

Applying sacrificial lime render

Heritage construction skills



Keystone
TASMANIA

APPLYING SACRIFICIAL LIME RENDER

In this case study, Michael Power (Solid Plasterer) describes the process of applying a sacrificial lime render to brickwork as a non-invasive treatment of salt damp.

Context

Michael is applying a sacrificial treatment to remove salt caused by rising damp within the walls of the Private Secretary's Cottage at the Tasmanian Museum and Art Gallery.



Applying a sacrificial treatment at the Private Secretary's Cottage



Challenges

There are three main challenges associated with applying sacrificial lime render to brickwork in heritage properties:

- Determining the extent of the salt damp
- Determining an appropriate sacrificial treatment that will decay over time to protect the original surface
- Ensuring the permeability of the original surface isn't compromised.



Evidence of salt damp

Solutions

There are a few handy 'tricks of the trade' when applying sacrificial lime render to brickwork in heritage properties:

- Obtain records of impermeable materials (such as cement render) that may have been used to cover the surface in the past
- Carefully remove any existing renders with a hammer and chisel, as this will avoid damaging the brickwork underneath
- Always remember - a sacrificial treatment is the easiest and least intrusive approach to remove salt from brickwork.



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Step 1 - Planning

- Obtain historical data (e.g. records of previous surface coverings)
- Obtain project data (e.g. work instructions and specifications)
- Check the ventilation and site drainage of the property
- Determine the extent of salt damp
- Determine an appropriate sacrificial treatment.



Determining the extent of salt damp

Step 2 - Preparing sacrificial mix

- Select tools and equipment (e.g. buckets and a forced action mixer)
- Select materials for the sacrificial mix (e.g. slaked lime putty and course clean dry sand)
- Pour an appropriate ratio of materials into the forced action mixer (e.g. four parts sand to one part lime, which is known as a 4:1 mix)
- Mix for 30 minutes, adding water as required
- Pour into buckets and allow to rest for two to three weeks.



Preparing a sacrificial mix

Step 3 - Preparing surfaces for sacrificial lime render

- Place a strong plastic drop-sheet and other floor protections at the base of the wall surface
- Select tools and equipment (including a brush and a water sprayer)
- Clean excess dust from the surface with a brush
- Wet down the surface with a water sprayer
- Confirm readiness of the surface for a sacrificial lime render.



Cleaning excess dust from the surface



Wetting down the surface

"This is a sacrificial render - it is designed to fail"

Michael Power (Solid Plasterer)

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Step 4 - Applying sacrificial lime render

- Select tools for application (including a scoop, hawk and trowel)
- Stir the sacrificial mix to a workable consistency
- Apply the sacrificial render to the prepared brickwork
- Confirm the rendered surface meets project requirements
- Discuss periodic maintenance treatments with the property owner
- Record the sacrificial mix ratio for future reference
- Photograph the rendered surface for future reference.



Applying sacrificial lime render to brickwork

Result

- The rendered surface must be sufficiently weak and permeable
- The anticipated decay must be aesthetically acceptable
- The treatment must maintain the heritage value of the property.



Before



After

Background

This case study supports the development of heritage trade skills in Tasmania. It is part of a broader set of support materials that have been developed by Keystone Tasmania.

Acknowledgements

Special thanks to Michael Power, Richard Kowaluk and the Tasmanian Museum and Art Gallery.

Want to learn this heritage trade skill?

If you are interested in learning how to apply sacrificial lime render, contact Keystone Tasmania to register your interest in a training course.

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