

Achieving high quality building conservation outcomes:

A basic guide for local government and heritage building owners

Introduction

It is essential that conservation work is well planned and of a high quality so that it will last well into the future. Poor quality work is uneconomical and can be damaging to heritage places.



Materials and skills

The use of traditional materials and trades skills ensures the significance of heritage places is conserved

SIX PRINCIPLES OF HIGH QUALITY BUILDING CONSERVATION

1. retain cultural heritage significance
2. use traditional techniques and materials
3. use appropriately experienced and skilled contractors
4. do only what is necessary
5. retain and repair authentic fabric
6. readily identify new work

Good building conservation practice

Conservation aims to retain the significance of places. Heritage places should be accorded the utmost care to protect their outstanding values. Building Conservation work should be appropriate to the significance of the place and its surviving intact fabric.

Conservation practice in Australia is guided by the principles of the Australia ICOMOS Burra Charter which is widely accepted in Australia and internationally. This approach to conservation has its origins in nineteenth-century Europe. The writings of John Ruskin and William Morris argued that the evidence of age was an irreplaceable characteristic that should not be erased by restoration or, worse, reconstructed to some imagined ideal state that might (or might not) have been. Bodies such as the National Trust and the Society for the Protection of Ancient Buildings, that Morris founded, promoted honest conservative practices that respected all periods and characteristics of heritage places. These principles were first enshrined in the Venice Charter in 1964, which formed the basis for the Burra Charter.



Principles governing good building conservation practice

1. The aim of conservation is to retain cultural heritage significance, including aspects of greater and lesser significance that demonstrate the history of the place.
2. Traditional techniques and materials are preferred for significant building fabric because of their proven performance over time. New technologies may be used in some circumstances when proven to provide substantial conservation benefits.
3. All works should be carefully planned and implemented by persons appropriately experienced and skilled. Records should be kept for future reference.
4. Work should be limited to the parts needing attention. Do only what is necessary and nothing more. Remember that minor surface characteristics and imperfections usually add value to a heritage place. Preference should be given to repairing in situ rather than demolishing and rebuilding.
5. Authentic fabric should be retained, and repaired where essential. Only severely damaged parts should be replaced.
6. New work should be readily identifiable as such. The design of new work should be of high quality.

Challenges and complications

Traditional skills and materials are becoming scarce, making it difficult to undertake many tasks that were once routine. For example, it is no longer possible to obtain high quality, well seasoned, termite resistant timber for carpentry and joinery works because resources have been depleted to the point whereby strict environmental protection controls put them beyond reach. Some manufactured items like bricks and roofing tiles are difficult to procure in their traditional forms because processes have changed in response to economic, environmental and occupational safety needs. This makes it all the more important to retain every last piece of our heritage places since they can never be replaced, at least not to the same standard. A piece of sound, aged timber will outlast its likely replacement, and even rusted corrugated iron or steel roofing can have a longer future life than the modern replacement, a much lighter gauge material.

A further consideration is the energy that is embodied in building materials. Embodied energy includes the energy used to fire terra cotta products and metals, and to quarry and transport stone. Arguably, with today's environmental awareness, it is inappropriate to discard and replace materials which are still sound enough to last many more years. Although in some circumstances it is appropriate to undertake more extensive works, including borderline replacements, when expensive access arrangements are required to undertake conservation work in order to save time and cost later, this is not normally encouraged. It is contrary to good conservation practice, which is based on doing as much as necessary but as little as possible.

Planning of works

Good forward planning is a wise investment. All assumptions should be tested in advance and all required resources should be secured before any work commences. Cost blow-outs and unanticipated losses are usually associated with poor planning. All works should be well planned.

Documentation of works

Clear, concise documentation is required to avoid misunderstandings and adverse outcomes. That does not mean to say that all aspects of works can be documented in advance, but well prepared documentation and planning does ensure shared understanding and can minimise the potential for overpricing. When unanticipated circumstances arise (unforeseen termite damage is a common one), the documentation may need to be revised.

Professional advice and skills

Allocating funds to planning and supervising works will be well spent. By employing skilled practitioners the works will have greater value over the long term. For these reasons it is wise to engage the services of suitably experienced and appropriately qualified people to plan and execute works. Damage and loss of significance will result from poor decision-making and rough execution.

Trade skills

Trades-related works can only be effectively undertaken by experienced people. For example, it takes many years of training and practice to become a competent stonemason, carpenter or roof slater. Even with the aid of modern tools and equipment, bricklayers and solid wall plasterers will struggle to achieve visually satisfying results unless they know their trade well. Always seek out the most appropriate people and verify their references before entering into a contract.

Traditional materials and techniques

The best methods for working on heritage places are usually the traditional methods. In the common trades, traditional methods have not changed substantially over the years. The results are evidenced in works that are not just decades old but centuries old. It is therefore unwise to depart from the use of traditional methods and materials unless the reasons for doing so are compelling.

Right: An experienced roof slater will check slates for soundness and grade them by eye to ensure they bed neatly together.



New technologies – when to use

Traditional technologies are generally preferred. Be wary of unproven claims because new technologies might not be compatible with all traditional materials. Those that do not have a proven history of success in the specific situations where their use is contemplated should be approached with caution. Always undertake thorough research before choosing new technologies over traditional methods and materials. Maintain detailed records of the treatments so that they can be reassessed at some future date and ensure that the processes are reversible and repeatable if applied to significant fabric. Always seek to verify the suitability of new technologies by examining outcomes at other places where they have been used.

Documentation of works involving new technologies

The need to carefully document the use of new technologies is essential. When treatments show signs of unusual behaviour over the long term, it can be useful to refer to the records of the original treatments. For example, when an anti-graffiti treatment produces a white bloom on masonry, or a clear varnish begins to turn opaque, it can be very useful to know the details of the material and its original treatment so that an appropriate remedy can be identified. The same applies to all of the other new building and waterproofing technologies that could be detrimental to heritage places.

Measuring the quality of outcomes

At the end of the conservation process a few questions must be answered to evaluate the outcome:

‘Has the job been done well?’

‘Will the work stand the test of time?’

‘Has the significance of the place been retained?’

More questions and outcomes measures are provided in the table.

Right: The excessive crazing in the painted surfaces here is due to incompatibility between the types of paint. The brittle surface coats have not been able to withstand the movement within the more flexible underlying paint layers.

For further examples see www.heritage.vic.gov.au



	QUESTIONS TO BE ANSWERED	OUTCOME MEASURE
WORKS PLANNING	Is the work planned in accordance with an endorsed conservation management plan?	All works are consistent with the endorsed conservation management plan.
	In the absence of an endorsed conservation management plan, has the significance of the place been investigated and understood?	The significance of the place is understood and verified (e.g. by qualified local heritage adviser or other heritage specialist). Works respect the significance.
DOCUMENTATION	Is the documentation suitable to ensure an outcome consistent with the significance of the place?	Documentation appropriate to the level of significance of the place has been sighted and agreed by the person who will undertake the work.
	For simple works requiring only verbal discussion, has the discussion covered all aspects of the work?	Record of discussion formalised by signed work method statement or similar evidence of process.
	Was documentation revised in the light of any unforeseen circumstances and the extent of works renegotiated?	Revised documentation is developed and agreed to and signed by all relevant parties.
PROFESSIONAL SKILLS	Has the work been planned, supervised and executed by suitably experienced and qualified professionals?	References attesting to qualifications and experience of professionals were obtained and verified.
TRADE SKILLS	Has the work been undertaken by suitably experienced and qualified trades people?	Certificates attesting to competency were supplied and verified. References were obtained and verified. Site visits to completed works confirmed competency.
MATERIALS	Have all materials been sourced from proven suppliers, and are they traditional materials?	Source, reliability and appropriateness of materials were verified by the relevant authority.
TRADITIONAL MATERIALS	Are the materials compliant with relevant standards, or are the recognised alternatives consistent with guidelines issued by the relevant heritage agency or consent authority?	Materials and techniques are consistent with relevant standards and heritage practice notes and technical guides.
NEW TECHNOLOGIES (when used in lieu of traditional materials) and techniques)	Does the technology (materials and techniques) have a proven record of reliable performance over the long term in this situation (climate, exposure and original material)?	Successful applications of new technology are verified by way of evidence such as affidavits or references from reliable independent sources.
	Is the material and technique under warranty?	Warranty affirmed by relevant industry body independent of the supplier. Terms of warranty are appropriate for the situation.
DOCUMENTATION OF WORKS (traditional practices)	Have the works been recorded by means of annotated drawings, notes and photographs?	Works have been fully documented. The record is stored safely and in an appropriate medium (electronically and in hard copy) that will enable future access and reference.
DOCUMENTATION OF WORKS (new technologies and techniques)	Have the details of the materials and techniques been retained for future reference, including technical notes about products and suppliers details?	Details of materials and techniques have been retained and appropriately archived for future reference. One copy of the records should be retained at the site or with the owner. Further copies could be retained by the consultants or contractors and deposited with local libraries or heritage agencies in relation to works to heritage-listed places.

Further Reading

Australia ICOMOS 1999, *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*, Burwood, Victoria.

British Standards Institution 1998, BS 7913:1998 *Guide to the principles of the conservation of historic buildings*, London

Marquis-Kyle P. & Walker M. 2004, *The Illustrated Burra Charter: Good Practice for Heritage Places*, Burwood, Victoria.

Morris W. 1877, *Society for the Protection of Ancient Buildings Manifesto*, SPAB, London

Weeks K.D. & Grimmer A.E. 1995, *The Secretary of the Interior's Standards for the Treatment of Historic Properties: with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*, US Department of the Interior, Washington, D.C.

IInd International Congress of Architects and Technicians of Historic Monuments 1964, *International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter)*, Venice

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Technical Leaflet prepared by
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images courtesy Dr Donald
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Endorsed by the Heritage
Council of Victoria Technical
Advisory Committee.

Authorised by the Heritage
Council of Victoria, 55 Collins
St, Melbourne

Published by the Department of
Planning and Community
Development, Melbourne,
July 2009

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with the *Copyright Act 1968*.
This Technical Leaflet was
funded through the strategy,
*Victoria's Heritage:
Strengthening our
communities*.

Printed on 100% Recycled
paper

ISBN 978-1-921331-75-6 (print)
ISBN 978-1-921331-80-8
(online)

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