# Photographs in Western Cape Museums (South Africa): Protecting the National Heritage

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## Abstract

This paper reports on a pilot study that investigates the practices of storage, display, and reproduction of photographic artefacts in government-managed museums in the Western Cape Province of South Africa. Practices at three separate collections are compared, namely the Bensusan Museum of Photography in Johannesburg, the Duggan-Cronin collection in Kimberley, and the South African National Archives in Cape Town. This comparison is necessary to determine which best practices could be applied to preservation policies in the Western Cape.

The outcome of the pilot study will inform, inter alia, the formulation of a policy to preserve and digitise the photographic artefacts in Western Cape museums, as well as piloting a programme of digitisation at one museum. The Simon's Town Museum was identified as suitable for a programme of digitisation.

A survey among, and visits to museums identified common malpractices as well as good practices in the preservation and digitisation of historic photographs.

The author has begun a pilot digitisation project at the Simon's Town Museum.

## Introduction

A survey conducted more than a decade ago by Carstens (1994) to determine the quantities of photographic materials in South Africa drew 39 respondents nationally, among them museums, libraries and archives. The figures at the time indicated a total collection of 1120463 photographic artefacts, with the oldest dated 1840 and housed in the Africana Museum (now MuseumAfrica) in Johannesburg. The current status of collection numbers is unknown.

## The Laws and Reality

South Africa's 11-year old democracy boasts one of the more progressive constitutions in the world and it has made major strides towards the post-apartheid harmonisation of its diverse cultures and introducing legislation for protecting the cultural heritage.

The government passed legislation in 1999 to "protect the national heritage aiming to enable and encourage communities to nurture and conserve their legacy so that it may be bequeathed to future generations. It recognises that the SA heritage is unique, precious and cannot be renewed. The legislation helps to define SA's cultural identity and therefore lies at the heart of the nation's spiritual well-being and has the power to build the nation, and contributes to redressing past inequities. It educates, facilitates healing, material and symbolic restitution, and promotes new and previously neglected research." (National Heritage Resources Act, No.25 of 1999.)

#### The South African Heritage Resources Agency

The chief protectionist role is delegated to the South African Heritage Resources Agency (SAHRA) who have wide powers of management and policy development regarding the National Estate, including funding of research programmes. The National Estate is clearly defined by legislation and white papers to include buildings, land, landscapes and so on, and moveable objects including books, documents, photographic positives and negatives. (Moveable objects are generally incorporated into the National Estate if they are of cultural or historic significance and are older than 50 years.) However, at the time of writing the largest part of the activities of SAHRA was towards the preservation of historic buildings and land sites.

Correspondence by the author to SAHRA regarding photographic artefacts was directed to the Museums Technical Services who were supportive of the author's proposed project, facilitating a survey of museums and providing contact information.

## The South African National Archives

The South African National Archives are governed by an Act of Parliament (National Archives of South Africa Act, No. 43 of 1996.) The Act aims, among others, to:

- Preserve public and non-public records with enduring value for use by the public and the State;
- Make such records accessible and promote their use by the public;
- Ensure proper management and care of all public documents;
- Maintain a national automated archival information retrieval system.

The Cape Town section of the Archives is the main repository of documents and photographic artefacts in the Western Cape Province pertaining to the history of the region. Their electronic database is incomplete, and retrieval of photographic originals, housed in cardboard boxes, is dependent on manual searching of index cards and reference files containing copy prints.

Glass plate negatives are housed in a storeroom with no temperature or humidity control, but a  $CO_2$  fire extinguishing system is in place. Cellulose nitrate and cellulose acetate films are housed in the same room in wooden cabinets which the darkroom technician airs by opening the drawers daily to remove the "vinegar acid" smell. The technician carries no knowledge of the potential fire risk associated with these films.

There is currently no plan in place to digitise documents and photographs, and they do not own a scanner at the time of writing. Remote researchers can request to receive photocopied prints by facsimile. Local researchers can order resin-coated prints from the original negatives at a nominal fee.

# **Museums Survey**

A simple eight-point questionnaire was sent to 39 museums in the Western Cape under the auspices of the Museums Technical Services, to determine the following:

- Quantities of photographic artefacts;
- Whether or not originals are displayed;
- The way in which copies are produced for display;
- Level of knowledge regarding storage and handling of artefacts;
- Suitability of storage conditions;
- Extent of cataloguing;
- Extent of digitising;
- Level of knowledge regarding digitising.

Among the museums surveyed 21% responded. Few common practices were found and levels of knowledge and expertise varied regarding handling and storage of materials.

Findings suggested that:

- Knowledge of correct storage and handling of materials was generally good;
- Storage conditions were average to poor;
- Cataloguing was average to good;
- Extent of digitisation was extremely poor or nonexistent;
- Knowledge of digitisation was poor;
- Some museums displayed originals; and
- Photographic artefacts made up the largest number of items in all museums, but actual numbers were reported vaguely.

The author visited museums in the Western Cape and found malpractice caused by ignorance to be common. For example, in one museum copy photographs were stored in a cool dry concrete walk-in safe when not on display, while the original prints and films were stored in cardboard boxes in the attic where the summer outside temperature is commonly  $38^{\circ}$ C.

Further, in another museum original prints dating to 1880 were displayed. Some of these prints were glued onto mounting board, as well as attached by drawing pins, pins, and metal staples, as in the example below.



Figure 1. Original print from 1880 mounted with staples, pins and glue in the CP Nel Museum, Oudtshoorn.

Additionally, two curators expressed deep concern regarding Government's policy of affirmative action staff appointments where such staff was either unqualified or unconcerned with the wellbeing and future of a museum. A further area of concern is that the content of the various collections has insufficient material on communities previously disadvantaged by Apartheid.

# **Other Collections**

#### **Bensusan Museum of Photography**

This museum, founded in 1960, is currently housed in the large, modern MuseumAfrica museum complex in central Johannesburg. The complex was conceived as the first postapartheid museum in South Africa. The Bensusan is the only museum in the country dedicated solely to photography, with a collection comprising photographic equipment, books, and approximately 8000 photographic print and film originals. It includes an original copy of *The Pencil of Nature*, and a daguerreotype from 1840.

Prints and negatives are archivally sleeved, and stored vertically in steel cabinets. All prints and negatives are catalogued. Temperature is controlled by air-conditioners operating at approximately 24°C at the time of the author's visit. There is no special humidity control.

No digitisation programme is envisaged because of personnel and funding shortages.

## The Duggan-Cronin Gallery

The Duggan-Cronin Gallery makes up part of the M<sup>c</sup>Gregor Museum in Kimberley. It comprises 7282 negatives on glass-plate and flexible base. Taken by Alfred Martin Duggan-Cronin between 1919 and 1939, with the financial support of research grants and donations from the Carnegie Trust, the photographs represent a detailed portrait of African peoples and tribes throughout the Southern African region, before the Western influence drastically changed their lifestyles. Many of the smaller tribes no longer exist, having been absorbed by the larger ones. The photographs have long been referenced by historians and anthropologists because of the breadth and depth of the work.

Many original prints are on display in the gallery, while the negatives are stored in a separate building.

The collection is currently being completely digitally archived. This project has been undertaken by a specialist scanning and digital printing company, namely Scanshop, and managed by co-owner Ralph Ridge. At the time of the author's visit in October 2004 the project had been running for two years, with a further three years projected for completion. One of the outcomes will be to make the images available on the Internet. The project is driven by corporate funding.

Elizabeth Cooper is a full-time scan operator working on the premises. Flexible base materials are scanned on a drumscanner. The material scanned is chosen between the original negative, contact print, and enlargement, depending on what is available and will produce the best results. Glass-plates are to be scanned on a Heidelberg flatbed scanner. Ridge directs the scanning to produce digital images which are a meaningful representation of the photographer's original, not merely a technical record of the original.

Images are scanned to approximately 60Mb and saved, unretouched, on two CD's and two removable hard disk drives (HDD's.) The HDD's and one CD are stored in a fireproof safe on the premises, while the other CD is kept in the Scanshop archive.

The scanned images are then digitally retouched and stored in the same way.

The chosen format for all images is TIFF. Ridge is of the opinion that the TIFF file format is viable into the future as current versions of software such as Adobe Photoshop can still open TIFF files created in 1986, thus he does not consider file migration in the future to be a high priority problem. This opinion is in agreement with that of Quenault (2004.) Original artefacts are handled, restored and stored, with passion, by Robert Hart who was trained in archiving and restoration in France. All images are meticulously indexed. Hart decides on which original material is to be scanned for each image, in consultation with Ridge and Cooper when necessary.

Nitrate films are kept in a separate purpose-built metal walk-in storage container. The container is insulated with the temperature maintained between  $18-21^{\circ}$ C at a relative humidity of 45%, with a constant refreshment of filtered air. Steel racks hold the negatives, individually sleeved and boxed together. An early-warning fire-control system with CO<sub>2</sub> is fitted.



Figure 2. Nitrate film storage container of the Duggan-Cronin collection, Kimberley, showing the fire warning and CO<sub>2</sub> extinguishing system.

The Duggan-Cronin digitisation and restoration project represents the best practices of their kind found in South Africa by the author.

# Simon's Town Museum

## Background

The museum is located in the historic naval village of Simon's Town, close to Cape Town, on a popular tourist route. It was recommended as a harbour offering safe winter anchorage in 1687 by the Governor of the Cape, Simon van der Stel, and development began in 1743. Thus the village was witness to much of the history of colonial development in the (now) Western Cape, and a significant part of this is recorded photographically. Details of the museum's Phoenix project to record and preserve the multi-cultured history, together with a small selection of photographs may be viewed on the museum website http://www.simonstown. com/museum/stm\_pheonix.htm.

The photographic collection housed in the museum comprises approximately 10000 images with a broad mix of subject matter spanning well over a century, including photographs of the (second) Anglo-Boer War of 1898, and recordings of forced removal of people in the Simon's Town area during the Apartheid regime in accordance with a government policy implemented in 1955.

Whereas this museum, in common with most others in the Western Cape Province, receives approximately 25% of its running expenses apart from salaries from local government, it can draw on a large group of volunteer workers. They assist in fundraising and running the museum shop, as well as cataloging, filing, and the annual lecture programme.

Because of the high visitor throughput of the museum, and the enthusiasm of its curator, the Simon's Town Museum presented itself as ideal for a pilot project in image digitisation. The project carries the support of the Western Cape Museums Technical Services, and Cape Peninsula University of Technology.

#### **The Photographic Collection**

The film collection is stored in wooden cupboards, without ventilation or temperature and humidity control, which are considered the absolute minimum requirements for storage of photographic artifacts (Wilhelm and Brower, 1993). Fire control is by means of water hoses and portable fire extinguishers. This places a high priority on suitable digital preservation of the collection.

Negatives, both glass and flexible base, are sleeved in either polypropylene or alpha-cellulose material. 35mm Colour transparencies are mounted without glass and stored vertically in multi-pocket sleeves. All sleeves and transparency mounts are numbered according to the indexing system. Image metadata is recorded in analogue format.

Glass-plates are boxed together and stored horizontally, as are the flexible base materials. It is currently unknown to what extent the collection contains cellulose nitrate and acetate negatives, but there are detectable acidic gases in some filing drawers. The author found several negatives displaying the bubbles and channeling typical of levels 5 and 6 acetate film-base deterioration (Fischer, 2003.) The curator has been tasked to separate these negatives from the rest of the collection for storage in a ventilated metal cabinet. These negatives will receive priority in the scanning programme.

Whereas it is well known that cold-storage is the best long-term storage solution for photographic artefacts (Wilhelm and Brower, 1993), the current funding of the museum does not permit this.

## **Image Selection for Digitizing**

The curator selected images for the pilot scanning project based on local community interest with extra emphasis on images relating to communities previously disadvantaged under Apartheid. Thus the images include minstrel parades, naval recreational activities, fishing and sharks (the local ocean is well-known for its massive greatwhite sharks), labourers' informal dwellings, and one photograph of a woman who, at the time of photographing, was allegedly the last living slave freed during the abolition of slavery in 1834.

Additional pictures are more current and of normal family activities. The motive for their inclusion was to encourage more community interest in the museum.

The digitizing programme will be expanded on an ad hoc basis because of the pressures of other duties by the curator and the author.

#### **Image Scanning and Saving**

Because the museum did not possess a film scanner the author supplied a flatbed Epson Expression 1680 48-bit scanner with an optical resolution of 1600dpi. All digital files were produced by scanning into Adobe Photoshop 8 through Silverfast software.

All images were scanned at or below the maximum optical resolution of the scanner to produce file sizes typically between 20-25Mb, in order to permit print sizes at 300dpi of approximately 36 X 50cm for monochrome, and 20 X 30cm for colour.

Images were saved as uncompressed IBM PC TIFF files. ICC profiles are 20% dot gain for monochrome images, and Adobe RGB (1998) for colour. These files are stored on three different CD's and three different hard-disks at different locations. File formats and storage media are being monitored for the necessity of migration as international trends emerge.

#### **Display Prints and Electronic Dissemination**

Despite the cost of inkjet printing being higher than conventional photographic prints (Meyer, 2003), this medium was chosen for producing display prints because of the control and immediacy it offered the author in consultation with the museum curator.

All prints were made using Epson products: Stylus Pro 2100 and 7600 printers, Autochrome pigment inks, and Archival Matte paper. This combination is expected to give a print life in excess of 100 years under normal display conditions (Wilhelm, 2002.)

The first exhibition has been planned for September 2005 and will comprise 50-100 prints, generally on A4 paper, with key images on A0.

The intention is for images to be placed on a Web photo-gallery for free downloading. This sub-project currently carries a lower priority than the print exhibition because of the very low Internet access among previously disadvantaged communities. World Wide Worx (2003) cites Goldstuck's statistic that Internet access was available to one in thirteen South Africans at the end of 2003.

#### **Expected Outcomes**

One of the desired outcomes is to generate interest in heritage preservation and museum activity among the previously disadvantaged community. This is in accordance with the spirit of the National Heritage Resources Act. A further desired outcome is for the success of the pilot project to be communicated to Government in order to obtain funding for further research. This will only be possible if the direction of the project is specifically towards expanding and preserving the visual record of the community groups previously disadvantaged under Apartheid.

It is also hoped that post-graduate students in the fields of photography, library science, archiving, and information technology may become interested in the photographic collection of the Simon's Town Museum as a research project.

The final outcome desired is the recognition by Government of the importance of digital archiving, and the formulation of policy in this regard for implementation throughout the country.

# Conclusion

It has been shown that despite clear legislation to protect photographs within the National Estate of South Africa, the practices show severe shortcomings, except where independent funding has been be brought to a preservation project.

It has further been shown that there is a wealth of photographic artifacts in the country, many in dire need of protection, and that this protection will only come about with the support of both Government and the previously disadvantaged communities. The pilot digitisation project at Simon's Town Museum should prove to be step in the right direction for Government and community acceptance, and the formulation of national policy for digitisation of photographs within the National Estate.

## References

- 1. Carstens, A. Unpublished research. Stellenbosch. (1994).
- Fischer, M. A Short Guide to Film-base Photographic Materials: Identification, Care, and Duplication. Andover, Northeast Document Conservation Center. http://www.nedcc. org/leaflets/nitrate.htm (2003).

- 3. Meyer, I.A.C. *The Life and Cost of Inkjet Prints Compared with Traditional Photographic Processes.* Thesis for the degree of Master of Technology: Graphic Design. Cape Town, Peninsula Technikon. (2003).
- Quenault, H. VERS: Building a Digital Record Heritage. (April 20-23, 2004). San Antonio, Texas. IS&T Archiving Conference, Final Programme and Proceedings. The Society for Image Science and Technology (IS&T), p 3.
- 5. Simon's Town Museum Website. http://www.simonstown. com/museum/stm\_phoenix.htm (2004).
- 6. South African Government. National Archives of South Africa Act, No. 43 of 1996. Pretoria. (1996).
- South African Government. National Heritage Resources Act, No.25 of 1999. Pretoria. (1999.)
- Wilhelm, H., and Brower, C. The Permanence and Care of Color Photographs: Traditional and Digital Color Prints, Color Negatives, Slides, and Motion Pictures. Grinnell, Preservation Publishing Company. (1993).
- Wilhelm, H. How Long Will They Last? An Overview of the Light-Fading Stability of Inkjet Prints And Traditional Color Photographs. (February 20-21, 2002). Orlando, Florida. IS&T's 12<sup>th</sup> International Symposium on Photofinishing Technology, Final Programme and Advance Printing of Paper Summaries. The Society for Image Science and Technology (IS&T), p 33. Downloaded from http://www.wilhelmresearch.com
- World Wide Worx. *The Goldstuck Report: Internet Access in South Africa 2004*. http://www.theworx.biz/access03.htm (2003).

# **Biography**

**Irvine Meyer** is the Senior Lecturer of Photography in the Faculty of Engineering at Cape Peninsula University of Technology in Cape Town, where he completed his Master of Technology degree in 2003. His prime duty is in training professional photographers. He acts as quality adviser and moderator to several photographic educational institutions in South Africa. His research interest is in the field of image permanence.