

FRYINGPAN CHARCOAL KILNS
(Basalt Charcoal Kilns)
Elk Mountain Drive, Arbaney Park
Basalt
Eagle County
Colorado

HALS CO-5
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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN LANDSCAPES SURVEY
INTERMOUNTAIN REGIONAL OFFICE
National Park Service
U.S. Department of the Interior
12795 West Alameda Parkway
Denver, CO 80228

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FRYINGPAN CHARCOAL KILNS (Basalt Charcoal Kilns)

HALS NO. CO-5

- Location: Arbaney Park, Elk Mountain Drive, Basalt, Eagle County, Colorado.
Lat: 39.368594 Long: -107.028106 (Row of Kilns, Google Earth, Simple Cylindrical Projection, WGS84)
- Significance: The kilns are significant for their association with the Aspen silver mining district, one of the most productive in the state.
- Description: The Basalt charcoal kilns consist of seven beehive shaped kilns near the core of downtown Basalt. The kilns are 25' in diameter at the base and 25' high. Two are composed of native stone and river rock, one is a hybrid of stone and brick, and four are built of locally manufactured¹ brick and mortar. All seven kilns are still present but in different states of repair. Three of the four brick kilns are intact and the fourth has partially caved in. One of the two hybrid cones is complete while only approximately two-thirds of the other hybrid kiln is standing. The kiln constructed of native stone is also only partially extant, with only the mid to lower walls remaining. The kilns have stepped bands of construction: the four brick kilns have one band; the hybrid kilns have three bands; and there is not enough structure left of the river rock kiln to determine how many bands were part of its construction. There is a large opening at grade, a smaller opening on the opposite side halfway up the wall and numerous small openings around the base of each kiln. The four brick kilns were built first, the hybrid kiln next, and the stone kilns last.² Originally the exteriors of the kilns were whitewashed, partly for durability, and partly so that smoke leakage could be easily seen³ and this coating was repeated each time there was a firing. This outer coating disappeared long ago. After the kilns were no longer used for charcoal production, they were modified to serve other purposes for the ranching and farming operations in the area. In one kiln a doorway was squared off and framed and wood dividers built on the floor. The probable use was a barn with the dividers separating the different types of livestock. Other kilns were likely used for storage of grain and farm implements.

¹ "Mines and Mining", Aspen Weekly Times, November 29, 1884.

² Scott Condon, "Surviving the Test of Time in Basalt," The Aspen Times, 30 Sept. 2010, A1.

³ Willis, W. F. "Panaca Summit Charcoal Kilns, NV." *Silver Estate Ghost Towns*. 2009
<http://silverstateghosttowns.com/panacacharcoal kiln.html>.

When town of Basalt purchased the property as part of Arbaney Park, the kilns were in public hands but not protected. They suffered from weathering and vandalism. At one time numerous holes were punched through the kilns and by 2009 bricks and mortar were crumbling. The hybrid and the stone kilns proved to be more fragile than the brick. The hybrid kiln partially collapsed years ago and the two stone kilns had partially collapsed by 2009.

To the west of the kilns is residential development in close proximity, on the south is the Frying Pan River, and on the north and east, Arbaney Park, a large public park.

In 2010 the town of Basalt received a grant from the Colorado State Historical Fund to stabilize and preserve the kilns. The stabilization, partial restoration, protection and preservation was done in the summer of 2010. Today the kilns “don’t look much different than they did before.”⁴ The kilns appear as they have for the last decade, that is, in a state of partial deterioration, but they have been stabilized and protected so that the deterioration has been arrested. To accomplish the repair and partial restoration; some bricks and stones from the collapsed and partially collapsed kilns were used to restore the standing kilns.⁵ A protective fencing now surrounds the site.

History: The specific date the kilns were constructed is a subject of debate, however, according to an article in the *Aspen Weekly Times* dated September 13, 1884, the Aspen Mining and Smelting Company was building charcoal kilns near the Frying Pan River.⁶ The commemorative plaque at the site states that the kilns were built in 1882. Another article, from the October 11, 1884 edition reports that bricks were being burned for the construction of five charcoal kilns.⁷ In an additional reference to the kilns by the *Aspen Weekly News*, November 29, 1884, it was reported that four charcoal kilns were running at the Frying Pan with the first charcoal delivery having been made the previous week.⁸ A subsequent account dated February 21, 1885 notes that two additional kilns had been added for a total of six kilns.⁹ It is unknown when the seventh kiln was added.

⁴ Condon. “Surviving the Test of Time in Basalt,” A5.

⁵ Ibid., A5.

⁶ Aspen Weekly Times, September 13, 1884.

⁷ Aspen Weekly Times, October 11, 1884.

⁸ “Mines and Mining”, Aspen Weekly Times, November 29, 1884.

⁹ Aspen Weekly Times, February 21, 1885.

The first settlement in the Basalt area was in 1882 and was called Fryingpan.¹⁰ The settlement was a tent city primarily to house and entertain the men working in the charcoal ovens.¹¹ The majority of the men stayed in the tent city, but those of more means stayed in the still existing Luchsinger cabin, a halfway house which was built in 1882, by Gabriel and Julia Luchsinger to accommodate travelers in the Roaring Fork Valley. The name was frequently misspelled and eventually, the Luchsingers accepted the more commonly used spelling, Lucksinger.

The Aspen Mining and Smelting Company built the kilns to provide charcoal for in their smelter in Aspen, nineteen miles away. The availability of piñon or pinyon pine trees was one of the prime reasons for the selection of this site and the topography, a flat area up against a small bench, aided in the operation of the kilns. Pinyon pine occurs primarily on the Colorado Plateau but there are pockets of pinyon-juniper woodlands along drainages in Garfield and Eagle counties. There is also reference to the old carts, stored at the Luchsinger cabin, that hauled the pinyon to the ovens.¹² The settlement of tents and shacks that grew up around the construction of the kilns was originally called Fryingpan Kilns, but was changed after a short time to Fryingpan. The kilns produced charcoal that was hauled to Aspen by wagons, pulled by mules and horses.¹³ At the time the Colorado Midland Railroad was only an idea, being first organized on November 23, 1883; the line would not reach the townsite until 1887.¹⁴

The process of producing charcoal from a beehive kiln was a relatively new technology. It was invented by James C. Cameron, Jr. in Marquette County, Michigan in 1867 to process both coal into coke and wood into charcoal¹⁵ and examples of beehive kilns are seen throughout the West. Charcoal burned twice as hot as cordwood and was more economical to transport. The process consisted of first ‘charging’ the kiln. The cordwood was precisely stacked to

¹⁰ Earl V. Elmont, *Basalt and the Frying Pan*, (Basalt, CO: Who Press, 2004), 32.

¹¹ Clarence L. Danielson, and Ralph W. Danielson, *Basalt: Colorado Midland Town*. 3rd ed., (Woody Creek, CO: People’s Press, 2009), 1.

¹² Danielson, *Basalt: Colorado Midland Town*, 2.

¹³ “Welcome to Basalt: The Heart of the Roaring Fork Valley,” Town of Basalt.
<http://www.basalt.net>.

¹⁴ Danielson, *Basalt: Colorado Midland Town*, 371.

¹⁵ Michael Ryan, “The Historic Canyon Creek Charcoal Kilns,” *Foresthstory*.
http://www.foresthistory.org/Publications/Books/Origins_National_Forests/sec9.htm.

ensure complete, even burning and the kiln was filled from the main charging door on the front of the structure. When the pile was too high to reach from the main door, the upper portion of the stack was laid from a smaller charging door at the upper rear of the kiln. Charging a 30' high kiln took 12 hours, and the labor of four men and two horses. The wood was burned in an oxygen poor environment and the success of the process depended on careful and precise manipulation of the airflow through the vents at the bottom and top of the kilns. The burning changed the cordwood to charcoal, burning off all moisture and volatile constituents, producing an almost pure form of carbon.¹⁶ The process took several days and required constant monitoring. Before the kilns were built at Basalt, the Aspen smelter had to get charcoal from Utah,¹⁷ making the operation of the Fryingpan kilns beneficial economically not only for Fryingpan but for the Aspen Mining and Smelting Company as well. Coke, a product derived from coal, was the preferred fuel for smelters, but the nearest source of coke was Pennsylvania, so the charcoal produced by the Fryingpan kilns became an acceptable substitute.

In 1887 the town of Aspen Junction was formed across the Fryingpan River from the kilns. At about the same time a large deposit of coal was discovered near Carbondale, fourteen miles west of Aspen Junction. Coke, which is a hotter and cleaner burning fuel than charcoal is produced from coal in a process similar to the wood to charcoal process. After the coal discovery, coke ovens were built in Cardiff, approximately fourteen miles west of Basalt, and the Crystal River Valley, the next valley west of the Roaring Fork Valley, approximately fifteen to twenty miles away. With the newly built rail line nearby to facilitate transport, and a local supply of coke available, the Aspen Mining and Smelting Company began to use coke, a longer burning and hotter fuel than charcoal, in their smelter. The demand for charcoal from the Fryingpan kilns and other charcoal kilns in the area dropped off immediately and eventually all the charcoal kilns were closed down. Another factor in the closing of the charcoal kilns was the rising expense of obtaining the wood. Enormous amounts of pinyon pine were required to produce the charcoal needed by the Aspen smelter. The forest was being depleted at a staggering rate, and the cost of traveling further and further to get cordwood was becoming prohibitive. While there had been charcoal ovens in Aspen, and in Sellers, up the Fryingpan Valley, as well as the Fryingpan kilns, they all ceased operation with the advent of coke production. There are remnants of the other charcoal kilns, but the kilns at Fryingpan, or as they are now called the Basalt Charcoal Kilns are the most intact charcoal kilns surviving in this region of Colorado.

¹⁶ Michael Ryan, "The Historic Canyon Creek Charcoal Kilns," *Foresthistory*.
http://www.foresthistory.org/Publications/Books/Origins_National_Forests/sec9.htm.

¹⁷ Elmont, *Basalt and the Frying Pan*, 34.

Sometime after the kilns stopped production, the Arbaney family purchased the land on which they stood. They were a farming family and used the kilns for storage and livestock, probably part of the reason they are still standing today. In 1895, Aspen Junction became Basalt. As Basalt started to grow in the 1970s and 80s, many ranches were sold for subdivisions, including part of the Arbaney Ranch. The Town of Basalt eventually purchased the kilns to save them from demolition and placed protective fencing around them. Not much more was done until 2010, when the kilns were stabilized and partially restored with the Colorado State Historical Fund grant. The kilns currently stand in a fenced area adjacent to Arbaney Park, but the Town of Basalt intends to integrate them into the park, provide interpretive signage, and use them as an educational tool when time and funds allow.

The period of Basalt Charcoal Kilns was short-lived, from 1882 or 1884 to 1887, but their impact on silver mining in Aspen and the economy of Basalt was great. The construction and subsequent operation of the kilns provided the beginnings of the economy and settling of the Town of Basalt. And while coke was a better choice for the smelter in Aspen, when that was unavailable, the charcoal produced in Basalt allowed the smelting business and associated mining operation to prosper, boosting the economy of the entire Roaring Fork Valley.

Sources: *Aspen Weekly Times*. September 13, 1884.

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The Basalt charcoal kilns in the summer of 2009, before stabilization and restoration (Ann Mullins, August 2009).



View of unrestored kilns from Arbaney Park. Eventually the kilns will be integrated into the park. (Ann Mullins, August 2009).



Unrestored kilns, showing siting near a small bench that facilitated loading cordwood at the top of the kiln (Ann Mullins, August 2009).



The stabilized and restored Basalt kilns looking to the southwest across the Roaring Fork Valley. Six kilns can be seen, the seventh, which collapsed previously, is barely visible to the far right. The area is currently fenced and inaccessible. (Ann Mullins, October 2011).



Hybrid kiln, made of brick and native stone. Native stone kiln is in the foreground and all brick kiln is in the background. (Ann Mullins, October 2011).



Detail of upper door at rear of kiln (Ann Mullins, October 2011).



The kilns have been bounded on two sides by close residential development from the 1970s and 80s. These two kilns are of brick construction. (Ann Mullins, October 2011).



Restored kilns (Ann Mullins, October 2011).



The Luchsinger half-way house, Basalt, CO, built in early 1880s (Ann Mullins, October 2011).