Two problems hinder the conservation of timber bridges:

1. The bridge authorities in many States have policies for the replacement of timber bridges. The maintenance of these bridges requires the use of specially trained and skilled gangs of men, and if timber bridges are phased out, the gangs will disappear and the future use or retention of timber bridges will be almost impossible.

2. Notable timber bridges tend to be long or old. It is particularly these features that make them difficult to retain.

Three illustrations may be given.

Goulburn River bridge at Nagambie

This bridge is one of the oldest existing timber girder bridges in Australia, being built about 1865. It has understrutted main spans, of which examples are now becoming rare. As originally built, it contained an opening span, a tangible relic of the days when river steamers in the Murray-Darling system travelled up the Goulburn beyond this bridge. The stream is now dammed and ponded beneath the bridge. The opening span has been replaced with fixed steel girders but the evidence of it still remains, as indicated by the larger span, the different form of construction, and the guide piles driven to protect the adjacent piers from impact. The bridge is also long, with 13 spans totall-
ing 94 metres. Although serviceable, it is not in good condition, and to retain it indefinitely would require a large financial outlay.

Pyrmont Bridge, Sydney

Built in 1902, Pyrmont Bridge has a number of features of significance. It has a metal truss swing span that is large for its time; the drive mechanism used to open the span is of significant interest; and it is approached by a major series of timber trusses with 8 spans of about 25 metres on the western side, and another 4 to the east. The Department of Main Roads announced its plans to replace the bridge, giving ample notice; a new bridge was built around the south end of Darling Harbour, and to enable its opening, the eastern approach to the old bridge was cut away, to terminate abruptly at the edge of the new road system. At this time public protests arose, and attempts were made to protect the old bridge. It has now been proposed to use it to carry a section of the new monorail system to be built as part of the Darling Harbour development - surely a classic case of a clash between the old and the new, but it is easier to criticise than to suggest an alternative.

Bridges at Gundagai

The old road and rail bridges at Gundagai and their approaches form four bridge systems of historic importance.

The 1867 main spans of the road bridge are among the oldest of Australia’s metal truss bridges.

The 1903 rail bridge has metal truss main spans supplied from the U.S.A. with pin-connected joints.

2. Gundagai’s two long timber viaducts with steam train at the level crossing, c1910. Photo: Gundagai Historical Museum
The 1903 rail approaches form the largest system of timber trusses in Australia, with 77 spans totalling 819 metres.

The timber girder road approaches are long.

The Department of Main Roads replaced the road bridge with a new bridge at a remote location on a new bypass road. It was intended that the old bridge be handed over to the local authority for use by local traffic. The main metal spans were repaired, but a controversy has arisen over the timber approach spans. They are long, with 7 spans over the northern flood plain. They were rebuilt on a new alignment in 1896 and reconstructed again in 1929. There is no money to maintain such a long structure and it is easy to argue that they are the least important of the four bridge systems, and that they are not really old. On the other hand, the combination of the two flood plain bridges, which cross at a unique level crossing at the Gundagai end, forms part of the historic environment of the town and it would be a pity to see it disappear. Perhaps the solution is to retain a few spans at each end of the road approach, including the level crossing, and use them as the sites of suitable displays. If the ends of the old structure are clearly defined, then imagination can recreate the remainder.

The future of the rail approaches is unknown.1

What is the solution to the problem of conserving timber bridge constructions? This has two parts:

1. Every attempt should be made to conserve notable bridges.

2. A conscious effort should be made to identify typical bridges for preservation. They should be typical rather than remarkable; they need not be large; and they should be suitably sited, with convenient public access. They should then be properly preserved, with signage and displays.

Unless this latter step is undertaken soon, it is highly likely that all timber bridges may disappear - certainly the humble timber girder bridge that forms such an important part of the Australian heritage. Normal procedures will not lead to their preservation. The very facts of their commonplace nature, and the numbers that have been built, tend to guarantee that their individual importance will not be recognised. They will disappear one by one, and before the loss is realised, they will all be gone.

REFERENCES


Timber Bridges Seminar, Monash Univ., Nov. 6-8, 1985.

1 It has since been recommended that the end spans be developed and opened to the public and that the whole timber approach viaduct be retained until it is determined whether sufficient tourist income can be generated to justify its permanent retention.