Digitising

the Australian Aboriginal Material Culture Collection at the South Australian Museum

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In July 2012, the South Australian Museum commenced an exciting new digitisation project sponsored by Newmont Asia Pacific and the Department of Manufacturing, Innovation, Trade, Resources and Energy. The project aims to rapidly capture an image of each item held in the Australian Aboriginal Material Culture collection, with a focus on the secular objects, to help make the collection discoverable, to facilitate digital repatriation and to aid in collections management.

There are tens of thousands of objects in the collection. In March 2013, a team of skilled and dedicated volunteers was recruited to take photographs, process images to an archival standard and assist with the gathering of data about objects. Involving a team of volunteers has allowed this project to proceed at a rapid pace, and to date over 10% of the collection has been photographed and over 15000 images have been generated.

How the objects are photographed

Small Objects

These items are generally less than 1m in size and can easily be transported from the store to the established photography room. The room, as shown in Figure 1, is set up with:

- a Nikon D800 camera
- a salon stand to support the camera
- two studio flashes with soft box attachments
- a laptop with external monitor to operate the camera
- neutral grey background paper, supported on a roll
- photography scales
- equipment for creating in-shot labels and colour corrections
- a table for preparing objects for photography

Figure 1: The photography room and equipment

Two people run the photography room (Figure 2). One operates the camera via the laptop and records the image information onto paper as a method for tracking what has been photographed, the other handles the object, creates the in-shot labels and once the object has been photographed, records the information on a green tag (Figure 3) which is then attached to the object as a visual indication that the object has been imaged.

Figure 2: Digitisation project volunteers Samantha and Cassandra photograph an object

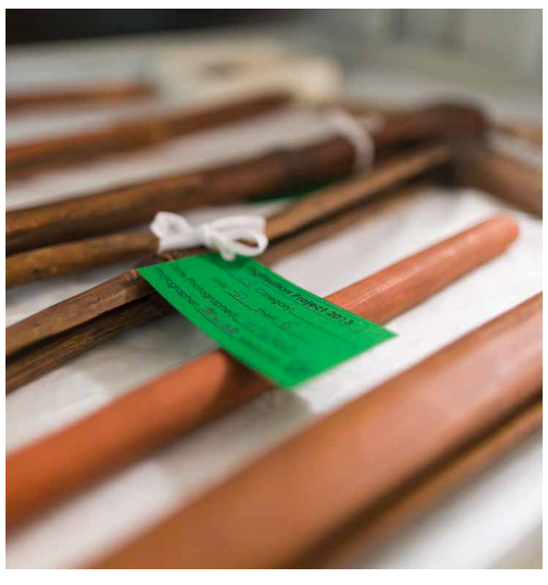

Figure 3: An object tagged with a green tag, indicating it has been photographed

Large Objects

The larger objects held in the collection include large canvases, canoes, spears and Tiwi poles. The large objects cannot be transported to the photography area so they are photographed in the store area by a volunteer photographer.

The space in the store room used for photography, as shown in Figure 4, is set up with

- white background paper
- two tungsten constant lights with an umbrella
- a tripod
- a ladder and safety steps
- Sony alpha camera with interchangeable lenses
- a scale
- a large grey card for colour correction
- a marker pen and scrap paper to create in-shot labels
- assorted paraphernalia for supporting objects

Figure 4: An area in the store room set up for large object photography

Two people assist the photographer by placing the objects into the frame of the camera and adding supports as required. The photographer adjusts the lights and takes the photograph. Once completed, the large objects are tagged with the same information on a green label as is used on the small objects. Large objects are photographed with the safety of the object and of the handlers as the priority. This means, in general, fewer images of each object are taken as often the back or underside of an object is very hard to access. Some items, such as the Tiwi pole collection, have been photographed in place as they are very difficult to manoeuvre and handle. In these cases, the background is then placed into the image using Photoshop (as seen in the text on processing the images). A compromise between fine detail, and safely and efficiently recording the object has been made to ensure each object is digitally recorded in an economical and secure way.

Settings and Standards

The objects are photographed using raw file format to allow colour correction and other adjustments to be made later.

Each object is photographed according to a set of standards developed by the Project Officer, Eleanor Adams. The set of shots that are taken for each object category are designed to capture the objects from the angles that will best record them without taking too many shots. Most object categories end up with five images, as demonstrated in Figure 5, which should capture most aspects of the object. Extra photographs of important details on the object are taken if required.

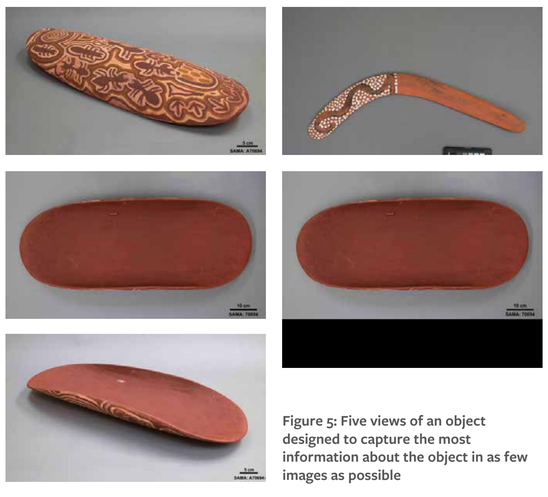

Figure 5: Five views of an object designed to capture the most information about the object in as few images as possible

How the images are processed

After the images are taken they are processed from a raw file (Figure 6) to a final polished image ready for release to the

Figure 6: An example of a 'raw' file straight from the camera

Figure 7: An example of a processed file

- Each image is tagged with metadata about the object, creators and rights associated with the image
- Each image has a tidy scale bar added (from the in-shot scale)
- Has its levels adjusted
- Is sharpened
- Has any imperfections in the background tidied up
- Has its quality increased (which in turn reduces the physical size of the image)
- Has the registration number of the object added to the image
- Is saved as a TIFF file
- Both the TIFF file and the original file are stored on the Museum's servers

Images from the large object photography area are processed in a similar manner; however, they often need extra work to improve the background, particularly if the object has been photographed *in situ*. Figures 8 and 9 show how the raw file, containing a number of poles and the light-head illuminating them, has been processed to just show one pole with the scale and registration number information from the raw file.

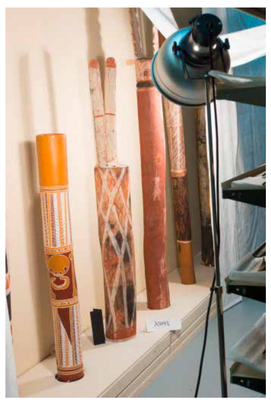

Figure 8: The raw file for A5043, the second pole in the shot. Note the black card acting as a scale and colour corrector and the registration number on a folded piece of paper.

Figure 9: The processed image of A5043 showing only one pole, the background replaced with white and the scale and registration information tidied up.

Outcomes

There are many uses for the images that are generated by the project.

- Images are linked to their record in the catalogue to help with object identification, management and conservation (Figure 10). The catalogue also helps keep track of the information about the

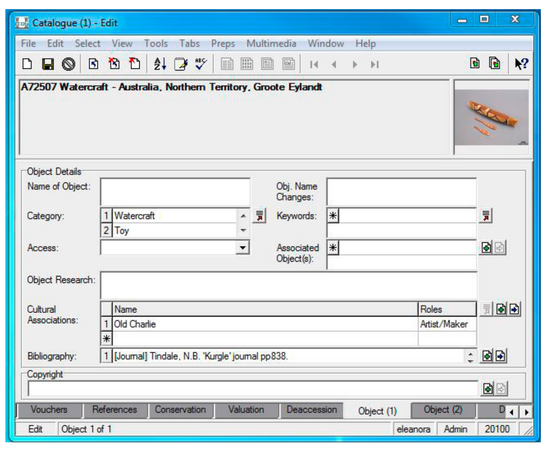

Figure 10: A screenshot from the catalogue showing the thumbnail image of the object and some of the information about the object that is recorded

- Images can be shared with Aboriginal and wider communities in many ways. Most recently a series of posters and a slideshow of images on an iPad were produced for the communities in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands using images from the project of some of the items held in the collection from their language groups (Figure 11)

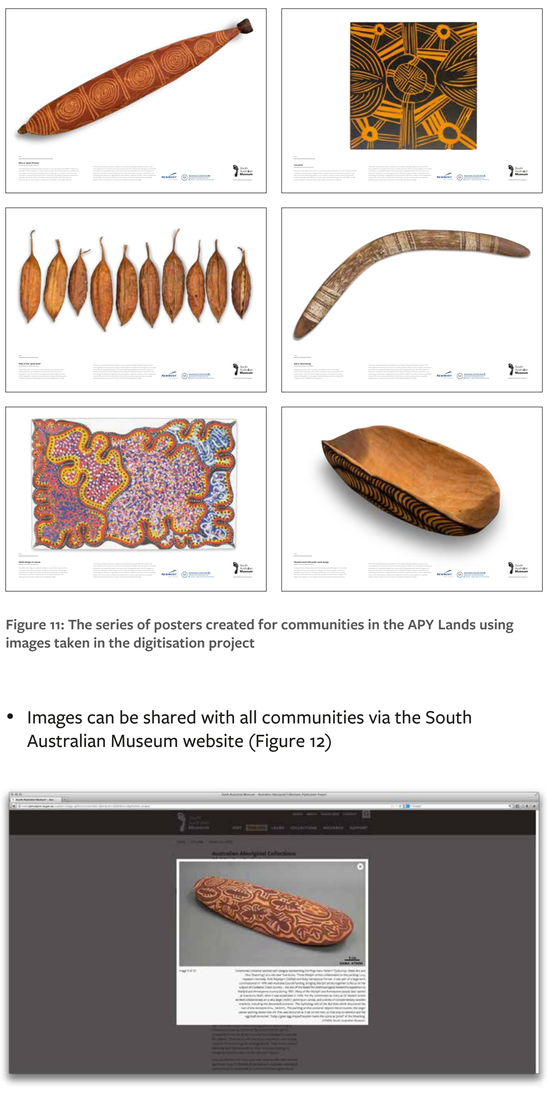

Figure 11: The series of posters created for communities in the APY Lands using images taken in the digitisation project

- Images can be shared with all communities via the South Australian Museum website (Figure 12)

Figure 12: A screenshot of the Australian Aboriginal Collections Digitisation Project Image Gallery on the South Australian Museum website

For more information on the project, scan the QR code or go to the website: www.samuseum.sa.gov.au

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