PAHSMA EDUCATION PROGRAM ONSITE EDUCATION ACTIVITIES Teacher Notes CONVICT BRICK MAKING



FACTS ABOUT CONVICT BRICKS

The Colour The bricks at Port Arthur are lots of different colours.

The different colours are because the clay the convicts used to make these bricks all came from different places. The colour depends on where the clay came from. The temperature of the kiln can also affect the colour of the brick – the hotter the kiln is, the deeper the colour will be.

The Texture A lot of the bricks at Port Arthur have almost eroded completely away.

Most of the bricks are very rough and some have nearly disappeared — they have worn away over time. After the curing process, in which bricks were laid out in an open-sided drying shed for up to six weeks, they were put in a kiln to be fired. When these bricks were made, the convicts sometimes could not make the kiln hot enough to harden or fire the bricks properly, because they used wood fires to get the kiln hot. It has been estimated that the Port Arthur bricks were fired at a temperature between 800 and 850 degrees Celsius, at least 200 degrees below the perfect temperature for the clay used. This meant that the water that was in the brick mix did not dry out enough.

Over time, the water in the brick, with the help of rain, sun and wind, made the brick weaken and break apart and wear away. Sometimes, there was salt in the water they used and this also helped the bricks to break apart, to erode. When salt crystals get wet they expand. When they are dry, the crystals shrink again. When this happens, over a long time – just like here at Port Arthur, the bricks start to fall apart. There are a lot of those here.

Thumbprints Not all the bricks have these.

When the bricks are in the buildings it is very hard to see if there are thumbprints in the bricks because they are laying flat. If the bricks fall out of the wall or a building has fallen down, it is a lot easier to see them. As the brick is pushed out of the mould, usually a thumb is diagonally placed at each of two corners, sometimes the clay is a little harder to push out, so the thumbprints get left behind. If the clay was easy to get out, there were no thumbprints.

The Brick Mix

The clay used for the activity is different to the clay used by convicts. It is made from a mixture of air dry clay, and crushed up convict bricks and water. This means the clay can be taken home as a brick and dried in a

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warm, sunny spot at home. The bricks we have crushed are the ones that have fallen apart and can't be used again.

Identifying old and hand - made bricks

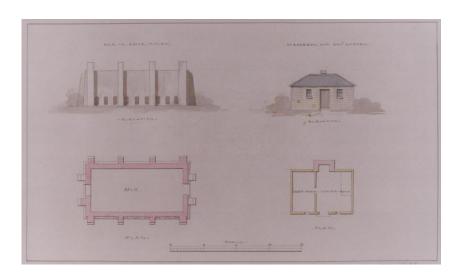
- After the bricks have been turned out of the mould, they are placed on their side, and lined up to cure, which means to get a little harder before going into the kiln.
- When you look at hand-made or old bricks, you will see a ridge along the side. The wet clay has been pushed up between the bricks as they have been stacked. This is known as a hack mark.
- The thumb print is another way to tell a handmade brick.

Brick Making Location

From 1830 to 1845 most of the bricks were made south of the settlement on the south-western shore of Carnarvon Bay in a place known as Brick Point. The bricks here were made using clay from nearby pits. After 1845, brick making was transferred to a site on the hill beyond the Church, locally known as Brickfields Hill.

Brick Kiln

The kiln at Brick Point was a typical Scotch kiln, a type that was common in the UK during the period. The Scotch kiln is a rectangular building which is open at the top and has side doors with fire holes built from fire bricks. Raw bricks are arranged in the kiln leaving gaps in between each brick to ensure an even burn. This kiln would have taken about a week to complete a cycle (load, burn, cool and unload), and contained up to 40,000 bricks, depending on the skill of the stacker. It was common practice to only use the kiln once per month.



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Number of Bricks Made

Brick manufacturing was a major industrial activity with 68,300 bricks made in March 1834, 160,700 in December 1841, and an average of 14 000 per month during the decade 1858 – 1869. Besides their use in the building of Port Arthur, the bricks were exported to Hobart and possibly other centres.

Footprints in the Bricks

One day, when there were some bricks curing outside, the Reverends children, from the Parsonage next door to the Education Centre, let the pigs out – the pigs then ran straight over the bricks as they were drying. We know this happened, because of documentary evidence, it was written about when it happened and then, about 4 or 5 years ago, our stonemason found bricks with pig prints in them in a building that was being repaired. Those bricks are up in the museum.