Conservation Planning in a Tramway Museum Environment

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Summary: Conservation Planning is a useful tool in improving the conservation management of our tramcar collections. Tramway Museums are responsible for ensuring their collections maintain their cultural heritage. This paper reviews the use of this planning tool, its origins, outcomes and how it may be applied in practice.

1. Introduction

Conservation Planning for heritage buildings is well known, but less so in the railway/tramway Museum environment. The purpose of this paper is to provide an insight into the Ballarat Tramway Museum's Conservation Planning and its implementation.

Why bother? Our trams are of cultural significance. We, as their custodians, are responsible to ensure that they survive for future generations to enjoy. They must not disappear or become some meaningless piece of old equipment which has largely lost its heritage due to poor conservation practices.

For us, conservation is the process of identifying and managing the cultural values of our tramcars. It is not a fossilising process that renders the tramcar unusable. As part of the interpretation of these museum objects to the public; we operate them. To enable this, calls for work on the tramcar itself and a requirement that we know what we are doing in affecting its heritage.

When we took on the preservation of our tramcars and their associated cultural heritage, we knew little of formal museum practices. With museum and rail safety accreditation coming into vogue, documented planning of the conservation of tramcars is yet another element to absorb. We have become over time, museum professionals.

2. Background

2.1 What are the various definitions?

To define the various terms used in conservation planning, these are given by the Burra Charter.[1]

> *Conservation means all the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may according to circumstance include preservation, restoration, reconstruction and adaptation and will be commonly a combination of more than one of these.*
>
> *Maintenance means the continuous protective care of the fabric, contents and setting of a place and is to be distinguished from repair. Repair involves restoration or reconstruction and it should be treated accordingly.*

Preservation means maintaining the fabric of a place in its existing state retarding deterioration.

Restoration means returning the EXISTING fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.

Reconstruction means returning a place as nearly as possible to a known earlier state and is distinguished by the introduction of materials (new or old) into the fabric. This is not to be confused with either re-creation or conjectural reconstruction which are outside the scope of this Charter.

Adaptation means modifying a place to suit proposed compatible uses.

These definitions are the generally accepted ones for the museum environment, except *place* is substituted by *object.* Those for restoration and preservation are quite different to what we were brought up to expect, especially the oft used expression, *restored to original condition* as it may apply to a steam locomotive, or even a tramcar.(2)

2.2 The Burra Charter and other documents

The *Burra Charter* is the generally accepted document by heritage authorities and professional conservation practitioners in Australia as the basis for identifying and managing heritage places and objects. In 1992, the Institute of Engineers of Australia adopted the Charter as a basis for the conservation of engineering works with minor amendments to cover moveable engineering objects.(3) The BTM adopted these in 1993 and has been using these as the basis of its Conservation Planning.(4)

2.3 Why have a plan?

One of the purposes of a conservation plan is to provide an understanding of the object to be exhibited. It establishes the significant elements so as to form a policy for future work and enables a flexible approach to this. A plan need not be an onerous document that leads to excessive controls, but one that establishes whether there is a need for controls.

As a part of the planning process, the BTM prepared a Fleet Conservation Policy document. Its purpose is:

- form a set of guidelines and directions for future conservation work on the existing fleet of trams held by the Museum
- formulation of guidelines for exhibition, standards, operational configurations and liveries
- allow others not directly connected with the Museum to understand the background of the policy
- establishment of a policy that enables past errors to be identified and rectified.

2.4 Relevance to Museum Aims

One of the general aims of a museum is to acquire, conserve and exhibit their objects they have collected. A conservation plan, if correctly done, allows for a considered decision to be made about the object being conserved. Competing interests within the museum may desire different outcomes. It enables operational requirements to be taken into account and sets up guidelines for actually carrying out the work within the museum. It demonstrates to both museum workers and others that a considered decision has been taken with regard to the object's future.

Having completed an extensive plan for Electric Supply Co. Ballarat Tram No. 12, it was an enlightening task that gave us an insight into the tram's significance and that we should be careful in what we did. It was part of the overall education process and has helped us to improve the attainment of our museum's overall aims, of establishing an authentic working tramway museum.

2.5 Our Cultural Heritage

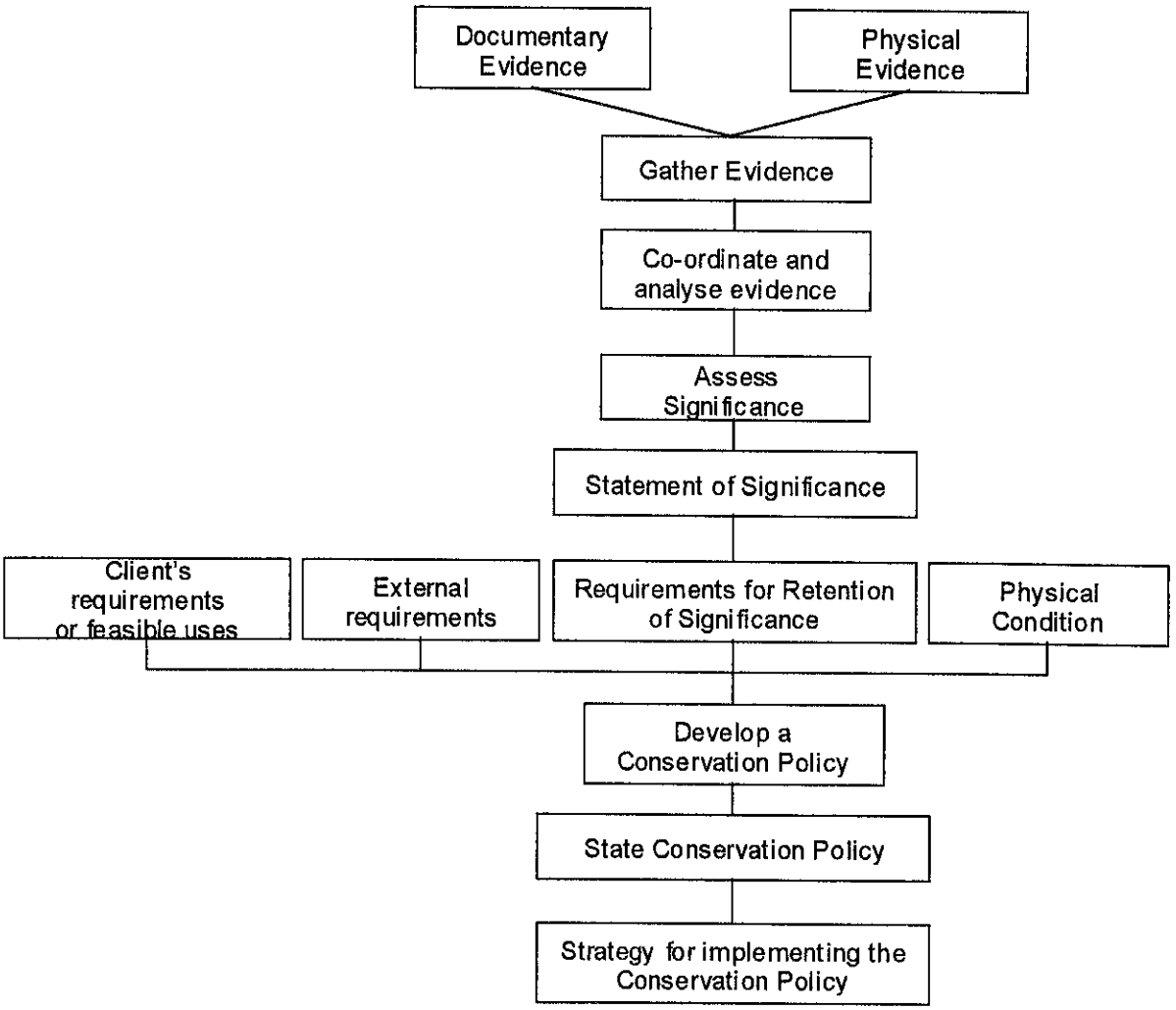
Urban tramways played an important part in the development of our cities. Tramway museums have taken on the preservation of this part of our social history. As such we are responsible for this part of our Cultural Heritage. To ensure that our tramway culture survives in an operable condition, we must understand the process of conserving it and work hard at it. Make too many errors today, we will not hand the heritage onto future generations to a standard that it could have been done to.

3. Conservation Planning

3.1 The Principles

The principle element of any Conservation Plan is the Statement of Significance. It should stand alone, and answer the questions "Why is the object significant?" It allows the identification and assessment of the object's attributes, informed policy decisions, suggests constraints on future actions and introduces flexibility by identifying areas which can be adapted or developed with greater freedom.

The Institute of Engineer's guidelines formed that basis of the planning for ESCo. No. 12. These were drawn from a guide to conservation planning, published by the NSW National Trust.[5] The flow chart shows the methodology followed. It is typical of the planning carried out by major museums.



3.2 The Process

The process is one largely collecting historical evidence, current conditions of the object and then analysing this against questions about the object itself. For example:

- Does it have a high degree of technical or creative excellence?
- Is it an important example in the development of the object class?
- Does it demonstrate technological change?
- Does it demonstrate a way of life or a strong association with an important figure or a cultural phase?

Following the development of the Statement of Significance, the subsequent policy can be developed knowing the various restraints, requirements and its physical condition. The major elements of the policy to be considered are the need to:

- retain or reveal significance
- identify feasible and compatible uses
- meet statutory or safety requirements
- work within procurable resources.

As part of the process, alternative solutions can be developed and assessed against the museum resources, what is desirable and what the museums aims are. From this process comes a series of recommendations that give the desired outcomes from which the implementation phase can be assessed against.

3.3 The Outcomes

The plan should include recommendations for:

- physical conservation action and care necessary for retaining or revealing significance
- uses which are both feasible and compatible or constraints on use
- public access and interpretation
- security
- controls on future development and change
- the control of investigation and physical intervention.

Another outcome is that the people who are going to undertake the physical work is that they know what is expected of them and why it is important to undertake the task with care and a good history of the object that they are working on. This allows them to convey their knowledge to others, such as a visitor in an understanding manner.

3.4 Carrying out the Work

As part of the preparation of the BTM's Conservation Policy, we included a section on undertaking the Conservation work. This lists a number of guiding principles to work by and to be taken into consideration. For example understand the object, don't alter the final appearance, keep records, conserve the technology, use appropriate methods, talk to others, be mindful of safety considerations, don't over embellish, check if new methods or materials may not be as suitable as they first seem and keep all work faithful to object's history and cause.

While the physical attainment of these may be difficult to achieve, we must try our best in order to properly conserve the object for the future.

4. Examples

4.1 A Major Plan—ESCo. No. 12

The Museum's major Conservation Planning exercise has been that for *Electric Supply Co. of Victoria* Ballarat tram No. 12. This was a significant document. Comprising some 40 pages with photographs, it undertook a detailed examination of the tramcar body and made recommendations which have been reviewed and accepted by the Museum. It was also commented upon by a number of outside bodies, including an Officer of the Historic Buildings Council of Victoria (now Heritage Victoria?) and Science Works Museum at Spotswood.

One element still missing from the background, despite extensive research of the technical literature of the time in the State Library, is the type of electrical equipment that was supplied with the tram itself. This has held up the final completion of the document

The Tramcar Itself

A detailed examination of the historical background of the tramcar placing it in the context of Ballarat's tramway history was prepared. These included its origins in Sydney as a cable car trailer in 1892, its operating history, disposal, recovery, human factors, (crew, one man operation and passengers) and finally its impact on Ballarat. This was followed by analysis of the physical evidence and discussion of problems encountered in its operating history. After analysis of the evidence, a Statement of Significance was formulated.

Planning for its Future

This part looked at various options, included whether it should be operated at all, what type of braking system to install, seating configuration, painted finishes etc. Recommendations were made with regard to the retention of existing fabric, methods of introducing new materials, body strengthening, equipment and recording during the reconstruction process. Other recommendations covered static and operational display.[7]

Examples of some of the elements of the plan are:[8]

- The body of No. 12 is a notable object having historical and technical significance as the only surviving example of a former Sydney cable tram body converted to a Ballarat electric tram.
- The body has technical significance in that it shows how an older body underwent modifications to become an electric tramcar. It shows the stage of development at the time of an underframe for an electric tramcar in Australia as well. It also provides details of paint schemes used on the tramcars by ESCo. not accurately recorded previously.
- Its social significance is important in that it is a reminder of the lifestyle that tramway crews had to work under and the related union battles. ESCo. was the first to have one man operated electric trams in Australia.
- From an operational viewpoint, an air braked tram would offer a safer vehicle and be able to be driven by all qualified drivers as it is compatible with existing trams. It would require extensive modification to the tram to fit the equipment however. The frame may not be strong enough to withstand the forces put on it by the air brake cylinder and this system would not technically be correct. (The tram is to remain as a hand-braked car.)
- The tram body is recommended to be reconstructed to the outward appearance of the 1905 configuration, that is no windscreen. Seat bases to be installed into the 1905 locations with full length footboards. Pins to be provided so that the seat backs are fixed into position during operation to maintain passenger safety.

4.2 A Minor Plan—SEC No. 28

The Museum is currently preparing a Conservation Plan for Ballarat SEC No. 28, a tram that began its life in Melbourne in 1916 as Hawthorn Tramways Trust tram No.7. It was sold to ESCo. in 1930. At present the tram is presented in the 1940/50s SEC colour scheme.

In the Museum's Fleet Conservation Policy document, the following comment was made with regard to the tram.[9]

> If tram No. 11 is repainted in the 1940s/50s SEC livery then this tramcar could be painted into another colour. A suggestion is to an ESCo. colour scheme, in which it would have been painted at one time (photograph exists). Could set the car up during the change over period between a strict California combination and the SEC Ballarat style. This would result in another red tram in service. The relocation of the pillars to correct position could be done, although this would constrict the doorway opening. It also would result in only one door on each side instead of two. The door would be on the front left hand side of the car, ie offside when running into the traffic in Wendouree Parade. Problem if running north in Wendouree Parade would be the front or driver's door could be on the wrong side to load passengers. A compromise may be needed. Further work to be done on these circumstances.

Work recently commenced on repairing a split frame member and other repair jobs needed on the tram. The opportunity will be taken to repaint the tram, and to assist this the preparation of Conservation Plan is underway. There are a number of problems in presentation, as outlined above. Another problem, although relatively minor, is one of those "nice to haves" windscreen wipers. They were not fitted until 1943!

Conservation Planning allows consideration to be given to these problems, and come along with what hopefully is, the best option to be adopted. However any option should take into account what may be done in the future and be flexible in its outcome.

5. Advantages of Conservation Planning

The advantages of undertaking Conservation Planning are:

- get to know better the object you are looking after
- determine its significance in your collection
- examine options what can be done
- following analysis determine what is the most appropriate option for conservation to be done, given the museum's circumstances and needs
- detail what work is to be done and how it should be done
- what precautions should be taken so that the loss of evidence of past practices is minimised
- avoid mistakes that may have been made in the past by not undertaking such planning
- allows comment by peers in the museum industry in general to be made
- shows to others that you know what you are doing
- explain to non-museum or non-heritage people that conservation of our collection is important and that changes to conform with their thoughts perhaps should not be undertaken lightly without proper consideration
- hopefully be of assistance in obtaining funding for your projects by showing that you stand above others seeking the scarce dollars
- show that our trams are of cultural significance and not "big boy's toys"
- we have a responsible attitude to the conservation of our collection for the future.

6. Conclusion

Although Conservation Planning may seem to be another way of yet chopping more trees down, done sensibly it does have benefits. It gives a better understanding of our tramcars. We are responsible for the conservation of their cultural heritage. It enables this responsibility to be applied professionally to our collection.

References

(1) *The Burra Charter,* The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance, 1988.

(2) Gerard Hill, *The only Genuine Article,* Steam Railway, December 1993 pp63-64.

(3) *Engineering Heritage & Conservation Guidelines,* Institute of Engineers Australia, Canberra, 1992.

(4) W Doubleday, *Are Tramway Museums Restoring Trams?,* Trolley Wire, May 1993, pp3-8

(5) J S Kerr, *The Conservation Plan,* National Trust of NSW, Sydney 1990.

(6) M G Whitemore, *Researching and Conserving a Unique First World War German Tank,* Transactions of Multi-Disciplinary Engineering,. Institute of Engineers, June 1992, pp65-72.

(7) L Conole & M Hallett, *Hands On, Hands Off, A key guide for Decision Makers,* Activating heritage artefacts—the conservation and safety issues, Scienceworks, 1993.

(8) *Conservation Plan for ESCo. Ballarat Tram No. 12,* Ballarat Tramway Museum, 1994.

(9) *Fleet Conservation Policy,* Ballarat Tramway Museum, 1995, December 1995.

Questions/Comments

John Radcliffe: what could be done to prevent members working on trams without due care? Try to keep projects limited to one car:

- develop plan of work to be done
- carefully store parts removed from tram.

Lindsay Richardson: what is the policy regarding ownership of tickets, coins, etc. being found in a tram when parts are removed? All such finds should be property of the museum. However most of the tickets recovered were in too poor a condition to qualify as exhibits in a collection.

Don Smith: who was the builder responsible for the Ballarat rebuilding of car No. 12 and what mechanical parts remained on the car? Duncan and Fraser rebuilt the car in Ballarat and no parts remained of the mechanical gear as the tram was completely stripped.