Archiving *2007*

May 21-24, 2007
Arlington, Virginia

General Chair:
Scott A. Stovall, US Government Printing Office

IS&T

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Society for Imaging Science and Technology

In cooperation with
ALA ALCTS Association for Library Collections and Technical Services
CNI Coalition for Networked Information
DLF Digital Library Federation
DPC Digital Preservation Coalition
ECPA European Commission on Preservation and Access
ISCC Inter-Society Color Council
MCN Museum Computer Network
OCLC Online Computer Library Center
RLG

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Conference Overview

We are pleased to announce the program for the fourth IS&T Archiving Conference. Archiving 2007 will once again assemble an international gathering of experts from industry, academia, government institutions, not-for-profit organizations, archives, libraries, museums, and research labs who share a commitment to addressing the challenges of archiving modern and historic materials in an increasingly digital world.

While some features of Archiving 2007 will be familiar, we have made enhancements to the upcoming program. At the request of past attendees, we have added more social interaction time during the conference to encourage networking with peers. Also in response to feedback, we are providing a free archiving and digital preservation primer (see page 7) either as a refresher or as an introduction to key preservation terms.

The heart of Archiving 2007 is a stellar program of technical papers, arranged in a single-track format to promote the interchange of information across specialties in the field. Each day begins with a keynote address and we are delighted to present this year's plenary speakers:

- Daniel S. Rosen, vice president of technology, Warner Bros. Technical Operations, on "Archiving Large Collections of Motion Images—Perspectives for the Digital Age"
- Donald J. Waters, program officer for scholarly communication, Andrew W. Mellon Foundation, on "The Current State of the Art in Digital Preservation and Continuing Challenges"
- Czeslaw Jan Grycz, curator of books, Internet Archive, on "The Public Information Commons: What It is and Why the Open Content Alliance Cares About It"

Approximately 29 oral presentations will be complemented by a dozen interactive papers presented Wednesday afternoon. As with all IS&T conferences, the Interactive Paper Session is a key feature, providing the opportunity for presenters and attendees to mingle and discuss results presented using a variety of media formats. All technical sessions will take place at the Crystal City Hilton, which is a short Metro ride from the wonderful sights and sounds of Washington DC.

Archiving 2007 also features a comprehensive tutorials program (see page 4) organized into five tracks: Digital Formats, Introduction to Repositories, Understanding Imaging Science, Imaging Performance & Digitizing Negatives, and Conservation of Special Media. Courses are offered on Monday May 21st, the day before the conference technical program begins. You may follow a single track all day or personalize a course program to meet your needs.

As in the past, Archiving 2007 attendees wil have the opportunity to visit and tour Washington, DC-area digital preservation operations. All tours will take place Thursday afternoon and further details will be sent to registered attendees closer to the dates of the conference.

Join us in the Nation's capital for this unique gathering of international know-how in digital archiving, imaging, and digital preservation.

—Scott A. Stovall,
Archiving 2007 General Chair

About Washington, DC and Arlington

From its celebrated symbols of patriotism to its undiscovered neighborhoods, the sights and sounds of the nation's capital inspire millions of visitors every year. Packed with famous sights, free attractions, and an endless calendar of special events, Washington, DC offers year round inspiring experiences.

Beyond Washington DC's most familiar vistas, the capital city unwinds into a lively urban center. Casual cafes and upscale bistros line the trendy streets of Georgetown, while the downtown district sizzles with a host of new restaurants. Spontaneous Jazz notes tumble out the windows of U Street's nightclubs, while world class performers take the stage at the highly acclaimed Kennedy Center. Washingtonians are cosmopolitan hybrids who welcome one and all, day and night. Wherever you choose to visit while in the area for Archiving 2007, just remember to stay on the right side of the Metro escalators to avoid looking like a tourist!

Attendees preparing for the conference should anticipate warm and humid weather. Monthly high and low average temperatures follow (Fahrenheit/Celsius):

Month	High	Low
May	76º/25º	56º/14º
June	83º/29º	65º/19º

Conference Venue

Archiving 2007 will take place at the Crystal City Hilton, located in the Crystal City section of Arlington, Virginia. The Hotel offers free shuttle service from the Reagan National Airport, which is only a mile away.

Located three blocks from the Crystal City Metro Station (yellow or blue line), the hotel will also offer parking to attendees at the rate of $8/day. There are numerous restaurants at various price points within a few block radius. While the Hilton does offer Internet access for $12.95/day, access in public areas is not guaranteed.

Links to Details on DC

- For more information on DC, visit:

    www.washington.org

- Local transportation details can be found at **www.wmata.com**

- To learn more about current exhibits and happenings at the Smithsonian and other museums and cultural venues, go to:

    www.si.edu
    www.museumspot.com/cities/dc.htm
    www.culturaltourismdc.org/calendar2532/calendar.htm

- Lists of the cities overall best and "best cheap eats" can be found at
    www.washingtonian.com/sections/restaurants/index.html
    where you will also find restaurant reviews and ways to search by location, cuisine, etc.

Conference At-a-Glance

Registration
Admiralty Ballroom Foyer, Hilton Crystal City

Sunday, May 20, 5:30 pm – 7:00 pm
Monday, May 21, 7:00 am – 6:30 pm
Tuesday, May 22, 7:30 am – 5:30 pm

Wednesday, May 23 8:00 am – 4:30 pm
Thursday, May 24 8:00 am –1:30 pm

Monday, May 21   Tutorial Program (see page 4)

Track 1: Digital Formats

8:00 am–12:00 pm T1A	1:15 Pm–3:15 pm T1B	3:30 Pm–5:30 pm T1C

Track 2: Introduction to Repositories

8:00 am–12:00 pm T2A	1:15 Pm–5:15 pm T2B

Track 3: Understanding Imaging Science

8:00 am–12:00 pm T3A	1:15 Pm–5:15 pm T3B

Track 4: Imaging Performance & Digitizing Negatives

8:00 am–12:00 pm T4A	1:15 Pm–3:15 pm T4B	4:30 pm–5:30 pm Free Primer (see p.7)

Track 5: Conservation of Special Media

8:00 am–12:00 pm T5A	1:15 Pm–5:15 pm T5B

T1A: JPEG 2000 for Image Archiving, with a Discussion of Other Popular Image Formats
T1B: Using JHOVE for Format Identification, Validation, and Characterization
T1C: Introduction to PDF and PDF/A
T2A: Building Trust in Digital Repositories: Using the DCC Self-Certification Toolkit
T2B: The PREMIS Data Dictionary: Information You Need to Know for Preserving Digital Objects
T3A: Introduction: Image Science for the Archiving Community

T3B: Color Image Workflows and Architecture for Archiving Applications
T4A: Evaluating Digital Scanner and Camera Imaging Performance for Digital Collections
T4B: Digitizing Historical Negative Collections
T5A: Caring for the Analog Oldies: Motion Picture Film and Videotape
T5B: Contemporary Photography: Digital Prints
Special Free Archiving Terminology Primer

Tuesday, May 22
- Keynote: "Archiving Large Collections of Motion Images–Perspectives for the Digital Age"
- Technical Session: Archiving and Technology
- Conference Reception

Wednesday, May 23
- Keynote: The Current State of the Art in Digital Preservation-and Continuing Challenges

- Technical Session: Digital Preservation
- Interactive Paper Session

Thursday, May 24
- Keynote: "The Public Information Commons: What It is and Why the Open Content Alliance Cares About It"
- Technical Sessions: Creating and Managing Collections
- Late Breaking News

Tutorial Program

Monday, May 21, 2007

T1A: JPEG 2000 for Image Archiving, with a Discussion of Other Popular Image Formats
8:00 am – 12:00 noon (4 hours)
Instructor: Robert Buckley, Xerox Corporation

This tutorial will begin with an introduction to commonly used digital image formats and image compression methods. This will lay the groundwork for discussing and comparing the two major formats for image archiving—TIFF and JPEG 2000—followed by a detailed explanation of the features and capabilities of JPEG 2000. TIFF is typically used to store uncompressed images; JPEG 2000 is a state-of-the-art standard for image compression. JPEG 2000 is attractive for image archiving and access because it can handle a wide range of applications, including gigabyte and high-dynamic range images, spectral imaging, digital cinema, and on-line image collections. This tutorial will explain key parts of the JPEG 2000 standard, demonstrate its capabilities, and discuss who's using it and why.

Benefits
This course will enable the attendee to:
- Describe the basics of commonly used digital image formats
- Understand different approaches to image compression
- Compare and contrast TIFF and JPEG 2000 as formats for image archiving
- Relate JPEG 2000 features and options to the requirements for image archiving and access
- Explain the value of JPEG 2000 in
` image archiving applications

Intended Audience
People in the archive, library, and museum communities who work with digital images and image collections who want to understand the tradeoffs between different image formats, what JPEG 2000 has to offer, and how their archiving application may benefit from it.

Robert Buckley, research fellow with the Xerox Innovation Group in Webster, NY, is the Xerox representative on the US JPEG 2000 committee and was project editor for Part 6 of the JPEG 2000 standard, which defines the JPEG 2000 file format for compound and document images. Buckley was also the lead author for TIFF-FX, the IETF standard file format for Internet fax. He currently chairs the CIE Technical Committee on Archival Color Imaging. Buckley has given several invited talks on JPEG 2000 to the cultural heritage community and has consulted on its use in archiving applications.

T1B: Using JHOVE for Format Identification, Validation, and Characterization
1:15 pm – 3:15 pm (2 hours)
Instructor: Steve Abrams, Harvard University Library

Proper characterization of managed digital assets is a fundamental requirement of an archival system if it is to maintain the usability of those assets over time. Perhaps no characterization property is as important as format, which provides the basis for the correct interpretation and rendering of otherwise opaque bit streams. The format-related use cases of primary importance are identification, validation, and characterization, which in turn facilitate assessment and intervention to mitigate the risk of information loss. This tutorial will first present these use cases in the context of policies and practices of the Harvard University Library (HUL) Digital Repository Service (DRS), a large-scale preservation and access repository currently managing more than five million digital assets and 21 TB, and then provide comprehensive instruction on the use of the JHOVE tool to implement these practices,

as well as additional information necessary to facilitate the deployment and customization of JHOVE in local repository and preservation systems and workflows.

Benefits

This course will enable the attendee to:

- Understand the importance of format characterization in digital repository and preservation workflows
- Review the JHOVE plug-in architecture, configuration options, and module API
- Learn how to acquire, install, apply, and customize JHOVE in local systems and workflows
- Discover the principles of developing modules for additional formats not currently supported by JHOVE
- Preview the technical and functional enhancements planned for the next generation of JHOVE

Intended Audience

Digital repository and preservation practitioners.

Stephen Abrams, digital library program manager at the Harvard University Library, provides technical leadership for strategic planning and coordination of the Library's digital systems, projects, and assets. Abrams was the project manager for JHOVE, an extensible framework for for-mat-specific identification, validation, and characterization; the ISO project leader and document editor for the PDF/A standard (ISO 19005-1); and is leading international efforts to establish a Global Digital Format Registry (GDFR).

T1C: Introduction to PDF and PDF/A
3:30 pm – 5:30 pm (2 hours)
Instructor: James C. King, Adobe Systems Inc.

The Portable Document Format (PDF) is widely used as an electronic analog for paper documents. A more specialized subset of the PDF specification, called PDF/A, has been developed more specifically for the preservation of documents in an

electronic form. This subset is now ISO Standard ISO-19005-1:2005.

This course will provide an introduction to the PDF and PDF/A specifications with an emphasis on the differences. Examples of why PDF/A might be preferred for use in archiving applications will be given.

Benefits

This course will enable the attendee to:

- Explain the basic internal structure of PDF files
- Provide examples of advanced functions supported using files conforming to the general PDF specification
- Point out features of general PDF files not suitable for archiving applications
- List the restrictions imposed by the PDF/A specification and explain why these are important to archivists
- Evaluate when to use PDF and when to use PDF/A

Tutorial Fees

if you register:	by April 21	after April 21
4-hour Member	$200	$250
4-hour Non-member	$230	$280
2-hour Member	$150	$200
2-hour Non-member	$180	$230

Students may register for tutorials at half-price.

We are in search of a monitor for each class. Monitors assist instructors, collect admission tickets, distribute class notes, and collect course evaluations in exchange for class attendance. If you'd like to be a monitor, please contact Felecia Marsh (archiving@imaging.org).

IS&T reserves the right to cancel classes in the event of insufficient advance registration. Please indicate your interest early.

- Clarify what cannot be accomplished when restricted to files conforming to the PDF/A specification

Intended Audience

Those responsible for establishing standard procedures for archiving document records in an electronic form, decision makers setting archiving policies for electronic archives, and those wanting to learn more about PDF technology in general and the PDF/A restrictions in particular. Technical training and experience is not required.

James C. King, principal scientist at Adobe Systems Inc., now has the job of PDF platform architect. He is responsible for guiding the current and future development of PDF. King has been with Adobe since 1988 when he formed the Advanced Technology Group (ATG). He received one of the first PhD's in Computer Science from Carnegie Mellon University in 1969.

TRACK 2: INTRODUCTION TO REPOSITORIES

T2A: Building Trust in Digital Repositories: Using the DCC Self-Certification Toolkit
8:00 am – 12:00 noon (4 hours)
Instructors: Andrew McHugh, Seamus Ross, and Raivo Ruusalepp, Digital Curation Centre

The Digital Curation Centre (www.dcc.ac.uk) is currently carrying out a number of pilot audits on digital repositories in the UK, Europe, and New Zealand using the checklist drafted by the RLG/NARA working group. Building upon the RLG/NARA checklist and drawing upon the experiences gained through the DCC pilot audits, the DCC is developing a self-certification toolkit that will assist institutions in assessing their staff skill-sets, workflows, and overall performance. While formal certification is still some time away, the DCC is confident that there are many benefits to be gained by undertaking the process of self-auditing.

This practical tutorial will provide a contextual overview of the need for an evidence based evaluation of digital repositories and offer an overview of the DCC pilot audits to date. The tutorial will then move on to demonstrate how institutions can make use of the DCC Self-Certification toolkit to design, develop, evaluate, and/or refine new or existing trusted digital repository systems and workflows. This will involve a walk-through of the criteria checklist with practical examples based on the pilot audits. Participants will be encouraged to draw upon and share their own experiences during this discussion.

Participants will receive a hard copy of the checklist and related documentation to take away with them so they can begin to assess their own repositories and workflows or start developing a repository system.

Benefits

This course will enable the attendee to:

- Comprehend the concepts of trust with regards to digital repositories
- Recognize the need for evidence-based evaluation for building trust in digital repositories
- Understand how the DCC Self-Certification toolkit can be used to help design and develop systems and workflows that can help build trusted digital repositories
- Obtain skills needed to undertake a thorough assessment of digital repositories using the DCC Self-Certification toolkit
- Appreciate the range of staff and skill-sets required to implement and sustain a trusted digital repository

Intended Audience

Anyone involved in funding, supporting, developing, implementing, and/or managing digital repositories.

Andrew McHugh, advisory services manager for the DCC since 2004, leads a world-class team of digital curation practitioners in offering leading-edge expertise and insight

in a range of issues. His most recent work at the DCC has involved leading its work in trusted repository Audit and Certification. McHugh also lectures on multimedia systems and design on the MSc in Information Technology run by the Computing Science Department at Glasgow.

Seamus Ross, professor of Humanities Informatics and Digital Curation and director of Humanities Computing and Information Management at the University of Glasgow, runs HATII (Humanities Advanced Technology and Information Institute, www.hatii.arts.gla.ac.uk, of which he is the founding director. He is an associate director of the DCC, a co-principal investigator in the DELOS Digital Libraries Network of Excellence, www.dpc.delos.ac.uk, and principal director of Digital Preservation Europe (DPE), www.digitalpreservationeurope.eu.

Raivo Ruusalepp is currently involved in the audit and certification of digital repositories work of the EU Digital Preservation Europe project. He is employed at the National Archives of Netherlands and the Estonian Business Archives. Ruusalepp has an MA in computing applications for history from University of London and has worked with digital archives and electronic records management for more than ten years.

T2B: The PREMIS Data Dictionary: Information You Need to Know for Preserving Digital Objects
1:15 – 5:15 pm (4 hours)
Instructors: Rebecca Guenther, Library of Congress, and Brian Lavoie, OCLC Research

Metadata can play a vital role in enabling the effective management, discovery, and re-usability of digital information. Preservation metadata provides provenance information, documents preservation activity, identifies technical features, and aids in verifying the authenticity of a digital object. The PREMIS Working Group released its *Data Dictionary for Preservation Metadata* in June. This course introduces this core set of metadata elements and explains how it might be implemented in a preservation repository.

Special Free Tutorial

*While this course is being offered free of charge, registration is required.

Archiving & Digital Preservation: A Primer and Overview of the Conference, and an Introduction to its Universe
May 21st, 4:30 – 5:30 pm
George Barnum, US Government Printing Office

This session, taught by one of the Archiving 2007 Program Chairs, will provide an overview and conceptual map of this year's conference, introducing fundamental concepts and terminology. Each year the Archiving Conference brings together a diverse audience that includes image scientists, computer scientists, researchers, librarians, archivists, and students. Though linked through the common purpose of archiving, the technical sessions and social events can have a "Tower of Babel" quality, with each expert speaking the particular language of his or her own discipline. The goal of the technical program is to expose attendees to a wide variety of specialized research presented for a very broad audience. This primer is designed to provide some common ground by summarizing conference themes and defining some of the idiosyncratic— and commonly misunderstood—terms and acronyms used in the world of digital archives and digital preservation.

George Barnum is content system manager in the Office of Innovation and New Technology of the US Government Prining Office (GPO). He works with the team creating GPO's Future Digital System (FDsys), with special emphasis on metadata issues and digital document preservation. At GPO, Barnum previously worked as principal writer and editor of "Managing the FDLP Electronic Collection," the collection planning document that guides the creation of the FDLP/EC. Before joining GPO in 1997, Barnum was head of government documents at the Case Western Reserve University Library, and an adjunct faculty member in the School of Library and Information Science at Kent State University, where he received his MLS.

Benefits

This course will enable the attendee to:

- Define the types of information needed for digital objects to be preserved for the long term and describe some possible implementations
- Explain the entities defined in the PREMIS data model and give examples of the types of metadata that fall under each entity
- Demonstrate the ability to use the PREMIS data dictionary and apply it in an XML context
- Clarify how relationships between archived digital objects are expressed with PREMIS entities and semantic units

Intended Audience

Information professionals with some technical knowledge about digital objects; a basic knowledge of XML is helpful.

Rebecca Guenther has worked for the Library of Congress in various positions since 1980, and is currently a networking and standards specialist in the Network Development and MARC Standards Office. She works primarily on metadata, including the development and maintenance of MARC formats, as well as a number of XML formats, such as MARCXML, MODS and METS. Guenther is the chair of the PREMIS Editorial Committee and served as co-chair of the PREMIS Working Group during the development of the PREMIS Data Dictionary.

Brian Lavoie joined OCLC Research in 1996. His research interests include analysis of aggregate collections, economic issues associated with information and the provision of information services, service models and frameworks for libraries, and digital preservation. Lavoie helped organize and participated in the OCLC/RLG Preservation Metadata Framework Working Group, and the Preservation Metadata: Implementation Strategies (PREMIS) Working Group. He participates in the PREMIS Maintenance Activity and is a member of the PREMIS Data Dictionary Editorial Committee.

T3A: Introduction: Image Science for the Archiving Community

8:00 am – 12:00 noon (4 hours)
Instructor: Alan Hodgson, Consultant

This course will provide an overview of image science. It has been written specifically to cover the needs of the Archiving community in the widest sense. As such it is not specific to any particular hard copy technology such as paint, traditional photo, or new recording media (*i.e.,* inkjet) and is equally applicable to images in the digital domain. The course will also generally cover the image science considerations of digitization by whatever means, display, and any subsequent printing. The course will be illustrated with case studies from a number of types of printed media and some digitized images. The image science implications of a number of new analytical techniques will also be investigated.

Benefits

This course will enable the attendee to:

- Understand the basic principles of image science as applied to the Archiving community in the widest sense
- Learn about resources (*i.e.,* books, periodicals, and conferences) to further investigate the elements of this presentation
- Summarize the tools of image science and how these can be best used in your projects
- Evaluate the effect of natural processes on image content, in particular the multi-dimensional aspects of image permanence
- Estimate the potential of a number of analytical techniques to investigate image content and morphology
- Be aware of how new technology from various disciplines is finding application in image science and look out for the opportunities this presents

Intended Audience

This tutorial gives a basic overview of image science and requires no previous knowledge of the topic. Although many works on this subject delve deep into the mathematics of the discipline, this tutorial will avoid all this by using visual imagery to describe and explain the topic. As a result it requires no mathematical knowledge to access the information. It is intended to provide an overview of the topic to archivists, curators, conservators, and all those who have an interest in what makes an image!

Alan Hodgson is an independent consultant based in the UK with more than 20 years experience in image science. A degree in colorant chemistry took him into the photographic industry and into scientific imaging and inkjet printing. He currently works on projects involving imagery from astronomic to microscopic dimensions for a range of clients, including the Archiving community. With a wide technical background, Hodgson can give imaging issues a broader perspective with real examples. In addition to IS&T, he is active in the Royal Photographic Society Imaging Science Group and the Institute of Physics.

T3B: Color Image Workflows and Architecture for Archiving Applications
1:15 – 5:15 pm (4 hours)
Instructor: Sabine Süsstrunk, Ecole Polytechnique Fédérale de Lausanne (EPFL)

Images optimized for archiving, images optimized for viewing, and images optimized for printing usually do not contain the same digital values, nor should they. Depending on the intended usage of a digital image, its image state (color encoding, resolution, compression, processing, and rendering) needs to be adjusted. In this course, we will cover the workflow from image capture to visualization to archiving and discuss the appropriate image parameters for each step.

Benefits
This course should enable you to:
- Understand image formation, colorimetry, and color management
- Apply ICC color management to your imaging workflow
- Recognize different image states and their relevancy in image archiving environments
- Identify the correct image capture parameters (scanners and digital cameras) and color management workflow for your image archiving and visualization needs
- Define color image encodings, resolution, file formats, and compression requirements for your image files

Intended Audience

Imaging managers and technicians in an image archive or library who are involved in the digitization, processing, and maintenance of digital images, and engineers who develop hardware and software applications for the archival community. Basic knowledge of digital imaging is assumed.

Sabine Süsstrunk is professor for images and visual representation at the Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland. Prior to that she was the principle imaging researcher for Corbis Corp. in Seattle, WA. She is a member of ISO TC42 WG18 and JWG20/22/23, the ISO committees defining digital photography and color imaging standards. Süsstrunk is the director of CIE Division 8 (Imaging Technologies). She has lectured and published extensively in the area of color imaging, and is a consultant to museums, archives, and companies.

TRACK 4: IMAGING PERFORMANCE & DIGITIZING NEGATIVES

T4A: Evaluating Digital Scanner and Camera Imaging Performance for Digital Collections
8:00 am – 12:00 noon (4 hours)
Instructors: Peter Burns and Don Williams, Eastman Kodak Company

Many of today's standards for characterizing imaging performance are based on image science principles. We begin by introducing

this perspective and then describe its application to scanner and digital camera performance in an archiving environment. The standards and accompanying tools will help the user control tone reproduction and evaluate manufacturers' claims of resolution, dynamic range, and noise. We will then identify several common image artifacts associated with digital image capture. Through examples, we describe how performance parameters can be monitored by summary measures acquired automatically as part of a quality assurance process.

Benefits

This course will enable attendees to:

- Recognize image science principles for digital image conversion
- Describe existing standards to characterize scanner and camera capability and performance
- Connect today's vernacular performance terms (*e.g.,* dpi, bit depth, gamma, etc.) to science-based performance metrics
- Benchmark or audit a manufacturer's scanner performance with the above metrics using publicly available standards, compliant software, and targets
- Understand summary measures for monitoring performance in workflows
- Identify several digital imaging distortion sources from image data

Intended Audience

Managers, engineers, and technicians charged with evaluating and monitoring scanner performance and understanding how performance metrics connect to other imaging system components, such as display, print, and processing.

Peter Burns is a member of Eastman Kodak's Research and Development Labs. His published articles and patent activities have been in the areas of detector performance and image noise modeling, image quality evaluation, color-error propagation, and digital image processing. Burns has taught imaging courses for many years, as an adjunct faculty member at RIT, at Kodak, and at several technical conferences.

Don Williams, an imaging scientist at Kodak's Imaging Science Division, works on quantitative performance metrics for digital capture devices and systems. He frequently consults and writes for the museum and library community on scanner imaging performance metrics and associated standards. Williams currently co-leads several ISO/TC42 standardization efforts in this area.

T4B: Digitizing Historical Negative Collections
1:15 – 3:15 pm (2 hours)
Instructor: Stephanie Ogeneski, National Anthropological Archives, Smithsonian Institution

This tutorial is designed to give those working with historical negative collections a fundamental understanding of the relationship between analog and digital images. Participants involved in digitization projects of negative collections will explore best approaches when embarking on a digitization project with these materials to ensure accuracy in reproduction. Participants will begin to get an overview of the historical material and how that material is conceived, captured, and translated from analog to digital within a digital environment. Digital guidelines and tone reproduction will be discussed.

Benefits

This course will enable attendees to:

- Identify and evaluate image characteristics of analog materials: glass plate, nitrate, acetate, and polyester film base materials
- Recognize issues related to handling and learn special applications used in a digital environment due to deterioration of these materials
- Examine concepts of densitometry applied in a digital environment
- Interpret and discover digitization guidelines
- Evaluate, assess, and understand image data and quality control of the digital image

Intended Audience

Archivists, technicians, and anyone working with negative collections. There are no special prerequisites.

Stephanie Ogeneski is a digital imaging specialist at the National Anthropological Archives, Smithsonian Institution. She served as the manager of the digital imaging facility at the Chicago Albumen Works. Ogeneski received a Certification in Photographic Preservation and Archival Practice from the George Eastman House and was the recipient of Academic Specialist Grants through the US Embassy of Mexico Cultural and Academic Exchange Program. She has taught at Indiana and Purdue Universities and Simon's Rock College of Bard.

TRACK 5: CONSERVATION OF SPECIAL MEDIA

T5A: Caring for the Analog Oldies: Motion Picture Film and Videotape

8:00 am – 12:00 noon (4 hours)
Instructor: Alan Lewis, consultant

This tutorial will cover managing the preservation of motion picture film and analog videotape recording technology from the standpoint of computer-oriented people who have little or no familiarity with these "legacy media." This course focuses on the fundamental nature of the media and the application of archival principles and procedures to them. It deals with basic technology, terminology, conservation and preservation methods; storage considerations; equipment needs; and more. Attendees are encouraged to bring examples or photos of problem film or video media, or unusual equipment they are challenged with.

Benefits

This course will enable the attendees to:
- Understand the basic theory of creating the illusion of motion by capturing sequences of still images on photographic film and magnetic tape
- Recognize the concepts of audiovisual media conservation, preservation, and restoration, as well as when to apply them to motion picture and videotape collections
- Understand the necessity of considering recording systems rather than just recording media as they relate to developing a preservation strategy for film and videotape collections
- Identify motion picture film by its width (gauge) and emulsion type
- Discover various types of motion picture sound tracks
- Comprehend the differences between film camera negatives, work prints, fine grain masters, dupe negatives, and projection prints
- Grasp aspect ratio, film perforations, and dating film stocks
- Identify the common widths and formats of open-reel analog videotapes
- Categorize the common gauges and formats of cassette enclosed analog videotapes
- Acknowledge the concept of the "archival set," composed of preservation, intermediate (dubbing master), and reference copies of individual items
- Learn about the content appraisal of films and videotapes being offered to the archive
- Find out how to apply the concepts of safe media storage, including environment, physical security, fire and water protection, light sensitivity, cleanliness and air quality, biological infestation, dispersal, primary storage containers, storage position, winding ribbon media, shelving, shock and vibration protection, protection of magnetic materials, item identification and inventory control, and equipment and technology obsolescence

Intended Audience:

Archivists, librarians, information technologists, and IT supervisors who, in addition to their "new technology" jobs,

also may become the custodians of—or advisors to custodians of—traditional motion media collections and need to deal with them until they can be digitized for access and preservation.

Alan Lewis, is the now-retired preservation administrator of the Motion Picture, Sound, and Video Branch of the National Archives and Records Administration (NARA). He has a background in production at WEDU-TV and program administration and distribution at the PBS Public Television Library and Archives. He directed the CBS News Film and Videotape Archives before joining the staff of NARA as supervisory audiovisual specialist. Lewis conducts preservation surveys of AV collections and workshops on the preservation management of machine-based AV collections.

T5B: Contemporary Photography: Digital Prints
1:15 – 5:15 pm (4 hours)
Instructors: Franziska Frey, Rochester Institute of Technology, and Martin Jürgens, consultant

This course will focus on the materials, identification, and stability of digital prints. The aim of the course is to provide attendees with the knowledge and tools to handle the issues surrounding the acquisition and preservation of prints made from digital files, as well as an understanding for the trends in imaging technology and artists' use of modern photographic printing techniques.

Benefits
This course will enable the attendee to:
- Describe the various digital printing processes used by photographers today
- Understand the materials used for the different processes
- Explain the permanence issues associated with the different processes
- Assess storage requirements for digital prints
- Explain some of the digital preservation issues connected to digital photography

Intended Audience
Those in the archive, library, and museum communities who are creating, using, or preserving digital prints.

Franziska Frey is a professor at the School of Print Media at Rochester Institute of Technology. She received her PhD in Natural Sciences (concentration: Imaging Science) from the Swiss Federal Institute of Technology in Zurich, Switzerland in 1994. Before joining the faculty of the School of Print Media, she worked as a research scientist at the Image Permanence Institute at RIT. Frey publishes, consults, and teaches in the US and around the world on various issues related to establishing digital image databases and digital libraries. She is also involved in several international standards groups dealing with technical metadata and digital photography.

Martin Jürgens studied photography and design at the Technical University in Dortmund, Germany. He holds an MS from Rochester Institute of Technology and a Master of Art Conservation (MAC) from Queen's University in Kingston, specializing in paper conservation. Since 2001, Jürgens has been working as a photograph conservator in private practice in Hamburg, Germany. His areas of research and teaching include, next to historic and contemporary photography, the materials, chemistry, and preservation of digital print.

Make your plans early and save!

Advance Conference and Tutorial Registration and Hotel Reservation Deadline: April 21, 2007

Technical Program

8:30 - 9:35 am
Keynote Session

Welcome and Announcements
"Archiving Large Collections of Motion Images—Perspectives for the Digital Age", *Daniel Rosen, Warner Bros. (USA)*

9:35 am - 5:05 pm
Archiving and Technology

The Simultaneous Capture of Spectral & Textural Information, *D. John Redman, Hewlett-Packard Company (USA)*

PDF File Migration to PDF/A: Technical Considerations, *Frank L. Walker, George R. Thoma, and Marie E. Gallagher (USA)*

Debunking Color Science: An Applicable Color Management Approach for Photographers Working with cultural Heritage, *Natalie Russo and Franziska Frey, Rochester Institute of Technology; and Allen Phillips, Wadsworth Atheneum Museum of Art (USA)*

Top Ten Principles of Digital Image Quality, *Peter D. Burns and Don Williams, Eastman Kodak Company (USA)*

Digitization for Preservation Reformatting, *Steven Puglia and Erin Rhodes, US National Archives and Records Administration (USA)*

The Use of JPEG 2000 in the Information Packages of the OAIS Reference Model, *Robert Buckley, William Stumbo, and Jim Reid, Xerox Corporation (USA)*

12:35 – 2:00 pm
Lunch Break (on your own)

Disk and Archival Storage Cost Models (Focal), *Richard L. Moore and David Minor, University of California San Diego (USA)*

Format Identification, Characterization and Transformation in DAITSS, *Carol C.H. Chou, Florida Center of Library Automation (USA)*

Page Image Compression for Mass Book Digitization, *John Kunze and Ann Jensen, California Digital Library; Stephen Abrams and Stephen Chapman, Harvard University Libraries; Stu Blair, Internet Archive (USA); Laurent Duplouy, National Library of France (France); and Dan Johnston, University of California, Berkeley (USA)*

Statistical Studies of Microfilm Digitization Service Output: A Survey of Vendor Capability, *Ronald J. Murray, Library of Congress (USA)*

Content Packaging Approach for a Large OAIS Repository, *Gil Baldwin and Kate Zwaard, US Government Printing Office, and Matt Landgraf, Vincent Ferrando, and John Faure, Harris Corporation (USA)*

Characterization of Search Engine Caches, *Giridhar Nandigam, Frank McCown, and Michael L. Nelson, Old Dominion University (USA)*

8:30 - 9:35 am
Keynote Session

Welcome and Announcements
The Current State of the Art in Digital Preservation and Continuing Challenges, *Donald Waters, Andrew W. Mellon Foundation*

9:35 am - 4:00 pm
Digital Preservation

Do You (Still) Have the Real Thing? The Use of InterPARES Preservation Principles for Addressing Authenticity in Preservation Process Assessments, *Randy Preston, The University of British Columbia (Canada)*

Building from Trust: Using the RLG/NARA Audit Checklist for Institutional Repository

Archiving 2007 Conference Website

www.imaging.org/conferences/archiving2007

Planning and Deployment, *Helen Tibbo and Carolyn Hank, University of North Carolina at Chapel Hill (USA)*

Preservation of a Natural Electronic Archive, *Maria Esteva, University of Texas at Austin (USA)*

Implementing PREMIS in Container Formats: Experiences and Best Practice (Focal), *Rebecca Guenther, Library of Congress, and Zhiwu Xie, Los Alamos National Laboratories (USA)*

Enhancing the Quality of Metadata: Modular Approach to Digital Resource Lifecycle Management, *Daniel Alemneh and Mark Phillips, University of North Texas (USA)*

Compression and Digital Preservation: Do They Go Together? *Judith Rog and Robèrt Gillesse, National Library of The Netherlands (The Netherlands)*

PAWN: A Policy-Driven Software Environment for Implementing Producer-Archive Interactions in Support of Long Term Digital Preservation, *Mike Smorul, Mike McGann, and Joseph JaJa, University of Maryland (USA)*

1:05 – 2:30 pm
Lunch Break (on your own)

ACE: A Novel Software Platform to Ensure the Long Term Integrity of Digital Archives, *Sang Chul Song and Joseph JaJa, University of Maryland (USA)*

An OAIS Data Repository for the National Digital Newspaper Program: Lessons Learned During Phase I, *Ray Murray, Library of Congress (USA)*

Compact Disc Service Life Studies at the Library of Congress, *Michele H. Youket, Chandru J. Shahani, Norm Weberg, Cindy Connelly Ryan, and Basil Manns, Library of Congress, and William P. Murray, Medtronic (USA)*

DigCCurr: Building an International Digital Curation Curriculum & the Carolina Digital Curation Fellowship Program, *Helen R Tibbo and Christopher A Lee, University of North Carolina at Chapel Hill (USA)*

4:30 - 6:30 pm
Interactive Paper Session
A Comparative Analysis of the Digital Data

Archiving Practices of Selected Scientific Agencies in the Philippines, *Carina C. Samaniego, Manila Observatory (Philippines)*

Managing Digital Image Repositories as Key Tools in the Preservation of Cultural Objects, *Fenella G. France, Art Preservation Services (USA)*

Quantitative Evaluation Criteria for the Selection of Standard Images Used on Watermarking Performance Test, *Sang-Il Na and Dong-Seok Jeong, Inha University, and Yung-Eun Jung, Telecommunication Technology Association (South Korea)*

Criteria for a Storage Concept in a P2P Archival System, *Simon Margulies, Ivan Subotic, and Lukas Rosenthaler, University of Basel (Switzerland)*

Digitization of a Legacy Collection: The Collaborative Process When You Don't Have the Collection In-House, *Robin Haun-Mohamed and Virginia Wiese, US Government Printing Office (USA)*

Evaluating Binarization Techniques for Optical Character Recognition, *Donald B. Curtis, MyFamily.com, Inc. (USA)*

Keeping the Promises Associated with Your Digital Assets: Is it Possible? *Marie E. Gallagher, National Library of Medicine (USA)*

Normalized Database Preserves Radio Program Information for the Daily Users and Research, *Osmo Palonen and Mirja Loponen, Mikkeli University of Applied Sciences (Finland)*

Light House Projects in Digital Preservation using Laser Recording Technology, *Karsten Sassenscheid, Fraunhofer Institute for Physical Measurement Techniques (IPM; Germany)*

Multi-Variant Analysis of Real-World Environmental Variables Affecting Image Fading on Outdoor Synthetic Inkjet Substrates, *Elizabeth A. Kline (USA)*

Archiving Data: The Long-term Memory of Society and Business, *Karsten Sassenscheid, Fraunhofer Institute for Physical Measurement Techniques (IPM) (Germany)*

Utilizing Digital Contents to Enhance Traditional Manufacturing Industry and People's Life, *Yung-Cheng Hsie, National Taiwan University of Arts (NTUA; Taiwan)*

Thursday May 24, 2007

8:30 - 9:35 am
Keynote Session

Welcome and Announcements

The Public Information Commons: What It is and Why the Open Content Alliance Cares About It, *Czeslaw Jan Grycz, Internet Archive (USA)*

10:35 am - 12:40 pm
Creating and Managing Collections

Evaluating Personal Archiving Strategies for Internet-based Information (Focal), *Cathy Marshall, Microsoft Corporation (USA)*

Archiving a Historic Medico-legal Collection: Automation and Workflow Customization, *Dharitri Misra, Song Mao, John Rees, and George R. Thoma, US National Library of Medicine (USA)*

Next Generation Finding Aids, *Elizabeth Yakel, Polly Reynolds, Seth Shaw, James Sweeney, and Magia Krause, University of Michigan (USA)*

The Historic American Buildings Survey Drafts a Collections Management Strategy for the 21st Century, *Martin Perschler, National Park Service (USA)*

Access Management in On-demand Digital Archive Services, *Antti Ropponen and Osmo Palonen, Mikkeli University of Applied Sciences (Finland)*

Management of Digital Archives for Integrated Web Access to Scientific and Cultural Information, *Michael B. Toth, R.B. Toth Associates (USA)*

Behind the Scenes Archiving 2007 Tours

Washington offers many opportunities for those interested in Archiving to learn about what others are doing "behind the scenes" in their preservation labs and related facilities.

In keeping with years past, the Archiving Committee is working to arrange a number of tours of prominent cultural institutions from which you may choose. All tours are free of charge and will take place on Thursday afternoon, beginning at 1:30 or later to allow you time to get lunch and get to the tour site.

Transportation to/from the tour site is the responsibility of the attendee. Most sites should be in easy walking distance from a Metro station and we will work with attendees to set up taxi carpools.

Detailed information on tours will be sent to those on our conference list serve, as well as posted on the conference Website as soon as details become available.

Advanced registration is required and the number of participants visiting each site will be limited. Sign up for tours will be on a first-come/first-served basis, with priority given to those who meet the early registration deadline.

For further information, contact IS&T.

Archiving 2007 Hotel Registration

Name_____

Title/Position _____

Company _____

Mailing Address _____

_____

Telephone _____   Fax _____   Email _____

(Reservations Deadline: April 21, 2007)

A special block of rooms at a discounted rate ($149 single/double) is being held at the Hilton Crystal City at Reagan National Airport for Archiving 2007 conference attendees for the nights of May 21–27. The discounted rate will be extended for 3 days prior to and after these dates on a space available basis. Reservations will be assigned on a priority basis to our group provided they are received by April 21, 2007. To guarantee your room, a deposit equal to one night's housing must accompany your reservation request or be guaranteed with a major credit card. Be sure to mention the Archiving 2007 Conference when making your reservation. To register online go to Hilton.com and enter Arlington in the "city area", then click on the Crystal City Hilton. Use SIT as the conference code.

Deposits can be made by check or major credit card.
Payment Method: ___ Check (check # _____ is enclosed).

___ AMEX   ___ MC   ___ VISA   ___ Diner's   ___ Discover

Card# _____ Exp. Date _____

Charge Authorization Signature _____

Notice of cancellation must be given to the hotel 24 hours prior to arrival date to receive a full refund of deposit. Be sure to obtain a cancellation number. Check in is 3:00 pm; early arrivals will be accommodated as soon as possible. Check out is noon. Please advise the hotel of any change in date or plan by calling 800/695-7551.

Please reserve my room as indicated:

___ Single/___ Double at $149 + 10.25% state and local taxes

___ Smoking   ___ Non-smoking   ___ Special Requirements (please indicate)

Arrival Date and Time _____   Departure Date_____

Hilton Crystal City Reagan
National Airport
2399 Jefferson Davis Hwy
Arlington, VA 22202
www.hilton.com
703/418-6800

Transportation Notes: Complimentary hotel airport shuttle service is provided to and from Reagan National Airport (DCA), the Crystal City Metro station, nearby shopping, restaurants and businesses. The shuttle picks up approximately every 15 minutes on the lower level in the baggage claim area where courtesy phones are located. Taxi service is also provided at a cost of $5.00.

Archiving 2007 Conference Registration

Name_____

Title/Position _____

Company _____

Mailing Address _____

_____

Telephone _____ Fax _____ Email _____

Conference registration includes admission to all technical sessions, coffee breaks, and ticketed receptions. Separate registration fees are required for tutorials. Register online at www.imaging.org/conferences/archiving2007/. All fees noted are in US dollars.

Conference Registration (CHECK ONE)	until 4/21	after 4/21	TOTAL
___ IS&T or Cooperating Society Member	$525	$575	$ _____
___ Non-member	$635	$685	$ _____
___ Speaker/Session Chair Member	$395	$445	$ _____
___ Speaker/Session Chair Non-member	$510	$560	$ _____
___ Student (ID required) Member	$125	$150	$ _____
___ Student Non-member	$150	$175	$ _____
___ One-day (select below)	$300	$330	$ _____

❑ Tuesday ❑ Wednesday ❑ Thursday

Tutorial Registration (be sure to multiply number of classes by per course fee and place on total line)

*Students may register for tutorials at half-price.

___ 4-hour Member (per class)	$200	$250	$ _____
___ 4-hour Non-member (per class)	$230	$280	$ _____

Check all that apply: ❑ T1A ❑ T2A ❑ T2B ❑ T3A ❑ T3B ❑ T4A ❑ T5A ❑ T5B

___ 2-hour Member (per class)	$150	$200	$ _____
___ 2-hour Non-member (per class)	$180	$230	$ _____

Check all that apply: ❑ T1B ❑ T1C ❑ T4B

❑ Check here if you plan to attend the free tutorial, "Archiving & Digital Preservation: A Primer and Overview of the Conference, and an Introduction to its Universe" (see page 7 for details).

Other

___ Extra Archiving 2007 Proceedings	$65	$ _____
(special advance purchase on-site rate)		
___ Additional Conference Reception Ticket	$50	$ _____

___ IS&T prorated Membership (8 months), new members only

	$65 US $75 overseas	$ _____
___ IS&T Student Membership	$25 US/overseas	$ _____

Membership includes the *Journal of Imaging Science & Technology* online and access the to the membership and papers database. Membership paid for now begins immediately and expires 12/31/07. Student memberships expire 09/30/07.

GRAND TOTAL $ _____

Payment Method: ❑ Check (Check # _____) ❑ AMEX ❑ MC ❑ VISA ❑ Diner's ❑ Discover

Card#: _____ Exp. Date: _____

Name as it appears on card: _____

Authorization Signature: _____

Return this form with signed credit card authorization or check payable in US dollars to IS&T, 7003 Kilworth Lane, Springfield, VA 22151; 703/642-9090; 703/642-9094 fax; info@imaging.org

Please note: To cover bank charges and processing fees, there is a cancellation fee of $75 dollars until May 21, 2007. After that date, the cancellation fee is 50% of the total plus $75. No refunds will be given after June 11, 2007. All requests for refunds must be made in writing.

Archiving 2006

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