

## BUSES - THEIR PRESERVATION AND RELAVENCE TO TRAMWAY MUSEUMS

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The objects and rules of the Australian Electric Transport Museum include the collection and preservation of vehicles of all kinds which are representative of a type or era, to conduct exhibitions and exhibit vehicles of all kinds and descriptions and to operate tramways and railways. Doubtless, the constitutions of the various bodies represented at this conference contain similar objectives. Whilst our outward public motives are the laudable and noble ones of helping preserve a significant part of our national heritage and make it available for inspection and appreciation by future generations, I am sure most of us would acknowledge that our own personal motives may be quite different. We are attracted to the continued membership of our respective museum groups by the personal emotional satisfaction gained from the achievement of preserving, restoring and operating vehicles which were once part of everyday life in our cities.

Biologists who study the behaviour of animals tend to assume that most behaviour patterns they observe are functional, meaning that they contribute to the animal's survival. Tramcar preservation would appear to be thoroughly unfunctional - it has no survival value - indeed the reverse may be the case.

Humphrey (New Scientist 63 (908): 233, 1974) has hypothesised that the human passion for collection derives from the satisfaction man derives in "classifying experience". In the prehistory of man, those who developed greater skill in classifying experience and recalling it rapidly in times of crisis therefore had a greater survival advantage. The man whose grandmother had been eaten by a lion obviously had a survival advantage if, when confronted by a tiger, he could hypothesise its likely gastronomic habits and take some appropriate action without waiting for a demonstration.

Collecting then is made up of two basic structural principles - Unity and Variety. A collection is a set of variations on a theme.

Individuals will select widely differing themes and study the variations within their theme. Some may collect statues of Queen Victoria, while others may be attracted by cows. Some may collect horses, while others develop a taste for flowers. Some floriculturists will specialise with individual blooms, another group may prefer informal gardens, while a third group may prefer formal displays.

When we come to transport, some may restrict their interest to the horsedrawn field, others may like steam traction. Some collectors may specialise in veteran and vintage cars while our agricultural friends may prefer tractors.

All the specialities thus-far discussed are within the scope of the individual collector, but some transport fields are beyond the capability of one single individual to preserve single-handed. They

can only be managed by a group of society whose collective interest, no matter who dispartate their professional training, is towards a common goal. Some remarkable feats have been achieved by this type of co-operation, sometimes by groups alone, and sometimes in co-operation with government.

Urban transport vehicles must generally be regarded as requiring the group approach, although in the preservation field there have been some notable examples of personal endeavour, the most significant Australian example probably being the collection of Melbourne cable cars made by Mr. A.E. Twentyman prior to the second world war. There have been examples in the electric traction field in both Sydney and Melbourne where individuals have personally assumed responsibility for the maintenance of cars.

Only with the pioneering at Loftus in the 1950's did museum tramway operation look like a possibility. Such development was encouraged by successes in North America, and the evident pleasure which could be given to the public by providing a nostalgic ride. Indeed, tramcar rebuilding has become a commercial enterprise for an enterprising few in that country, though like any other business, initiative and skill is needed. Some lessons are learned the hard way.

Although tramcar preservation has been proceeding in Australia for about twenty years, we can still learn from the operations of museums established earlier in North America. The most significant is the ability of a museum group to let its enthusiasm exceed its capabilities. There are sad examples of exhibits, once in fine condition, being allowed to deteriorate to the point of no return through there being insufficient funds, manpower and facilities to look after them. Trams, if left in the open without protection and maintenance will eventually be swallowed back into the environment which spawned them. Buses have often spent their working life in the open, and will survive in museums for a time that way, but they too can deteriorate to the point of total destruction.

History is a continuing development. We can all bear witness to events which are now history, even within the last decade. Buses have played a major role in Australia's transport development since the 1920's. Initially they played a supporting role to the tramway systems, not always with the consent of the tramway operators. Although there was an interesting variety of vehicles, virtually none have been preserved. The trams, probably because of their greater working life, have fared more successfully. Nevertheless, it is sobering to look at a picture of an urban centre taken in the 1920's, and at the same scene in the 1960's, and realise that the vehicles in both have passed into history.

Trolleybuses, the transport panacea of the 1930's, and still being built in the 1950's, can now only be found in Australia in museums, despite the world energy crisis. One or two have survived for preservation due to strange circumstances after their contemporaries have gone to pasture. Others have been retrieved from pasture and brought back for preservation.

The role of buses in a tramway museum is really governed by the unity and variety of the collection. If the theme is strictly electric tramways, buses are not relevant.

If, however, the theme is urban public transport, buses are very relevant. Here we are dealing with a continuous progression which began in most Australian cities in the 1880's when the population could begin to afford better transport than walking. We have had a natural progression from the horsecar, cable car, steam tram, through sheds

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(Due to an editorial error, the second part of this paper was deleted from the published report. The publishers offer apologies to the author and submit the concluding pages herewith.)

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full of electric trams, streets full of electric trams, all increasingly in competition with the private motorist, to the trolleybus and the motorbus. Even vehicles with us a decade ago may now have left the transport scene. Representatives may be justified in a transport museum.

Space is at a premium, however, in museum development, and it is essential that potential exhibits are chosen with care. They should have historical importance, not just be unusual. The commonplace item in society merits preservation before items notable only for their abnormality.

If buses are to be preserved, what types of developments are possible? There is the polished shiny housed display as was typified by the London Transport exhibition at Clapham, and whose buses only rarely ventured out onto a public street. Buses may be found in general museums, where they may be dwarfed by their fellow exhibits. There is the possibility of private ownership for private display, widely developed in Britain, but little so in Australia. This is more difficult with trolleybuses, but is not unknown.

Trolleybuses fall in a midway point between trams and motorbuses. Their relative immobility may initially be an impediment to display flexibility. Nevertheless, they have more mobility than trams if the museum wishes to mount a display away from its operating site, even though they will usually be towed. The towing problem itself is amenable to solution by the construction of a motor/generator trailer unit, thereby allowing the vehicle to be self-propelled.

Historic motorbuses can also be incorporated into commercial bus operations as for example in the tours operated in London by London Transport using vehicles supplied by Obsolete Fleet Ltd.

The following factors govern the role and operation of buses in museums:-

1. They have and are continuing to play an important role in metropolitan transport. Their preservation is justified in an urban transport museum.
2. They are generally more mobile once the museum becomes operational.
3. Spare parts are more likely to be available.
4. Spare parts are likely to be more expensive since they have a realisable commercial value for other users. Typical costs are \$700 for an unguaranteed second-hand A.E.C. diesel motor, \$400 for a set of brake linings and drums, and \$50 for a second-hand electric circuit control box. Registration and insurance costs are high even for non-passenger use. Inspection criteria may be expensive to meet. By contrast, tramway spare parts at least have only a second-hand scrap value - there is little competition for them from other commercial users. It may be noted that the trolleybus falls midway between these two extremes. The transmission, running gear, steering and suspension has a commercial value, the electrical equipment does not. For example, the A.E.T.M. currently has an option to buy a

second-hand but unused trolleybus motor for \$100. Furthermore, the electrical facilities of a tramway museum will generally permit trolleybus operation with little increase in infrastructure.

5. The precision of engineering involved in bus operation and maintenance is probably greater than that with which is necessary for the much older trams. Motorbuses are more complex than trams and greater specialised technical skills are required for their operation. This is somewhat offset, though, by the fact that the main components of buses are easier to disassemble and remove to specialised workshops than are the main components of trams.
6. The more recent bodywork of buses generally involves a different technology than that of trams. If a museum has a tram fleet composed largely of wooden-bodied cars, additional equipment will be needed for the maintenance of steel or alloy fabricated bus bodies. Steel bodies may be more difficult for voluntary groups to repair once serious deterioration has occurred.

The basic operation of a museum requires that a special effort be made to attract more visitors in order to generate more income. This may be achieved by increasing the variety of equipment on display, and this in turn may justify higher admission charges.

Provided the membership and administration of the museum group can manage the additional responsibilities, the broadening of interests to include buses may well be justified by the additional business created. With increasing interest in museum activities at government level, I believe we have a need to show that we can manage a continuing programme of responsible preservation. By so doing, we are liable to attract further government support.

The ultimate decision is dependent on the objectives of the museum and the theme and variations to be encompassed. There is no shortage of people in the world seeking new forms of recreation - we may wish to increase our share of that market by widening our horizons.