



Threads of Conservation

Social fabric • Fabric and place • Conserving fabric

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David Young OAM is a heritage consultant specialising in building materials conservation. With a background in geology he has been involved in the diagnosis and repair of historic buildings and sites for over thirty-five years, with a particular focus on those of stone. He also undertakes a range of teaching and training activities and has run short courses on building conservation in Australia, New Zealand and South Africa. He was convenor of the Australia ICOMOS working group that undertook major revisions to the Burra Charter in 1995–1999. David is the author of the technical guide, *Salt Attack and Rising Damp: a guide to salt damp in historic and older buildings*, and the forthcoming *Mortars: materials, mixes and methods — a guide to repointing mortar joints in older buildings*, which will be published by all State heritage agencies.

Repointing mortar joints: some important points

Paper Abstract

Preparation of a technical guide on mortars and repointing has identified some key points about materials and practice that should change the way most mortar joint repairs in Australia are specified and undertaken. Traditional lime mortars should be repaired with lime mortar, not modern composition mortars of cement, lime and sand. With the availability of pozzolans and natural hydraulic limes the use of any cement in the repair of original lime mortar joints is no longer good practice.

Selecting suitable sands is just as important as getting the binder right. Specifying and making mortars that are compatible with the adjacent masonry is a key objective. This may mean mixes that do not match the original, which at first glance may seem at odds with the *Burra Charter* maxim of matching like with like. Like with like cannot mean slavish copying of original specifications, for changes in materials and their availability force us to do some things differently.

Early cements were much weaker than their modern counterparts and their replacement may be best done with lime and pozzolan mixes, or natural hydraulic limes. The practical aspects of repointing require an attention to detail that is not common in much contemporary building practice. Good protection and thorough pre-wetting and post-placement curing is essential if lime mortars are to achieve their intended performance. All of us, specifiers and doers included, must drive changes to practice if our masonry heritage is to be well-conserved.