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PRESERVING TECHNOLOGIES:

Conservation, Restoration and Operation;
a Major Opportunity for Outdoor Museums.

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At your conference four years ago, a paper was read on my behalf entitled "TRADES AND CRAFTS IN HISTORICAL DISPLAY". The paper today will look at the related subject of "PRESERVING TECHNOLOGIES". While I do not propose to say very much about trades and craft here, they are an important part of preserving technology, and the two papers should perhaps be read together.

Since leaving Sovereign Hill in 1982, I have worked in the more formal atmosphere of the Power House Museum in Sydney and more recently as an Exhibition Consultant for major institutions. My ideas about exhibition have inevitably been developed and changed by that experience. I am, however, still very committed to exhibitions that are contextual, activated and participatory.

The problem for Heritage Parks in the preservation of technologies is in striking a balance between conventional museum practice of collection, recording and study on the one hand, and the opportunity to develop innovative informative displays on the other.

The activation of technological exhibitions presents many challenges, contradictions and opportunities to both outdoor museums and to their more traditional associates, the science museums. In Australia the outdoor museums, like Swan Hill and Sovereign Hill, have given a lead in this area that other institutions have been slow to follow. We at this conference should perhaps look at this whole question and weigh the pros and cons so that in the future activation programmes that involve historical machinery, equipment and skills can be undertaken in the knowledge that we are indeed both adding to knowledge about a technology and at the same time helping our visiting public to understand the past. If guidelines can be established that are acceptable to the wider museum profession the science museums may follow the lead you have given in the presentation of technological collections as working contextual displays.

In this paper I do not propose to provide a set of answers which can be used in developing exhibition ideas. Rather I will raise issues and set out a framework to use in thinking about exhibitions of this nature so that they can be both effective for your visitors and at the same time preserve the integrity of your collections.

There are two basic and related reasons for museums to collect artifacts:

to record some part of the present or past; and

to interpret that record for future generations.

The aim may be to record and interpret the artifact for itself; it may be to record and interpret, with some other artifacts and information, a whole technological process; or to record and interpret the artifacts and the technology as a part of the wider fabric of society.

The artifact is, then, firstly a RECORD. In considering the questions raised in this paper, and in your dealings with museum collections in the future, you should never lose sight of the artifact as a record. You will gather varying amounts of information about the artifacts that will become written and photographic records. The artifact istself, however, remains the primary record. In deciding what to do with the artifact - acquire or discard, restore or conserve, display or store, active or passive display, touch or keep off - always consider the question "what will this decision do to the artifact, to that primary record?".

What you do with your artifact will determine how much of the record goes on into the future, and how much information will be lost or distorted.

Let us look at these questions one at a time.

Acquire or discard?

In acquiring technological artifacts the criteria will be much the same as for other museum artifacts:

Is this artifact representative?

Is it the best example available?

Can we collect other contextual material related to the artifact?

What information is available about the artifact and its context?

Will its removal from its site prevent further information being gained?

Does this artifact and its technology fit into the objectives of your institution?

And so on.

You must consider these questions every time you make a decision to collect. If you do not, then your collection will contain many artifacts that you do not want, and this will be a continuing cost to the museum.

Make sure that you collect artifacts that record the history that you set out to tell. To do this you will require clear policy papers to guide you.

Restore or conserve?

You must firstly understand the basic difference between these two terms, as they are often used incorrectly. Conservation cleans and stabilises the object without changing it more than minimally. Restoration attempts to bring the artifact back to the condition it was in at some point in its history. It may, but not always, put the item in working order.

If any work is done on an artifact - even the simplest conservation - it will change the record. In considering what to do, always think about what will be the effect on the record if certain action is taken. Maybe that restoration will not change the record in an important way. For example:

1. The removal of rust from an old engine, and repainting, may not destroy any useful information if nothing of the original or subsequent paint layers is left. On the other hand, original paint may tell us about the colour, markings, quality and painting techniques related to that artifact, to its period and to its technology. The danger is, of course, that while information may not be lost if changes are made, like new paint, without sound information on which to base the decision the record can be distorted and the information passed on to the visitor incorrect.

2. Your artifact may be the only one of its kind available for preservation and study, or there may be many others. This information will help you decide the importance of the information you will lose by changing the record. For example, when the Power House Museum wanted to section a railway locomotive to help visitors understand how it worked, they chose a 38 class not because it was the best to use an an example, but because there were several others that would be preserved intact.

If restoration is the decision taken, then good record keeping will help to ensure that people in the future will be able to use the information that you have removed in the restoration, and that it will always be quite

clear what changes you have made. It is not only the replacement of parts and repainting that changes the record. Very fine details are sometimes lost in a restoration without the restorer even knowing that anything has been changed. Tool marks, brush marks in paint, and sizes of parts, can all be lost unless care is taken. This is not a paper about restoration and conservation techniques. These questions are addressed in the literature that is readily available. All I wish to do here is ask you all to remember when considering restoration that you are tampering with the record that is your artifact, and that it is for that record that you collected that artifact in the first place.

Display or store?

Australian outdoor museums have not in the past seen themselves as having a role in historical research or recording, except where it is directly related to their exhibitions. This has, perhaps, been short sighted, though understandable. There is a role for the collection and study of some artifacts that will add to our understanding of history, or of a technology, but are not suitable for public display. While this type of collection must remain limited in outdoor museums where resources are limited, these museums should consider this option to help expand their knowledge and for the development of displays.

For example, the Power House Museum has a considerable collection of wool samples that date back to the flocks of Marsden and Macarthur. As a display they would not be very interesting, but as a resource about the development of the Australian wool clip they are invaluable.

Activated or passive display?

There is little doubt that activated displays are both more interesting and more informative than passive ones, and later in this paper I will be suggesting some ways of designing activated displays. For the moment, however, I want to look at the problems of debasing the record through activated display. Firstly, in the restoration of an artifact to a degree where it can be used in an activated display, some of the record will almost certainly be lost, and we examined that problem a moment or two ago. The other problem is more difficult to control, as the damage occurs over a longer period of time. The active use of any artifact must cause it deterioration. With great care this can be minimised and recorded. Day to day maintenance and replacement of parts as they wear out will be hard to control in a way that preserves the record. Without care the artifact may well become like Grandpa's axe, "two new heads and three new handles, but it's still the same old axe".

This is not to say that displays should not be activated. It is a reason to consider the importance of the record in each artifact before making it a part of an activated display.

The use of replica material may be a better option.

Touch or keep off?

The best activated displays are those where the visitor is involved in a hands on experience with real artifacts. Visitors to museums are also the most destructive element in the museum. Those of us who have had to maintain hands on displays will all be well aware of the damage all visitors, and small boys in particular, can cause to a display. If the visitor is to handle artifacts then this must be under close supervision, or the artifacts should be ones that are readily replaceable and can be regarded as expendable.

INTERPRETATION

The second reason for the collection of artifacts by museums is to use them in public displays to interpret either some part of history, or some technological process.

The outdoor museums, or heritage parks, as I believe you are now called, have a particular problem that sets them apart from the science museums. Science museums have almost no restrictions of time or place in the selection of their display subjects; and they have no limitations on the type of display technique that they can employ to interpret those subjects to their public. The heritage park therefore must have very different objectives to a science museum display dealing with the same subject.

For example, the science museum may examine the technology as it developed in a number of countries and over many centuries. The printing exhibition in the Times Office at Sovereign Hill can only present printing technology as it was in Ballarat in the late 1850's, while the printing display in the Museum of Victoria might consider the subject from the wood cuts of ancient China to modern laser jet printing of the U.S.A. This need not be a disadvantage! Your type of museum, with its skills in presenting technology within a contextual framework, with all the trappings of the physical and social environment, gives you an opportunity to explain many aspects of the history of technology in a way that should make you the envy of planners in the more conventional museums.

In the planning of a display, set down your objectives. These might include communication ideas about the technology, about the physical surroundings and equipment used in the practice of the technology, the social impact of the technology both on the workers and on the community at large. The display might also look at the history of the people, the place and the times in which your heritage park is set.

Activated technology exhibitions can be used as major interpretive tools for the park as a whole. These are the displays that create the interest within your historical parks. Look upon them as important tools to be used to tell your visitors both about the technology in question and about the wider historical questions raised by your museum. The training of staff both in their own jobs and in the wider implication of their role as interpreters becomes important.

In my paper of four years ago, I raised the question of scholarship in the development of exhibitions. I raise it again because it is one of the most neglected areas in the heritage park movement. Without good scholarship, no exhibition designer or interpreter will be able to develop a display that presents an accurate historical picture. All over Australia we find museum exhibitions in which the information conveyed by the displays is either untrue, or is a distortion of the truth. This fault is not confined tothe historical parks. Historical parks are, however, perhaps the worst offenders. Success should not be judged just in terms of happy visitors through the gate, though clearly this is one good yardstick. You should also be concerned at the quality of the ideas and information that you impart to those visitors. It is much harder to get it right and only let your displays say things that you know to be true, but in the long run it will be more successful, and will give you as a professional a greater satisfaction. Getting the details right is a long and tedious process, and will involve the building up of knowledge over a very long period of time. This will mean two things: one, plan and research your exhibitions a long way in advance; and two, be prepared to change existing displays as your knowledge grows. This will require careful recording of research material so that it can be reviewed years later, even after all the staff that undertook the research have left the museum.

I hope that you can all employ professional curators and historians. You should, however, be prepared to use the bodies of knowledge that exist in the universities, professional societies and in other museums to help your museum build its knowledge.

Heritage Parks have a major role in the preservation of technology. To meet this challenge and to grasp its opportunities, professional standards in the collection of artifacts (the record), in their study, restoration, conservation and exhibition, are an essential element. Your Heritage Park Movement has in the past done a great deal to stimulate public interest in the history of technology through trade and craft displays. The future will require higher standards of curatorship if you are to continue to attract both public and professional support. You are a force in Australian museum development, and with effort you will continue to break new ground and lead the way in the exhibition of technological history.