## PHOTOGRAPH PRESERVATION IN A 21ST CENTURY PERSPECTIVE

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## Introduction

A decade into the 21<sup>st</sup> century, the field of photograph preservation looks very different than it did just fifteen or twenty years ago. Some things have not changed, but many others—most notably the end of chemical-based analog imaging and a near-total transition to digital technologies—have made it feel like an entirely new context for the photograph and for institutional photograph collections. We must now be careful in discussing photograph preservation to distinguish between actual objects (prints, negatives, diapositives and so on) and digital image files or 'soft copy' representations. Digital images are photographs too, but in a different sense, with an entirely different context for preservation. The fundamental difference between digital file preservation and the practice of preserving analog photographic objects is surely the most important aspect of preservation today.

The old battle of whether photographs are genuine artistic expression or merely mechanical documents is long over. Photographs have a lively, if secondary, place in the thriving art market, although contemporary artists mostly avoid the stigma of identifying themselves as mere 'photographers.' The tiny proportion of photographs that can be considered 'fine art' and which museums and collectors actively seek is in no danger being neglected or discarded. These objects receive a very high standard of care. Their monetary value and unquestioned cultural status have given rise to a world-wide cadre of professional conservators of photographs. Almost every comprehensive major art museum has a department of photographs complete with curator and conservator. Compared to twenty years ago, there are hundreds, perhaps thousands more people who identify themselves as full-time photograph conservators or preservation specialists. This great expansion and development of the field touches and enriches all types of collections. It can only be considered a very positive and long overdue development.

# A Changing Conceptual Framework and Cultural Landscape for Photograph Preservation

Considering the role of photography in society in a broader context, images of all kinds are everywhere, and in greater numbers than ever. Statistics tell us that many more new digital images are taken than ever before, although a shrinking percentage of them are ever made into a physical print. After just a few years of the digital era, photographic objects made in the old chemical analog way have become unusual, even quaint and nostalgic. Institutional analog photo collections continue to grow despite the end of analog imaging because many privately-owned photographs by individuals or companies are being donated or sold to institutions. There is a general consensus that the photographic objects in institutional collections are part of our collective past, and that their light and lens origin provides a more truthful a record of the past than the digitallyaltered pictures and cinema of today. Until the late 20th<sup>th</sup> century, photographs had no other nature than as physical objects. Most of the time they were regarded as either sentimental or utilitarian, and therefore they gradually lost their usefulness with the passage of time. Now it is easier to argue that they deserve to be preserved precisely because time has passed and they are a unique kind of visual message from our own history. The unstoppable march of technology, global climate change and uncertain economic conditions have created the feeling that the world is changing in scary, unpredictable and irreversible ways. This unease actually helps make the case to preserve the photographic record of an irretrievable past.

But there is a dark side to this picture. Photographs may be seen to be worth preserving, but the institutions that house them are under threat. The cloud over the photograph preservation field today originates from changes in society and culture that have been brought about by the digital revolution and by today's economic difficulties. The internet and its accompanying sense of instant access to the entire world's information have *undermined the rationale for the very existence of collecting institutions themselves.* The three main types of institutions that hold photograph collections are libraries, museums and archives. Libraries are struggling to define their relevance in the age of the internet and the electronic book. Museums have lost their role as centers of research and acquired a new mandate to entertain the public. Archives spend much of their time wrestling with the problem of archiving digital information. In other words, the good news is that society has finally made up its mind that photographic objects are valuable and worth preserving, but the bad news is that society is questioning the need and expense for the institutions that house and protect them, and those institutions—especially smaller ones—are struggling for their very existence.

#### Can Institutional Photograph Collections Survive?

There is a tendency to divide into electronic information collections (digital only) and special collections where the artifact or monetary value of photographic objects is primary, leaving the mass of photos without a clear rationale for preservation. Will photographs share the same fate that seems to be the future for books in libraries, namely to be removed to central warehouses for occasional retrieval, or else just removed to the trash heap and replaced with internet terminals? Google books and its successor projects are slowly undermining the rationale for keeping books on hand in research libraries. Only special collections and rare books seem immune to the trend. It is hard to argue with the logic that there is no need for 200 libraries to preserve complete runs of the same little-used print journals.

One can argue that photograph collections are unique, but actually many institutions contain published photographs that exist in large numbers in other collections. The problem is that the will—and the resources—of institutions to fight a battle on two fronts simultaneously are eroding. One front is the expensive and time-consuming task of digitizing their collections. The other is the expense and time necessary to ensure the survival of traditional photographic objects in the ways that we now understand are necessary. One of the factors that work against preservation is sometimes that institutions are not sure which to preserve: the physical original or the digital surrogate. It's easy to say that both have their role and that both deserve preservation. But in practice, there are fewer and fewer institutions that have that luxury, and choices will have to be made.

#### **Digital vs. Traditional Preservation**

Digital preservation is so very different than traditional preservation that it hardly seems appropriate to speak of them together. The skills and infrastructure needed for digital preservation come mainly from the world of information technology and computer system administration. Since there is little practical difference between preserving digital images and maintaining accessibility of many other kinds of digital information that are generated and used within an institution, there is a sense that investments in digital asset management are broadly useful throughout the institution, that they serve 'double duty' and are vitally necessary. Preserving the physical objects, on the other hand, seems to be troublesome and costly, with little reward for cash-strapped institutions.

Preservation of physical photograph collections has always been problematic for reasons that are based in their very nature. They tend to be large. It is not at all uncommon for collections to contain tens or hundreds of thousands of images, even millions. The sheer size of collections immediately raises issues: How are they to be organized, described, housed, or retrieved? What, exactly, do they contain and what among them is 'worth preserving'? Photographs are notorious for defying attempts to catalog and index them. They are also mainly invisible, hiding away in boxes, folder, and drawers (perhaps only in negative form) where it is difficult to know what they contain, and therefore their value. Photographs collected or created for one purpose may actually be relevant to many other purposes. It's hard for institutions to assess such issues and easy to rationalize neglecting them by saying 'we don't collect that sort of thing'.

## **Changes in Preservation Practice for Photographic Materials**

The modern practice of photograph preservation (in the traditional, physical sense) has changed over the last twenty years because of improved understanding of the needs of fast-decaying materials comprising the images. We now know that cellulose nitrate and acetate plastics, color dyes, and even glass require special environmental conditions to last for more than a few decades without significant deterioration. Of course, the fundamentals of preservation still apply. The first priority is physical security, a roof over head and a lock on the door, followed closely by order and intellectual organization. Without these things, little else matters. Next comes emergency preparedness, which is more important than ever as global warming produces greater extremes of weather and increases the likelihood of catastrophic fire, flood, and drought.

We have re-learned the ancient lesson of the importance of enclosures, but we know better than before what enclosures can do and what they cannot do. Photographs of all types are not equipped to face the rigors of direct exposure to the world for more than a short time. Enclosures protect against light, dust, and chemical attack from atmospheric contaminants and keep photographs from being ruined by improper handling. They promote a sense of order and organization and carry information that is helpful in retrieval. What they cannot do is make up for improper environmental conditions. Put simply, color photography and any type of photograph on a cellulose acetate or nitrate support need cold storage to survive in good condition for more than 50 years or so. There is no avoiding these physical facts that are rooted in the basic chemical nature of the materials and the laws of physics. Water will not run uphill nor is there a perpetual motion machine. Enclosures, no matter how psychologically and aesthetically satisfying to an archivist, will not change the need for cold storage. However, environmental

conditions can mitigate the effects of poor-quality enclosures by slowing the rate of chemical reactions that might occur as a result of interactions with lignin-containing or otherwise reactive paper and cardboard.

Another significant change in photograph preservation in the last twenty years is the recognition of the need to better understand the physical nature of the photograph. Many people used to regard black and white silver images as 'permanent'. Deterioration, when it was observed (as it very often was), was blamed on poor fixing and washing. A modern understanding is quite different. We now know that silver image oxidation (a form of metal corrosion), not poor processing, is the cause of the yellowing and fading of black and white images of all types. The key to preserving silver images is to keep Relative Humidity below 50%, to deprive the corrosion reactions of moisture and prevent them from occurring. In this respect silver image oxidation is no different from other forms of metal corrosion. This is another example of why the new emphasis in photograph preservation is on maintaining proper environmental conditions.

However, one must understand and recognize what photographic images are composed of silver, and which are not. In similar fashion we must be able to identify the processes by which photographs were created and thereby know the materials of which they are composed. We can then take appropriate steps to preserve them based on their physical nature and needs. The word that best describes this overall effort in photograph preservation today is 'characterization'. It means both high-technology laboratory examination and the ability to recognize the various processes of photography by examination with the eye and with simple magnifiers. The field of preservation today places much more emphasis on process identification and education of archivists and curators about the nature of photographic objects than ever before.

# Conclusion

We now have more than 160 years of experience with photograph preservation. Time teaches the real lessons of whether photographs are equipped to survive for centuries or not. Few photographs will have the lifespan of copper plate engravings. Many will not survive the lifespan of persons living today. Because of research about the materials of photography, we know what will be required to guarantee that the majority of photographs survive for centuries. The questions facing us are whether we care about their original physical form or not, and if we do, whether we have the will to do what it takes to keep them. It will certainly mean finding new ways to preserve institutions, not just objects.