

Yellow-block Stone

Since the early days of the colony, sandstone has been used as a building material in NSW.

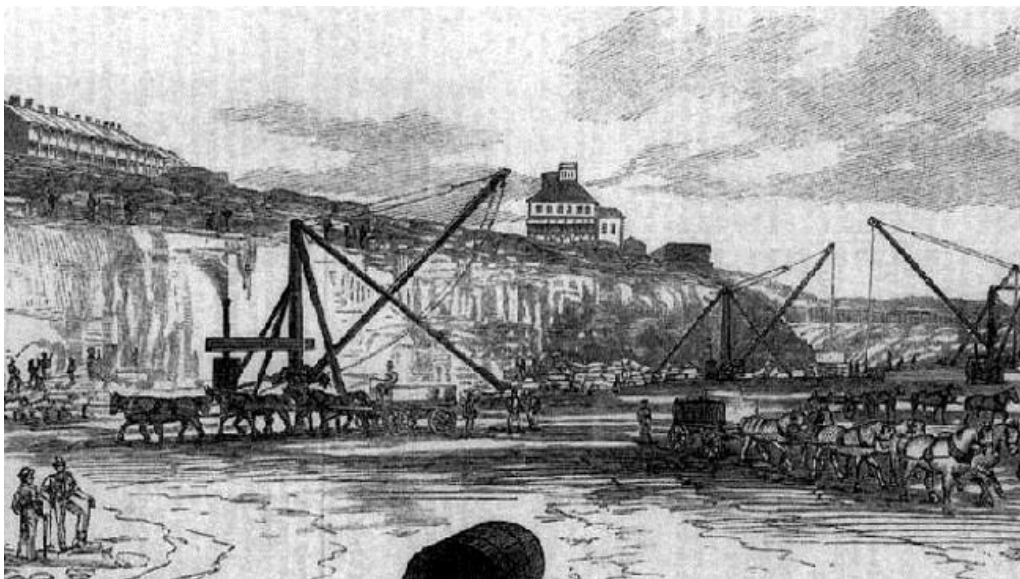
As more stone was extracted, it soon became evident that a superior quality sandstone could be quarried from certain areas of the Sydney basin.

This stone was a consistent and uniform mass that was good to cut and carve. When first extracted from the ground it was a pale grey colour. After exposure to the atmosphere it would gradually self-colour as the iron carbonates stained the surface. This created a harder skin that was an attractive golden colour, hence, the name, "Yellowblock".



From this cut cross section you can see the coloured skin is only thin.

Yellowblock stone was quarried extensively in the centre and eastern suburbs of Sydney from the mid 1800's to the 1930's, and was used to clad the Newcastle City Hall.



Sketch of Pymont quarry, 1883

As building techniques changed over time, and with the pressures of an expanding population, these sandstone quarries have closed and been built over. The last active quarry was in Bondi, and closed in the 1980's.

The challenge for any heritage restoration is how to get access to suitable replacement yellow-block stone. One solution has been to quarry stone from the excavations required from large development sites. Whilst sounding like an easy concept, locating quality Yellowblock stone is challenging and the amount retrieved has been historically low.

Fortunately for the Newcastle City Hall project, a large deposit was found and extracted from a building site on George St., Sydney in late 2013.



Testing on the stone revealed that it has all the characteristics of a top quality yellowblock.

It is therefore reasonable to expect that it will weather to the classic golden/brown, but as a new quarry, and a natural product, there are no certainties.

Newcastle City Hall was built, and restored with "Yellowblock" sandstone.



Why does the new and old stone look so different?

They were quarried from different locations;

The original stone was quarried in Bondi.

This quarry, and all the other active yellowblock quarries have closed, and been built over.

The new stone was quarried from a development site in the Sydney CBD.

Whilst the two stones are very similar in composition, there are natural variances that give them a different appearance.

The old stone has been weathering for over 80 years, and washed with acids;

This impacts the stone's colour, and has contributed to its' yellow/orange colour.

Will they ever look the same?

As the new stone was taken from a development site, there are no previous examples to compare its' finished colour to. From microscopic examinations conducted, it is reasonable to anticipate that the stone will colour to a yellow/brown finish. This will not be an identical match to the present colour of the old stone, but it should yield a compatible appearance.

Can we colour the stone to match?

This was investigated by the restoration team, but not enough evidence was compiled to ensure a system of colouring did not have an adverse effect on the longevity of the stone. On-going research is being undertaken.

Sandstone changes colour over time



Above- Stones photographed 30 April 2015, showing inconsistent colouring.

Below- The same stones photographed 25 November 2015, showing colour change. The expectation is that these stones will gradually migrate to a yellow/brown colour.

