**RETURN AIRWAY**

The flow of air is crucial in mining coal. Potentially explosive gases, like methane, released from coal seams must be reliably cleared to maintain mine safety. Ventilation in the first Brunner workings relied on ‘natural’ means but by the early 1880s coal was being sourced further underground and more efficient mechanical fan ventilation was called for.

The foundation remnants in view once housed a powerful high speed Schiele extractor fan, responsible for drawing an air current through the mine workings. This 9 foot 6 inch (2.9m) fan, installed in 1888, was driven by a steam engine (located right of the tunnel) and was capable of displacing 16000-18000 cubic feet of air per minute.

The main mine entrance tunnel (previously located to the left) acted as the fresh air intake. Air was directed through the myriad of mine tunnels to the working faces via canvas screens known as brattice. These helped separate the good air from the foul air as brattice. These helped separate the good air from the foul air.

Despite the greater skill required, the moulders surprisingly earned the same as labourers – about 9 shillings a week in 1890.

**THE MOULDERS WERE THE CRAFTSMEN’ AT THE BRICK WORKS**

About twelve men and boys were employed in the brickworks. The clay was approximately four cubic feet in volume. The clay dust was apparently unbearable and the only ventilation was through open windows in the pug mill building. Temperatures here were below freezing point in winter while those working in the moulding and drying shed, with its underfloor heating, complained of the heat.

“...sometimes we’d put them in a bucket of water, the clay had to be a perfect texture, evenly spread and with no air pockets. We had to carry 2000 bricks a day or face the sack.”

Despite the greater skill required, the moulders surprisingly earned the same as labourers – about 9 shillings a week in 1890.

**FIRECLAY MINE ENTRANCE**

You have just walked a short section along what was once a tramway for carting clay from the St Kilda mine (1907-21) to the back of the pug mill. The mine was located upstream of the coke ovens complex. Fireclay from the St Kilda and the North Brunner mines was tapped after the main Brunner mine closed in 1906. Although the clay from these mines was said to be of ‘inferior’ quality, it helped keep the industry going for another 16 years.

This fireclay entrance in front of you was an attempt, in 1917, to source clay for the brickworks’ plant. The lack of success was a sign that quality raw material was running low. In 1922 the Brunner fireclay industry ground to a halt. As the years passed, the famous Brunner brick became very desirable, passed through twenty five ovens.

**BEEHIVE COKE OVENS**

You are looking down on the remains of the substantial beehive coke ovens’ complex from the edge of a coke bagging platform, excavated out of rock. At the end of the coking process, coke was drawn from the set of 12 beehive ovens constructed behind each of the arches in view. It was then barged on the platform.
Brunner, 1864 – 1942
A Self Guide

Brunner is a site of national significance. It was New Zealand’s most productive 19th century coal mine, the site of the country’s worst mining disaster and its archaeological remains offer an outstanding example of our nation’s industrial heritage.

Use this self guide and the on-site panels placed along the walkway to help you piece the Brunner story together. Follow the map and look out for the numbered wheel markers that link to the historic sites interpreted in this guide.

Enjoy exploring Brunner.

1. THE EARLIEST COAL MINE
You are at the ‘hot spot’ of coal and coke activity during Brunner’s pioneer phase. From 1864 to 1876 coal was mined for miles underground then transported in barges down river to the port of Greymouth. The remaining structures provide us with clues about the activities and technology that launched New Zealand’s coal mining industry.

View the panel to help connect the site remains with the early mine scene.

2. BRUNNER’S FIRST COKE OVENS
The Nelson Coal Mining Company made up of Australian (Buller) investors initiated the coke industry at Brunner. These twin vauled coke ovens, built in 1868, were made with firebricks imported mostly from Melbourne.

Coal was trucked from the nearby mine entrance and about 4 tons were manually loaded through each arched opening. After the coal was set alight, the opening was bricked up leaving just a small amount of air. Gates escaped through rear flues. Two days later a few tons of coke was raked out and quenched with water before being bagged on a coke platform in front of the ovens. The ovens were often in need of repair. The imported bricks were just not up to the job. By 1872 firebricks made from Brunner fireclay were being placed inside the ovens and the coke was said to be ‘better and cleaner’.

After the construction of breeze ovens (upstream from the bridge), these twin ovens were used to store mine explosives. Luckily they survived! The New Zealand Historic Places Trust (near the river edge centre of photo).

3. BRUNNER LOOPS WALKING TRACK
WALKING TIMES (Grade: Easy)
Taylorville Carpark – Brunner Loop Track return 40 min
Taylorville Carpark – Brunner Loop Track return 20 min
Taylorville Carpark – Synneside Carpark 30 min

KEY
Walking Track
Key historic sites

3. BRUNNER MINE MEMORIAL
This memorial was built in 1996 to commemorate the centenary of New Zealand’s worst industrial disaster which occurred in the Brunner mine on 26th March 1896. The ‘typical’ coal miner depicted stands in memory of the men and boys who lost their lives in the underground explosion on that fateful day. There are 65 steps representing each victim of this terrible tragedy.

The memorial has also become a place of commemoration for the victims of other mine disasters and fatal accidents in Grey District coal mines.

Within the next few minutes the track leads to the site of the Brunner Mine entrance and the adjacent return airway tunnel and other structures.

Take a moment to reflect on this horrific event in our nation’s history, listen to the audio and delve deeper into the disaster story at the interpretation centre.

4. BRUNNER MINE MEMORIAL
The skill of blacksmiths forging iron and repairing mine equipment, coal trucks, and light rail as well as carpenters preparing building and mine timbers, brattice work and making brick moulder were hugely relied upon.

5. BRUNNER MINE MEMORIAL
A Self Guide

This site is a protected historic site. Removal of archaeological artefacts is an offence under the Historic Places Act 1993.