

# GASWORKS GAZETTE

## Museum Reopening

The last few months have been truly extraordinary. While the coronavirus has ravaged the world, here in New Zealand we seem to have been relatively lucky, at least so far. We hope everyone in the Gasworks family has stayed safe and healthy during these trying times. Life is slowly returning to normal now, and under Level Two, museums can reopen, with some extra precautions to keep staff and visitors as safe as possible. We're very pleased to announce that the Gasworks will be opening up again on Sundays, starting on 7 June, from 12 - 4pm as per normal. We'd love to see you - please drop in and say hello.



### Vale Mack Holmes

We were very sad to learn that long-term volunteer Mack Holmes passed away prior to lockdown. Mack was an outstanding volunteer, well-liked and respected by everyone he worked with, and he will be sorely missed. Our deepest condolences to Mrs Lyn Holmes and all Mack's family.



## AGM Coming Up

The Gasworks AGM will be held at the Museum on Sunday 26 July. Please join us for refreshments anytime from 3pm. The meeting proper will begin at 4pm, followed by guest speaker Sophie Barker. Sophie is a Dunedin City councillor, Gasworks Museum trustee, and local tourism expert. She will discuss tourism after the pandemic, with a focus on domestic tourism - a highly relevant topic for the Gasworks, and indeed many other organisations in Dunedin. Make a note in your diaries!

## Forge classes

Our tireless Forge coordinator Kelly Gragg is starting up his successful introductory blacksmithing classes again when we reopen on 7 June. That class was postponed due to lockdown and is now full, but Kelly will be running two further classes on 12 July and again on 9 August. If you or anyone you know is interested in these classes, please email Jonathan ([ignatius@dunedinblog.co.nz](mailto:ignatius@dunedinblog.co.nz)) or call/text 021 453 191 for more info.



## Day of the Triffids?

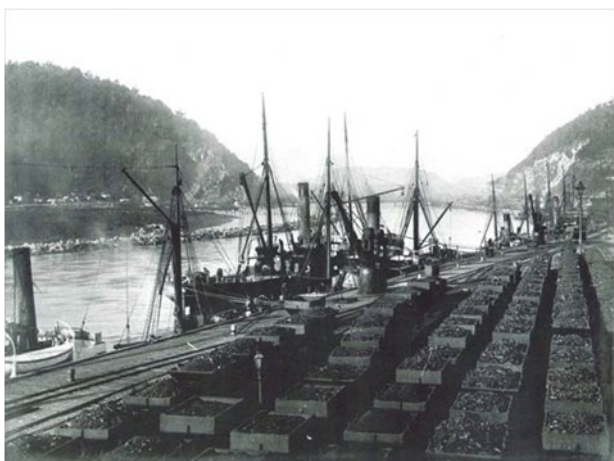
During lockdown, and despite the legendary toxicity of the soil, the Gasworks grounds have rapidly returned to a state of nature, with weeds running rampant. This Sunday 7 June on our first open day after lockdown, we'll be having a working bee to weed the grounds, during normal opening hours. We'd love your help! Come along to the Gasworks anytime between 12 and 4pm. Bring your own gloves if you have them. Even if you can only spare 20 mins, your help would be much appreciated. We'll postpone if it rains, but otherwise, weeds beware!

## From The Archives- Coal

*Brian Turner*

Coal became the main energy source for the Industrial Revolution of the 18<sup>th</sup>/19<sup>th</sup> centuries particularly in UK/Europe. Coal-gas was produced from coal in commercial quantities by the early 1800's. In 2018 coal was still 27% of the world's primary energy source - oil being 34% (Wikipedia). Now all coals go through the formation stages of swampy trees and vegetation, peat, lignite, bituminous and anthracite. The degree to which the transformation occurs depends on heat and pressure by Earth's moving crust or layers covering the coal measures. Most coals worldwide are between 300 and 400 million years old. However New Zealand coals are much younger with most between 20 and 70 million years old (NZ or the continent of Zealandia was some 94% underwater 80 to 100 million years ago with little coal forming).

Manufactured gas can be made from a wide range of carbonaceous materials e.g. lignite, but if coke is required as a useful by-product to Town's Gas production then a caking coal is required. The large deposits of lignite and sub-bituminous coals south of Dunedin are non-caking thermal coals. The caking coals are largely found on the West Coast e.g. Strongman at Greymouth and these coals were used for gas-making, coke and tar production. To be satisfactory in both horizontal and vertical retorts the bituminous coals from the West Coast had to swell slightly at the retort operating temperature of around 900C - Greymouth's Strongman coal had a swelling index of about '1.0' and this was generally ideal for continuous vertical retort operations



Loading coal at Greymouth from mines such as Strongman - about 1890's (photo: Te Ara)

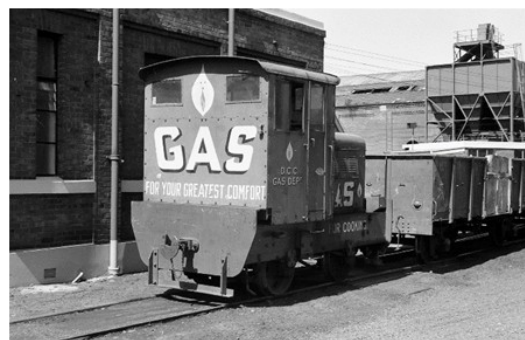


Coal train at Reefton 1966 (photo: Encyclopedia of NZ)

When the Dunedin gasworks started up in 1863 coal was originally shipped across to Dunedin/Port Chalmers from the Newcastle area in Australia. Later, with suitable coal becoming available from the West Coast, coal was shipped to Dunedin out of Greymouth. By 1923 the rail link from the West Coast to the East Coast and Christchurch through the Otago Tunnel rail link became favoured and remained that way until closure of Dunedin's last coal carbonisation plant in 1987. With coal railed to Dunedin the wagons were shunted to the Andersons Bay siding and then shunted across Andersons Bay Road into the Gasworks. The wagons were then weighed and moved to under the Telfer overhead grab system into the covered brick coal storage building. When required the coal was placed in the mixing hoppers and loaded onto a truck, weighed at the weighbridge and trucked to the coal reception hopper at the Woodall-Duckham carbonisation plant. It was then taken by bucket conveyor and deposited into the main retort house coal storage hoppers before feeding into the retort auxiliary hoppers and then into the retorts.



L: Shunting coal wagons to under the Telfer  
R: Mick Coleman the long serving Telfer driver in cab  
(photos: John Beckett)



Gasworks shunter returning empty wagons to Andy Bay siding. Mixing hoppers in background.