Conserving "Big Stuff" – lessons learnt

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Abstract: This paper presents views formed by the author after the experience of conserving large technology objects and aims to encourage thought and discussion about some of the non-conservation aspects of large technology conservation projects.

The topics discussed include the preconceived ideas that may affect your project (both your ideas and those of other people), dealing with specialists, contractors and volunteers and looking at the way you use time in a project.

This paper aims to expand on thoughts that I have had looking back at large technology object (LTO) conservation projects that I have worked on. I have thought about how things turned out and I wondered about the things that I should have considered more at the time but never did.

As topics for discussion, they are based on personal opinion and are put forward as a part of LTO conservation projects that may not be always considered at the time.

The ideas that I have looked at have fallen into two groups: perceptions and resources. I have divided both into subgroups – perceptions into "the perceptions of others" and "your perceptions"; and resources is divided into "people" and "time".

Perceptions

The perceptions of others

A high profile, historically significant or otherwise "glamorous" project may attract people with their own agendas and previously conceived formed opinions, drawn from a variety of sources. A common misconception when dealing with historical material is that all the information about an object is already known and published (often in the popular press), and that such sources are reliable. Such is the respect that published works garner, that people can easily fall into the "if it's in a book, it must be true" school of thought.

As an example, the Messerschmitt Bf-109 belonging to the Australian War Memorial was identified as being a "G" model. One of the features of that model is the vertical leading edge of the rudder. The rudder on the aircraft at the Memorial, however, has a forward-facing counterweight at the top, which was a feature of other models such as the "E", but not of the "G". The classification of the model number was queried by several people, who quoted various authors and books, maintaining that a G-6 could not possibly have this shaped rudder.

What was not taken into account is the history of this particular aircraft. Basic information was obtained from the aircraft, such as the *werke* number, serial number and

engine number. From these numbers, the basic designation of the aircraft could be ascertained, and from some surviving manufacturing records, we do know that it was part of batch where significant modifications were being made to the standard model on the production line. Additionally we have contextual evidence on the aircraft such as the continuity of paint finishes and camouflage details across and between parts that would be considered standard and non-standard on the "G" model.

In this case, we can say that the authors of these "authoritative" works may not have been aware of this variation. Hopefully, now that this aircraft is on display and articles about it and images of it are becoming widely available, a footnote may be written in a revised version of the "authoritative" history to explain this anomaly. However, in the meantime, you need to deal with the effect that this information has on people's ideas.

Information you receive from people is motivated by a genuine, often passionate, attempt to help. Any misinformation that you are given is generally not a deliberate attempt to influence the way you work on the object; it is often a result of people repeating some widely held but unfounded myth or someone's much-beloved pet theory.

Another source of incorrect information or interpretations is the "everybody knows" school of opinion. For the person holding this opinion, their source of information could be themselves, their father, their friend, or often in an Australian context "a bloke in the pub". Additionally, this information is often accompanied with additional news that there is a long-standing military conspiracy to suppress it.

These views are often very difficult to deal with because critical thinking is not important and research is often disregarded in favour of a "what would you know?" attitude. This can be difficult to handle because of firmly held beliefs and the idea that what you are doing will damage or destroy this object. Sometimes views can be so firmly held that people will feel justified in going to the news media and this can generate a great deal of work trying to reverse negative publicity.

The main aim of this kind of course of action is that the project needs to be saved from you! The only way to deal with this is to have your research done thoroughly and interpretations clearly and logically argued. If you have cultivated the local news media and kept them supplied with accurate and up-to-date information, you may be able deflect negative opinion and the bad publicity that it brings. However this is not a given, and in my experience the news media are possibly more interested in running a sensational story than the factual (but boring) one you have on offer.

It is most unlikely that you will be able to change really firmly held beliefs. If you do vary your story, you will only reinforce that your position is incorrect. There is no one way of dealing with this, but I might advise: don't engage in disputation unless you have to (especially if you can see that there is an emotional component to the opposition to your view), disseminate your information where and when it may be an effective argument for your case, and treat people who disagree with you courteously and maintain your own dignity. Hopefully, if it can be seen that you treat other opinions with respect, you may gain some respect for your own.

Your perceptions

Once you have identified other people's perceptions, you should be in a better position to look at your own. Are your own ideas about your project reasonable and based on sound research and reasoning?

The preliminary phase of a conservation project often entails researching published material that refers to the object you are dealing with or others of the same type or vintage. While published material can be incredibly helpful in deriving information on the mechanics or on parts, as discussed above, information from "authoritative" works on the history and evolution of that vehicle or engine may not be applicable to your particular object – yours may not have had a similar history to others of the same vintage.

What you also need to be aware of is the course of thinking that the material that you read sets you upon. Emphasis on certain points of the object may lead you to give less weight to information that occurs elsewhere.

Continuing with the example of the Bf-109; faint, fragmentary graffiti was found in a hard-to-access area of the aircraft. A person who was thin and agile enough to access the area and could read German formed the opinion that it wasn't German, but possibly Russian. At this point, the attitude was "that's interesting", and we wondered if was possible that the aircraft had served on the Eastern front.

It wasn't until we were able to persuade two translators to don overalls and wriggle under the aircraft that we became aware of the full import of this graffiti. The inscriptions turned out to be in both Ukrainian and Russian. From preliminary analysis of the fragmentary inscriptions, we have a good idea of the age, gender, education standard and regional origin of some of the writers.

From pre-existing information, we knew that the aircraft went through a rebuild very late in 1944. This was confirmed by the various "recycled" panels that were used and the painted rebuild plant symbol on the exterior. What the graffiti revealed to us was that slave labour had been used on this particular aircraft. This discovery adds another layer of significance to this object.

From this example, you can see that information found on the object can cast a significantly different light on what you already know about that object and may prompt a re-think about how you deal with a particular aspect of that project.

Resources

People

These are some of my thoughts on two of the main groups of people who you are likely to be involved with on a large project – specialists and volunteers.

Specialists will include conservation staff but may also include such people as specialist object handlers or engineers, depending on whether you need to make assessments of supports or structural soundness. It's also likely that you will need the services of outside contractors for some tasks.

Large technology projects can have a very strange effect on contractors. They can become incredibly interested! Many people have commented that something like this is a refreshing change in the work they do; that they never thought that they would get a chance to be able to work on a piece of really interesting historical technology.

Interest can be piqued to the point of you being offered professional services for free or at a much reduced rate, simply because a contractor wants to work on your project. This can both be a blessing and a problem. With tight budgets, it can be very difficult to ignore the offer of free professional services.

In a case like this, select and make decisions with your contractors or providers of professional services as if they were a normal fee-charging service; should this person decide not to charge you, that is simply a saving on your budget. The matter of dealing with gratis professional services will probably require advice from your finance section. There may be some deemed value or some kind of official documentation required.

Another thing to consider if someone makes an offer of free services is the matter of professional liability and standards. The professional you deal with still must work to industry standard, no matter how much or little they charge and this is something that you may need to make clear.

Volunteers can be a great asset to a project, but like so many things, volunteer services need good management on your part to achieve a good outcome. If a volunteer has not worked before with you on a very similar project, you have to be prepared at the beginning to invest time in training, imparting knowledge and getting that person thinking the way that you want them to. Once they understand your needs and approaches, you are more than halfway there to getting them to work the way you want.

One of the fallacies often mentioned in connection with working with volunteers is that putting more volunteers on a project can get the job done faster. From my experience there is an optimum number that full-time staff members can support, while still doing their own work. Any more than that and the staff become teachers, finders of tools and supplies; anything but conservators. Generally that optimum number is quite small, perhaps a maximum of four volunteers per full-time person, although this number will naturally vary, depending on many factors including the experience of the people involved and the degree of skill need to carry out the tasks needed.

While volunteers can't replace staff, they round out the functioning of the staff and can add depth to the work that is carried out, and although using volunteers can be more complex than you originally expected, volunteers can also the greatest ambassadors for your project. Thorough networks of friends and family, they can engender interest in your project (and also your institution) resulting in good publicity, visitation to your institution and possibly also more volunteers.

Time

Time can be your most valuable resource, and in my view, possibly the most difficult one to deal with. From personal experience, I found it difficult to gauge how much time I needed to devote to a particular problem or task. My dilemma was trying to find an efficient balance between time spent managing the project and time spent actually working on the project.

The problem was not so much how much time could be spent on a particular conservation task; I was one of a team and there were others who could do it. My problem was how much time I could devote to "human" tasks such as helping someone improve their skills or coaching them with a problem. Often in the back of my mind was the question, "What sort of return is the project going to get for the time I spend here?"

I was willing to spend time early in a project on improving skills, knowing that this would lead to a greater number of people with better skills, able to work autonomously and to the required standards. My dilemma was often that I could see myself spending time dealing with a problem or an issue which I thought would make no apparent immediate contribution to the outcome of the project.

In retrospect, I think that it was probably a very short-sighted approach, as one can get very "results-driven" in a situation like this, especially as deadlines approach.

The other problem I had with time was maintaining momentum. Projects often seemed to have periods where, despite what seemed to be normal hours of work occurring each week, little seemed to be happening. Examining this at a distance, I can see that there were variations in output probably linked to the progress of each of the sections of the project. As a new section was wheeled in, there was the anticipation of something new to do, and lots of it; while at the other end, when a section was nearly finished, there was a tendency to do time-consuming fiddly jobs that caused little real difference.

The seasonal variation of the working year also affected the project. For projects that last a year or more, I should have allowed for the effect of staff holidays, long weekends and the December party season.

Conclusion

The bigger a conservation project is, the more likely it is to have many other non-conservation issues associated with it. Some include the ones discussed here: the issues of perceptions and resources.

A conclusion that I formulated from these thoughts is that the actual "hands-on" conservation is possibly the least of the things that will go wrong in the process of conserving an LTO, and that if you do commit to good research and management planning, a good treatment is a likely consequence.

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