The McGregor Museum's Photographic Collections with a special emphasis on the historic negatives.

The title of this talk refers to collections. This is because it is I think easier to deal with the subject by referring to the separate collections that make up what is generally called the McGregor Museum's Photographic Collection.

It is made up of widely differing subject matter the common denominator being of course that it is all image-based (visual media). Originally the Collection consisted of just the historic photographs collection (for want of a better name). It was begun relatively recently in the history of the Museum which celebrates its centenary in September next year. Miss Nancy Tietz and Mrs Ena van der Walt started the collection in 1970. It consists of historic views relating to the discovery of diamonds, the development of the diamond mining industry and of the town of Kimberley itself from a dusty mining camp into a more established urban landscape. Apart from these photographs there are numerous images depicting buildings, personalities and social life such as weddings and the visits of prominent personages to Kimberley.

Another focus of this core collection is a purely inward-looking one to preserve photos relating to the life and activities of the McGregor Museum itself. The buildings, displays and exhibitions and the staff of the Museum are all preserved for posterity. These photographs are an important resource for staff members who utilize them in annual reports and the like. It is possible to look back over the 100 years of the Museum's existence in terms of visual history because of the images kept in this collection.

I would like to mention one specific collection within the historic one. This is the Lardner- Burke collection. It consists of colour slides taken from the 1950s to the 1970s a time when a large number of Kimberley's historic buildings were demolished. The views were taken either shortly before this was done or indeed during the process. This collection is an invaluable record of the earlier fabric of our city. It is apposite here to mention that the bulk of our collections were donated.

At the present time the Collection has expanded dramatically due to a policy of consolidation. The Duggan- Cronin collection of which I shall go into greater detail shortly now falls under the Photographic Collection. For many

years it was treated as part of the ethnographic collection. A great deal of the material is ‘ethnographic’ (anthropological) but there is much else which is not and this is also of interest. Duggan-Cronin was not merely an ethnographic photographer. To view him as such does a disservice to the man. It is far better to consider the entire body of his work and look at it as an artistic and documentary collection. It is only by doing so that one can obtain a full and balanced view of Duggan-Cronin and his work.

It will be useful to give a brief biography of Alfred Martin Duggan-Cronin. He was born on 17 May 1874 at Innishannon, County Cork, Ireland and was educated at Mount St. Mary’s College, Derbyshire, England. In 1897 he came out to South Africa and in Kimberley began a career with De Beers which only ended with on his retirement in 1932. His first camera a simple box one was purchased in 1904. The first of his many expeditions took place in 1919 when he went to the Langeberg to photograph the San living there. In the period between the wars Duggan-Cronin travelled some 128 000 km making at least 18 expeditions to photograph the people of southern Africa. The travels took in landscapes as varied as the verdant river area of N. Rhodesia and the dry sands of Bechuanaland. Duggan- Cronin died in August 1954 and is buried in Kimberley which he considered his home.

Let me now mention Duggan- Cronin’s other photographs. There are his early still-life pictures of flowers and animal studies including ones of poultry and horses. Then there are geological photographs taken for De Beers and portraits of Kimberley personalities and visitors to the Duggan-Cronin Gallery. The campaigns in German South West and East Africa (during the First World War) in which Duggan-Cronin participated are well documented by him. Not to be forgotten either are his studies of the Cape, Johannesburg and Bulawayo taken in the period 1906 to 1914 and his albums of photographs from trips in Europe.

I have gone into some detail about the Duggan-Cronin collection because it is the one partly made up of historic negatives and in many ways unique. Mention however must be made of two more important collections of photographs housed at the McGregor Museum. They comprise the works of Aubrey Elliott and Jean Morris. In some respects their collections can be seen as a continuation of Mr Cronin’s studies. Elliott worked mostly from the 1960s to the 1980s concentrating on the Xhosa and the Zulu. Jean Morris

had a similar focus and worked in roughly the same time frame as Elliott. She also took many floral studies.

The images in the Collection comprise a number of different kinds. There are vintage prints of various sizes some mounted and some not. Included amongst these are cabinet cards and stereographs. Some of the prints are in their original albums and there are also a large number of postcards. There are modern colour prints, colour slides and transparencies. The negatives comprise of glass plates, nitrates and safety film. There are also copy positives. The extra-large vintage prints are numerous and from a point of view of storage takes up the most space.

The Museum has a collection of paintings which by default or otherwise fall under the photographic collection at present. Prominent among these are a collection of watercolours painted by Bishop Wilfred Gore- Browne the first bishop of the diocese of Kimberley and Kuruman. There are also cine-films. For this reason one might refer to a Pictorial Africana Collection rather than just a photographic one. Perhaps one could call it a Visual Collection or a Collection of Visual Media.

At the present time the Collection is housed in a wing completed in the early 1990s attached to the Sanatorium building of the Museum. The space is somewhat limited due to the continuing growth of the Collection. Soon however it will move across to the Duggan-Cronin Gallery where a special storage vault has been constructed. This will be an improvement on the current one as it has more space and a form of temperature control. The offices will be in the service wing of ‘The Lodge’ built in 1889 now the Duggan-Cronin Gallery.

Let us now turn to the historic negatives already briefly mentioned which comprise an important part of the Duggan- Cronin collection. They are gelatine dry plates and cellulose nitrates. The former present far fewer problems than the latter.

Gelatine dry plate negatives were in use on a large scale from the 1880s until the 1930s. The process was the basis of almost all modern photography prior to the advent of the digital age. The earliest attempts at using the process were made in 1868 and 1871. In that year Dr R.L. Maddox suggested that an emulsion of silver bromide in gelatine could be coated on to paper or glass. Various improvements were made and by 1880 the process had virtually

replaced the wet collodion one for glass plates. The negatives consist of glass coated with a gelatine layer. The silver bromide image is contained in the gelatine. Sometimes the conditions under which the plates were made were not ideal (ie not as clean as they should have been) and the skills of the persons making them were variable resulting in discolouration and other imperfections which are not the result of deterioration over the years.

These dry plates are quite stable and do not present a danger. They should ideally be stored in conservation enclosures either vertically or if boxed flat on steel shelves. The most problematic aspect of glass plates is their weight and fragility. The images do show signs of deterioration such as silver "mirroring" (tarnishing) which happens because of oxidation and the formation of silver sulphide in the gelatine layer. As with other photographs a storage environment with a constant mean temperature will slow down deterioration. The plates are easily scratched and must be handled very carefully.

Kimberley is a place of extremes though fortunately the usually dry climate is less harmful to the negatives and prints than a wet one such as at the coast where there are problems with mould. Problems associated with damp areas are therefore happily not encountered in Kimberley. On the other hand one of the most evident problems to be combated is dust.

Cellulose nitrate negatives altogether present more of a headache than glass plates. They were in use for an extended period from about 1889 until the late 1940s. A nitrate negative consists of a gelatin binder layer with a silver image on a cellulose nitrate base. Cellulose nitrate or celluloid an early form of plastic invented in 1861 by Alexander Parkes was originally called Parkersine. It was used to make billiard balls and men's shirt collars among other things. Celluloid was first used to make sheet films in about 1888. J. Carbutt of Philadelphia was responsible for doing this.

In 1889 Kodak's first commercial photographic film on transparent cellulose nitrate was produced. Initially the film supports were manufactured from 'dopes' of cellulose nitrate dissolved in wood alcohol, solvents and a dry gelatine emulsion. The image was of silver. The evaporation of this liquid left a thin transparent cellulose nitrate base. The early supports were extremely brittle but after refining of the process this problem was remedied. Cellulose nitrate film had two great advantages namely flexibility and lightness. Unfortunately its other qualities were ultimately to prove to be its

downfall. At first only roll films were manufactured but from 1913 sheet films were also made.

In the 1930s cellulose nitrate film was gradually phased out but was still being used after World War Two. Any film negatives made prior to 1950 could be nitrate- based. It is not always easy to determine whether or not negatives are nitrates. They do give off a characteristic smell as they deteriorate which you will recognize if once you know it. Some are easy to identify as they are labelled as such eg Nitrate Eastman House- Kodak. There is a test which can be done to negatives to determine if they are nitrates.

Nitrates are inherently unstable and will eventually decompose completely resulting in the loss of the image. Nitrogen dioxide is given off and moisture in the film converts this to nitric acid. The support becomes brittle and the acid attacks the silver image bleaching it. Items in proximity to the decomposing nitrates will be affected by the gases given off by them. The negatives are inflammable and can self ignite if the conditions are conducive to this happening.

Fortunately most instances of fires caused by nitrate film involved roll film such as that used for cinematography. However sheet film is also dangerous and may self-ignite if packed in large numbers in sealed containers, if it is in an advanced state of decomposition and or stored at temperatures that exceed 38 degrees Celsius for prolonged periods of time.

The Duggan- Cronin collection comprises over 3000 nitrate negatives. For many years these were kept in card boxes on wooden shelves in a room in the Sanatorium building of the Museum. Stored with them were the glass plates and some safety film. In some cases all three were stored together in the same box. It was only in the late 1990s that the Museum staff was made aware of the potential danger posed by this situation.

The first thing that had to be done was for these various negatives to be separated and the nitrates removed to a location remote from the Museum’s library and other collections. At the same time the negatives were placed in acid free conservation envelopes and then in special boxes. All the while the person/s doing this had to wear a special mask and latex gloves. A number of the nitrate negatives had to be destroyed as they were beyond saving. In

some cases they had literally “melted” together. The fire department was called in to dispose of these dangerous negatives.

In 2001 the Museum took delivery of a specially adapted container sponsored by De Beers Consolidated Mines Limited. It has humidity and temperature controls as while as a safety system whereby if smoke is sensed the container will fill with carbon dioxide within seconds. The temperature is maintained at between 18 and 20 degrees Celsius while the humidity is set at 45 percent RH. This does not stop the nitrates housed within from deteriorating but does halt the process considerably.

It was regrettable that some of the nitrate negatives were lost as in some cases they were probably the only copies of certain images in existence. Fortunately the bulk of the collection has prints.

The value of the negatives and the fact that they deteriorate over time was recognized in the 1960s by staff at the Museum. What was not recognized was the danger the nitrates posed. It was realized that copies of the original negatives should be made before they deteriorated further. Discussions were conducted with various photographic firms to find out what the best course of action would be to make copies of the negatives both plates and nitrates. It was decided to take up Dr A.D. Bensusan’s offer to copy them.

He was in charge of the photographic laboratory of the Department of Medicine at Wits University and a keen photographer himself. Dr Bensusan wrote the book ‘Silver Images’ about the history of photography in South Africa.

In 1964 and 1965 copy positives were made of all the ‘ethnographic’ negatives. The work was done at Wits by two of Dr Bensusan’s technicians under his supervision. These copy positives have proven to be invaluable especially in the programme of digitizing the Duggan-Cronin collection. This was started in 2004 and is being undertaken by a Cape Town –based firm in conjunction with the McGregor Museum. The copy positives are in many cases in a better condition than the original negatives and so have been the chosen images for scanning. However there are instances when a copy positive did not exist and in these the original negative was used.

I hope this talk has given you some idea of the history and content of the McGregor Museum's Photographic Collection. And also something of what is involved in caring for it particularly the historic negatives.

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