

# Masonry Walls & External Render



*Newly repointed sandstone wall with black lining.*

## Repointing Masonry

Repointing stonework or brickwork is needed when the mortar joints deteriorate and the mortar frets and erodes, letting rain in and appearing unsightly. This is caused by evaporating damp from within the wall exfoliating the pointing mortar between individual stones or bricks.

Repointing masonry is a normal repair and should be undertaken in a way which matches the overall wall and maintains the ability of the wall to breathe, to allow rising moisture to pass through and evaporate out to the outside. When this is done, the opportunity should also be taken to replace any failed or damaged stone or bricks with new to match the size, colour and texture of the original.

The repointing of older masonry walls should ideally be carried out by a stone mason or brick layer that is experienced in repointing old masonry walls. They have the knowledge and experience on how to work with such walls and what mortars to use so that the wall can continue to breathe.

## Repointing Mortars

The selection of an appropriate pointing mortar is the first step, as this needs to match the original pointing in all respects, strength, colour, texture, and profile. Several samples may be required to get it right.

The first factor to consider is the strength and breathability of the mortar mix. In order for the wall to breathe, it is important that lime mortar be used. A common mistake is to use mortar made with Portland cement, which produces an impervious mortar blocking the passage of moisture. When this happens, the moisture has to find another way out, which invariably means that weaker stones or bricks come under pressure and start to deteriorate.



*A repointed and relined bluestone side wall.*

The mortar which binds stones or bricks together should always be weaker than the stone or brick so that it can fail first, not the other way around. An impervious bedding or pointing mortar (one made with Portland cement) can accelerate the deterioration of an older masonry wall. It is important that the tradesperson doing the repointing work knows how to work with lime.

The selection of sand is another key factor, as this will determine the colour and texture of the mortar. Several different sands may need to be trialled to get the right combination of cement and sand.

It is normal for the stone mason or brick layer to prepare a number of samples as part of the process of selecting a mortar to match the original.

It is important to keep in mind when repointing that the original lime mortars typically seen on older houses in Norwood and St Peters are 100 years old or so and as a result, are usually dirty. New lime mortar is clean and at first displays a natural off-white colour.

Pointing mortars can be different colours, depending on the age and style of the house and its location on the building. While most pointing mortars for random rubble stonework is simply flushed-off lime mortar, coloured by the sand used, more ornate stonework can use artificially coloured red oxide mortar or charcoal-coloured mortar. Such pointing was more expensive and is usually located at the front of houses, near the front entrance. Some very old pointing mortars on stone walls contain bits of charcoal from the early production of lime.



*Newly rendered window and door surrounds.*

Older brickwork is usually pointed in a simple lime mortar. This is common on the sides and rears of houses, and less opulent or earlier houses. Like stone however, on more opulent buildings red oxide-coloured pointing was often used, with white or black line marking.

Brick arches over windows and doors were also often finished with a thin coating of red oxide and painted line work.

The selection of what kind of mortar to use should have regard to the period and style of the house or building and what part of the building is to be repointed.

### Lining Mortar Joints

Formal stone and brick work to the front of houses is often lined with thin dark or light paint depending on the colour of the stone or brick.

These lines are ruled with a lining tool, then painted with a lining brush, and when done by a quality tradesperson will be straight, consistent and thin. Using dark grey instead of black and off white instead of white is recommended, as it reduces the harshness and contrast of new lining.



*Render repairs to a window surround with repointed bluestone walls.*

### Repairing External Rendered Elements

Older Victorian or Edwardian dwellings in Norwood and St Peters often have rendered quoins, plinths and window sills. More ornate houses can have render eaves brackets, string courses, chimneys and other features.

Such render work can get damaged over time or lose its bond with the wall behind. When this happens, it will need to be repaired.

A common repair is to replace a missing section of quoin, plinth or stringcourse. This is simply done by removing all the loose renderwork and then replacing this by laying a new coat of render to the cleaned out area. Hard-to-access locations will need to be scaffolded to allow safe access.

### Further Reading

- *How to Restore the Old Aussie House: Ian Stapleton*