



## Threads of Conservation

Social fabric • Fabric and place • Conserving fabric

Australia ICOMOS Conference  
5-8 November 2015  
Adelaide Australia



### Jim Staton

Jim Staton recently celebrated a 50 year career in conservation, working for the Department of Conservation and earlier NZ Forest Service. His heritage career has focused on the practical side of mastering the logistics of undertaking challenging heritage projects in remote locations. His expertise in conservation approaches to wood and steel outdoors sees him advising of a range of industrial heritage conservation projects in national parks around New Zealand. A particular recent breakthrough has been mastering several technical challenges to enable the practical use of large dimensioned Radiata pine in heritage conservation projects in place of scarce indigenous species.

### Conserving the Heritage of Heavy Timber Construction

#### Paper Abstract

Replacement of decayed components with new timber is the traditional approach to the maintenance of wooden buildings and structures. This paper addresses special issues arising from large timber structures like bridges and stamper batteries. It outlines what was required to successfully complete two major recent projects and what was learned from re-timbering the Golden Lead and Lord Brassey stamper batteries.

Two key problems were:

1. Most surviving NZ large timber structures are built of Australian hardwoods, and replacements are difficult to source
2. Most surviving NZ skilled tradesmen, like bridge carpenters, are aged over 60.

The conservation improvement objectives for the projects were:

1. Source NZ Radiata pine as an alternative timber and
2. Carry the traditional skills & methodologies into the future.

The steps involved were these:

- Source bridge carpenters
- Involve the potential next generation
- Source suitable Radiata pine trees
- Mill in large dimension sizes
- Season while avoiding warping or checking
- Apply preservation treatment
- Cut to required final sizes
- Pre-treat end grains & joint surfaces
- Preassemble major components
- CIMS safety operates
- Transport to heritage site
- Disassemble decayed components; assemble new on site;
- Create video records.