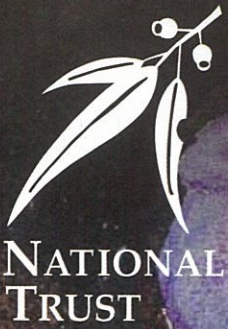


November - January 2014 SUMMER



NATIONAL TRUST (NSW) MAGAZINE

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2013

ANNUAL REVIEW
of the NSW National Trust

IN THIS ISSUE:

LOOKING AFTER HERITAGE PROPERTIES

This is the start of a series of articles on heritage materials and techniques which we hope will be helpful to members who own heritage properties, and interesting for those who don't. Our inaugural article by conservation architect Hector Abrahams explains why, and how, to use lime to let your heritage property 'breathe'.

LIME AND OLD BUILDINGS

BY HECTOR ABRAHAMS

Having been used in buildings for thousands of years, lime has now developed a reputation for being 'green' because it is a natural building material. Taken from the ground the limestone is burned and hydrated, and when applied buildings will return to its hard natural state, a process which is called the lime cycle. So why, despite its new green status, should lime be preferred for work on old buildings rather than more recently developed products?

Readily available, lime is mainly used in mortars, renders and washes or coatings. It is easily recoated and reapplied. When used in washes, lime is extremely attractive especially when coloured. Its matt finish reflects the light beautifully, and it has great precedent as a material used in the past.

One of lime's most distinctive qualities is its permeability: 'breathing'. This makes it eminently suitable for brick and stone work as it means water vapour can move through a structure and is not retained within the walls. This is particularly important when working with bricks made prior to the 1880s which are softer than their modern cousins.

LIME MORTAR VERSUS CEMENT

Comparisons are often made between lime and cement. Buildings built prior to World War II generally used a mortar of lime, sand and water but after the war, cement became the preferred option. Cement is a highly processed form of limestone blended with clay but has different properties, in particular setting faster and harder. When used on old buildings cement and other hard and impervious materials will have compatibility problems, especially in allowing the building to breathe.

Another big difference between lime and cement is flexibility. Lime mortar, being softer, moves with the bricks and does not require the construction joints necessary in cement based construction. Witness the Victorian brick walls of the railways – not a vertical construction break in sight. This is another reason why traditional lime mortar should be used to repair the walls of old buildings; a cement mortar doesn't allow the bricks to adapt to changes in the environment.

LIME WASHES

A workshop on the basic application of lime was held at Camperdown Cemetery as part of Heritage Week. Run by architect Hector Abrahams and James Ginter from Traditional Stonemasonry, attendees were shown the application of a simple lime and water mixture over a Sydney sandstone tomb previously coated with lime. The lime wash improved the appearance of the tomb and the legibility of the lettering, as well as concealing some decay and previous cement repairs. It replicated the previous historic finish.

Simple lime washes can be mixed and applied by the competent homeowner as long as precautions are taken to manage the highly alkaline nature of the lime. However, the more complicated lime and tallow mixture used for proper lime wash needs to be created by an experienced tradesperson to ensure the correct balance.

A number of commercial products are also available in a range of colours that can also be applied by the home handyman or woman. Mortars can be mixed using readily available ingredients but it is always advisable to use a skilled tradesperson for bricklaying or repointing work on old buildings. This traditional mortar and painting material complements historic buildings and artefacts, forgoing the need to adapt to a new technology.

*Applying limewash to the Waller Tomb, Camperdown Cemetery
Before and after photographs showing concealment of decay and increased sharpness of form*

