Place Of Coal

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Contributors

John Lycatt – painting used with permission from the Australia National Library

Greg Ray – words for the Awabakal Dreaming

University of Newcastle Cultural Collections - historical images


Allan Chawner - Photography

Paul Foley - Photography

Bill McQuire - Final Production and Infographics by
Acknowledgements

Thanks to Michael Donovan who helped explain facets of this region’s earliest indigenous history. More information about the painting and words used in the opening scenes can be found in “Part 1 – Awabakal Dreaming”.

Thanks to Greg and Slyvia Ray for being able to view their collection of historical photos from Newcastle’s early days. If you wish to see more pictures of Newcastle’s early history I recommend their 3 books:


Available from the Newcastle Museum and the Herald office.

All the historical photos used in this story were sourced from the University of Newcastle Cultural Collections. Thanks to Gionni DiGravio for his help with this process. More information about the exact source of each photo can be found in “Part 2 – History”.

Thanks to Coal Services who made it possible to include the historic footage of underground coal mining. This film footage was shot by John FitzGerald from 1986-1988. A full collection of these fascinating videos is available from Coal Services (for further information go to www.coalservices.com.au). More information about these videos can be found in “Part 3 – Underground Mining”.

Thanks to Bill McQuire who did all the final production and editing on the project. Bill also helped provide some incredible infographics to incorporate into the display. More information about these infographics and the source of all information use in the display can be found in “Part 4 – Train and Logistics”.

The final sequence of coal loaders and ships is an amazing amalgamation of photos provided in the most part by Allan Chawney and Paul Foley. More information about the photos used in this display can be found in “Part 5 – Loading and Shipping”.

Numerous other people helped support me, with information or encouragement. Thanks to Keith Powell at Newport Corp and Deb Mastello at the Newcastle Maritime Centre for a great introduction to the past and future of the Newcastle’s vibrant port. Thanks also Liz Anelli for sharing her excitement and imagery of the harbour. For more nautical discoveries I suggest a visit to the Maritime Centre at Lee Wharf, http://maritimecentrenewcastle.org.au/

Thanks also to Shanthi Herd from Hunter Valley Coal Chain Coordinators for providing some much appreciated knowledge on the way coal gets from our mines to our ships. Many of the “facts” used in the story are approximations. For a more accurate description and the source of all information please refer to “Part 4 – Train and Logistics”.

Keith Nesbitt

www.knesbitt.com/placeofcoal.htm
Overview

Place of Coal actually began as a story about the history of shipping and the Port of Newcastle. However, as I worked on the story it soon became obvious that it was impossible to escape the links between coal and shipping or indeed coal and Newcastle. I should point out the project tries to make no political statements about these links, it merely tries to capture the way things once were and the way things now are.

The two main things I take away from the project are:

1. The close link between coal and the place I grew up in. I found it fascinating to think that coal was being used by the Awabakal long before the location was ever colonised. Coal was actually pivotal to the area being discovered and continues to play a major role in the life of Newcastle right up to this day.

2. The process of taking coal from its sources to its destinations. The complexity of this is amazing. From the logistics to the overwhelming scale is quite a feat of engineering. My two young children actually started my own appreciation of this. They love to drive past the coal loaders at Kooragang or to sit and watch the coal trains lumber by or the giant ships wade into the harbour. The more I watched with their eyes the more their amazement caught on in me. Regardless of other feelings I find it incredible to consider the amazing scale of the huge machines and ships that bring our harbour to life.

The Place of Coal is in five main parts. More details about the resources used in the project and detailed references are available in the following sections.

Part 1 – Awabakal Dreaming

Part 2 – History

Part 3 – Underground Mining

Part 4 – Trains and Logistics

Part 5 – Loading and Shipping
Part 1 – Awabakal Dreaming

The display begins with the Awabakal dreaming that relates the early use of coal in area. Apart from the Awabakal people there are no other documented stories of indigenous people using nikkin (coal). The site of this dreaming actually relates to a volcanic plug near Redhead, called ‘Kintirabin’. The story was most likely told to Rev Lancelot Threlkeld and was reported by Herald journalist, Percy Haslam before being featured in a 1993 story by Greg Ray in the Newcastle Herald.

“A very long time ago, when the earth and sea were different from today, a great darkness fell on the land. This darkness, which seemed to come from a hole in a mountain and block out the sun, was so deep and sudden that the people were very frightened. Even birds and insects fell silent. Messengers were sent in all directions, bringing all people together to decide how light could be brought back to the world. The wise men of the tribes decided that the only way to bring the world back to normality was to cover up the darkness that was scattered deeply on the ground. Men, women and children dug up rocks and sand and broke down foliage from trees and bushes to cover up the thick darkness. People from miles around came together to stop the darkness breaking through the surface of the earth. The people feared that the ever-burning fires deep in the ground would release the darkness again. After the darkness was covered over, generations passed in which people walked on the ground, pressing the darkness and the flames together under the earth to become nikkin, or coal. Now, whenever coal is burned, the spirit of the ancient earth fire is again released.”

Aboriginal Hunter Supplement to the Newcastle Herald Tuesday, May 11 1993:4 Text by Greg Ray:

![Aborigines resting by camp fire, near the mouth of the Hunter River, Newcastle, New South Wales](nla.pic-an2962715-s15 Lycett, Joseph, ca. 1775-1828. [Aborigines resting by camp fire, near the mouth of the Hunter River, Newcastle, New South Wales] [picture][ca. 1817] 1 watercolour ; 17.7 x 27.8 cm. Part of Drawings of Aborigines and scenery, New South Wales, ca. 1820 [picture] [ca. 1820] This image was used with permission from the Australia National Library
**Part 2 – History**

This part of the display features historical images of coal production and transport in the region. It features many of the early coal mines in the inner city suburbs of Newcastle and some early photos of Watt St. It features the early train and wagons used to transport coal as well as the early shipping activity along with a variety of the older mechanisms used to load coal onto the ships.

The photos used in this part are mostly circa 1880-1940. They are used with permission from the University of Newcastle’s Cultural Collections http://www.newcastle.edu.au/service/library/our-libraries/cultural-collections/

They include:
- images scanned from negatives in the Bert Lovett collection that are part of the Norm Barney Photographic Collection
- images scanned from photographs or slides taken by the late Dr John Turner (1933 - 1998), local historian and lecturer
- images scanned from photographs or negatives held in the J and A Brown collection.
- images scanned from the original glass negatives taken by Ralph Snowball. It that are part of the Norm Barney Photographic Collection
- an image from the collection of Mr George Davison via Mr Barry Howard.
- images scanned from original glass positives that are from a collection of glass slides of Newcastle and coastal shipping, c.1870-c.1940 donated by Mr. E. Braggett

All these images were downloaded from the cultural collection between April and May, 2013. Many of the images have been digitally cleaned and colour corrected for the display. In some cases only parts of the images are used. If you have more information about any of these images you can go to the cultural collections and provide comments.

The link and attribution for each image used in the display is provided below.

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[Underground coal seam], Watt Street, Newcastle, Australia - 5 March, 1979

This image was scanned from a photograph in the University's historical photographic collection held by Cultural Collections at the University of Newcastle, NSW, Australia. http://www.flickr.com/photos/uon/2805301460 http://www.flickr.com/photos/uon/2805301370
Watt St.
This image was scanned from the original glass positive. It is from a collection of glass slides of Newcastle and coastal shipping, c.1870-c.1940, and was presented by Mr. E. Braggett to the University of Newcastle on October, 1975. It is held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6957450913/

Cloudy’s Metropolitan Hotel, Scott and Watt Streets Newcastle, NSW, [1880-1893]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6081006415/

Great Northern Hotel and Metropolitan Hotel, Scott and Watt Streets, Newcastle, NSW, [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/7161316396/
Coal Miners, Hunter Valley, NSW [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6469612441/

Mine Tunnel, Hunter Valley, NSW, [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6469613139/

Coal Miners and a pit pony, Hunter Valley, NSW, [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6081012611/
[Stonedusted mine tunnel at Wallarah Colliery, Catherine Hill Bay, NSW, n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6469614409/

C918-0153 Colliery staff, Lambton Colliery, Lambton, NSW, 27 May 1897.
This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.
http://www.flickr.com/photos/uon/6828095610/

Mine workers, [Newcastle, NSW, n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/5639067509/
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<tr>
<td>C918-0145</td>
<td>The Glebe Colliery, Merewether, NSW. This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies. <a href="http://www.flickr.com/photos/uon/6828086314/">http://www.flickr.com/photos/uon/6828086314/</a></td>
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<tr>
<td>C917-0035</td>
<td>The Borehole Mine, Hamilton, NSW, Australia. This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies. <a href="http://www.flickr.com/photos/uon/5124324231/">http://www.flickr.com/photos/uon/5124324231/</a></td>
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<tr>
<td>C918-0131</td>
<td>Hunter Valley Coal series - Dudley, c.1900. This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies. <a href="http://www.flickr.com/photos/uon/6953961295/">http://www.flickr.com/photos/uon/6953961295/</a></td>
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</table>
C918-0025 Newcastle Coal Company's "A" Pit, which mined the lower borehole seam, Merewether, NSW, Australia [c.1900s]

This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.

http://www.flickr.com/photos/uon/8017958891/

C918-0161 Lambton "B" Pit Colliery, c.1900.

This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.

http://www.flickr.com/photos/uon/6828942786/

Australian Agricultural Company's Sea Pit, Cooks Hill, NSW, [1887]

This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.

http://www.flickr.com/photos/uon/6507980081/
C918-0134 "A Stockton Coal Mine", c.1900
This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.
http://www.flickr.com/photos/uon/6807852504/

C918-0143 Dudley Coal Mine, Lake Macquarie, NSW, 1906.
This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.
http://www.flickr.com/photos/uon/6974204499/

Hetton Colliery, Carrington, NSW, [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia. http://www.flickr.com/photos/uon/6507988059
Sea Pit, Darby Street, Cooks Hill, NSW. [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/5678078339/

South Waratah Colliery, Charlestown, NSW, 16 May 1898
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/3271382152/

New Lambton C Pit strike, Adamstown, NSW, September 1888
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/3270567955/
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.

http://www.flickr.com/photos/uon/3271387022/

New Tunnel Colliery, Jesmond, NSW, [n.d.]
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.

http://www.flickr.com/photos/uon/3270562229/

Wickham and Bullock Island Coal Company mine, [Wickham or Carrington], NSW, [n.d]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.

http://www.flickr.com/photos/uon/6507979113/
Hetton Colliery, Carrington, NSW, [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6356234047/

C918-0135 Coal train, Merewether, NSW.
This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.
http://www.flickr.com/photos/uon/6953963183/

C918-0139 Dudley Colliery horse-drawn coal wagon
This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.
http://www.flickr.com/photos/uon/6807854970/
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<td><img src="http://www.flickr.com/photos/uon/604494230" alt="Coal train leaving Hebburn No 2 Colliery, 1969" /></td>
<td>This photograph is from the collection of Mr George Davison via Mr Barry Howard.</td>
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<td><img src="http://www.flickr.com/photos/uon/3835428449/" alt="Coal Stage, Port Waratah Locomotive Depot, Carrington, NSW [1908]" /></td>
<td>This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.</td>
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<td><img src="http://www.flickr.com/photos/uon/3271381868/" alt="B Pit, Merewether, NSW, 24 February 1899" /></td>
<td>This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.</td>
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Locomotive Number 62xx at Newcastle Coal Mining Company’s A Pit, Newcastle, NSW, [24 February 1899]
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/4044470299/

Seaham Coal Company’s Locomotive Number 1 ‘Maori’, West Wallsend Colliery siding, West Wallsend, NSW, 28 March 1898
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/4044482161/

Mineworkers, Gartlee Colliery, 159 Railway Street, Teralba, NSW, 28 May 1898
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/3024162636/
Lambton Colliery, Lambton, NSW, 1886
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/3271381966/

A Pit Colliery, Newcastle, NSW, 24 February 1899
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/3257486888/

Coal Train on incline, Newcastle, NSW, [n.d.]
This image was scanned from a photograph or negative held in the J and A Brown collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/4275842068/
Port Waratah, Carrington, NSW, [n.d.]
This image was scanned from a photograph or negative held in the J and A Brown collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/4275097215

Port Waratah, Carrington, NSW, [n.d.]
This image was scanned from a photograph or negative held in the J and A Brown collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/4275097123
Place of Coal

City Evolutions, Watt St, Newcastle, 2013

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**The Dyke, Carrington, NSW, 1906**
This image was scanned from a photograph or negative held in the J and A Brown collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.


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**C917-0526 Newcastle Port. 'Vessels Waiting to Load Coal', c.1900**
This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.


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**C918-0011 Coal Basin, Carrington, NSW, Australia, c.1900**
This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.

Coal staiths, Newcastle, NSW, [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6513908553/

Coal loading at The Dyke, Carrington, NSW, [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6171092815

Mcmyler Hoist, Carrington Dyke, Newcastle, NSW, [1908-1916]
[Newcastle and Hunter River Steamship Company wharf, Newcastle Harbour NSW, 1900] Photographs of Newcastle, Lake Macquarie and the Hunter Valley, taken and collected by Bert Lovett in the 20th century. The Bert Lovett Collection is part of the Norm Barney Photographic Collection which was donated to the University of Newcastle by Mrs Daphne Barney.
http://www.flickr.com/photos/uon/7167862660/
The ship "Dumosa" on Newcastle Harbour, Newcastle, NSW, Australia [n.d.]
This image was scanned from a photograph in the Newcastle and Hunter District Historical Society archives which are held by Cultural Collections at the University of Newcastle, Australia.
http://www.flickr.com/photos/uon/5551776393/

Loading coal, [Newcastle Harbour, NSW, n.d]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/5576304092/

Loading coal, [Newcastle Harbour,NSW, n.d]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/5576304810
Loading coal, [Newcastle Harbour, NSW, n.d]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia. http://www.flickr.com/photos/uon/5576304496

Coal loading at the Dyke, Carrington NSW, [n.d.]
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia. http://www.flickr.com/photos/uon/4558889929/

Coal loading at Number 15 Dyke, Carrington, NSW, 25 February 1904
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia. http://www.flickr.com/photos/uon/3324479942/
Water Police launch, King's Wharf, Newcastle, NSW, [n.d.]
This image was scanned from the original glass negative taken by Ralph Snowball. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/3323641053

Tallships at the Dyke, Carrington, NSW, [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/5779101925/

[Coal line from Hamilton and Cook's Hill at Hunter Street, Newcastle, NSW n.d.] 
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/5732482382/
C917-0510 Newcastle Port, NSW, c.1900 [n.d.]
This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies.
http://www.flickr.com/photos/uon/6787707000/
http://www.flickr.com/photos/uon/6832277916/

Panorama of Newcastle, NSW, [n.d.]
This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6855470256/
http://www.flickr.com/photos/uon/7001585595

A5193-033a - "Durisdeer"
This image was scanned from the original glass positive. It is from a collection of glass lantern slides of Newcastle and coastal shipping, c.1870-c.1940, and was presented by Mr. E. Braggett to the University of Newcastle on October, 1975. It is held by Cultural Collections at the University of Newcastle, NSW, Australia.
http://www.flickr.com/photos/uon/6913412255
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<td><img src="image1" alt="C917-0520 Barque &quot;Adolphe&quot; wrecked on Oyster Bank, 1904." /></td>
<td>C917-0520 Barque &quot;Adolphe&quot; wrecked on Oyster Bank, 1904. This image was scanned from a photograph or slide taken by the late Dr John Turner (1933 - 1998), local historian and lecturer. His collection is rich in Australian history and local studies. <a href="http://www.flickr.com/photos/uon/6933824997/">Link</a></td>
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<tr>
<td><img src="image2" alt="A5193-065 - The S.S. &quot;Federal&quot;" /></td>
<td>A5193-065 - The S.S. &quot;Federal&quot; This image was scanned from the original glass positive. It is from a collection of glass slides of Newcastle and coastal shipping, c.1870-c.1940, and was presented by Mr. E. Braggett to the University of Newcastle on October, 1975. It is held by Cultural Collections at the University of Newcastle, NSW, Australia. <a href="http://www.flickr.com/photos/uon/6913807385/">Link</a></td>
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<tr>
<td><img src="image3" alt="A5193-067 - &quot;Mainbar&quot;, Wrecked on Nobby's Beach, 5th May, 1940" /></td>
<td>A5193-067 - &quot;Mainbar&quot;, Wrecked on Nobby's Beach, 5th May, 1940 This image was scanned from the original glass positive. It is from a collection of glass slides of Newcastle and coastal shipping, c.1870-c.1940, and was presented by Mr. E. Braggett to the University of Newcastle on October, 1975. It is held by Cultural Collections at the University of Newcastle, NSW, Australia. <a href="http://www.flickr.com/photos/uon/6913815161/">Link</a></td>
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Sygna, Stockton Beach, NSW, May 1974

This image was scanned from a negative in the Bert Lovett collection. It is part of the Norm Barney Photographic Collection, held by Cultural Collections at the University of Newcastle, NSW, Australia.

http://www.flickr.com/photos/uon/6356228525
Part 3 – Underground Mining

Permission to use the film footage in this part of the display was kindly provided by Coal Services, Australia.


The footage was taken from the John FitzGerald Film Collection which is a historical series of 15 DVDS containing 291 mins of film by John FitzGerald from 1968-1988. These DVDs feature NSW’s coal mining history, their operations and people and provide a fascinating glimpse into coal mining in NSW during 1970s and 1980s. A copy of the collections can be ordered through Coal Services.

The John FitzGerald Film Collection collections contain the following DVDs:
1. Power from coal (23:12)
2. Search for coal (17:21)
3. View from below (31:09)
4. Where the action is (37:30)
5. Electrical hazards in coal mining (23:55)
6. Fight that fire (22:22)
7. Rescue at Manton Colliery (24:57)
8. Coal and the environment (7:11)
9. Open cut safety (16:38)
10. A safe start (15:19)
11. Safe roof bolting (16:25)
12. Longwall mining at Invincible Colliery (15:23)
13. Can you hear me (16:04)
14. Coal dust - the invisible killer (18:27)
15. Winning Illawarra coal (11:32)

The footage used in the actual display is mostly from the first video (Power from Coal) but also uses selected clips from the last DVD (Winning Illawarra coal).

Note: The original footage has an aspect ratio of 16:9. To accommodate the aspect ratio used in the project, which is about (30:9), two clips were placed side by side. Some minimal production effects were then used to blend the edges of these two clips. However, as much as possible, the integrity of the original clips have been preserved.
Part 4 – Trains and Logistics

The film footage in this part of the display was shot by Keith Nesbitt.

The infographics were developed by Bill McGuire (who also performed all post production work on the project). Bill is a freelance director, filmmaker, 3D modeller, animator and visual effects wizard based in Sydney. For more of his work visit http://vimeo.com/30442960

It is expected that over time more information displays will be produced that will be updated on a regular basis. For example, this displays will show the number of coal ships entering and leaving the harbour each week, total coal exported last month, etc.

A number of facts, figures and pieces of information were used in this part of the film. These were taken form a number of sources which are provided below. In many cases the numbers are averages, or approximate values rather than exact. Some figures are also time dependent, varying from year to year. These variations end more accurate values are provided below.

| Facts | In the early 1800s, coal was mined at the top of Watt St and loaded on ships at the street’s northern end  
  | Coal was first exported from Newcastle in 1799. The coal was mined by convicts from the cliffs and loaded by wheelbarrow.  
  | A load weighing 50 tonnes was shipped to Bengal on a vessel called Hunter. It was the colony’s first export. |
| Comments | A good historical timeline is available on the New Port corp web site. |
## Facts

<table>
<thead>
<tr>
<th>40 coal mines</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 types of coal</td>
</tr>
<tr>
<td>30 loading points</td>
</tr>
</tbody>
</table>

## Source


## Comments

These were taken from a 2012 report by the Hunter Valley Coal Chain. It is expected that these numbers will change over time and may be larger in 2013. The “types” of coal could be better described as “brands”. Different coals have different properties and by mixing or preparing coal in different ways the final product, or brand, will have different properties that may better suit the end customer needs.

## Facts

<table>
<thead>
<tr>
<th>80 wagons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 km long</td>
</tr>
<tr>
<td>100 tonnes</td>
</tr>
<tr>
<td>42 trains for 1 ship</td>
</tr>
<tr>
<td>Current export demand: 60 trains per day</td>
</tr>
<tr>
<td>1 tonne is approx. 1 cubic metre</td>
</tr>
<tr>
<td>230,000 tonnes per ship</td>
</tr>
<tr>
<td>1500 ships per year</td>
</tr>
<tr>
<td>$15 billion dollars export revenue</td>
</tr>
</tbody>
</table>

## Sources


## Comments

These facts were based on data taken from a 2012 report by the Hunter Valley Coal Chain. The largest trains in New South Wales consist of 80 * 120 gross tonne wagons. However, the number of wagons vary based on things like the ability to load trains of certain lengths. An average length of 55 wagons was used in our calculations. The 100 tonnes of coal per wagon is an approximate weight. The actual weight of a wagon depends on the type of coal being loaded. The size of ships entering the port are restricted because of the depth of the harbour. The larger cape-sized ships can carry about 230,000 tonnes of coal. With an average weight of about 5,500 tonnes it requires about 42 trains to load these large ships.

## Facts

<table>
<thead>
<tr>
<th>$15 billion dollars export revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,500 tonnes per hour</td>
</tr>
<tr>
<td>2,500 tonnes per hour</td>
</tr>
</tbody>
</table>

The Hunter Valley Coal chain is the worlds largest coal export operation

## Source


## Comments

Coal is stacked & loaded on ships at two locations on Kooragang Island and one location at Carrington. The capacity of these loading facilities is about 10500 tonnes per hour for Kooragang and 2,500 at Carrington. The revenue is a figure from 2012 and will vary depending on the export demand and price of coal.
Part 5 – Loading and Shipping

This part of the display features the current infrastructure related to stacking, reclaiming and loading coal at Kooragang and Carrington. It also depicts the amazing scale of ships that navigate the harbour before being loaded with export coal.

The photography was provided by
- Paul Foley
- Allan Chawner
- Keith Nesbitt

The actual images used are referenced below.

Note: While the original photos have been preserved as much as possible in the project, there have been some slight colour corrections, the image resolutions have been reduced and some images have also been cropped. These changes were made to cater for the onsite projection.

Paul Foley

Paul Foley is a professional, corporate and lifestyle photographer experienced with tourism, education and branding projects. His clients include government, universities, tourism bodies as well as small, medium and large enterprises. He has been commissioned to photograph around Australia and Internationally.

http://archive.lightmoods.com.au

The following photos by Paul Foley were used to help create Place of Coal.

<table>
<thead>
<tr>
<th>COAL-IND0082</th>
<th>COAL-LOADER-1914</th>
</tr>
</thead>
<tbody>
<tr>
<td>COAL-MINING-1939</td>
<td>COAL-MINING-IND0067</td>
</tr>
<tr>
<td>Image 1</td>
<td>Image 2</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><img src="COAL-NEWCASTLE-IND0070" alt="COAL-NEWCASTLE-IND0070" /></td>
<td><img src="COAL-SHIPPING-2129" alt="COAL-SHIPPING-2129" /></td>
</tr>
<tr>
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<td><img src="NEWCASTLE-COAL-0627" alt="NEWCASTLE-COAL-0627" /></td>
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<td><img src="NEWCASTLE-SCE0049" alt="NEWCASTLE-SCE0049" /></td>
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<tr>
<td><img src="NEWCASTLE-SHIP-IND0061" alt="NEWCASTLE-SHIP-IND0061" /></td>
<td><img src="NEWCASTLE-SHIPPING-NEW0070" alt="NEWCASTLE-SHIPPING-NEW0070" /></td>
</tr>
</tbody>
</table>
Allan Chawner

Allan is a Fine Art Photographer and has been a practicing artist for more than 30 years. His artwork has been based around notions of sense of place in portraiture and landscape. He collaborates with writers or composers to produce art works that may be projected or printed. He present exhibitions internationally through cultural exchange, exhibiting in venues outside mainstream art galleries. His work is a response to identity, both of the self and of the communities. 


Allan@chawner.com.au

The following photos by Allan Chawner are featured in Place of Coal.

![MG_2858](image1)
![MG_2899](image2)

![MG_2910](image3)
![MG_2977](image4)

![MG_2997](image5)
![MG_3056](image6)
Keith Nesbitt

Keith's background is actually in computer science and mathematics and during his day job he focuses on applied IT research. He likes to build tools for helping people to find patterns in information. Information visualisation, virtual reality and computer games are some of his favourite things. He also studies how the mind works and how people create and use ideas. Keith grew up surfing the beaches of Newcastle and obtained his PhD in Computer Science from the University of Sydney. Despite his more scientific side, he also has an artistic side and has been writing songs and painting pictures since 1975. His has held 10 paintings exhibits, provided lyrics for two CDs and a musical and one of his visual designs was selected for exhibit in New York, London and Beijing. You can find out more about his Art and Science at www.knesbitt.com

The following photos by Keith Nesbitt are featured in *Place of Coal*.

<table>
<thead>
<tr>
<th>Kooragang_1488</th>
<th>KCL_1180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kooragang_1179</td>
<td>Kooragang_01</td>
</tr>
<tr>
<td>Kooragang_02</td>
<td>PWC_0022</td>
</tr>
</tbody>
</table>