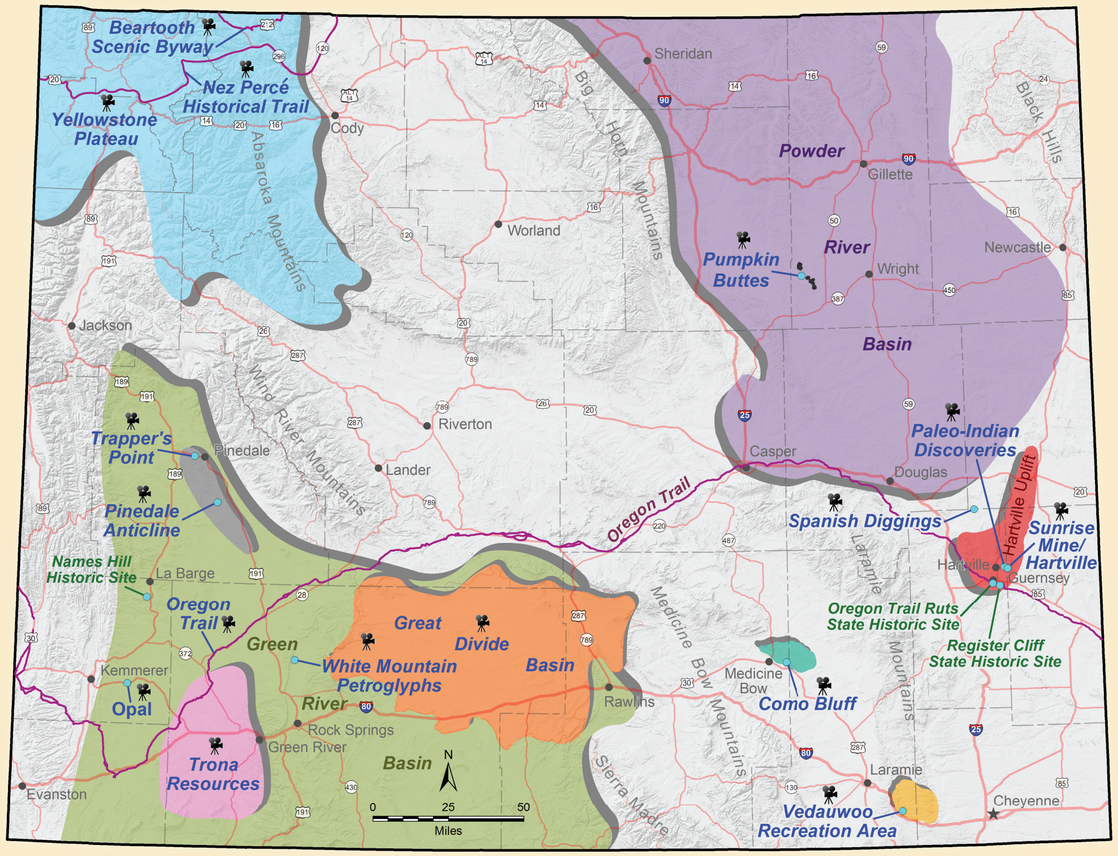
Archaeologists and geologists have collaborated to better investigate the source of the chipping material. At the Sunrise Mine they noted a rich deposit of chert, jasper, and quartzite, materials commonly used to create tools and projectile points. The agate material may have resulted from a mass movement of rock, or by water movement along faults in the area.

The Sunrise Mine

Mining for copper was short-lived at the Sunrise Mine, from 1881 until 1887. During the 1880s, as copper mining progressed, it became obvious that there was also extensive iron at the site. Through the promotional efforts of Charles Guernsey and I.S. Bartlett for a mining district, Colorado Fuel and Iron Co. optioned the claims and eventually took ownership. Iron production began about 1900. Miners were able to "let loose" in the nearby town of Hartville, established in 1884 during the copper days. By the 1900s, there were 10 saloons in Hartville and other establishments for entertainment.

"Spanish" Diggings

Paleo-Indian artifacts were discovered at Spanish Diggings within the Hartville Uplift. These ancient quarries were first thought to be the result of gold-prospecting expeditions by Spanish explorers. However, by 1935 archaeologists began documenting the 10,000+ year history of Indian groups on the High Plains, including the vast network of pits and tunnels left by groups of native hunters who quarried stone for projectile points, knives, scrapers, and other tools. Spanish Diggings artifacts have been found throughout the plains.



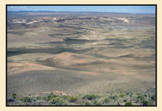
Trona Resources

Sediments from the ancient Lake Gosiute, today contain the largest deposits of trona in the world.

While many of the Earth's minerals such as trona are used for industrial purposes, consumers may not realize they also benefit from them in a number of their everyday products. Wyoming leads the nation in trona mining, producing high-quality soda ash from the mineral. Soda ash is used in everything from glass to the box of baking soda in your refrigerator.

Opal, Wyoming

Opal represents one of Wyoming's early railroad centers for cattle and sheep ranchers. One might suspect that with the town's name there had to be opal found in the area. There are two versions of the name: A sheepherder called his dog "Opal" and the other story is railroad conductors named the station Opal for tints of opal in the surrounding mountains.



Great Divide Basin

Modern-day travelers on Interstate 80, west of Rawlins, cross the Continental Divide twice. Between the southern Wind River Mountains and Atlantic Rim, southwest of Rawlins, the divide splits, forming the Great Divide Basin along the crest of the continent. It is also called the Red Desert Basin for the red soil derived from Eocene formations that cover the basin's floor. It, along with the much larger Green River Basin, was covered by Lake Gosiute during the Eocene epoch, 49 to 53 million years ago.

Although it disappeared millions of years ago, Lake Gosiute has shaped the cultural landscape of the Great Divide Basin since the earliest days of human occupation at the end of the last Ice Age (10,000 years ago). As the lake dried and was buried by younger sediments, lake-bottom muck slowly became cemented into rock. Within these rocks a variety of hard, flint-like "cherts," were formed that were used by native peoples to create stone tools.

Vedauwoo Recreation Area

Rising from the Wyoming plains is a rocky oasis of giant granite rock features sculpted by the forces of erosion. This geological phenomenon is a destination hot spot by visitors to the Medicine Bow National Forest.

The rocks at Vedauwoo crystalized in Precambrian time, 1.4 billion years ago, long before hard-shelled fossils appeared in the rock record.

Vedauwoo's Sherman Granite is one of the first rock units of Precambrian age to be documented in Wyoming. Geologist Nelson Darton in 1910 named the granite after Union Army General William T. Sherman. Near this area there is a geologic feature known as the "Gangplank," a natural land bridge linking the high prairie to the mountains. This natural feature became the route of the Transcontinental Railroad and today the route of Interstate 80.

Como Bluff, the "Bone Wars"

Como Bluff is an anticline that contains mudstones, sandstones, siltstones, and limestones of the Upper Jurassic Morrison Formation deposited in rivers and floodplains about 150 million years ago when dinosaurs roamed the area. Como Bluff is the area of some of the first major discoveries of dinosaur remains in the world. The area received this distinction because of the sheer number of fossils found and the exceptional preservation of the dinosaur skeletons.

Dinosaur bones were discovered here in 1877 by UP Railroad workers, William Reed and William Carlin. That same year, Reed and Carlin contacted Professor Othniel Charles Marsh (Peabody Museum of Natural History at Yale University) and Professor Edward Drinker Cope (Academy of Natural Sciences in Philadelphia) about their discoveries, which led to a flurry of quarrying activity. The story of the "Bone Wars" is about the bitter rivalry between Marsh and Cope and the dinosaur rush at Como Bluff.

Photos by Chamois L. Andersen
Trona photo by Robert Gregory
Pumpkin Buttes photo courtesy of Darby Hand
Pronghorn photo by J. Berger
Wickiups photo by Yellowstone National Park
Oregon Trail, Spanish Diggings, Hartville photos from the American Heritage Center

Video Vignettes

Scan the QR codes with a smartphone to access the video vignettes featured on the map and listed below.

Yellowstone
- Nez Percé
- Beartooth Scenic Byway
- American Indians/ Yellowstone Plateau

Green River Basin
- Great Divide Basin
- White Mountain Petroglyphs
- Oregon Trail
- Trona Resources
- Opal, Wyoming

Pinedale Anticline
- Trapper's Point
- Modern Day Journey of the Pronghorn
- Oil and Gas Resources

Como Bluff
- Como Bluff and the "Bone Wars"

Vedauwoo Recreation Area
- Vedauwoo Recreation Area

Hartville Uplift
- Red Ochre and Clovis
- Sunrise Mine/Hartville
- "Spanish" Diggings

Powder River Basin
- Pumpkin Buttes and Uranium

Check out the online guide with feature stories, videos and photos on the tour sites.
www.wsgs.wyo.gov/public-info/cultural-geology

Tour Guides
Wayne Sutherland, Wyoming State Geological Survey
Julie Francis, Wyoming Department of Transportation
Tom Drean, Wyoming State Geological Survey
Brent Breithaupt, U.S. Bureau of Land Management
Robert Gregory, Wyoming State Geological Survey
Martin Larsen, Wyoming State Geological Survey

Hosts Julie Francis and Wayne Sutherland on shoot for the Green River Basin videos.

MUSEUMS

Historical Timeline

A fire hearth dating to 2,950 B.C. was found at Rigler Bluffs (Park County) near Corwin Springs, MT. This and more than 500 prehistoric archaeological sites have been identified in Yellowstone, including several in Norris Geyser Basin and Lower and Upper Geyser basins.

Around 12,000 to 11,000 years ago, evidence indicates American Indians inhabited the area known today as Wyoming, principally the Clovis, Folsom, and Plano cultures.

Spanish Diggings (Platte-Goshen-Niobrara counties) was used (12,000 years ago) for stone quarrying by American Indians in search of high-quality toolstone. Artifacts made from Spanish Diggings quartzites and cherts have been found across Wyoming and throughout the plains.

18th Century

1742–Frenchmen Francois Louis Verendrye (as noted in his journal) entered the area of Wyoming and may have come as far as the Bighorn Mountains.

19th Century

1807–Fresh from the Lewis and Clark expedition, mountain man, fur trapper, and explorer John Colter stumbled upon present-day Yellowstone. The area was called "Colter's Hell."
1811–The Oregon Trail was originally a route created by fur trappers and traders (1811–1840). It was only passable on foot or by horseback.
1812–Discovery of South Pass (Fremont County). The Robert Stuart expedition, returning from the Pacific Coast, came through South Pass, the easiest way over the Continental Divide. The discovery led to the formal migration use of the Oregon Trail.
• Independence Rock (Natrona County), an important landmark on the Oregon Trail.
• Pilot Butte (Sweetwater County) guided mountain men in the Green River Basin beginning in 1812. It also served as a landmark for the Oregon Trail.
1822–Names Hill, the oldest emigrant inscription. One famous inscription on the rock is the carved name "James Bridger–1844." If the inscription is authentic, it was not carved by Bridger because he could not read or write.
1824–Rocky Mountain fur trappers and traders, including American Indians and mountain men began holding mostof their annual meetings along the Green River.
1833–First recorded reference to the occurrence of oil within the state after Cap. Bonneville's visit to the "Great Tar Spring" on the Popo Agie River near present-day Lander.
1834–Ft. Laramie, first permanent trading post, established by William Sublette and Robert Campbell (Goshen County).
1836–The first migrant wagon train was organized in Independence, MO. Wagon trails were cleared to go further and further west, reaching the Willamette Valley in Oregon.

1842–First recorded sale of oil. Oil Mountain Springs, 20 miles west of Casper, sold oil to Oregon Trail travelers as lubricant for wagon wheels.
• Gold was discovered in the South Pass district by a Georgia-born miner. The gold rush continued to 1867.
• The great migration of the Oregon Trail, included nearly 400,000 settlers, ranchers, farmers, miners, and businessmen and their families. The eastern half of the trail was also used by travelers on the California Trail (from 1843), Bozeman Trail (from 1863), and Mormon Trail (from 1847) before turning off to their separate destinations.
• The first record of a coal deposit was in western Wyoming. The discovery was made by the second Frémont Expedition.
1847–Mormon migration to Utah. Mormon ferry established on North Platte River.
1859–The Raynolds Expedition recorded the second known discovery of coal in the state in the Powder River Basin–the location of the most prolific coal fields in the nation today.
1860–Pony Express started.
1861–Transcontinental telegraph completed and Pony Express discontinued.
1866–First major discovery of oil. White Oil Spring, Uinta County. John C. Piere (or Fiere) reported he had found oil in a spring near Ft. Bridger. More than 150 barrels of oil were sold to the Union Pacific Railroad.
1867–Construction of the Transcontinental Railroad began in Wyoming. The railroad brought the first large permanent population to the state, which led to the establishment of many Wyoming towns, including Cheyenne, Laramie, Rawlins, Green River, and Evanston.
1868–Wyoming Territory created.
• Fort Laramie Treaty promised the Cheyenne, Crow, Arapaho, and Sioux, lands of the Powder River area and the Black Hills. The Shoshone were allocated the lands in the Wind River Valley by the Fort Bridger Treaty.
• Wind River Reservation, near Lander, for Shoshone Indians created by treaty.
1869–Wyoming Territory organized.
1872–Yellowstone Park, first national park, established.
• Wyoming Territorial Prison (today a State Historic Site) ran as a territorial and state prison in Laramie from 1872 to 1903.
1876–Gold discovered near Centennial (Albany County).
1877–Chief Joseph led his Nez Percé people through the Yellowstone area into Sunlight Basin (near Cody) and north almost to the Canadian border before U.S. troops caught up, surrounded them, and forced them to surrender, Oct. 5.

Albany County

UW Geological Museum–Features Wyoming's past environments, highlighted by a 75-foot *Apatosaurus* (*Brontosaurus*) skeleton. Another highlight is "Big Al," a display of the most complete *Allosaurus* fossil ever found. Also see legendary geologist Dr. Sam Knight's large, *Tyrannosaurus rex*, outside the museum. (Central campus, near 11th St. and Lewis St., Laramie, WY, 307-766-2646)

UW Anthropology Museum–Follows the "Human Odyssey," from the evolution of humans in Africa to the spread of our species throughout the world, to the Late Pleistocene entry into the New World. (North side of campus, 12th St. and Lewis St., Laramie, WY, 307-766-5136)

The American Heritage Center–UW's repository of manuscripts collections, rare books, and the university archives. (2111 Willett Dr., Centennial Complex, Laramie, WY, 307-766-4114)

Laramie Plains Museum at the Historic Ivinson Mansion–Restored 1892 house with displays of historical and western artifacts. Guided tours. (603 E. Ivinson St., Laramie, WY, 307-742-4448)

Wyoming Territorial Prison State Historic Site–Run as a territorial and state prison from 1872 to 1903. The building held notorious outlaws like Butch Cassidy and Clark "the Kid" Pelton. (975 Snowy Range Rd., WY, 307-745-3733)

Big Horn County

Greybull Museum–A diverse display of rock and fossil specimens. (325 Greybull Ave., Greybull, WY, 307-765-2444)

Campbell County

Campbell County Rockpile Museum–Includes a display of plant fossils from the area. (900 W. 2nd St., Gillette, WY, 307- 682-5723)

Wright Centennial Museum–Photographs and historical items related to coal mining. (104 Ranch Ct., Wright, WY, 307-464-1222)

Carbon County

Medicine Bow Museum–A pictorial display and historical exhibits of the area. (405 Lincoln Hwy, Medicine Bow, WY, 307-379-2383)

Hanna Basin Museum–Historical artifacts on coal mining and the old mining towns of Carbon and Hanna. (502 Front St., Hanna, WY, 307-325-6465)

Saratoga Museum–The geology of south-central Wyoming with illustrations by legendary geologist, Dr. Sam Knight (1892–1975), and fossil displays with stromatolites. (104 E. Constitution Ave., Saratoga, WY, 307-326-5511)

Grand Encampment Museum–Exhibit of Wyoming mining history; the Aerial Tramway, built in 1902. (807 Barnett Ave., Encampment, WY, 307-327-5308)

Little Snake River Museum–Geologic exhibits include a display of minerals, a wooly mammoth tusk (found in Alaska), and other fossilized bones (Eocene epoch). (13 Country Rd 561 N., Savery, WY, 307-383-7262)

Wyoming Frontier Prison–The Wyoming Peace Officers' Museum and exhibit on the current Wyoming State Penitentiary. Guided tours. (500 W. Walnut St, Rawlins, WY, 307-324-4422)

Carbon County Museum–More than 30,000 artifacts on the history of Carbon County, a territory of trailblazers. (904 W. Walnut St., Rawlins, WY, 307-328-2740)

Converse County

Wyoming Pioneer Memorial Museum–Includes a display of various rocks and fossils from the Douglas area. (400 W. Center St., Douglas, WY, 307-358-9288)

Glenrock Paleon Museum–Rock samples from a wide range of stratigraphic units and geologic periods. Exhibits of dinosaur bones and fossils. (506 W. Birch St., Glenrock, WY, 307-436-2667)

Crook County

Devils Tower National Monument–An astounding geologic feature that protrudes out of the rolling prairie surrounding the Black Hills. This site is considered sacred to the Lakota and other tribes. (Hwy 110, Crook County, WY, 307-467-5283)

Crook County Museum and Art Gallery–Located in the basement of the county courthouse, includes exhibits of dinosaur and mammoth bones, and a collection of rock samples from the Sundance area. (309 Cleveland, Sundance, WY, 307-283-3666)

Fremont County

Riverton Museum–Includes an exhibit on the petroleum history of Fremont County and a paleontology display (700 E. Park Ave., Riverton, WY, 307-856-2665)

Dubois Museum–Collections include rock samples and geologic maps of the region. Large murals depict the topography and geology of the Torrey Rim. Guided tours. (909 W. Ramshorn, Dubois, WY, 307-455-2284)

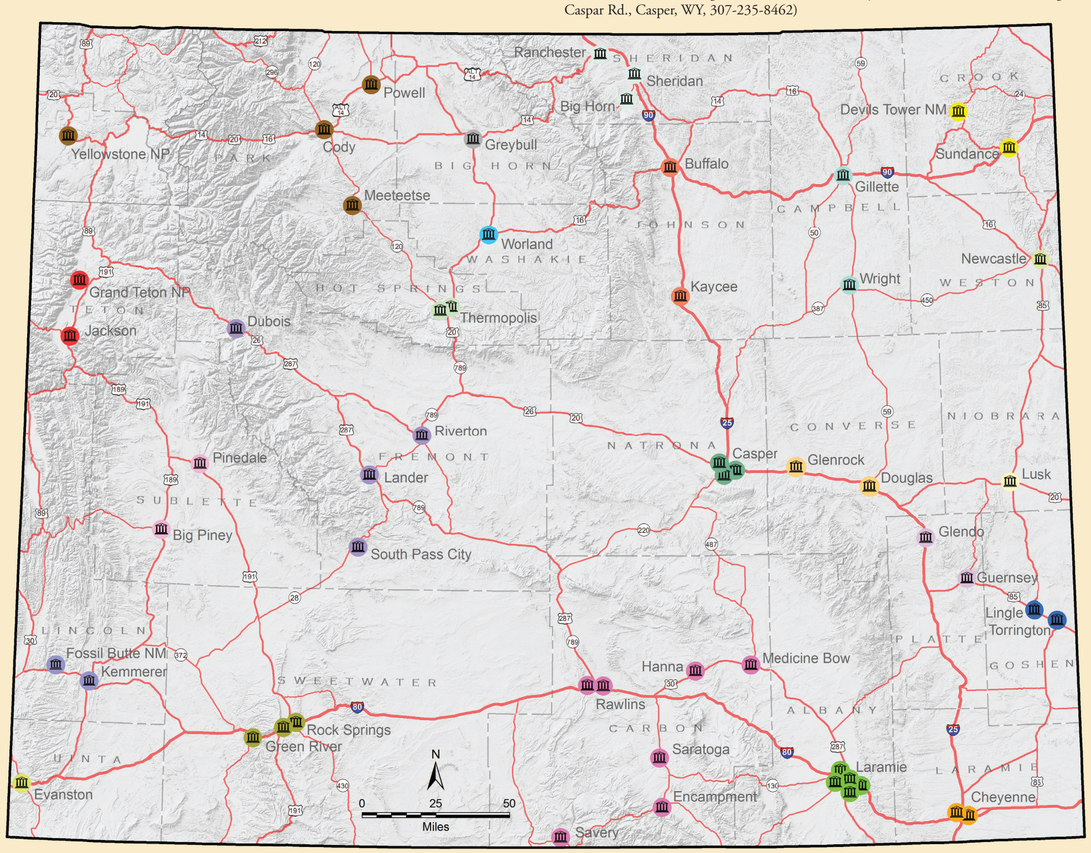
Museum of the American West–Celebrates the different groups of people who utilized the critical geography of what is now central Wyoming and helped shape the American West. (1445 West Main St., Lander, WY, 307-335-8778)

South Pass City Historic Site–Interpretive center and activities on gold and the Carissa mine. Tour 17 restored and exhibited original structures, blacksmith operations, and the historic Smith-Sherlock General Store, or pan for gold in Willow Creek. (125 South Pass Ave., South Pass City, WY, 307-332-3684)

Goshen County

Goshen County Homesteaders Museum–Historical artifacts, information, and genealogical resources related to Goshen County from the first settlement in 1834 up to 1976. (495 Main Street, Torrington, WY, 307-532-5612)

Western History Center–Interpretive exhibits include archaeology, the Cheyenne-Deadwood Stage route, mining, the Texas Trail, Emigrant Trail, Spanish Diggings, and paleontological artifacts. Guided tours. (2308 Hwy 26, Lingle, WY, 307-837-3052)



Hot Springs County

Hot Springs County Museum and Cultural Center–Exhibits on the process of hydrocarbon exploration and production. Also covers coal mining and the geology of the hot springs. (700 Broadway St., Thermopolis, WY, 307-864-5183)

Wyoming Dinosaur Center & Dig Sites–A "Walk Though Time" exhibit guides visitors through the evolution of prehistoric life. (110 Carter Ranch Rd., Thermopolis, WY, 307-864-2997)

Johnson County

Hoofprints of the Past Museum–Rocks and fossils from the Kaycee area. (344 Nolan Way, Kaycee, WY, 307-738-2381)

Johnson County/Jim Gatchell Memorial Museum–A geological display includes specimens of igneous, metamorphic, and sedimentary rocks, casts of dinosaur bones, and an assortment of fossils from the area. (100 Fort St., Buffalo, WY, 307-684-9331)

Laramie County

Wyoming State Museum–Operated by the State of Wyoming, a repository for Wyoming history, art, natural history, and fossils, industry, American Indians, pioneers, and Wyoming's cultural heritage. (2301 Central Ave., Cheyenne, WY, 307-777-7022)

The Nelson Museum of the West–Designed by founder Robert L. Nelson, exhibits showcase the history of the Old West. Collections include military, cowboy, and American Indian artifacts, as well as western art and natural history. (1714 Carey Ave., Cheyenne, WY, 307-635-7670)

Lincoln County

Fossil Butte National Monument–Some of the world's best-preserved fossils are in the flat-topped ridges of southwestern Wyoming. Prepared fossils can be seen in the visitor center. Fossil bearing layers are visible on the Historic Quarry Trail (864 Chicken Creek Rd., Kemmerer, WY, 307- 877-4455)

Fossil Country Frontier Museum–Highlighting the history of the local coal mines. The museum also has fossil fish from the area on display. (400 Pine Ave., Kemmerer, WY, 307-877-6551)

Natrona County

Tate Geological Museum–Interactive geological and paleontological exhibition, which includes marine and terrestrial fossils of flora and fauna (dinosaurs and mammoths), as well as an extensive collection of minerals. (124 College Dr., Casper, WY, 307-268-2514)

Fort Caspar Museum–Exhibits on central Wyoming's history, prehistoric peoples, Plains Indians, ranching, and the energy industry, as well as the western emigrant trails and frontier army. (4001 Fort Caspar Rd., Casper, WY, 307-235-8462)

National Historic Trails Interpretive Center–Explore the Oregon, California, Mormon, and Pony Express trails, capturing the real-life drama on the trails between 1841 and 1868. (1501 N. Poplar St., Casper, WY, 307-261-7700)

Niobrara County

The Stagecoach Museum–Located in the former Wyoming National Guard Armory. Houses relics from the 19th and 20th centuries when Lusk was a notorious cow town and homesteader area. (322 South Main, Lusk, WY, 307-334-3444)

Park County

Old Faithful Visitor Education Center–Featuring exhibits about the hydrothermal features and volcanic geology of Yellowstone National Park.

Buffalo Bill Center of the West–The Draper Museum–Offers a variety of geology and paleontology-related exhibits on Yellowstone. The museum has interactive computer stations on the geomorphologic features, seismic activity, and geothermal history of the area. (720 Sheridan Ave., Cody, WY, 307-587-4771)

Meeteetse Museums–Three museums in one location: Charles Belden Photography Museum, Meeteetse Museum, and The Bank Museum. Exhibits (including endangered black-footed ferret), seminars, and tours (archaeological and historical). (1947 State St., Meeteetse, WY, 307-868-2423)

Homesteader Museum–Celebrates history through thousands of artifacts, historic buildings, and photographs of early Big Horn Basin pioneers. (324 E. First St., Powell, WY, 307-754-9481)

Platte County

Glendo Historical Museum–A large collection of local fossils. Displays also include tortoise shells, dinosaur bones, and petrified wood. (204 S. Yellowstone Hwy, Glendo, WY, 307-735-4242)

Civilian Conservation Corps Museum–Hands-on display of rocks and fossils from the Guernsey area. Exhibits on the history of the Sunrise Mine (iron ore) and the geological history. (Guernsey Lake State Park, Hwy 317, Guernsey, WY, 307-836-2334)

Sheridan County

Sheridan County Museum–A major exhibit explains the history of coal mining in the county. The display also includes a diorama of the mining town of Monarch. (850 Sibley Circle, Sheridan, WY, 307-673-0644)

T-Rex Natural History Museum–*Tyrannosaurus rex* and a *Triceratops* skull on display. The museum also offers dioramas of dinosaurs in their prehistoric environment. (1116 Big Horn Dr., Ranchester, WY, 307-655-3359)

The Brinton Museum–Dedicated to American Indian art and culture, as well as to American fine and decorative art. (239 Brinton Rd., Big Horn, WY 307-672-3173)

Sublette County

Green River Valley Museum–Exhibits showcase the coal mining history of the Big Piney area. The history of hydrocarbon exploration and production is also highlighted. (206 N. Front St., Big Piney, WY, 307-276-5343)

Museum of the Mountain Man–An educational journey back in time to the fur-trade era. Experience the lives of Wyoming's early explorers. (700 E. Hennick, Pinedale, WY, 307-367-4101)

Sweetwater County

Rock Springs Historical Museum–Housed in the original Rock Springs City Hall (1894). Features exhibits on the history of Rock Springs, coal mining, and heritage. (201 B St., Rock Springs, WY, 307-362-3138)

Western Wyoming College Natural History Museum–Paleontology with life-sized dinosaur displays. (2500 College Dr., Rock Springs, WY, 307-382-1600)

Sweetwater County Historical Museum–Explore the stories of American Indians, explorers, fur trappers, travelers of overland trails, railroad workers, coal miners, cowboys, sheepherders, homesteaders, business people, trona miners and oil and gas workers. (3 E. Flaming Gorge Way, Green River, WY, 307-872-6435)

Teton County

Jackson Hole History Museum–Exhibits on the early culture of Jackson Hole, Grand Teton, and Yellowstone, featuring American Indian artifacts and items of the fur trade, ranching, and pioneer days. (225 North Cache, Jackson, WY, 307-733-2414)

Grand Teton National Park–Naturalists provide information and interpretive walks and talks. Stop by any of the four visitor centers for events and programs, including the Craig Thomas Discovery Visitor Center. (307-739-3300)

Uinta County

The Unita County Museum–Features the county's history of coal mining. The exhibit has artifacts from the 1800s coal mining and a childrens' (hands-on) exhibit on igneous, metamorphic, and sedimentary rocks. (1020 Front St., Evanston, WY, 307-789-8248)

Washakie County

Washakie County Museum & Cultural Center–Contains significant exhibits of archaeological sites in the Bighorn Basin, from ancient mammoth hunters to early settlers, as well as displays on the geology, archaeology, and paleontology of the area. (2200 Big Horn Ave., Worland, WY, 307-347-4102)

Weston County

Anna Miller Museum–Exhibits pertaining to coal mining, including artifacts and mining tools relevant to the historic Cambria coal camp near Newcastle. (401 Delaware Ave., Newcastle, WY, 307-746-4188)

Wyoming Travel and Tourism–Search Wyoming museums at www.wyomingtourism.org

Historical Timeline (cont.)

1878–Arapaho were relocated to the Wind River Reservation to share it with the Shoshone.
1879–Silver was discovered near Lusk. The settlement next to the discovery was called "Silver Cliff," built in 1884.
1881–Copper was discovered near Hartville. The town of Hartville (established, 1884) was named for one of the main investors in the copper mining company, Major V. K. Hart.
1882–Ames Monument (between Laramie and Cheyenne). The pyramid-formed monument is made of native granite with a 60-foot base and 60 feet high. The Union Pacific Co. built Ames Monument in honor of Oakes and Oliver Ames, two brothers who pledged $47 million to construct the first Transcontinental Railroad in 1865. It was designed by pre-eminent 19th century American architect Henry Hobson Richardson.
1884–The first oil well was drilled in Wyoming at Dallas Dome (southeast of Lander), followed by Salt Creek (north of Casper). Salt Creek is the most productive field in Wyoming's history, producing 700 million barrels since 1889.
1888–Bentonite was mined in the Rock River area (Albany County).
1890–Wyoming Territory admitted into Union as 44th state, July 10.
1891–Shoshone National Forest was dedicated as the first U.S. national forest.
1896–Copper was discovered at Rudefeha in the Sierra Madre (Carbon County). Copper production from the Encampment area amounted to more than 23 million pounds from 1899 to 1908.
1898–Iron ore mining began near Hartville by Colorado Fuel and Iron Company. The town of Sunrise, a company town, was founded two years later near the mine. Total production during 1900–1980 was about 42,454,000 tons. The mine closed in 1980 after the price of iron dropped.

20th Century

1901–Wyoming Frontier Prison in Rawlins opened for prisoners.
1906–Devils Tower National Monument (Crook County), first national monument in United States.
1912–Limestone was discovered in the Laramie Range. near Cheyenne. The mine was operated by Great Western Sugar Company, which in 1945 opened a quarry near Laramie.
1913–The Lincoln Highway was established as America's first coast-to-coast highway (U.S. 30).
1916–Agate basin site (Natrona County) discovered by rancher William Spencer. Paleo-Indian temporary camps were also discovered there.

1918–Uranium discovered at Sliver Cliff, near Lusk.
1922–U.S. Secretary of the Interior leased Teapot Dome naval oil reserves in Wyoming.
1923–Standard Oil at Casper, the location of the largest gasoline-producing refinery in the world.
1925–Teapot Dome (Natrona County) scandal, a bribery incident that took place from 1921 to 1922, during the administration of President Warren G. Harding.
1929–Grand Teton National Park was established.
1941–During World War II, the U.S. Government designed a plant to be built in Laramie to recover alumina from anorthosite by an alkali-sinter process.
1947–The San Francisco Chemical Company opened Wyoming's first large-scale phosphate mine (Lincoln County).
1948–First trona mines in Wyoming. Opened in 1948 by Westvaco, Wyoming produced 95% of the entire world's supply of natural trona. The mineral is used in detergents and glass production.
• West Poison Spider Oil Field (Natrona County) had the deepest producing oil well in the U.S., at 14,309 feet deep.
1951–USGS geologist J. David Love discovered uranium at Pumpkin Buttes in the Powder River Basin.
1953–Neil McNeice of Riverton spotted a thick yellow layer of uranium ore in a cliff; the famous "Lucky Mc Mine."
1957–The "yellowcake town" of Jeffrey City (Fremont County) was named. Like many mining towns, it grew into a thriving community as the mining of uranium increased.
1962–Iron ore was mined at South Pass. U.S. Steel operated the taconite mine, located south of Lander, from 1962 until it closed in 1983.
1969– Vore Buffalo Jump (Crook County). Discovered by interstate highway surveyors; the site was donated to UW by the Vore family in 1989. It contained more than 20,000 bison that were stampeded off the cliffs by American Indians as early as 3,500 years ago; one of the largest bison kill sites in the United States.
1975–Diamonds were first discovered in Wyoming (south of Laramie) by Dr. M. E. McCallum.
1987–*Knightia* adopted as Wyoming State Fossil.
1988–Wyoming quartzite quarried near Hartville was selected by geologist Ray Harris (WY State Geological Survey) as the Wyoming stone used in the construction of the Bicentennial of the Constitution monument in Philadelphia.
• Frederick-Hell Gap site named State Archaeological Site, nomadic people lived there about 12,000 years ago.
1994–*Triceratops* adopted as Wyoming's State Dinosaur
2012–Two overpasses were constructed by the Wyoming Department of Transportation for pronghorn antelope to use for their annual migrations (Sublette County).

Sources: Wyoming Almanac, By Phil Roberts, David L. Roberts, and Steven L. Roberts, 2013.
Wyoming's Oil and Gas Industry, By Alan J. Ver Ploeg, 1982.