Geology

When a caldera volcano near modern Mount Princeton erupted 36.7 million years ago, it sent an explosion of magma, pumice, ash, glass, and rock high into the atmosphere. This pyroclastic flow reached 2,000 degrees fahrenheit and traveled over one hundred miles in less than two hours. Any plant and animal life caught in its path was incinerated. A layer of ash up to twenty feet thick was deposited across the land. As it melted, it formed the welded tuff that distinguishes Castlewood Canyon's pink, castle rock rhyolite today.²



Artistic rendering of the Princeton eruption 36.7 million years ago.

Photo Courtesy: National Science Foundation

Castlewood Canyon State Park sits on the Palmer Divide. It is responsible for many of the park's unique features. Increased elevation along the Divide causes water to flow on a north-south axis, rather than the typical east-west. Water south of the divide flows into the Arkansas River basin, and north, into the South Platte. The Palmer Divide itself is several million years old. This is evidenced by the stone cross beds of ancient streams--flowing north--along the Canyon Point parking lot and Nature Trail. With its headwaters only a few miles away, this ancient forerunner to Cherry Creek carved Castlewood Canyon in a little under 100,000 years. Today, Cherry Creek flows north into Denver, joining the South Platte River at Confluence Park, before eventually emptying into the Mississippi River basin and on to the sea.

Water is responsible for the formation of castle rock conglomerate as well. Over 34 million years, rain and snow eroded the nearby Rocky Mountains, washing chips, pebbles, and boulders downstream.³ These sedimentary rocks melded together over time thanks to "nature's concrete" and now make up the modern canyon walls and caprock. Other notable geologic features include

³ Johnson and Reynolds, *Ancient Denvers*.

¹ Johnson, Kirk R. and Robert Reynolds, *Ancient Denvers: Scenes from the Past 300 Million Years of the Colorado Front Range* (Denver: Denver Museum of Nature and Science, 2002), 26-28.

² Ibid.

the 55-million-year-old Dawson Arkose; petrified wood is a common fossil in the canyon.⁴ Visitors are urged to leave rocks, fossils, plants, and other features of interest for future generations to enjoy. Failure to do so may result in a citation and fine.

First People

Smoke marks can be seen on caves and overhangs throughout Castlewood Canyon. The oldest of these rock shelters dates back 5,000 years. It is likely that the people who used this site traveled in family groups of 15 to 30 people. Reliable water and south-facing shelters would have made harsh, Archaic period winters tolerable--if not enjoyable--for early North Americans. The first formal digs of these sites began in the 1950s, although informal excavations occurred in the 1930s as well.⁵ Artifacts collected from the Castlewood cave shelters can be seen at the University of Denver's museum of anthropology.

This tradition of wintering in the canyon continued under indigenous tribes. Archaeological finds suggest the Jicarilla Apache occupied eastern Colorado from around 1200 to 1750 CE. ⁶ The Comanche and Mouache Ute, among others, controlled parts of the region during this period as well. ⁷ Prior to European contact, the Mouache Ute lived along what is now the Front Range from Denver south to Trinidad. ⁸ Many likely called Castlewood Canyon home during this time.

The Palmer Divide is an ecological borderland between the Great Plains and Rocky Mountains, containing flora and fauna from both. This made the area a highly contested resource. Arrowheads possibly belonging to the Jicarilla Apache, Comanche, or Kiowa have all been found in the canyon. The Mauache Ute likely occupied the Palmer Divide until the early nineteenth century. This is when the arrival of the Arapaho and Cheyenne shifted power dynamics across the Front Range. The Cheyenne referred to themselves as the Tsistsistas, or The Called Out People, after their exodus from the Great Lakes region. By 1815, land at nearby Chatfield and Cherry Creek State Parks were both known Cheyenne-Arapaho trading council sites.

American Settlers

In 1858, gold was discovered by William "Green" Russell at Dry Creek. Strikes soon found gold

⁴ Ibid.

⁵ Randall, Sharon, Tracy Dixon and Patty Horan, *The Night the Dam Gave Way: A Diary of Personal Accounts* (Franktown, CO: Castlewood Canyon State Park, 2010).

⁶ Colorado Parks and Wildlife, *Castlewood Canyon State Park Stewardship Project*, by CPW Resource Stewardship Team, Denver, Colorado: Colorado Department of Natural Resources, 2015.

⁷ Ibid.

⁸ Southern Ute Indian Tribe, "Early History," 2021, southernute-nsn.gov/history.

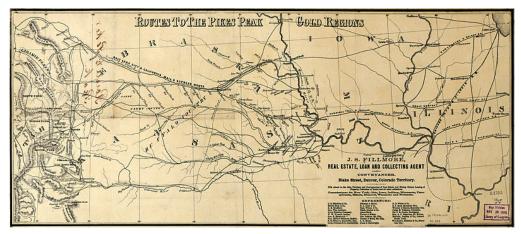
⁹ Southern Ute Indian Tribe, "Chronology," 2021, southernute-nsn.gov/history/chronology.

¹⁰ Elliot West, *The Contested Plains: Indians, Goldseekers, and the Rush to Colorado* (Lawrence: The University Press of Kansas, 1998, 76.

¹¹ Ibid, 82.

on the South Platte, Plum Creek, Ralston Creek, and Cherry Creek as well. ¹² This kicked off the Colorado Gold Rush, an event that drew hundreds of thousands west. Unlike the California gold rush a decade earlier, hopeful "Pikes Peak-ers" had the luxury of following long established trails along the South Platte and Arkansas River into Colorado.

State Highway 83, just outside the canyon, follows one of the oldest stagecoach lines in Colorado. This route linked both the Smoky Hill and Santa Fe Trail to the goldfields outside of Denver. Would-be prospectors following the Arkansas River west could either charter a stagecoach for the final leg or simply follow the road themselves. Modern Franktown, Parker, and Cherry Creek State Park were all home to stagecoach stations along this line. These settlements were often the first glimpse migrants had of daily life in Colorado Territory. Today, gold panning is permitted throughout Castlewood Canyon and is an excellent way for visitors to connect with Colorado history. All found minerals, however, remain the property of the state.



A map to the Colorado goldfields. The South Platte and Arkansas Rivers were the safest and most reliable routes, and hence the most traveled. Highway 83 follows the vertical line linking the two river systems along the Front Range.

Photo Courtesy: Library of Congress

The area around Castlewood Canyon was also central in what historians refer to as "the Indian War of '64," and the events leading up to the Sand Creek Massacre. In the spring of 1864, U.S. Army Volunteers made four unprovoked attacks on Cheyenne villages—beginning a summer of violence between the two nations. ¹⁵ This conflict was especially heated on the Palmer Divide. Violence between indigenous residents and American settlers occurred frequently throughout the summer of 1864, and even resulted in the construction of a barricade around Franktown. The

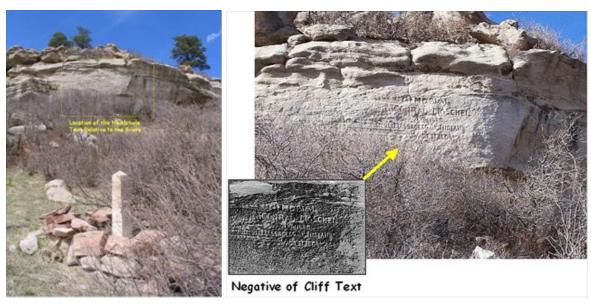
¹² Ibid.

¹³ Ibid.

¹⁴ Peterson, Heather King, "Colorado Stagecoach Stations," Masters Thesis, The University of Colorado at Denver, 2002.

¹⁵ National Parks Service, "A Timeline of events relating to the Sand Creek Massacre," March 19th, 2019, nps.gov/sand/learn/timeline.

grave of one local resident killed in a September skirmish, Conrad Moschel, is visible just outside the modern park boundary along Castlewood Canyon Road.



Gravesite of Conrad Moschel, died September 1864, near Castlewood Canyon Road. Note the rhyolite obelisk and use of a nearby cliff as an original grave marker.

Photo Courtesy: Waymarking.com

In 1894, 160 acres at the foot of "Wildcat Canyon" were purchased by Patrick and Margaret Lucas. The couple met after immigrating from Ireland to Arizona, and married in 1889 before moving to Colorado. By the turn of the new century, they had eight children, an expansive concrete home, and a prosperous ranch. The family lived here until the 1940s. The Lucas children and grandchildren kept up the property until a fire burned the structure in the early 1960s. Even as a ruin, the Lucas Homestead remains an upbeat feature of the park. Irish and British women often planted lilacs around new homes as a reminder of familial hearths left behind—and of those yet to come. Today visitors and staff alike are delighted by Margaret's blooming lilacs every spring from April through May.

The Castlewood Dam

Many settlers, including the Lucas Family, were drawn by the promise of the newly constructed Castlewood Dam. Built in 1890, the dam was an attempt to transform the flood-prone Cherry Creek into a reliable irrigation source. The reservoir it created became a beloved recreation site as well. Named for the jovial neighbor who fed workers during dam construction, 'Lake Louisa' was a weekend getaway for many in the Denver area. Hiking, swimming, sun bathing, and picnicking were all popular activities. Happy summers at the reservoir, however, were not to last. Notorious for frequent leaks, the dam finally burst on the night of August 3rd, 1933.

¹⁶ Randall, Sharon, Tracy Dixon and Patty Horan, *The Night the Dam Gave Way: A Diary of Personal Accounts* (Franktown, CO: Castlewood Canyon State Park, 2010).

Cherry Creek chipped away at the earthen structure for years: the same erosion that formed the canyon ultimately weakened Castlewood Dam's foundation. Bursting from the bottom of the dam, a wall of water sent building materials, timber, cattle, cars, and debris tumbling towards Denver.¹⁷ The city remained flooded for several days. Further tragedy was prevented mainly by the actions of Nettie Driskill, a telephone operator in nearby Parker. Driskill stayed on phone lines throughout the night--with raging flood waters only a few yards away--to warn downstream residents and first responders of the impending disaster. Her efforts made her a national hero, and even landed her a spread in the famed *Time Magazine*.¹⁸



Rocky Mountain News headlines the disaster, August 4, 1933.

Photo Courtesy: Denver Public Library

The Castlewood Dam was never rebuilt. Instead, Denver and Aurora explored comprehensive flood-control along Cherry Creek.. In August 1941, President Franklin D. Roosevelt authorized the "Cherry Creek Project" as part of a \$275 million New Deal program. ¹⁹ The US Army Corps of Engineers completed this project in 1950, and the new dam now stands at the heart of Cherry Creek State Park. In 1965, it stopped one of the worst floods in Colorado history and is generally considered a great success. ²⁰

Modern Use

¹⁷ Ibid.

¹⁸ Ibid.

Encyclopedia Staff, "Castlewood Dam," Colorado Encyclopedia, last modified May 11, 2020, https://coloradoencyclopedia.org/article/castlewood-dam.
 Ibid.

In 1961, Lawrence P. Brown, a descendant of Margaret and Patrick Lucas, sold 87 acres of his family's old homestead to the newly created state park system for \$10. Castlewood Canyon became a state park in 1964 and expanded another 792 acres, to include the former dam and reservoir, in the 1970s. The park then purchased the remaining 73 acres of the Lucas homestead from the Metzler family in 2002. Total land now sits at little over 2,500 acres. As a day-use park, Castlewood is primarily known for its hiking, picnicking, birding, rock climbing, and event facilities. Weddings and family reunions are frequent occurrences throughout the summer.

In 2020, Castlewood Canyon State Park officially became a Leave No Trace 'Gold Standard' site. Hikers and rock climbers should "pack in, pack out" the 10 Essentials, and all visitors are encouraged to practice Leave No Trace on the trail. More information about Leave No Trace and the 10 Essentials is available through the National Park Service:

Leave No Trace - https://www.nps.gov/articles/leave-no-trace-seven-principles.htm
10 Essentials - https://www.nps.gov/articles/10essentials.htm

Laurel K. Teal, 2022