Looking at photographs
the image or the object

Yola de Lusenet

paper presented at University College London 24 April 2003
I am very pleased and honoured to have been invited here today. I plan to tell you something about photographic collections, in particular about issues concerning their preservation and digitization. I have been involved in a project about preservation and digitization of historical photographic collections, SEPIA, for almost 4 years now, and I hope to make this a bit of a personal tour of discovery, about what I learned during this project. First of all, by way of introduction, let me take you on a trip – a little trip I make every morning on my bike when I go to work, and a trip back in time.

These photographs date from around 1900. They were made by a Dutch painter, George Breitner, who worked for years in the area where I now live.

Although Breitner is a famous painter, at least in The Netherlands, these photographs were only rediscovered more or less by chance in the Municipal Archives of Amsterdam in 1995, where they had probably been for about 50 years without anyone realizing this. It is a collection of about 260 glassnegatives. That they were made by Breitner could only be deduced from the fact that they are very much like other photographs of his, for these glassnegatives were not described at all. As often happened in archives, these photographs were taken in as documentation of the city. In the 1940s or 1950s in such cases registration, if it took place at all, would often cover only the topic of the images, streetnames, names of buildings etc. The name of the photographer was not usually recorded for such documentary collections.
As a painter, Breitner was quite reticent about his photographs because working from photographs for artists was rather suspect. The interaction between his painting and his photographs has often been noted. At that time, however, it was felt that an artist should present an original vision, and by using photographs, painting would become mere copying. Breitner took a different view; in a letter he wrote to an art dealer he says: ‘Indeed, I use photographs. It is impossible to make such things without the help of photographs. How would I make an Amsterdam street? I make notes, perhaps a study from a window, and a sketch for details, but the selection, the composition is still mine’.
The same arguments Breitner uses to defend his painting, that it was his own selection and composition that made them into creative works, have often been used to show that photography itself is a creative process.

But it was the ability to record accurately and objectively, to present reality as it is, that made such an impression when Daguerre’s invention of fixing images on silver plates was first presented to the world in 1839, which is usually regarded as the year of birth of photography. Dominique Arago presented a report on the many possible applications of photography, in which he stressed that daguerrotypes would be a great help to painters because of their detailed precision and rich tones. But Arago saw numerous other possibilities for photography. He described how daguerrotypes could be used for instance to copy the hieroglyphs on the Egyptian temples and to document historic monuments. He compared the invention of photography to that of the telescope and microscope, of which at the time of their first invention no one could have foreseen how they would, once they had been perfected, disclose unknown worlds. Arago had similar high hopes for photography in this first report ever on its practical use and already suggested that daguerrotypes could be made of the moon – which was indeed done, the next year by Draper (30 min exposure) and 11 years later by the American Whipple.

We are now continually bombarded with images on all sides, and it has become impossible for us to imagine a world without photographs, in which the only way to record people, things and events was drawing or painting. It must have been a real revolution to be suddenly able to see things as they were, in an image ‘produced solely by the action of light without any help from the artist’s hand’. These are the words of Fox Talbot, who invented the other process that marks the birth of photography: the negative-positive process and the calotype. It must have been such a shock and a revelation to be confronted with this direct reflection of reality.

John Adams Whipple
Moon,
taken at the Harvard College Observatory, 1852
Daguerrotype
© Harvard College Observatory (OB-7)
The possibilities seemed endless, and especially the early years of photography tell an amazing story of heroic struggles to overcome the limitations of technology. One of my favourite examples of photographic heroism is the story of Auguste Bisson who undertook several expeditions in 1861-62 to climb the Mont Blanc and photograph its peaks. Mont Blanc had been conquered only in 1786 and was difficult to climb, especially with the mountaineering equipment and experience available at the time. Bisson used glass plates and the then modern wet-collodion process. The problem with the collodion process was that the plates had to be prepared right before exposure with a fluid mixture that contained the light-sensitive silver salts. The photograph had to be made while the plates were still wet and had to be developed immediately. So it was not as if Bisson was sauntering up the mountain with a little light-weight equipment, far from it. The glassplates had to be handled with great care, they were about 30 x 40 cms and very heavy. The camera for exposure of plates of this size was a bulky solid box.

And Bisson had to drag along a load of chemicals for preparing the plates as well as a complete darkroom for developing them. For this expedition about 25 men were needed as porters and mountain guides.

Bisson had to climb the mountain three times before he succeeded. He was defeated twice, in 1859 and 1860, by snow and strong winds which made it impossible to work. The third time he managed to make three photographs, only three!, -and the next year another six.

When you consider how hard it is make photographs of snow landscapes, the simplicity of cameras and lenses at the time–exposure was done by removing the lens cap, there were no blade shutters-, the difficulty of the collodion process which required 18 distinct steps, nothing automatic, no light meters, and then to work under these conditions, the result is magnificent.
Not that it brought Bisson a lot of luck, for a couple of years later his photographic studio went bankrupt.

One of the things that impressed me while working in this project, is how beautiful many old photographs are, in spite of the by our standards primitive technology. And there is this desire to conquer the whole world with a camera, this drive to explore the potential of the technology, and all the new lines of activity that the new medium brings.

Photographers swarmed to every corner of the world to record monuments, landscapes, events and people. Photography was used in geological surveys of unknown regions, and it was employed for ethnographic documentation of people in exotic countries. In a time that was given to exploring and collecting and classifying all manner of things, it was felt to be an ideal medium get a hold on the world in what was felt to be a scientific way, capturing things mechanically and objectively, as pure data. Several photographers travelled through the Middle East to document monuments from a scientific perspective and also record hieroglyphs, as Arago had proposed in 1839.

Maxime Du Camp, *Thebes. Palace of Karnak. Pillars in front of the granite sanctuary* ca. 1850 salted paper print © George Eastman House

Francis Frith *Interior Hall of Columns, Karnac* ca. 1857 print ca. 1862 © George Eastman House
In the course of the 19th century more people could afford to travel and the tourist trade grew, which led many photographers to set up their business in places visited by tourists that sold photographs of the pyramids or of Roman ruins to travellers, to take home as mementos.

One of the photo enthusiasts who experimented with new applications of photography was Nadar, who experimented very early on, in 1861, with artificial light. He used electric light powered by 50 batteries stored on the pavement above to make photographs of the catacombs in Paris. (FRIZOT) He was involved in a project to use microphotography during the French-German war in 1870, to use carrier pigeons to fly microfilms out of Paris over the enemy lines to keep up communication with the world outside. At the same time Nadar also ran a postal service with hot air balloons—the first airmail. His involvement in ballooning and photography had led already in the 1850s to the idea of making aerial photographs for cadastral surveys from a hot air balloon. His balloon had a complete mini-darkroom built in its basket for processing the collodion plates. (Félix Nadar, Toen ik fotograaf was, hoofdstuk 5,6 en 10. Arbeiderspers, Amsterdam, 2000)

For the first 50 years or so photographs could not be reproduced in print, together with text. Only at the end of the 19th century screens were introduced to break up the continuous tone in photographs into a pattern of black and white dots to suggest the various tones of grey, and this made it possible to print photographs in newspapers and magazines. This innovation went hand in hand with the development of easy to use rollfilm and new, light cameras. Together these innovations were a boost to the use of photography, opening the way to new applications, especially in the press, which led to the rise of photojournalism, fashion photography and all kinds of commercial photography that dominated the media in the 20th century.

A hundred and sixty years of photographic activity has resulted in a rich collections of immense importance for our understanding of recent history. Cultural institutions are faced with the task of keeping this photographic heritage for the future, and that is truly a titanic struggle. Before we started our photography project, called SEPIA, Safeguarding European Photographic Images for Access, we had done a survey about preservation and digitization of these collections in European institutions. The results of this survey were the basis for the project we developed.

What appeared first of all was that institutions hold enormous numbers of photographs, and that many of them are so old that their preservation is a real concern. The numbers presented here
are based on the responses of 140 institutions only, so this is just a fraction of the total photographic heritage. It should also be borne in mind that photographic collections are not always well documented, and institutions often have more photographs than they realize, because some of the material has not been properly described. The Breitner story I mentioned at the beginning is a case in point.

The many years of experimenting with different techniques to come to an easy to use and stable process also have had their effects for the collections. Most include a wide variety of processes. In total our respondents mentioned 40, which is again a figure that needs to be treated with some reservations. It is not easy to identify photographic processes, and they can be classified in different ways. You can start from the carrier: glass, paper, film, metal for instance. You can distinguish positives and negatives, or transparencies (negatives and slides) and prints. But then there is still the chemical composition of the emulsion layer and the light-sensitive component which cannot always be determined with certainty. Moreover, photographs were often toned, with gold for instance, to give them an overall colour and increase their permanence, or they were partly hand-coloured, which adds another factor to the chemical complexity of the materials.

Many photographs are inherently unstable. The chemical reactions by which they were created may continue after processing, and most are sensitive to light. This is also the case with modern processes, for instance the early colour processes are notoriously unstable, as you probably all know from family albums with green or red pictures that were once colour photographs. The emulsion layer may crack or become unstuck, especially under the influence of fluctuating temperatures or humidity. All sorts of pollutants affect the stability of film and prints. Nitrate film, which was the rollfilm used until about 1950, is highly inflammable; its successor, acetate film, suffers from a form a degradation called ‘the vinegar syndrome’. When you enter a storage room and you smell vinegar, you know there is degrading acetate. And photographs suffer a lot from handling, fingerprints may affect the emulsion layer, they tear and crack easily. Some examples.

Adding up all these factors: the value of the materials, the number of photographs institutions hold, the complex physicochemical make-up of the many different processes, the instability of the material, the risks of handling –it is clear we have a preservation problem of the first order. It is impossible to preserve everything forever in its original format, because these materials will
decay, and their decay cannot be arrested, merely slowed down. As the number of specialized photographic conservators is small - even institutions with in-house conservation facilities and large photographic collections do not always employ someone trained as a photoconservator - and the collections are vast, what can one do?

Photographic collections are not only collections of objects, they are also collections of images. It is characteristic of collections in archives and libraries that they have been brought together for what they say as much as for what they are. What is important about a photograph depends on many criteria and is different for different institutions. Unique vintage prints made by a famous photographer are essential objects for art history. For a collection that illustrates the history of photographic processes, a photograph may be an important object for technical reasons. A technically mediocre photograph that documents a historical event is important primarily for its content. Quite average photographs collected in an album have a cultural-historical value because they tell us what was considered worthwhile to collect in former times. If Breitner’s photographs had been made by someone else, the originals would not have had the same value, perhaps no particular value at all, for instance if there were dozens of similar pictures around.

Deciding the importance of collections is a thorny issue, the more so as the interest in things changes with time. We cannot know what will be considered important in 50 or 100 years from now on. But we cannot altogether avoid the issue either. Huge collections have to be preserved with limited resources, and to achieve as much as possible, inevitably some judgement will have to be made as to the relative importance of things and to determine what their value primarily consists in. Not only to set priorities for preservation, but also to balance preservation of materials and access for users. For the paradox is that preservation of photographic collections would be greatly simplified if we could keep them out of the hands of users. Put them in a vault at low temperature, or in a deepfreezer even, lock the door and throw away the key, and they will outlive all of us. But just keeping collections is not the point. A collection of frozen photographs may survive but there’s being alive and being alive. Cryogenics may be a wonderful way to survive into the 22nd century but you only start to function again when you’re defrosted.

Sustainable management of photographic collections would entail a combined strategy for preservation and use, and so it pays to consider what it is about a photograph that we need to
keep. Does the value lie in the object or in the image? If the original photograph is a unique item with a symbolic value, obviously the object itself must be conserved. As conservation is specialist, time-consuming work it can save only so much. Preventive measures, such as controlling the environment, stabilizing temperature and humidity, air purification, adequate storage and packaging benefit the whole collection and are the most cost-effective approach for extending the useful life of originals. If the images are important rather than the objects, it can be an option to keep them out of the hands of users by providing surrogates. This is regular practice for material that is important for its information value, books and documents have been microfilmed for decades. For photographs the only option has always been to duplicate the originals photographically, which is not cheap. But now a new player has entered the stage that dominates the scene: digitization.

I need not remind you that in the present political climate access to heritage collections is on everybody’s agenda, and that digitization to most people appears the key to increasing access. What it does for preservation is less clear. We started the SEPIA project to explore the relationship between digitization and preservation of photographic collections because we felt the gap between these two aspects of collection management needed to be bridged. We organized expert meetings and training workshops to discuss these issues. We have brought together experts from libraries, archives and museums, and together tried to come to a better understanding of the role of digitization. The project will end this year with a final conference in Helsinki.

It is often said digital images are not the same as photographs and that digitization doesn’t help to preserve the originals themselves. This is true, and yet it is also true that if you are committed to keeping original photographs, you must support digitization. For one thing because it keeps the users from the door and happy at home behind their computer screens and it keeps your collection safe in storage. By producing a digital clone you can even go for the cryogenic approach and deepfreeze your originals without condemning them to a useless comatose existence. This is more relevant even for photographic collections than for printed materials because photographs are on the whole much more vulnerable.

The other reason why digital imaging has such an impact for photographic collections, or visual collections for that matter, is that so much of this material has long been hidden. One reason is that in many institutions the photographic materials, even if they were numerous, were never the
core of the collection. Sometimes photographs were kept with other documents, especially in archives, and it could be difficult to retrieve them. Access is further complicated by the lack of adequate and precise descriptions, for of course it was never possible to describe millions of photographs item by item. To locate a specific photograph one often has to check through boxes and files of material, which is not only time consuming but also brings with it risks of improper handling and misplacement.

In digitization projects, the lack of descriptions is often a stumbling block, but fortunately we are dealing here with visual materials that we can see. If we can view a number of images on a screen, it is a matter of seconds to select what we want. Images are so quickly processed by our eyes and brains that it is not necessary to describe them in every detail. So a collection of digital images is always an enormous step forward in terms of access and use, even if it is described only in a very basic way.

And finally, if digital copies are available, requests for copies of originals can be fulfilled by simply copying the digital file or making a digital print—which nowadays can yield perfect results and again relieves strain on originals.

Opening up collections by digitization is a worthy cause that should most definitely also be supported by those responsible for preservation. Not only because digitization indirectly contributes to preservation of originals, but also because collections that were created to be used, must be accessible in the way people expect them to be. In this day and age that means also, or first of all, on the web. And if more people can catch only a glimpse of the rich photographic heritage that we have, more people will appreciate the value of the collections and realize how important it is to take care of them.

Does that mean digitization is the answer to all our woes? Most certainly it is not. I have taken some time to sketch how photographs were always used for many purposes and are valued in many ways because the variety of the photographic heritage is so overwhelming. A photograph can be approached in so many ways, as an object or an image or both, as art, as information, as evidence, as memory, as entertainment, as news, as a means to manipulate, to tell a story, to move us or to shock us. All photographs are objects containing some visual information, but the meaning and value of a photograph are not fixed, they are not inherent characteristics. They shift
with the function and the context of a photograph, or how it is presented to us in an exhibition or the media, what is said about it and what we know about it.

This photograph was made available to the SEPIA project for publicity purposes by one of the partners as important for their collection. To me it looked like a photograph I might have made accidentally when changing the film in my camera. Only when you see the description, you understand why our partners in Dresden consider it a landmark.

If working in the SEPIA project has taught me anything it is that there are so many ways of looking at photographs that any simple strategy for the management of photographic collections is suspect. To take account of the complexity of the medium and its history various approaches will have to be combined. There are original objects that must be preserved, and a strong programme of specialist conservation work and extensive preventive measures will remain necessary. Digitization fits into an overall preservation strategy because it has a contribution to make, not because it is the best solution in every case. Digitization is also expensive, and it creates in itself a new preservation issue as maintenance of digital collections to ensure access over time is problematic. The media on which digital information is stored degrade rapidly, and even if they didn’t, we would not be able to use the CD-ROMs we produce today in 20 years time. Just remember what happened to the gramophone record or the floppy disk. If you still have them, you probably can’t use them. Computer platforms and software programmes needed to access digital files also get outdated very quickly, causing all sorts of incompatibility problems. Those are serious issues that will be solved somehow, although no doubt at great cost.

But still, that digital information is hard to maintain should not be an argument to dismiss the potential of digitization for keeping collections alive. Digital images are not the same as original
photographs, but they can in many cases take over their function for presenting visual
information. Digitization can also stimulate the use of images for new purposes by new users.
Ten years ago I could not have given the talk here today the way I did, by showing you pictures
of 100 years ago. Now I could download them on a Friday evening from the websites of the
Municipal Archives of Amsterdam and George Eastman House. In short, sustainable collections
are not frozen collections or moribund collections but collections that are used and appreciated,
and that means we must be carry them with us into the new digital era. That is also in character
when we think of the photographic revolution first of all as a technological revolution, full of a
sense of progress and excitement about what the new invention could do. In many respects this
is not so different from the digital revolution we witness today.

One of the great commercial successes of the time was the stereograph, twinned photos taken at
slightly different angles so that there is an illusion of depth. Because stereographs were so
lifelike they were extremely popular for entertainment and education –an early variety of
infotainment. They worked particularly well for landscapes, but were also used for comical
scenes and of course widely employed, as every new medium, in the most profitable business of
all times, erotica and pornography. In an article written in 1859 Oliver Wendell Holmes argued
that real objects would lose their value because the objective and lifelike representations
produced by stereographs extracted the form of things from their physical existence. Whereas
the physical objects were fixed, their forms, their representations were ‘cheap and
transportable’. They could be endlessly copied and distributed, so that everybody could enjoy
views of St Peter’s or the Niagara Falls or anything on earth by looking through a stereoscope
and we would all become armchair travellers. Here we have, in 1859, virtual reality avant la
lettre.

The excitement about a new medium, the inflated expectations, the variety of uses, the
inventiveness of its pioneers whose daring innovations and unbounded optimism frequently
resulted in bankruptcy, the effects on everyday life, and the fear that the new technology would
make existing forms of expression redundant—the parallels between the photographic and
revolutions are numerous and instructive. If Nadar and Bisson had lived today, they would
probably have started an internet business and put their pictures on the web. Just as the graphic
arts, engraving and etching, and also painting, found a new role for themselves when
photography took over their function of reproducing reality, photography itself will now have to
come to terms with the digital environment. Some feel that with the advent of digital images,
that are so open to human intervention, the photographer who produces a record of a reality that is there for everybody to see will be displaced by the image-maker manipulating elements from reality into his own virtual vision. Fox Talbot claimed his invention had removed ‘the artist’s hand’ from the process, and this hand now returns to click the buttons of a mouse (Batchen Each wild idea p134, Savedoff p208). I wonder whether this is really the issue. It takes us back the same old discussion about the reproduction of reality as opposed to the creative vision. A critic in Breitner’s time wrote that a camera ‘a machine presents stupidly, but completely correctly, what everybody can see. But an artist sees with each object the true character, its expression’ But the opposition is partly artificial and it never worked for photography. What about 160 years of fine art photography, surrealism, and photomontage? Is this a photograph of a reality that ‘everybody can see’?

I think it is more fruitful to think of different media as technologies that people explore and exploit for all possible uses. Many pictures we get to see in news papers nowadays are digital photographs, and still, because of the context in which they are presented, we interpret them as direct images of real things and real situations. It is not the technology in itself that matters, but the use that is made of it and the context in which we read the image. The final series of photographs I’d like to show you are by another Dutch photographer and typographer, Piet Zwart. He produced a lot of work for advertisements and books and brochures for commercial companies. What are we looking at here: a mechanical record of reality? Commercial photography? Fine art photography?

The wheel has come full circle in another respect that may be more disconcerting if we think of sustainable collections as a record of our past. For the invention of photography, the main stumbling block was not to capture images, but to fix them permanently “how charming it would be if it were possible to cause these natural images to imprint themselves durably, and remain fixed upon the paper!” Fox Talbot wrote. For many years he worked towards a solution, that at least produced semi-permanent images lasting till this day. Have we now with the digital revolution gone back to a world of fleeting images that after one or two generations will escape from view? How many of the digital photographs that are produced today, will we still have tomorrow? We have created a new problem with permanence that is the main concern of those in charge of collections, and to tackle it we will need to be just as inventive and create as the pioneers of photography in their struggle with the new medium.

http://www.knaw.nl/ecpa/sepia