

Documentary Photography and the Digital Archive  
David Walega

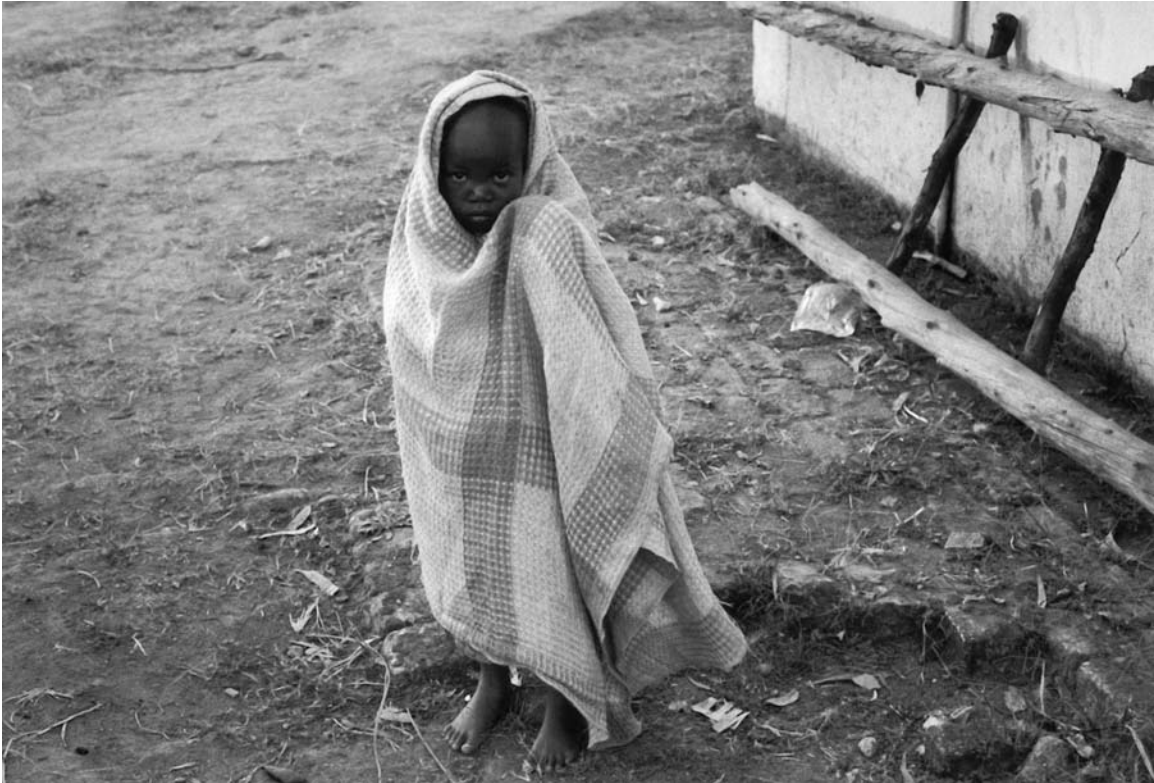


Fig. 1: David Walega, *Ruyigi rural hospital*, Burundi, Africa, Photograph, 2002

Theories and Criticism of Communication Technologies  
Com 538 Fall 2004  
Professor Kathy Gill

# Advent of Digital Archiving: The Present

## Introduction

The advent of digital technologies is being applied to the preservation and archiving of photographs. The diffusion of this technology has enabled conservationists and businesses to manage and organize images, both digital and traditional. “Under the dual guises of increased access and improved preservation outcomes, many custodial institutions are undertaking bulk digitization of their photographs collections.”<sup>1</sup> Organizations are changing the way to manage and disseminate information as the Internet provides unsurpassed possibilities. Businesses with international offices are utilizing digital technologies to transfer information and images at a greater pace and efficiency. Digitization of images has influenced the way institutions approach preservation, collecting analog information and transforming it to a manageable file.

## Digitization of Photographs

Digitization is the transformation of physical objects to numerical values equivalent to zeros and ones. Uniformity of information is realized with digitization. A digital scanner translates an image by transforming the information into bit maps. “Digital code is a universal medium of exchange, like money: it makes any given object commensurate with any other.”<sup>2</sup> This universality of

---

<sup>1</sup> Elizabeth Edwards and Janice Hart, *Photographic Materiality in Age of Digital Reproduction, Photographs Objects Histoires*, (London: Rutledge, 2004)

<sup>2</sup> Steven Sahviro, *Connected, or what it means to live in the network society*, (Minneapolis, Minnesota: university of Minnesota Press, 2003) 47

medium requires the computer to impose certain parameters upon the original material. The final outcome such as a computer file, printed photograph, or jpeg file, is contingent upon the resolution of the scanner, capacity of the printer, resolution of the final output device, and manipulation of computer screen. However, this universality of digitalization is a relative term as formats change and technology evolve.

Archiving and management systems have changed to confront the issues of efficiency and storage. Microfilm, once the dominant medium for archiving photographs, is being replaced by digital technologies due to greater ease and flexibility. “ One strength is its ability to preserve information for long periods of time and another its ability to disseminate information cheaply. However, digital photography portends major changes in the technologies used for information storage. Once digital photography penetrates fully into the mass market and new storage mechanisms are developed for digital information that strength may decline.”<sup>3</sup> The advantages of microfilm are characteristic of the new emerging digital technology, however, digitizing has the added benefit of greater convenience and increased portability.

## **Formats**

The search for a permanent storage solution remains largely elusive. Older formats such as zip disks, diskettes and floppy disks, once the

---

<sup>3</sup> Susan A. Cady, *Microfilm Technology and Information Systems*, (Oxford, England, 1999) 185

conventional format in the 1980s for portable information storage, are becoming obsolete at a rapid pace. The capacity for greater storage and stable mobility has improved with the development of CDs and DVDs. However, zip disks and the like were an important step in the evolution of digital storage. Information was easily moved from place to place, freeing the computer user from complete dependence on hard drives. Floppy disks with their soft magnetic medium, while having less storage capacity of a hard drive, were extremely affordable in comparison.

CDs and DVDs allow the home user the ability to copy and multiply information easily. With this, the need for increased amounts of storage of information has grown exponentially. CDs are limited in that the stored information can only be played or read. CD-Rs and CD-RWs are also limited in their interactive qualities, but are more flexible in that the information can be erased and overwritten. Recent data demonstrates CDs recorded from consumer brand CD burners have a life span as little as five years when exposed to humidity and extreme temperatures. Also, an easily scratched surface can make this format permanently unreadable and the information unrecoverable.

Experts are working toward developing a universal format to eliminate dependence on certain hardware and software systems. Until this is achieved, the migration of information from storage unit to another is one way of protecting data. Transferring important files to newer computers and storage formats

requires constant maintenance. Some computer users have a strategy of keeping obsolete disks in the hope that in the future there will be a universal readable computer. Migration of information is expensive as it is time consuming and no guarantee of permanence.

## **Global Audience**

The organization of binary data and management is digital asset management. Transferring analog materials into digital data is enabling organizations to distribute information globally. "Internet growth, too, has emphasized the importance of using images to sell items or attract visitors to web sites. Increasing use of digital media has made it important for organizations and individuals to find the means by which to manage it." <sup>4</sup> Increased speed and bandwidth are providing the environment to send images at greater flexibility. Business and institutions are using this new medium of communication to share resources and engage a worldwide audience. "At one level it can be argued that digitizing provides for increased equity of access independent of geography, once the technology is available."<sup>5</sup> These online community networks, created within the organization, offer a unique opportunity for staff to have an ongoing conversation regarding visual data and shared information.

---

<sup>4</sup> Hilary W. Poole, *Encyclopedia of New Media* (New York: Sage Publications, 2003) 133

<sup>5</sup> Elizabeth Edwards and Janice Hart, *Photographic Materiality in Age of Digital Reproduction, Photographs Objects Histories*, (London: Routledge, 2004)

There is a growing need for resource management in the non-profit sector to archive photographs. Program for Appropriate Technology in Health (PATH) has offices internationally and relies on images for a variety of purposes. Jennifer Fox, Graphics personal at PATH, has devoted the past two years to develop a system that caters to the specialized needs of this non-profit organization.<sup>6</sup>

The emergence of digital cameras has been beneficial in inexpensively documenting ongoing projects and promoting work important in fund raising. However, this readily available technology involves processing data before utilization of the image. No software programs exist in the marketplace that satisfies the specific needs of non-profit organizations. Jennifer Fox is modifying a program, In Magic, to create an interoffice network supporting a centralized data bank to categorize and manage images for PATH and its international offices.

The needs of the staff dictate that images are readily available to drop into documents, place in PowerPoint presentations, print materials, emails and annual reports. Staff members often do not understand that the format has to be a certain size and format to use in office documents and presentations. A centralized image archive organizes these resources so that the images are available and ready to use in a convenient format.

---

<sup>6</sup> Fox, Jennifer, Personal Interview. (Nov-15-2004)

With offices in Indonesia, Kenya, New Delhi, Vietnam, San Francisco, Seattle and Washington D.C., the uniformity of file format is imperative for PATH. The logistics of a multinational organization demand that information travels with the images to other program offices for immediate use. The file must also be functional no matter the sophistication of the computer equipment or technological knowledge of the staff. The goal is to create a centralized data bank that can be browsed quickly and visually previewed virtually anywhere.

Additional advantages of this system are managing copyright and the proper placement of images. Each file contains intricate information pertaining to the origins of the image and documentation of the related project. With each processed image, a tracking number and metadata (photographer credit and licensed use) are created. Certain images become iconic with a particular project and must be managed correctly. All of this requires time and attention. With a budget of \$16,000 a year, PATH is unique in its resources devoted to an archiving project. Unfortunately many institutions cannot afford to mount ambitious archival projects.

Often the initial cost of this new technology in human resources and software overshadows the eventual benefits of its adoption. Storage and formatting are two elements that continue to challenge the budgets of non-profit

organizations. “Information is not like those old-fashioned commodities that get cheaper as more of them are produced. Rather, the greater amount of information that is gathered, the more correlations and cross-references it potentially contains; and consequently the more each bit of information is worth. Value results from abundance, not scarcity.”<sup>7</sup> The adoption of new technology is important to humanitarian aid organizations to simplify the processing of images and effectively manage image use.

### **Cultural Impact of Digital Archiving**

The Convention for the Protection of Cultural Property in the Event of Armed Conflict was signed May 14, 1954 at The Hague. “Damage to cultural property belonging to any people whatsoever means damage to the cultural heritage of all mankind, since each people makes its contribution to the culture of the world.”<sup>8</sup> War as a supervening force influenced the adoption of microfilm in the past as a preservation technology. Digital technology is the next evolution of technology useful in preservation of information and works of art in response to the threat of natural disasters and warfare.

The role of digital preservation is important to institutions in the potential role it plays on international cultural affairs. Librarians have taken on the role of social conservators. They are using digital technologies to save historic

---

<sup>7</sup> Steven Sahviro, *Connected, or what it means to live in the network society*, (Minneapolis, Minnesota: university of Minnesota Press, 2003) pg 4

<sup>8</sup> Michele V. Cloonan, Monumental Preservation: A Call to Action, *American Libraries*, September 2004, pg 38

information that are crucial to national identity. Much of the world laments the loss of priceless artifacts destroyed with the war in Iraq. The national museum was the victim of looting of more than 14,000 artifacts and the National Library of Iraq in Baghdad was destroyed by arson. Many countries have suffered this devastation of cultural artifacts. The conflict in Kosovo devastated the national archive, destroying historical artifacts and irreplaceable texts.

Whole collections of historical photographs are being presented on the web. This medium allows the viewer to view individual photographs or the entire collection of work in a centralized data bank. University of Washington Special Collections has an example of this. The online portfolio of photographer Lee Pickett contains over 900 photographs documenting scenes from 1900-1940s Washington state. His work is exhaustively presented employing a searchable database to locate specific images. This format provides an overall context, with related time lines and historical information, to view his lifelong body of work. This presentation assists in the placing the work in a cultural and historic context as it can be supplemented by additional information such as the history of the region.

The role of the preservationist has broadened its meaning in contemporary image resource management. Loss of information of national importance and the preservation of national heritage is monumental preservation: "the retention of objects related to a disaster of historic proportions and contemporary reactions to that disaster. Involves both kinds of acquisitions- retaining objects and recollections close to the event as well as safeguarding the

evolutionary record of the event as its impact and meaning change with rebuilding, a process that often eliminates the remaining vestiges of the original cataclysm.”<sup>9</sup> Non-profit organizations are utilizing digital technologies to preserve, manage and store materials for the future. The new technology is enabling all institutions to effectively protect cultural heritage, disseminate information, and address humanitarian issues.

### **Next paper preview:**

The following paper will address the future of archiving and the lasting impact digital technologies will have on preservation. The question of permanence will be addressed: Can a digital file replace the original object? I will introduce the “The Double Fold “ controversy in which the importance of archiving the original object is speculated upon.

### **Bibliography**

Anderson, Maxwell L. "Art/Architecture." *New York Times*, September 24, 2000. ProQuest. Cited 18 October 2004 Crane, Susan. *Museums and memory*. Stanford, California: Stanford University Press, 2004.

Babbie, Earl, *The Basics of Social Research*, Belmont, CA: Thomson Wadsworth, 2005

Bromberg, Nicolette. Personal Interview. (October-27-2004)

Cady, Susan A. "Microfilm Technology and Information Systems." In *History and Heritage of Science information Systems*, edited by Mary Ellen Bowden, Trudi Bellardo Hahn and Robert V. Williams, 177-186 Oxford, England: Information Today Inc., 1999.

---

<sup>9</sup> Michele V. Cloonan, Monumental Preservation: A Call to Action, American Libraries, September 2004, pg 38

Cloonan, Michele V. "Monumental Preservation: A Call to Action." *American Libraries*. September 2004, 34-38

Davenport, Alma. *The History of Photography: An Overview*. Boston: Focal Press, 1991.

Digital Journalist. "Taking Care of History." [www.digitaljournalist.org](http://www.digitaljournalist.org) (accessed October 18, 2004).

Edwards, E and Hart, J. *Photographs objects histories: on the materiality of images*. London; New York: Routledge, 2004.

Eisenberg, Anne. "What's Next." *New York Times*, August 29, 2002. p. G.7. ProQuest.

Fox, Jennifer, Personal Interview. (November-15-2004)

Frizot, Michel. *The New History of Photography*. Bordas, S.A., Paris: Konemann, 1994.

Hafner, Katie, "Even Digital Memories Fade." *New York Times*, November 10, 2004

Huff, Daniel D. Every Picture Tells a Story. *Social Work*, New York. November 1998. ProQuest. Cited 19 October 2004

Jones, Steve, *Encyclopedia of New Media*, CA, Sage Publications Ltd, 2003

Kapahi, Anil, Personal Interview, (November -3- 2004)

Klijn, E and de Lusenet, Y. *In the picture, preservation and digitisation of European photographic collections*. Amsterdam, the Netherlands, 2000.

Koelling, Jill Marie. *Digital Imaging: A Practical Approach*. Walnut Creek, CA: Altamira Press, 2004.

Lutz, C and Collins, J. *Reading National Geographic*. Chicago: University of Chicago Press, 1993.

Margolis, Philip E. *Computer & Internet Dictionary*, New York, Random House, 1999.

Manovich ,Lev. *The Language of New Media* . Cambridge, Massachusetts: MIT Press, 2001.

Riis, Jacob A. *How the Other Half Lives*. New York. N.Y.: Dover Publications, Inc., 1971.

Sitts, Maxine K. *Handbook for Digital Projects: A Management Tool for Preservation and Access*. Andover, Massachusetts: Northeast Document Conservation Center, 2000.

Shaviro, Steven *Connected, or what it means to live in the network society*, Minneapolis, MN : University of Minnesota Press, 2003

Swetland, Anne J. Gilliland-. *Enduring Paradigm, New Opportunities*. Washington D.C.: Council on Library and Information Resources, 2000.

Walker, David. Feature. "Corporations Build Private Stock Libraries." *Photo District News*. December 2003. ProQuest. Cited 18 October 2004

### **List Of Illustrations:**

Reference for citation: [www.finearts.uvic.ca/historyinart/forms/HASyleSheet.html](http://www.finearts.uvic.ca/historyinart/forms/HASyleSheet.html)

Fig. 1 David Walega, Collection of the artist, 2002