

# Heritage Building Conservation Technical Advice Sheet 2

## Checklist for inspection

Walk around the building and see if you can find any of these potential problems. You may not be able to answer all the questions – don't worry – but do consider getting help from an architect or builder experienced with work on heritage buildings.

### ✓ Don't be a fair-weather friend – go out in the rain

Do your first inspection in dry weather when it's convenient to have a thorough look around. Then look again in wet weather (when it's raining heavily!) to see what happens to water running off roofs.

- Is water running down walls and into places that it shouldn't be?
- Are the gutters and downpipes blocked?
- Are they correctly aligned and connected to stormwater drains?
- Are the drains overflowing?

### ✓ Check the difficult spaces – but take care

It's important to check difficult-to-access spaces, such as within roofs and under floors.

- Check for leaks from flashings, valleys, and lapped joints in the roof sheeting.
- Look for signs of termites (mud tubes) or borer damage (flight holes) in timber.
- Are there adequate crawl spaces for inspections beneath floors and timber verandahs?
- Look for signs of loss of support for floor timbers (subsidence, fungal rot).
- Musty smells and excessive dampness in underfloor spaces.
- Are any ant caps (termite shields) missing on the floor stumps?

Be careful as these spaces can be hazardous. There may be live electrical wiring – if in doubt get it checked by an electrician. Roofs can be suffocatingly hot in summer time and if they are clad with asbestos sheeting they could be contaminated with fibres. Underfloor spaces may have been treated with chemicals like DDT (now banned) to control termites and these may persist in the soil – wear protective clothing and equipment, avoid making dust, and thoroughly wash everything afterwards.

### ✓ Masonry walls and chimneys

Dampness in various forms is a common problem with masonry walls (brick, block, limestone). Rising damp is caused by porous masonry drawing moisture from the ground, and can be seen as a dark zone at the base of the walls, often with a high tide line.

The dampness may carry salts that then crystallise within the brick or stone and cause fretting and other forms of damage. Dampness may also enter at the tops of walls or penetrate sideways through basements and cellar walls. Old walls need to breathe and this is often compromised by impermeable materials like cement (as patches or renders), clear sealers and modern paints. These materials should not be used on old walls.

- Are there open mortar joints or bricks that may be loose at the top of the chimneys?
- Are there cracks or open mortar joints in the parapet cappings?
- Are the walls solid, or do they have a cavity between two leaves of masonry?
- Is there any cracking in the walls (often stepping around bricks)?
- Is there mortar missing from the lower parts of the walls?
- Has missing mortar been patched with cement (often grey-coloured)?
- Have the walls been cement-rendered, painted or sealed to prevent moisture penetration?
- Are old renders cracked or loose (drummy)?
- Are the underfloor vent grilles blocked with dust and cobwebs, or clogged with paint?
- Are the vents hidden by verandahs, pot plants or other obstructions such as a paving or garden beds?
- Do ground levels slope towards the base of walls?
- Are there any garden beds set against the base of the walls?
- Are there any signs of dampness in the walls (dark stains with a high tide line)?
- Are there any signs of white salts on the surface (often near the high tide line)?
- Is there a damp proof course (DPC) (often a thin layer of bitumen below floor level)?
- Is the surrounding ground level higher than the DPC or the internal floor?
- Is there impermeable paving or a concrete slab (e.g verandah floor) against the external walls?
- Is there moss growing on external walls?
- Has the inner face of external walls been dry lined?
- Is there a band or patches of peeling paint and fretting plaster on inner face of external walls?
- Are tree roots disturbing walls?

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### ✓ Timber

Like masonry, we need to keep timber as dry as reasonably possible to avoid damage caused by fungal rot and by insects, such as borers and termites.

- Is there any timber in contact with the ground (apart from stumps)?
- Are the stumps missing ant caps (termite shields)?
- Do timber verandah posts sit directly on a concrete verandah floor?
- Are there any stored timbers, off-cut or tree stumps that could attract termites?
- Has the cross ventilation under a timber-framed house been obstructed?
- Are there signs of termites (mud tubes) or borer damage (flight holes) in timber?
- Are there signs of fungal rot (soft spongy timber) where water may be trapped?
- Are painted surfaces buckling or mouldy?
- Is the paintwork cracked or peeling?
- Do timber floors bounce when you walk on them?
- Are there soft spongy patches beneath floor coverings?
- Are timber joinery elements (verandahs, doors, windows) in poor condition?
- Are windows painted shut?

### ✓ Metals

- Are downpipes split, cracked or rusting?
- Do metal elements (like cast or corrugated iron) have rusted surfaces?
- Are paint coatings peeling exposing bare metal?
- Are metal roof claddings, cappings or flashings rusted?
- Are roof penetrations (parapets, chimneys, vent pipes, skylights) or flashings damaged?
- Are flashings and cappings on the roof incompatible with the roof cladding? (Check Bluescope Steel Australia technical data sheet on their website)
- Is there metal (rods, pins, lintels, etc.) embedded in masonry which is rusting and expanding?

### ✓ Water, water everywhere

- Does the garden watering system spray water against the base of the walls?
- Are there plumbing leaks in kitchens, bathrooms, laundries or sewerage pipes?
- Are there brown water stains on the ceilings (from roof leaks)?
- Are all windows and doors properly flashed?
- Are all doors and windows adequately weather proof?
- Do gutters, especially box gutters, have a safe overflow point for extreme weather events or in case of blockages (tennis ball, etc.)?

### ✓ Ventilation

Good ventilation of roofs and underfloor spaces is an important aspect of minimising the risk of fungal rot and insect attack on timbers.

- Is there adequate cross ventilation under timber floors?
- Is the roof space adequately ventilated?
- Are bathrooms and kitchens well ventilated and are exhaust fans ducted to the exterior of the building (not the roof space)?
- Are chimneys blocked off?

### What to do next?

Work out what needs to be done to fix the things you've identified. Set it out as a written plan. See the other Advice Sheets in this series for details and for guidelines for good conservation practice. Start with basic maintenance — clean the gutters!

### Who do I contact for further information?

E [info@fremantle.wa.gov.au](mailto:info@fremantle.wa.gov.au)  
T 08 9432 9999  
(ask to speak to a Heritage Officer)

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