

Presented by Henry Wilhelm and Harold "Hal" Fuson on January 5, 2014 at the *International Symposium on Technologies for Digital Photo Fulfillment*. Sponsored by the Society for Imaging Science and Technology (IS&T), the symposium was held in Las Vegas, Nevada (USA) in conjunction with the International Consumer Electronics Show (CES).

# Personal and Family Archives: A Simplified Approach to Collecting, Organizing, and Preserving Analog and Digital Photographs, Movies, Videos, Letters, and Other Documents

**Henry Wilhelm and Harold Fuson**

**The Center for the Image.org with Wilhelm Imaging Research, Inc. (USA)**

## Abstract

In the digital age, for the first time in human history, most images and textual information are no longer being preserved as physical objects. Instead, digital images and other records are stored as coded electronic files using the ever-changing technology of hard drives, servers, solid-state flash memory, CD's and DVD's, and cloud storage.

Archivists refer to such text records and images as "machine-readable records," which require very specific software and electronic hardware preserved with the digital records to enable future retrieval, viewing, printing, and other uses utilizing both current and as yet unknown future technologies. In contrast, photographic prints and photobooks are physical objects that require neither special hardware nor software to be viewed. Archivists call these "human-readable records." We are living in a very exciting age where most people have a rich mix of both analog and digital records in their personal and family archives.

This paper proposes a simplified, comprehensive approach to preserving analog photographs, movies, letters, and other documents in their original form, digitizing these records for posting on personal and family websites, Facebook, Flickr, and other online modes of sharing, and using these digital files for assembling photobooks, making prints of significant images, and for other purposes. At the same time, it is equally important to preserve these digital files of original analog materials together with more recent digitally-captured still photographs, videos, MP3 and other audio files – all in a simple but coordinated manner.

One of the great benefits of digital technology is that for the first time in human history, it is now possible to produce "perfect" bit-replicated duplicates of images and videos and, at very low cost, to disperse them in multiple locations to greatly increase the likelihood of their long-term survival. Archivists refer to this as "redundant geographic separation."

Throughout the history of traditional analog photography – going back to the 1839 introduction of the Daguerreotype – the single "unique copy" nature of negatives, transparencies, and prints has always rendered them extremely vulnerable to damage or loss because of poor storage conditions (hot attics and damp basements), fires, floods, hurricanes, tornadoes, theft, war, cultural cleansing, and other calamities.

Also discussed is a philosophical approach to collecting, managing, and preserving personal and family records – and organizing and making them accessible in a way that can be passed on to future generations.

## Authors' Biographies

**Henry Wilhelm** is the founder and director of research at Wilhelm Imaging Research, Inc. Through its website, the company publishes print permanence data for desktop and large-format inkjet printers, silver-halide color papers, and digital presses. WIR test methods have become the worldwide de facto standard for print permanence evaluation and are currently being used by HP, Canon, Epson, and other OEMs. Wilhelm Imaging Research also provides consulting services to museums, archives, and commercial collections on sub-zero cold storage for the very long-term preservation of still photographs and motion pictures.

Wilhelm has authored or co-authored more than 25 technical papers that were presented at conferences sponsored by the Society for Imaging Science and Technology (IS&T) and the Imaging Society of Japan (ISJ) in the United States, Europe, and Japan. With contributing author Carol Brower Wilhelm, he wrote "The Permanence and Care of Color Photographs: Traditional and Digital Color Prints, Color Negatives, Slides, and Motion Pictures," published in 1993. The complete 758-page book is available in PDF/A format at no cost from <www.wilhelm-research.com>. Since the book was posted on the WIR website in 2003, more than one-half million copies have been downloaded worldwide.

Wilhelm is the recipient of the Photoimaging Manufacturers and Distributors Association (PMDA) "2007 Lifetime Achievement Award" for his work on the evaluation of the permanence of traditional and digital color photographs. In 2011 he received an honorary Doctor of Science Degree from Grinnell College.

**Harold W. "Hal" Fuson** is the board chair of San Diego's Tony-winning Old Globe Theatre. He also serves as the custodian of an accumulation of family photos and other documentary artifacts that have found their way to his home office from relatives living and dead.

Hal concluded more than 40 years as a newspaperman after negotiating the 2009 sale of one of the nation's 25 largest dailies, The San Diego Union-Tribune. For more than two decades, Hal was chief legal advisor of the newspaper's owner, The Copley Press, Inc., and in 2007 he became its chief operating officer. Hal continues to serve on the Copley board as it unwinds its remaining assets. Previously, he was legal advisor to The Los Angeles Times news department, and had an 11-year career as a college journalism teacher.

His book, "Telling It All: A Legal Guide to the Exercise of Free Speech," was described by Publishers Weekly as an "admirable easy-to-read handbook on how to avoid the legal pitfalls that can accompany free expression." His work to protect First Amendment rights has been recognized nationally by the Media Law Resource Center and by state associations in California and Illinois. In 2006 the California Press Association named him California Newspaper Executive of the Year.

Hal is a trustee of his alma mater, Grinnell College and serves as a director of the First Amendment Coalition and CNPA Services, Inc., an affiliate of the California newspaper publishers association.

## Social and Technical Papers Program\*

### Sunday January 5, 2014

continental breakfast 7:30 - 8:30 am

#### **DIMA Keynote: How the Cloud and Google Apps are Changing Business Forever**

Speaker: Michael Spadaro, Profound Cloud  
**9:00 - 10:15 AM**

All registrants are invited to attend DIMA sessions and the Networking Lunch during this time.

#### **The Importance of Organizing, Preserving, and Printing**

Session Chair: Kurt Freund, Imaging Power GmbH  
**1:15 - 2:30 PM**

**KEYNOTE: Personal and Family Archives: A Simplified Approach to Collecting, Organizing, and Preserving Analog and Digital Photographs, Movies, Videos, Letters, and Other Documents**, Henry Wilhelm and Harold Fuson, The Center for the Image.org with Wilhelm Imaging Research, Inc., (USA)

**Hard Copy Printing for Long Term Preservation as a Growth Engine for Prints and Photo Books**, Joe LaBarca, Pixel Preservation International (USA)

2:30 - 3:00 PM Coffee Break

#### **Business Opportunities in the Digital Age**

Session Chair: Ina Hilker, Felix-Schoeller  
**3:00 - 4:30 PM**

**High Margin Output Opportunities in Photo Retailing**, Don Franz, Photo Imaging News (USA)  
**Award Winning Avatrex™ Technology**, Tom Snooks, S-One Holdings Corporation (USA)

**Future Opportunities in On-Site Printing**, Kurt Freund, Imaging Power GmbH (Switzerland)

### **PMA Vendor Reception** **4:30 - 7:00 PM**

### Monday January 6, 2014

continental breakfast 7:30 - 8:30 am

#### **New and Unique Opportunities for Display and Promotion of Printing**

Session Chair: Joe LaBarca, Pixel Preservation International  
**9:00 - 10:15 AM**

**KEYNOTE: Emerging Opportunities for Commercial Digital Printing Processes in the Fine Arts**, Frank Cost, RIT (USA)  
**KODAK PROFESSIONAL ENDURA Premier Paper: Still the Digital Imaging Media of Choice**, Patrick Webber and Stuart Gordon, Kodak Alaris (USA)

10:15 - 10:45 AM Coffee Break

#### **Organization of Images Old and New**

Session Chair: Don Franz, Photo Imaging News  
**10:45 AM - 12:00 PM**

**The Future of Digital Photo Clutter, Videos in Photo Books and Other Tangible Products**, Reiner Fageth, CeWe Stiftung & Co. KGaA (Germany)

**Archiving Family Memories — Photos, Negatives, Slides, and Movie Film**, Laurent Martin, ScanCafe (USA)

12:00 - 1:00 PM Networking Lunch

### **New Technologies for Memory Preservation and Photo Organization**

Session Chair: Joe LaBarca, Pixel Preservation International  
**1:15 - 2:30 PM**

**Evolution of the Photo Book — UniPaper Solution**, Brigitte Peleman-Vantieghem, Peleman Industries Inc. (USA)  
**Case Cover**, Brigitte Peleman-Vantieghem, Peleman Industries Inc. (USA)  
**Copy One Print Output Post-processing Solutions for Imaging Consumer Products**, Franz Affentranger, Imaging Solutions AG (Switzerland)

2:30 - 2:45 PM Coffee Break

## REG /TRAVEL DETAILS

TDPF2014 will take place at Bally's Hotel in Las Vegas, January 5-6, 2014 as part of the Digital Imaging Marketing Association conference (DIMA). The Professional School Photographers Association and Sports Photographers Association of America (PSPA/SPAA) and the Association of Imaging Executives (AIE) are also holding their meetings at DIMA this year.

Registration for the conference is via the PMA registration site; **IS&T members can register at member rates** by using the **IST-mem** code.

**Register for the conference, reserve your hotel room, and find out about travel:**  
[www.pmai.org/pma\\_ces](http://www.pmai.org/pma_ces)

### **New and Future Product Opportunities**

Session Chair: TBA  
**2:45 – 3:35 PM**

**Wet Mount Process to Scan Black and White Negatives**, Naren Dubey, ScanCafe (USA)  
**New and Coming ISO Image Permanence and Durability Standards and How They Promote the Photo Fulfillment Industry**, Joe LaBarca, Pixel Preservation International (USA)

### **PMA Welcome Reception** **4:30 - 7:00 PM**

\*Please note that attendees of TDPF have access to all the events of DIMA, including breakfasts, lunches, receptions, technical programs, exhibits, etc. as described in the DIMA registration literature at [www.pmai.org/PMA\\_CES](http://www.pmai.org/PMA_CES).

## SYMPOSIUM COMMITTEE

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*Fifth International Symposium on*  
**Technologies**  
*for*  
**Digital Photo Fulfillment**

*Highlighting the technologies that drive the products exhibited at PMA, including Photo Books and Personalized Photo Output*

## PRELIMINARY PROGRAM

January 5 - 6, 2014 • Bally's • Las Vegas, Nevada

[WWW.IMAGING.ORG/IST/CONFERENCES/TDPF](http://WWW.IMAGING.ORG/IST/CONFERENCES/TDPF)



Sponsored by Society for Imaging Science and Technology

We'll be in Vegas as part of DIMA and the 2014 International Consumer Electronics Show (CES)

*Where will you be?*

**TDPF is one of the educational tracks in DIMA.**

(see next page for list of TDPF papers being presented)

That means **with ONE trip and ONE low fee** you can

- ◆ learn about the technologies behind photo books, personalization, permanence, and fulfillment
- ◆ have full access to all the DIMA, PSPA/SPAA, AIE, and PMA@CES programs and exhibits
- ◆ hear the CES keynotes and visit the CES exhibits

**Go to [www.pmai.org/PMA\\_CES](http://www.pmai.org/PMA_CES) and click on "conferences" to see a full listing of the sessions and speakers for the event**

Registration includes access to

TDPF, DIMA, PSPA/SPAA, AIE, PMA@CES, and the CES Exhibits and Keynotes (plus lunches, receptions, and more!).

**DIMA 2014**  
CONFERENCE  
January 5-6, 2014  
Bally's, Las Vegas, NV



**To register:** [www.pmai.org/dima/](http://www.pmai.org/dima/)

Registration code: ISTmem