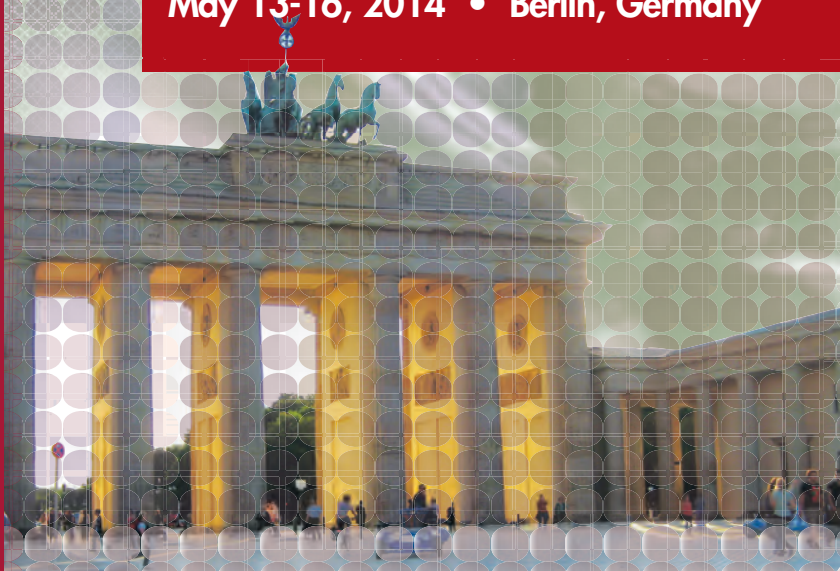# ARCHIVING 2014
May 13-16, 2014 • Berlin, Germany

www.imaging.org/archiving

General Chair: Christoph Voges, consultant

Sponsored by
Society for Imaging Science and Technology

Cooperating Societies
AIC The American Institute for Conservation of Historic & Artistic Works •
ALA ALCTS American Library Association-Association for Library Collections &
Technical Services • AWV Arbeitsgemeinschaft für wirtschaftliche Verwaltung
e.V. • CNI Coalition for Networked Information • DGPh Deutsche Gesellschaft
für Photographie • FKTG Fernseh- und Kinotechnische Gesellschaft e.V. •
IOP/ Printing & Graphics Science Group • ISCC Inter-Society Color Council •
nestor – The German network for digital preservation • RPS Royal
Photographic Society/Imaging Science Group

IS&T
imaging.org

CONFERENCE VENUE: BERLIN, GERMANY

While Brandenburg Gate (see cover) is one of Berlin's most famous icons, this city, seeped in rich history, hosts several architectural gems and UNESCO World Heritage sites including Museum Island, home to five world-class cultural institutions; six Modernism Housing Estates—built between 1913 and 1934—spread across the city; and the landscape of palaces and gardens between Berlin and Potsdam. Additional highlights include more than 170 museums and galleries, the glass dome of the Bundestag, the Reichstag, and the Fernsehturm (TV tower).

Archiving 2014 will take place in the historic heart of the city, within walking distance of many important sites. Technical Sessions will be held in the Arsenal (home of the Berlin Film Festival), which is located in the Sony Centre, at Potsdamer Platz. Short courses will take place in the Relexa Hotel Stuttgarter Hof, about five blocks from Potsdamer Platz. The hotel is two blocks from a remaining segment of the Berlin Wall, a few blocks from Checkpoint Charlie, and near the corner of Wilhelmstrasse, a street that features an impressive series of historic markers chronicling the history of Germany in the mid-20th century.

This exciting city is sure to enage all attendees, no matter their personal interest. Visit www.visitberlin.de/en for more information.

CONFERENCE COMMITTEE

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Christoph Voges, consultant

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David Walls, US Government Printing Office

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Cover image: Suzanne E. Grinnan
Cover design: Frances Greene

CONFERENCE AT-A-GLANCE

Short courses will take place at the Relexa Hotel Stuttgarter Hof (see page 12). Technical Sessions will take place at Arsenal Cinema, on the lowest level of the Sony Centre, Potsdamer Platz.

IMPORTANT DATES

Hotel registration deadline:
April 6, 2014

Early registration deadline:
April 14, 2014

Registration Hours
Tues., May 12 at the Relexa Hotel, 7:30 - 17:30
Wed., May 13 at the Arsenal Cinema, 8:00 – 16:00
Thurs., May 14 at the Arsenal Cinema, 8:30 – 14:00
Fri., May 15 at the Arsenal Cinema, 8:30 – 14:00

Tuesday, May 13
- Short Course Program (see p. 3)
- Welcome Reception

Wednesday, May 14
- Keynote by Siegfried Foessel, Fraunhofer IIS
- Exhibition
- Technical Papers Program
  — Film Archiving
  — E-Government Archiving
  — Exhibitor Previews
  — Preservation of Digital Assets I
  — Technical Processes and Workflows

Thursday, May 15
- Technical Papers Program
  — Migration and Storage
  — Interactive Paper Session I
  — Preservation of Digital Assets II
  — Cost Models and Aspects
- Behind-the-Scenes Tours (see p. 2)

Friday, May 16
- Keynote TBA
- Technical Papers Program
  — Digital Curation
  — Interactive Paper Session II
  — Innovative Projects and Activities
- Panel Discussion: The Future of Digital Preservation

Note: Conference Reception details are still being worked out. It will take place Wednesday or Thursday evening.

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Berlin is a city of majestic buildings and stunning architecture, as seen in the Konzerthaus Berlin and Französische Friedrichstadtkirche on Gendarmenmarkt plaza.

Photo: Suzanne E. Grinnan.

BEHIND-THE-SCENES TOURS: THURSDAY, MAY 15

A highlight of every Archiving conference, these special tours take you behind-the-scenes at cultural institutions involved in digital archiving. See details at right for attending one of these tours.

Federal Commissioner for the Records of the State Security Service of the former German Democratic Republic: Stasi Archives

The Stasi Records Office houses an enormous and unique archival legacy: roughly 99 km of paper records, around 12 km of Stasi finding aids, approximately 47 km of documents stored on microfiche, and more than 15,500 bags of shredded Stasi files. The Archives also houses many types of audio-visual records, such as 1.7 million photos, slides, and sound and video recordings.

During the tour visitors get a fascinating glimpse into the inner life of the former East German secret police.

State Library of Berlin

The State Library of Berlin is the largest and one of the most important academic research libraries in Germany. Some of its most famous items include the 5th century Quedlinburg Itala fragment (the oldest biblical illustrations); a Gutenberg Bible; Goethe's autograph collection; the world's largest collection of manuscripts from Johann Sebastian Bach and Wolfgang Amadeus Mozart; and the original score of Ludwig van Beethoven's Symphony No. 9.

The digital imaging staff will demon-

Special Note on Tours

Advance registration is required; space is limited and reserved on a first-come first-served basis. You must be registered for Archiving 2014 to attend a tour.

Tours run approximately two hours and start around 16:00. All tours are free. Transportation and other details are given on the tour registration form.

Everyone who registers by the early registration deadline will receive additional details shortly thereafter. Others will recieve information as registrations are received and processed.

strate their scanning technology and the new thermographic scanning camera used for getting undisturbed watermarks from historical music manuscripts.

National Film Archives

Participants are welcomed to visit the movie film restoration facility and film vaults in Hoppegarten near Berlin. There are 80,000 rolls of cellulose nitrate films stored in the archives. A tour of the workshops for movie film restoration, as well as sound transfer and restoration, along with labs and workstations for digital restoration are included.

Photos: Suzanne E. Grinnan.

Checkpoint Charlie, left, and a fragment of the Berlin Wall above an outdoor historic timeline at the Topography of Terror museum.

SHORT COURSE PROGRAM: TUESDAY, MAY 13

Short Courses take place at the Relexa Hotel Stuttgarter Hof, Anhalter Strasse 8-9, Berlin. See page 12 for details.

T1A: Scanner & Camera Imaging Performance Workshop

8:00 – 10:00 (2 hours)

Instructors: Don Williams, Image Science Associates, and Peter D. Burns, Burns Digital Imaging

The workshop begins with a discussion of how to interpret customer imaging requirements. It then introduces several principles that help our understanding of imaging performance in acquisition and conversion. The use and adaptation of several standards and institutional guidelines in museum or library environments are described. These include the Federal Agency Digitization Guideline Initiative (FADGI) and Metamorfoze. A workshop discussion of common challenges for imaging services and digital collections follows. In each case, the discussion focuses on the selection and development of test plans, performance measurements, acceptance criteria, tests targets and software. Suggestions and tools for corrective action for poor performance are provided.

Benefits

This course enables the attendee to:

- Establish accountability for imaging performance problems.
- Describe several standards to characterize scanner and camera performance.
- Evaluate manufacturers' claims of resolution, dynamic range, and noise.
- Identify sources of performance variation in digital image reformatting.
- Introduce imaging quality control procedures into their workflows.
- Develop test plans and apply corrective actions for ill-behaved performance.
- Use easy and non-disruptive ways to monitor image quality.

Intended Audience: Managers, engineers, and technicians interested in evaluating and monitoring scanner and camera performance and emerging guidelines. This includes manufacturers, service providers, and content custodians. A working knowledge of digital scanner and camera operation and the common technologies is assumed.

Don Williams is founder of Image Science Associates, a digital imaging consulting and software group. Their work focuses on quantitative performance metrics for digital capture imaging devices, and imaging fidelity issues for the cultural heritage community. He has taught short courses for many years, contributes to several imaging standards activities, and is a member of the Advisory Board for the interagency US Federal Agencies Digitization Guidelines Initiative (FADGI).

Peter Burns is a consultant working in digital image evaluation, system monitoring, and image processing. He has experience in several areas for digital imaging; digital photography, mobile imaging, cultural heritage imaging, and imaging performance standards. A frequent speaker at imaging conferences, he is also a university lecturer and teaches short courses.

T2A: An Introductory Workshop in Digital Preservation

8:00 – 10:00 (2 hours)

Instructors: Laurence Horton and Astrid Recker, GESIS – Leibniz Institute for the Social Sciences

Adopting a "train the trainers" approach, this course gives an overview of an introductory two-day workshop, "First steps towards digital preservation," offered by the GESIS Archive and Data Management Training Center (www.gesis.org/en/admtc/). The course is a primer in digital preservation for archivists, librarians, repository or research data center staff, and anyone responsible for (planning) the preservation of digital assets independent of the disciplinary background. The course showcases support and training materials

and gives participants the chance to try the materials and exercises on:

- what is digital preservation?
- introduction to the OAIS Reference Model
- preserving information for a designated community
- acquisition policies and selection criteria
- licensing for preservation and re-use
- trusted digital repositories

Benefits

This course enables the attendee to:

- Learn about the structure and conceptualization of an introductory workshop on digital preservation.
- Become familiar with the content offered in the workshop and gain an overview of the available workshop materials and exercises.
- Use the materials to design training workshops in his/her own organization.

Intended Audience: Digital curation professionals interested in conducting training in their own organizations.

Laurence Horton has worked in the GESIS International Data Infrastructures Team since 2011, coordinating the Archive and Data Management Training Center. Before joining GESIS he was employed at the UK Data Archive first in data acquisition and preparing data collections for archiving and re-use, and then on a project supporting the data management infrastructure of large-scale research centers.

Astrid Recker works at the GESIS Data Archive where she is responsible for the design and delivery of digital preservation workshops for the Archive and Data Management Training Center. She has a master's degree in Library and Information Science and specializes in questions of digital preservation. She is also involved in the EU-project Data Service Infrastructure for the Social Sciences and Humanities (DASISH).

Take 3 or more classes and receive 15% off the total cost.

T3A: Open Source Tools for Digital Archiving: Colour Management & Semantic Databases
8:00 – 10:00 (2 hours)
Instructor: Klaus Wendel, archium

Is there an industry in which the contrast between the skills of the professionals and the budget is so large as in the world of archivists and librarians? Is there a way to bridge this contradiction? "Open source" is the answer! This course introduces some open source tools with which digitization, data retrieval, and medium-term archiving can be done very cost effectively and efficiently.

A complete image raw data conversion workflow is presented. Color management loses its angst if we use the extensive opportunities of the open source software ArgllCMS. In addition tools such as ImageMagick and nip2 for sequential image processing in batch mode are shown. Finally we look to the future period after 'zero' and 'one': the analogization that makes one free and independent—two goals that should really be targeted by every archivist.

Benefits

This course enables the attendee to:

- Learn alternatives ways of working.
- Understand how to save money and increase knowledge by using open source software even in the digital humanities.
- Learn a slightly different approach for color management.
- Learn about stitching with "Hugin," raw data conversion with "RawTherapee," sequential image processing with "nip2" and "ImageMagick," as well as other very powerful tools.

Intended Audience: Archivists and librarians digitizing and processing data who are tired of being dependent on proprietary vendors and service providers. Photographers and digitization service providers interested in learning how to use open source software effectively.

SHORT COURSES AT-A-GLANCE
Descriptions for short courses begin on page 3.

8:00 – 10:00 T1A: Scanner & Camera Imaging Performance Workshop	8:00 – 10:00 T2A: Introductory Workshop in Digital Preservation	8:00 – 10:00 T3A: Open Source Tools for Digital Archiving . . .	8:00 – 10:00 T4A: Intro. and Explanation of the Metamorfoze . . .
10:30 – 12:30 T1B: Analyzing and Processing of Historical Documents	10:30 – 12:30 T2B: Trends in Digital Data Storage	10:30 – 12:30 T3B: Cultural Heritage Management . . .	10:30 – 12:30 T4B: Metamorfoze Preservation Imaging Guidelines . . .
13:30 – 18:00 T1C: PDF/A – The ISO Standard for Long Term Archiving	13:30 – 15:30 T2C: Understanding, Developing, and Applying Semantic . . .	13:30 – 15:30 T3C: Open Licenses in the Cultural Heritage Context	
	16:00 – 18:00 T2D: Archiving Digital Resources . . .	16:00 – 18:00 T3D: Getting to Grips with Optical Soundtracks	

Klaus Wendel is a historian, specializing in science and technology. In 2007, he founded the archium company, providing technological solutions for archival and historical institutions. He developed software for image preparation and metadata conjunction, including a tool to improve analogization workflow. In 2010, archium started to use the wiki technology for semantic archive and image databases. He received his doctorate (2005) from Stuttgart University. He has worked at several archival institutions since 1995, and in 2004 joined the ARCHE laser recording project with Fraunhofer IPM for the Landesarchiv Baden-Wuerttemberg and Stuttgart University library.

T4A: Introduction and Explanation of the Metamorfoze Preservation Imaging Guidelines, Version 1.0, 2012

8:00 – 10:00 (2 hours)
Instructor: Hans van Dormolen, KB, the National Library of the Netherlands/Hans van Dormolen Imaging & Preservation Imaging (HIP)

To use the Metamorfoze guidelines in digitization projects, the entire work flow has to be organized according to the specifications. Scanners and cameras have to be tuned, technical targets have to be acquired, and the daily use of technical targets has to be implemented by operators and photographers. A quality management team and/or system has to be organized to check the digital images on a regular base. To start working according to the specifications requires an investment of time and money, which is rapidly paid back by the robust, reliable, predictable, and repeatable production of digitals images. To be able to make this investment and address unexpected setbacks, broad and deep support of management is needed.

Benefits
This course enables the attendee to:
- Understand the Metamorfoze guidelines.
- Learn its criteria, tolerances, and technical test charts in an easy comprehensible way.

Intended Audience: Managers, photographers, operators, and others from archives, libraries, and museums who are involved in digitization projects and wish to learn more about the Metamorfoze Preservation Imaging Guidelines and its workflow.

Hans van Dormolen is a photographer working as a researcher and imaging specialist at the KB, the National Library of the Netherlands. He is also the founder of Hans van Dormolen Imaging & Preservation Imaging (HIP). He is the author of the Metamorfoze Preservation Imaging Guidelines and author and co-author of several other Metamorfoze guidelines. He is a member of ISO TC42 WG26, CIE Archival Color TC8, and IS&T.

T1B: Analyzing and Processing of Historical Documents

10:30 – 12:30 (2 hours)
Instructors: Volker Märgner, Technical University Braunschweig, and Peter Meinlschmidt, Wilhelm-Klauditz-Institute

This class explains new techniques for processing paper documents in different spectral wavelength ranges using image processing and pattern recognition methods that are of great importance for all research done on ancient texts, graphics, and pictures.

The class begins by providing insight into image processing and pattern recognition for ancient documents. Typical problems and some solutions using image pre-processing methods for cleaning documents are discussed, followed by examples of how pattern recognition methods can be used by historians to work on documents for writer identification, word search, or text recognition. Presented methods show the state of the research.

The class then introduces techniques for using visualization watermarks in historical papers as an important tool for classifying the age of the paper. The presentation begins from the classical transmission light with all its shortcomings of missing parts of the mark because of the overlaying writing or drawings to improvements in visibility in the near infrared. Thermographic camera techniques are then shown to show almost undisturbed watermarks in historical papers through a live presentation. The real work of such a system in a digitalization project of historical

sheet music "KoFIM" can be seen via the "Behind-the-Scenes Tour" at the State Library of Berlin (see page 2).

Benefits

This course enables the attendee to:
• Get the idea of image processing and pattern recognition.
• Apply typical image pre-processing methods for cleaning documents.
• Learn about writer identification.
• Identify changing images by using different light wavelengths.
• Detect undisturbed watermarks and characterization of the marks.

Intended Audience: Managers, engineers, restorers, archivist and technicians interested in evaluating writings and watermarks of historical papers.

Volker Märgner is an expert in image processing and pattern recognition. His current main interest is in historical image processing and pattern recognition, where he works on writer identification and word spotting for Arabic documents.

Peter Meinlschmidt works as a physicist at the Wilhelm-Klauditz-Institute on the application of nondestructive testing and evaluation in all fields of modern and historical materials. He has many years of experience in several areas applying infrared imaging and digital photography to modern and cultural heritage.

T2B: Trends in Digital Data Storage

10:30 – 12:30 (2 hours)
Instructor: Eckhard Siegfried, IBM

The dramatic speed in data growth continues. Market research data from 1986 indicated that out of the estimated 2.64 Exabyte (EB) of data accumulated, less than 2% had been stored in digital form. In 2007, this increased to 94% (out of 295 EB) being digitally stored. This tremendous growth requires a change in storage processes and selection of appropriate storage solutions.

This course illustrates current trends and discusses how to select the right storage methodologies and technologies. It provides a storage technology overview, followed by a description of selected innovations and their impact on the future of the storage technology. Attendees get practical information to help enhance their current storage infrastructure.

Benefits
This course enables the attendee to:
- Understand storage technologies such as flash storage, disk subsystems, optical storage, tape systems, and cloud storage.
- Learn about models for storage management, backup, and archive compliance.
- Understand cost models, *i.e.*, aspects of total cost of ownership (TCO).
- Appreciate future technology trends for hard disk drives, flash storage, storage class memory (SCM), and optical media.

Intended Audience: Executives and professionals responsible for data center planning, implementation, and operation or those who want to get a general overview of today's trends in data storage environments.

Eckhard Siegfried is senior storage advisor at the IBM European Storage Competence Center in Mainz, Germany. In his pre-sales technical support role he works with IBM's sales force and business partners to establish proposals for new storage infrastructures. As an expert in data storage, Siegfried developed the IBM Storage TCO Methodology and lead the implementation of pre-sales support tools for generating business cases, e.g. for storage consolidation projects.

T3B: Cultural Heritage Management — Requirements, Challenges, and Economic Aspects
10:30 – 12:30 (2 hours)
Instructor: Martin Luchterhandt, State Archive of Berlin

There are many places where objects or information are collected that are needed for the functioning or memory-keeping of society. Conserving as a method depends far more than techniques on economic, social, political, and/or other preconditions.

If these preconditions are good, a method of conserving can work; if not, it will fail. It is important to know and to optimize the preconditions, if possible, and to know the limits of archiving. Archiving as a process is shown with the example of a real long-term storage, the German system of the 'Bundessicherungsverfilmung.'

Benefits
This course enables the attendee to:
- Differentiate forms and qualities of cultural heritage.
- Know general conditions for successful archiving.
- Make use of basic techniques of analogue conservation.
- Know standards of metadata and access information.
- Recognize sources of error and failings of archival solutions.
- Develop measures for the selection of objects for archiving.

Intended Audience: Professionals responsible for the archive within organizations, and those in charge of developing archiving concepts for any materials—digital or non-digital.

Short Course Fees

If you register:	by April 14	after April 14
4-hour		
Member	€115 / $155	€130 / $175
Non-member	€125 / $170	€140 / $190
Student	€50 / $70	€60 / $80
2-hour		
Member	€65 / $90	€80 / $110
Non-member	€75 / $100	€90 / $120
Student	€30 / $40	€40 / $50

IS&T reserves the right to cancel classes in the event of insufficient advance registration. Please indicate your interest early. Fees are charged in dollars; Euros shown for comparison.

Martin Luchterhandt is archivist at the Landesarchiv Berlin. Since 2005, he has headed the 'fototechnical committee', which manages a German governmental program for microfilming archival documents for long-time storage. He is responsible for the preservation measures of the State Archive of Berlin and has experience in microfilming, digitizing, and various traditional archival techniques.

T4B: Metamorfoze Preservation Imaging Guidelines and its Daily Use
10:30 – 12:30 (2 hours)
Instructor: Hans van Dormolen, National Library of the Netherlands /Hans van Dormolen Imaging & Preservation Imaging (HIP)

This course builds on T4A (see page 5). During this class, technical criteria and tolerances are explained in a practical and useful way, and the daily use of technical test charts (*i.e.,* DCSG, UTT, SRC) is presented.

The digital colorchecker SG (DCSG) is used to tune a system according to the Metamorfoze guidelines. With the help of this chart, a color correction profile is made. The chart is analyzed to check if it meets tolerances for the tonal capture and color accuracy as described in the Metamorfoze guidelines. After a system is tuned, a UTT and its reference file can be used to implement a quality management system. Using this, the technical performance of the system can be quickly analyzed on a daily basis. During this daily survey, small and large technical errors may show up. Some errors may be acceptable; whereas others are not. The guidelines are designed to support any size digitization project and extra tolerance levels can be applied to the quality management work flow and UTT software. Extra tolerance levels may be set for different criterion to provide a warning if a small/acceptable error shows up. To judge if an error is acceptable or not requires technical knowledge, and know-how about the technical test charts and their special order of use.

Benefits
This course enables the attendee to:
• Understand and apply the first steps of implementing a quality management system based on the Metamorfoze guidelines and UTT.

Intended Audience: Photographers, operators, and others from archives, libraries, and museums, trained and skilled in the Metamorfoze Guidelines and interested in learning more about technical criteria, tolerances, and use of technical targets.

See instructor biography under course T4A.

T1C: PDF/A — The ISO Standard for Long Term Archiving
13:30 – 18:00 (4 hours)
Instructors: Thomas Zellmann, LuraTech and PDF Association, and Hans-Joachim Hübner, Satz-Rechen-Zentrum Berlin

This short course starts with an overview of PDF/A and discusses the goals and the history of it. Basic design principles concerning the technical properties of PDF/A are presented, explaining what gives a document long-term security. Different parts from PDF/A-1 up to PDF/A-3 are described, including features and use cases for each. The course then explores PDF/A for scanned documents. Benefits and possibilities of converting scanned documents to PDF/A are discussed in detail. The class concludes with a detailed look at so-called born-digital documents and covers important issues related to converting these to PDF/A, including e-mail conversion. Best PDF/A practices for archives and libraries are discussed, as are the new NARA transfer guide and Library of Congress (LOC) paper on PDF/A-3.

Benefits
This course enables the attendee to:
• Get a complete overview about PDF/A plus detailed information, such as PDF/A-3.

- Understand important details for digitization projects where PDF/A is used.
- See how born-digital documents can be converted to PDF/A for long-term security.
- Learn where, when, and how PDF/A fits into document workflows.
- See how archives and libraries worldwide already deploy PDF/A.
- Learn about PDF/A recommendations those from NARA or the LOC.

Intended Audience: Professionals responsible for the archive within organizations or those in charge of executing digitization projects or working on preservation planning.

Thomas Zellmann has been working in electronic data processing for more than 20 years and has extensive experience with classic and modern IT solutions. At LuraTech since 2001, Zellmann works in the archives/libraries sector and is one of LuraTech's shareholders. He is also managing director of the PDF Association, and the main contact for all members, vendors, and users.

Hans-Joachim Hübner is head of solutions and sales at Satz-Rechen-Zentrum Berlin, a German company specializing in enterprise content management and document capture. He has made major contributions to the company's software development success in the areas of document capture, ECM, and content management systems. During more than 25 years of experience, he has managed successful large digitization projects and has developed a range of solutions and workflows in the ECM, library, and archive context.

T2C: Understanding, Developing, and Applying Semantic Structures and Digital Ontologies to Digital Curation Procedures

13:30 – 15:30 (2 hours)
Instructors: Tabea Lurk, Bern University of the Arts (BUA), and Jurgen Enge, HAWK- University of Applied Sciences and Arts

This short course focuses on basic semantic structures and ontologically concepts in the field of identification and documentation of complex digital objects, such as digital art or linked heritage goods. It examines standards—such as CIDOC conceptual reference model (CRM), lightweight information describing objects (LIDO), Preservation Metadata: Implementation Strategies (PREMIS), metadata encoding and transmission standard (METS)—and offers guided hands-on exercises.

After a short introduction, a practical example is presented, with practical hands-on exercises. Attendees are divided into two groups: analog and digital. The analog group draws paper-based ontological maps in order to prepare the given case study for further technical description. The digital group implements semantic structures immediately in a digital work space (Semantic MediaWiki), which is provided by the speakers. At the end of the presentation, each group presents its results and shares knowledge and experience. Based on conservation and restoration principles, different forms of conservational documentation and methods to preserve complex digital objects, artefacts and their values are taught.

Benefits
This course enables the attendee to:
- Use Semantic MediaWiki in the definition process of metadata sets for preserving digital objects.
- Define their own semantic (metadata) structures for describing, documenting, and preserving complex digital objects.
- Prove that their metadata models or description schemas in a network-based semantic environment based on CIDOC CRM.
- Understand the differences and benefits of structural and semantic metadata within the documentation and preservation process of complex digital data.
- Learn how to develop and evaluate digital conservation methods that follow today's ethical and legal standards.
- Assess the cultural value of digital phenomena.

Intended Audience: Those responsible for the digital conservation and restoration at their institutions and anyone wanting to know more about cultural informatics and technology, media theory, and digital media culture.

Tabea Lurk is an art historian and professor of digital preservation at BUA. Since 2008, she has built the ArtLab of the Department of Conservation and Restoration. She designed the graduate program MAS PDACH, which she has headed since 2012. In an honorary capacity, she is president of the Digital Heritage Group of the Swiss Informatics Society. Specialized on issues of digital preservation and digital curation, Lurk regularly publishes articles on the topic.

Since 2012, Jurgen Enge has headed the Centre for Information, Media, and Technology at HAWK. Between 2006 and 2012, he directed the research field "Digital Memory" at HfG Karlsruhe. In numerous case studies, research, and EU projects Enge investigated issues of preservation of complex digital objects. He also heads the computer science curriculum of the graduate program MAS Preservation of Digital Art & Cultural Heritage (PDACH) at BUA.

T3C: Open Licenses in the Cultural Heritage Context

13:30 – 15:30 (2 hours)

Instructor: Daniel Mietchen, Museum für Naturkunde Berlin and Open Knowledge Foundation Germany

Permissions play a key role in managing collections, especially digital ones. They define who can access which parts of the collection; what they or their tools can do with items in the collection; and how these items or the work performed with them can be shared, reused in other contexts, modified, and/or enriched with materials available from elsewhere.

While classical copyright and related legal frameworks place a focus on restricting the use of materials under their purview, the purpose of open licenses is to enable interested parties to reuse, revise, remix, and redistribute

digital materials. In the cultural heritage context, open licensing is both a challenge and an opportunity, and the aim of this short course is to highlight some basic options for navigating those waters, illustrated with examples of interactions between cultural heritage institutions and Wikimedia projects.

Benefits

This course enables the attendee to:
- Learn what open licenses are, why they exist, and how they work.
- Understand the differences between some key standard licenses (especially Creative Commons licenses).
- Evaluate their own institution's licensing policy in terms of compatibility with reuse on platforms like Wikipedia.

Intended Audience: Professionals curating digital collections or responsible for making collections available to the public

Daniel Mietchen is a biophysicist working on the integration of scholarly workflows with the Web, for which open licenses are a crucial ingredient. Working at the Museum für Naturkunde to make biodiversity information available to researchers and the public, he volunteers for the Open Knowledge Foundation and is an active participant in numerous other open initiatives, including Wikimedia projects like Wikipedia.

T2D: Archiving Digital Resources: The Status of Web Archives

16:00 – 18:00 (2 hours)

Instructor: Hubert Salm, Organisation Information Archivierung (oia)

The implementation and use of web archives is not a cultural gimmick of some tech-savvy nerds. Yet, the costs and benefits of implementing such a system must be carefully considered. One of the reasons many public institutions or private companies have not (yet) established their own web archives is the fact that decision-makers consider the expenses for establishing and running a web archive

too high for the return. Nevertheless, various web archives exist in Germany providing access to an increasing diversity of digital resources. The course presents examples of archived web content from both public and corporate archives and discusses the various roles and options of the librarian/archivist in the process of archiving web content.

During this course, participants jointly evaluate the options and benefits of using a web archive solution and estimate and discuss the costs of implementing such a solution according to the requirements and specifications of the web content they wish to archive. Factors such as data volume, "completeness," functionality, and reproduction quality of the files, which play a crucial role, are also discussed.

Benefits
This course enables the attendee to:
- Understand better the archiving process and the technical specifications of digital resources in contrast to traditional records and resources.
- Learn about alternatives to fully functional web archives.
- Appreciate the challenge of a web archive in which the functionalities of the archived content must be fully maintained lies in the fact that the data to be archived cannot be easily converted into other formats.
- Learn ways of classifying the archived data and of applying specific maintenance strategies.
- Comprehend the complexity of a web archiving system considering the structure and specific tasks of the archive.

Intended Audience: Archivists and librarians who are planning or are in charge of a web archive and who are working with web-based documents, as well as decision-makers who would like to learn more about the options and benefits of using a web archiving system.

Hubert Salm holds a PhD in history from the University of Bonn. He has many years of experience as an archivist and head of the IT department at the Konrad Adenauer Foundation. Since 2006, he has been a manager and fellow partner of oia GmbH in Düsseldorf. He is the chairman of the Information Economy technical committee and a member of the board of directors of the Association of Economic Management Eschborn e. V.

T3D: Getting to Grips with Optical Soundtracks
16:00 – 18:00 (2 hours)
Instructor: Bernard Besserer, Université de La Rochelle

Optical soundtracks have been used since 1920 in the cinema industry. It is common to combine the image and sound onto a single film strip, with the print used for projection. Research and development of sound recording and storage as optically varying signals is paved with strange modulations, variable amounts of separate tracks, weird noise reduction techniques, and, last, but not least, the generalization of optically recorded digital data long before QR-codes. Most of the film stock in archives have optical soundtracks. While many efforts have been made to digitize/restore the image, very few have been implemented for sound. This course provides basics about optical soundtracks; gives information about available equipment and techniques for reading soundtracks; and discusses their integration into an image+sound restoration process.

Benefits
This course enables the attendee to:
- Understand the basics and get an overview of modulation types (variable area, variable density, push-pull, special formats).
- Learn about the details on the negative-positive printing process and the induced image spread distortion.
- Learn about the state of the art of available solutions for reading optical soundtracks and restoration possibilities.

- Appreciate how to integrate optical soundtrack processing in a restoration workflow.

Intended Audience: Cultural heritage professionals dealing with film and audio engineers and technicians involved in film (talkies, of course) curation, preservation, and digitization, as well as those having a thirst for scientific knowledge about a not-so-well-known recording and playback principle and those who think that optical sound recording could be a good choice for long term storage.

Bernard Besserer has an engineering degree (1986) and a PhD (1993) in applied electronics. He has been an assistant professor at La Rochelle University since 1993, where he teaches digital media technology, GUI design, and embedded system programming. His research is focused on image processing algorithms, mainly applied to cultural heritage preservation (digital restoration i.e., scratch concealment, image stabilization, dye fading correction). Since 2008, Besserer has worked more specifically on reading optical soundtracks using a linear camera and subsequent image processing stages. He was involved in EU projects such as LIMELIGHT and PRESTOSPACE.

ACCOMMODATIONS AND TRANSPORTATION

Hotel Accommodations
IS&T has secured a block of rooms at

Relexa Hotel Stuttgarter Hof
www.relexa-hotel-berlin.de/en
Anhalter Strasse 8-9, 10963 Berlin
(~5 blocks from Potsdamer Platz)

Rate: €129/night + taxes, available May 11 – 17. *Room rate includes breakfast buffet and internet in guest rooms.*

Reservation deadline: April 6, 2014

Reservations can be made by e-mailing your request to reservierung.berlin@relexa-hotel.de calling +49 040 264 83, or
faxing +49 030 2648 3929
Reference: IS&T May 13, 2014

You may also want to explore various online booking sites, but note that the short courses take place at this hotel. The conference techincal program takes place at the Arsenal Cinema, Sony Centre, Potsdamer Platz.

Local Transportation
Berlin has a robust public transportation system. Details and planning tools can be found at www.bvg.de/index.php/en/index.html

Photo: Suzanne E. Grinnan.

Brandenburg Gate is a nice walk from the hotel and Potsdamer Platz.

Air Travel
There are two airports that serve Berlin: Tegel (TXL) and Schönefeld (SFX). For more information visit www.berlin-airport.de/en/index.php.

Berlin Tegel Airport (TXL) is approximately 8 km from the center of Berlin. The airport is served by Berlin Transport Services (BVG). Taxi service: ~€25.

Berlin Schönefeld Airport (SFX) is approximately 18 km from the center of Berlin. Taxi service: ~€45.

Rail Travel
Berlin is served by many trains from across the European continent. Information can be found at www.bahn.com/i/view/index.shtml.

TECHNICAL PROGRAM*

Wednesday May 14, 2014

9:00 - 10:00
WELCOME AND KEYNOTE
A Talk on Film Archiving, *Siegfried Foessel, Fraunhofer IIS (Germany)*

10:00 - 11:00
FILM ARCHIVING
Annotation and Linkage of Motion-Picture in an Interactive and Collaborative Environment, *André Kilchenmann and Lukas Rosenthaler, University of Basel (Switzerland)*

Digital Motion-Picture Film Scannning and Restoration at NFSA, *Ian Gilmour and Trevor Carter, National Film and Sound Archive of Australia (Australia)*

DCP/A: Discussion of an Archival Digital Cinema Package for AV-Media, *Peter Fornaro, University of Basel, and David Gubler, Fachlabor Gubler AG (Switzerland)*

11:30 - 12:45
E-GOVERNMENT ARCHIVING
Standards for the Preservation of Evidence and Trust for Electronic Records, *Steffen Schwalm, BearingPoint GmbH; Ulrike Korte, Federal Office for Information Security (BSI); and Detlef Hühnlein, ecsec GmbH (Germany)*

Crowd-based Appraisal and Description of Archival Records at the State Archives Baden-Württemberg, *Franz-Josef Ziwes and Kai Naumann, Landesarchiv Baden-Württemberg (Germany)*

One Digital Repository to Preserve Life, the Universe, and Everything: The New Electronic Archive of the Saxon State Archives, *Karsten Huth, Saxon State Archives (Germany)*

12:30 - 12:45
EXHIBITOR PREVIEWS

14:00 - 15:00
PRESERVATION OF DIGITAL ASSETS I
The Case for Yet Another Digital Preservation Evaluation Tool, *Robèrt Gillesse, Digital Heritage Netherlands (the Netherlands), and Henk Vanstappen, PACKED (Belgium)*

Long-Term Access to Primary Research Data as a Challenge to Migration, *Tobias Schweizer, Andreas Wassmer, and Lukas Rosenthaler, University of Basel (Switzerland)*

DRM and its Risks for Long-Term Archiving, *Stefan Hein, German National Library (Germany)*

Structured and Unstructured Data Retention Solution, *Keith R. Rajecki, Oracle (USA)*

The Digital-Age Challenges of Preserving "User-Generated" Content: Manuscript Drafts, Correspondence, and Social Movements, *Howard Besser, New York University (USA)*

15:40 - 16:30
EXHIBIT-ONLY TIME

16:30 - 17:30
TECHNICAL PROCESSES AND WORKFLOWS
Micro-Services based Distributable Workflow for Digital Archives, *Heikki Kurhinen and Mikko Lampi, Mikkeli University of Applied Sciences (Finland)*

Making the Case for Embedded Metadata in Images, *Kari Smith, Massachusetts Institute of Technology (USA); Sarah Saunders, Electric-Lane (UK); and Ulla Kejser, The Royal Library (Denmark)*

Classification and Indexing of Complex Digital Objects with CIDOC CRM, *Tabea Lurk, Bern University of the Arts (Switzerland), and Jurgen Enge, University of Applied Sciences and Arts Hildesheim (Germany)*

Program subject to change; see final program for exact times and paper order.

Thursday May 15, 2014

9:00 - 10:30
MIGRATION AND STORAGE

Migrating Repository Metadata and Users: The Harvard DRS2 Project, Andrea Goethals, Franziska Frey, and Spencer McEwen, Harvard University (USA)

Automated Quality Assurance for Migration of Born-Digital Images, Artur Kulmukhametov, Vienna University of Technology (Austria), and Christoph Becker, University of Toronto (Canada)

A Holistic Approach to Digital Preservation, Rune Bjerkestrand and Espen Iveland, Cinevation AS (Norway); and Karl-Magnus Drake, The National Archives of Sweden (Sweden)

Investigations on Bits on Film High Speed Scanning Device, Ulrich Klocke, Joachim Anders, Daniel Steiger, and Andreas Hofmann, Fraunhofer Institut for Physical Measurement Technique (Germany)

10:30 - 11:20
INTERACTIVE PAPERS I

Image Indexing Using Prosemantic Features, G. Ciocca and R. Schettini, Università degli Studi di Milano Bicocca (Italy); C. Cusano, Università di Pavia (Italy); and S. Santini, Universidad Autonoma de Madrid (Spain)

Analysis of Color Management of RGB Laser COM for Image Archiving Applications, Daniel Fluck, Pro Archive AG (Switzerland)

Towards a Unified OAI-PMH Registry, Samuel Goebert,[1,2] Bettina Harriehausen-Mühlbauer,[1] Christoph Wentzel,[1] and Steven Furnell[2]; [1]University of Applied Sciences Darmstadt (Germany) and [2]Plymouth University (UK)

autoSFR: New Extensions to Automated Scanning Resolution Determination for Photographic Collections, Lei He, Phil Michel, and Steven Puglia, Library of Congress (USA), and Don Williams, Image Science Associates (USA)

Safe Archiving Operation by Using International Guidelines and High Capacity BD-R, Masatoshi "Max" Inui, JVC Advanced Media USA Inc. (USA), and Hiroko Ito, JVC Advanced Media EUROPE GbmH (Germany)

Contact Film Reader: Qualification Tool for Film Production and Processing Chain, Ulrich Klocke, Joachim Anders, and Andreas Hofmann, Fraunhofer IPM; and Rainer Redmann and Fritz Denkewitz, Filmotec GmbH (Germany)

Using Archive Data to Benefit your Exhibitions, Florian Mozer,[1,2] Thomas Hoppe,[3] and Bernd Eberhardt[1]; [1]Stuttgart Media University, [2]University of Stuttgart, and [3]Landesmuseum Württemberg (Germany)

Archive Digitization Application (ADA), Biljana Presnall, Jefferson Institute (USA)

Design and Development of an Emulation-Driven Access System for Reading Rooms, Klaus Rechert and Dirk von Suchodoletz, University of Freiburg (Germany); Denise deFries, Flinders University (Austria); Astrid Schoger, Bavarian State Library (Germany); and Tobias Steinke, German National Library (Germany)

Write Once, Read Forever (WORF): Low-Energy Storage of Information in Perpetuity, Richard J. Solomon,[1,2] Melitte Buchman,[3] Clark Johnson,[2] Eric Rosenthal,[2,3] and Jonathan Smith[1]; [1]University of Pennsylvania, [2]Creative Technology LLC, and [3]New York University (USA)

An Investigation into the Difficulties of ISO-24790 for Print Quality Assessment, Fatemeh Zeighami and Saeideh Gorji Kandi, Amirkabir University of Technology (Iran)

PDF/A-3, the Newest Part of the ISO Standard 19005, Thomas Zellmann and Hans-Joachim Hübner, PDF Association (Germany)

11:20 - 12:40
PRESERVATION OF DIGITAL ASSETS II

From Access to Engagement, Online Public Access at NARA, Pamela Wright, National Archives and Records Administration, and Paul Nelson, Search Technologies Corporation (USA)

Web Harvesting and Archiving with and for

the Crowd, Including Bots, *Daniel Mietchen, Museum für Naturkunde Berlin, Open Knowledge Foundation (Germany)*

Framework for UNESCO Intangible Cultural Heritage, *Maria Teresa Artese and Isabella Gagliardi, ITC - CNR (Italy)*

Building Scalable Web Archives, *Leïla Medjkoune, Internet Memory Foundation (France)*

13:40 - 14:40
COST MODELS AND ASPECTS

State of the Art of Cost and Benefit Models for Digital Curation, *Ulla Bøgvad Kejser, The Royal Library (Denmark); Joy Davidson, Digital Curation Centre (UK); David Wang, Stephan Strodl, and Tomasz Miksa, Secure Business Austria Research (Austria); Kathrine Hougaard Edsen Johansen, Anders Bo Nielsen, and Alex Thirifays, The Danish National Archives (Denmark)*

Does Tiered Storage Provide Financial Benefits for Digital Backup and Archiving?, *Eckhard Siegfried, IBM Deutschland GmbH (Germany)*

Balancing Austerity with the Cost of Digitization, *Julia Hickey, Defense Imagery Management Operations Center, Defense Media Activity (USA)*

15:00 - 18:30
BEHIND THE SCENES TOURS
See page 2

Photo: Suzanne E. Grinnan.

Friday May 16, 2014

9:00 - 10:00
KEYNOTE
TBA

10:00 - 10:40
DIGITAL CURATION

Digital Forensics as a Retrospective Science: Towards Concepts of Parametric Curation and Adaptive Introspection, *Jeremy Leighton John, British Library (UK)*

Evaluating and Developing Ingest Workflows with the OAIS Reference Model, *Astrid Recker and Natascha Schumann, GESIS Leibniz Institute for the Social Sciences (Germany)*

10:40 - 11:30
INTERACTIVE PAPERS II

The Role of Archives in Promoting Academic Research in African Universities in the Electronic Age: A Case Study of Uganda Christian University, *Christine Byaruhanga, Uganda Christian University (Uganda)*

Training and Education in Digital Curation in Germany, Austria, and Switzerland, *Claudia Engelhardt,[1] Achim Oßwald,[2] Astrid Recker,[3] and Stefan Strathmann[1]; [1] Göttingen State and University Library, [2]Cologne University of Applied Sciences, and [3] GESIS - Leibniz Institute for the Social Sciences (Germany)*

Endangered Treasures in our Library Basements: Securing Long-Term-Access to Content on CD-ROM, *Yvonne Friese, Leibniz Information Centre for Economics (Germany)*

The Continual Development of Digital Archives of Kin-Men National Park, *Yung-Cheng Hsieh, Ssu-Yi Cheng, and Hui-Wen Cheng, National Taiwan University of Arts (Taiwan)*

Cultural Heritage of Printed Texts and Crowdsourcing: Creating the Platform Correct (Co-operative Text Correction and Enrichment), *Isabelle Josse, Bibliothèque Nationale de France (France)*

Flexible Data Model for Linked Objects in Digital Archives, *Mikko Lampi, Mikkeli University*

of Applied Sciences, and Olli Alm, Central Archives for Finnish Business Records (Finland)

MAS PDACH: A Post-Graduate Program on Preservation of Digital Art and Cultural Heritage, Tabea Lurk, Bern University of Applied Sciences (Switzerland)

Cybertypes as New Objects in Natural History Collections, Daniel Mietchen, Museum für Naturkunde Berlin, Open Knowledge Foundation Germany (Germany)

Crowdsourcing: An Integrated Part of Archival Description, Anders Sode-Pedersen, Danish National Archives (Denmark)

"Toy Kit" of the Emperor Exhibiting National Palace Museum's Artifacts of Emperor Chien-lung on Tablets, Wei-Hsiang Su, Pei-Jeng Kuo, Hsing Huang, and Yi-Ning Huang, National Chengchi University (Taiwan)

Using a Professional Digital Archiving Service for the Construction of a Family Archive, Pekka Uotila, Mikkeli University of Applied Sciences (Finland)

Transparency, Freedom of Information, Data Protection, Security Classification, Copyright, and How to Manage Conflicting Access Rights to Archives?, Lucie Verachten, Council of the European Union - Records Management and Central Archives Unit (Belgium)

Photo: Suzanne E. Grinnan.

11:30 - 14:45
INNOVATIVE PROJECTS AND ACTIVITIES

Saving Working Notes for Future Use, Michael K. Buckland,[1] Patrick Golden,[2] Barry Pateman,[1] and Ryan B. Shaw[2]; [1]University of California, Berkeley (USA), and [2]University of North Carolina, Chapel Hill (USA)

Podcast Archives: Access Through Speech-Indexer Technology, Ulrike Glavitsch and Dennis Küpper, EMPA, Swiss Federal Laboratories for Materials Science and Technology (Switzerland); Tobias Stamm, Manderim GmbH (Switzerland); and Jozsef Szakos, The Hong Kong Polytechnic University (Hong Kong)

Weaving the Streets and People's Archive, Catherine L. Tedford, St. Lawrence University (USA)

A Domain-Driven Approach to Digital Curation and Preservation of 3D Architectural Data: Stakeholder Identification and Alignment in the DURAARK Project, Michelle Lindlar, German National Library of Science and Technology (TIB) (Germany); Martin Tamke, The Royal Danish Academy of Fine Arts, School of Architecture, Design, and Conservation (Denmark); and René Berndt, Fraunhofer Austria Research GmbH (Austria)

Sourcing the Cultural Heritage Crowd, Olaf Slijkhuis, Picturae BV (the Netherlands)

Good 50x70 Project: A Portal for Cultural and Social Campaigns, Maria Teresa Artese,[1] Gianluigi Ciocca,[2] and Isabella Gagliardi[1], [1]ITC - CNR and [2] Università degli Studi di Milano- Bicocca (Italy)

Smoothing Away the Relic of the Past, Anssi Jääskeläinen, Mikkeli University of Applied Sciences (Finland)

15:30 - 16:50
PANEL DISCUSSION: THE FUTURE OF DIGITAL PRESERVATION

16:50 - 17:00
CLOSING REMARKS

ARCHIVING 2014 CONFERENCE REGISTRATION

Name_____

Title/Position _____

Company _____

Street Address _____

City _____ State/Province_____

Country _____ Postal Code_____

Telephone _____ Fax _____ Email _____

Not a member? Join today and calculate all fees based on member rates.
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Return this form with signed credit card authorization by fax +1 703 642 9094 or go to www.imaging.org/archiving to register online. Questions? Contact registration@imaging.org.

IS&T is not responsible for credit card information sent via email.

Conference registration includes conference proceedings, admission to technical sessions, coffee breaks, the welcome and conference receptions, and a Behind-the-Scenes Tour. Separate registration required for short courses. **Please note: Fees are charged in US dollars.**

Conference Registration*	until April 14	after April 14	TOTAL
❏ I am presenting a paper. If yes, you may register at the speaker rate**. Student speakers register at the student rate, but be sure to check this box.			
___ IS&T Member Speaker**	€340 / $465	€375 / $515	$ _____
___ Non-member Speaker**	€390 / $535	€425 / $585	$ _____
___ IS&T Member	€395 / $540	€430 / $590	$ _____
___ Non-member	€445 / $610	€480 / $660	$ _____
___ Non-member with membership/JIST	€465 / $640	€480 / $660	$ _____
___ Non-member with membership/JEI	€465 / $640	€480 / $660	$ _____

above two options include membership and online subscription to the Journal of Imaging Science and Technology *or* Journal of Electronic Imaging

___ Student Member	€125 / $170	€145 / $195	$ _____
___ Student Non-member	€145 / $195	€165 / $220	$ _____
___ One-day, with NO proceeings and no social events (select day) ❏ Wed. ❏ Thurs. ❏ Fri.	€125 / $170	€140 / $190	$ _____

*Group rates available. Contact IS&T for details.
** Only one author per/paper, the presenter, may register at the speaker rate.

PAGE SUB-TOTAL $ _____

Participate in the Archiving 2014 Exhibition: Wednesday May 14
Tabletop exhibition featuring digital archiving related products and services.
For details, contact Donna Smith
dsmith@imaging.org; +1-703-642-9090 x107

Registration page 2

Name: _____

	until April 14	after April 14	TOTAL
Short Course Registration (be sure to multiply number of classes by per course fee and place on total line)			
___ Member 2-hour (per class)	€65 / $90	€80 / $110	$ _____
___ Non-member 2-hour (per class)	€75 / $100	€90 / $120	$ _____
___ Student 2-hour (per class)	€30 / $40	€40 / $50	$ _____

Check all that apply: ❑ T1A ❑ T2A ❑ T3A ❑ T4A
❑ T1B ❑ T2B ❑ T3B ❑ T4B
❑ T2C ❑ T3C ❑ T2D ❑ T3D

	until April 14	after April 14	TOTAL
___ Member 4-hour class (T1C)	€115 / $155	€130 / $175	$ _____
___ Non-member 4-hour class (T1C)	€125 / $170	€140 / $190	$ _____
___ Student 4-hour class (T1C)	€50 / $70	€60 / $80	$ _____

SPECIAL SHORT COURSE OFFER: Take three or more classes and receive 15% off the total price (enter three or more short courses on the lines below; fill in member or non-member price next to each; add together; and multiply by .85 to get your price; add additional lines if needed). Students are not eligible for this offer.

SC____ $ ____ + SC____ $ ____ + SC____ $ ____ = $_____ x .85 =$ _____

Other Items

___ Extra Archiving 2014 Proceedings (special advance purchase/on-site rate)	$95	$ _____
___ Extra Welcome Reception Ticket (guest name: _____)	$50	$ _____
___ Extra Conference Reception Ticket (guest name: _____)	$75	$ _____
___ Wire Transfer Fee (Contact registration@imaging.org for wire transfer info.)	$25	$ _____

SUBTOTAL THIS PAGE $ _____

SUBTOTAL FROM PAGE 17 $ _____

REGISTRATION TOTAL $ _____

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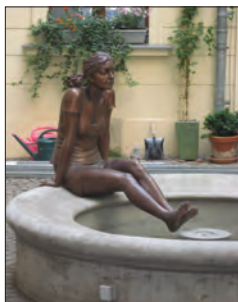Card#: _____ Exp. Date: _____
Name as it appears on card: _____
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Please note: To cover bank charges and processing fees, there is a cancellation fee of $75 until May 12, 2014. After that date, the cancellation fee is 50% of the total plus $75. No refunds will be given after June 12, 2014. All requests for refund must be made in writing.

Photos: Suzanne E. Grinnan.

Whimsical sculptures are found across the city of Berlin.