

Mid-Atlantic Association of Forensic Scientists



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May 23-27, 2011
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Recycle your badge and/or complete an evaluation for door prize tickets!

Turn in your badge and/or survey to your session chair!





Fenella G. France, Ph.D., MBA, FAIC

Spectral Imaging for Preservation Forensics of Historic Founding Documents at the Library of Congress

On the weekend of the 4th of July, 2010, news reports highlighted recent studies of the original words of Thomas Jefferson in drafting the US Declaration of Independence. The Washington POST noted in citing digital evidence of Thomas Jefferson's erasure of the word "subjects": "Using a modified version of the kind of spectral imaging technology developed for the military and for monitoring agriculture, research scientists teased apart the mystery and reconstructed the word that Jefferson banished in 1776." The Library of Congress has developed methodologies and adapted spectral imaging techniques to reveal information from degraded ancient texts

and objects. Spectral imaging systems have been used for forensic imaging and remote sensing, as a powerful tool for non-invasive, non-contact collection of chemical information about the material composition of artifacts. Significant artifacts studied with this system include not only Jefferson's handwritten draft of the Declaration of Independence, but also Lincoln's Gettysburg Address, the Waldseemüller 1507 World Map and the L'Enfant Plan of Washington D.C. Spectral imaging has recovered lost scientific and societal knowledge that formed the basis of modern society. This non-invasive characterization of materials provides access and enhances previously undiscovered non-visible and visible information in high resolution digital images.

Biography:

Dr. Fenella G. France is a leading US scientist in the field of applying advanced spectral imaging technologies to the care and conservation of historic manuscripts. She is currently a senior preservation scientist at the US Library of Congress Preservation, Research and Testing Division (PRTD), and conducts spectral digital imaging studies of manuscripts and maps from the library collection. These include US Top Treasures, ranging from drafts of the Declaration of Independence and Gettysburg Address to the Waldseemüller 1506 World Map.

Dr. France received her Ph.D degree in Textile Science from Otago University (1995) in Dunedin, New Zealand, and an MBA from Deakin University, Melbourne, Australia (1999). After lecturing at Otago University, as an expert in photo degradation, she was invited to join the Star-Spangled Banner Project for the Smithsonian Institution National Museum of American History. She was the textile and environmental scientist on this project, whose research defined the treatments to be used on the historic flag. Dr. France was an independent textile scientist with a specialty in textile degradation, in particular wool aging, focusing on monitoring and measuring mechanical properties. She performed textile and environmental related research for the Star-Spangled Banner Project, the National Park Service, Ellis Island Immigration Center artifacts, the preservation of World Trade Center artifacts, Historic Western Hemisphere textiles for the Museum of Natural History, American Society for Testing and Materials (ASTM) International textile standards, and the International Commission on Illumination (CIE) technical committee on the quality of lighting displays in museums. This entailed work with representatives from a range of organizations, from the Metropolitan Museum of Art and Smithsonian, to the US Customs Service and NYPD.

Solicitation of sales by vendors at this conference is strictly prohibited unless registered as a supporting vendor for the 2011 MAAFS annual meeting.

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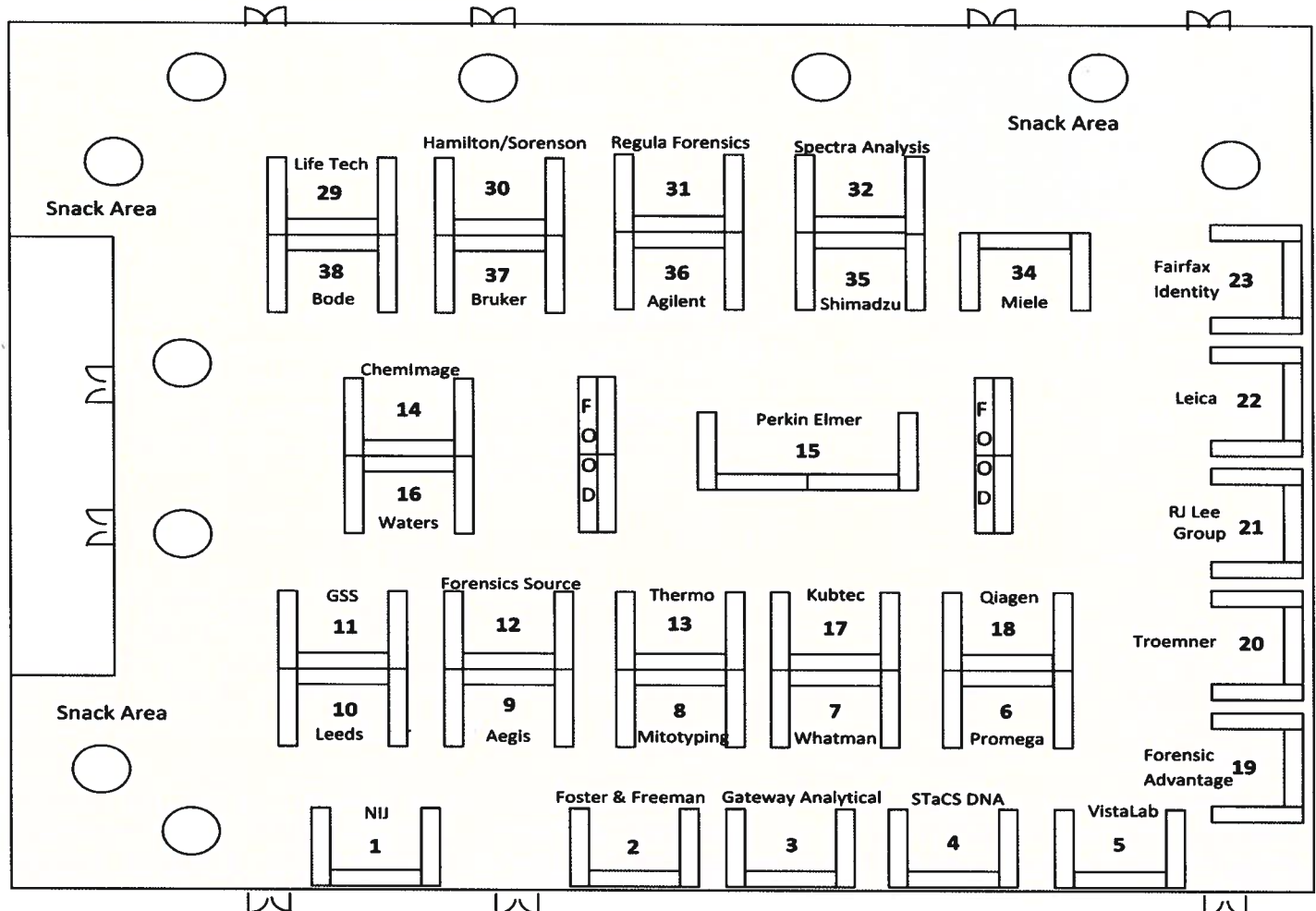
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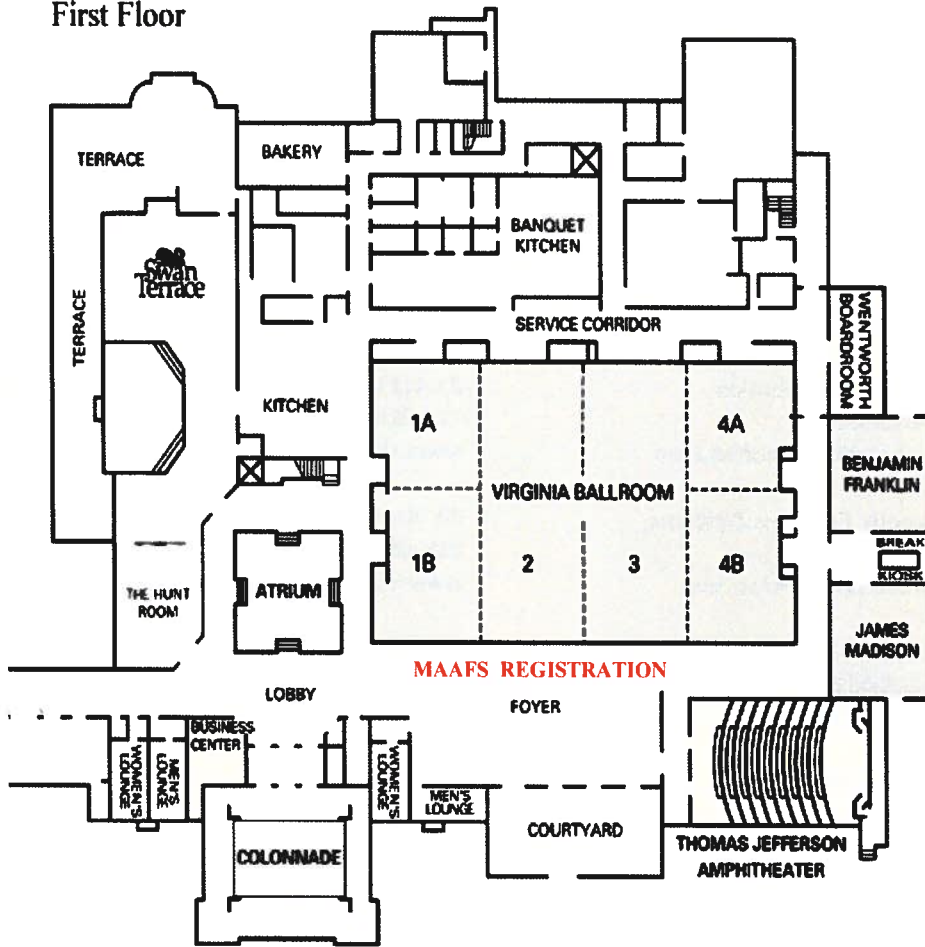
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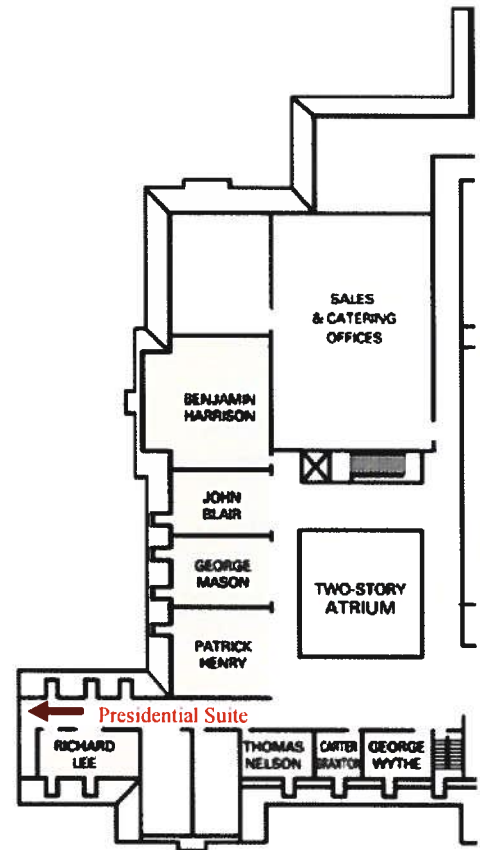
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First Floor



Second Floor



First Floor Key:

Registration.....	MAAFS Registration
MAAFS Office.....	Wentworth Boardroom
Plenary/Keynote/General.....	Ballroom 4
Biology Section.....	Ballroom 4
Criminalistics Section.....	Benjamin Franklin
QD Section.....	James Madison
Business Meeting.....	Ballroom 4

Breakfast/Breaks (Mon-Wed).....	Foyer by Registration
Breakfast/Breaks (Thurs-Fri).....	Ballroom 1-3
FLEX Breakfast.....	Hunt Room
Lunch.....	The Swan Terrace Restaurant
Hawaiian Luau Dinner.....	Terrace

Vendors.....	Ballroom 1-3
Vendor Spotlight.....	Thomas Jefferson Amphitheater
Wine and Cheese.....	Ballroom 1-3 & Atrium
Vendor Reception.....	James Madison

Workshop Locations:

Microscopical Thinking.....	Benjamin Franklin
Laser Microdissection Methods.....	James Madison
Cannabimimetics.....	James Madison
DNA Mixture Interpretation.....	Ballroom 4
Printing Process Identification.....	Benjamin Franklin
The Chemistry of Explosives.....	Thomas Jefferson Amphitheater

Second Floor Key:

ABC Exam.....	Patrick Henry
Hospitality Suite.....	Presidential Suite (2210)

BADGE COLOR KEY:

MAAFS BOARD.....	Orange
MEETING COMMITTEE.....	Purple
MEMBERS.....	Blue
Non-MEMBERS.....	Red
STUDENTS.....	Yellow
VENDORS.....	Green



Schedule



Sunday, May 22nd

5:00-8:00 pm Registration MAAFS Registration

Monday, May 23rd

7:00 – 5:00 Registration MAAFS Registration

7:30– 12:00 Breakfast/Continuous Break Foyer

8:00 – 5:00 Microscopical Thinking and Trace Evidence Benjamin Franklin

11:30 – 1:00 Lunch The Swan Terrace Restaurant

1:00 – 5:00 Laser Microdissection Methods and Techniques James Madison

1:00 – 5:00 Continuous Break Foyer

5:00 Dinner (on your own)

6:00 Executive Board Meeting

9:00pm – 12:00am Hospitality Suite Presidential Suite

Tuesday, May 24th

7:00 – 5:00 Registration MAAFS Registration

7:30– 12:00 Breakfast/Continuous Break Foyer

8:00 – 5:00 DNA Mixture Interpretation Ballroom 4
The Chemistry of Explosives Thomas Jefferson Amphitheater
Printing Process Identification Benjamin Franklin

8:00—11:30am Cannabimimetics James Madison

11:30 – 1:00 Lunch The Swan Terrace Restaurant

1:00 – 5:00 Continuous Break Foyer

1:00—4:00 ABC Exam Patrick Henry

Tuesday, May 24th (continued)

1:00 – 5:00	Continuous Break	Foyer
5:00	Dinner (on your own)	
9:00pm – 12:00am	Hospitality Suite	Presidential Suite

Wednesday, May 25th

7:00 – 5:00	Registration	MAAFS Registration
8:00– 12:00	Breakfast/Continuous Break	Foyer
8:30 – 11:30am	Plenary Session	Ballroom 4
11:30 – 1:30	Lunch	The Swan Terrace Restaurant
1:00 – 5:00	Continuous Break <i>Sponsored by Waters Corporation</i>	Foyer
1:30 – 4:30	Biology Session Criminalistics Session Questioned Document Session	Ballroom 4 Benjamin Franklin James Madison
5:00 – 7:00	Wine & Cheese Welcoming Reception <i>Sponsored by ChemImage</i>	Ballroom 1-3 & Atrium
7:00 – 8:30	Dinner (on your own)	
7:00 – 8:00	Vendor Reception <i>Reception for Vendors, MAAFS Executive Board & Meeting Committee Only</i>	James Madison
9:00pm – 12:00am	Hospitality Suite	Presidential Suite



Schedule



Thursday, May 26th

7:00 – 5:00	Registration	MAAFS Registration
7:30 – 8:30	FLEX Breakfast (<i>pre-registration required</i>) <i>Sponsored by Penn State University</i>	Hunt Room
8:00 – 12:00	Breakfast/Continuous Break (<i>Please visit the vendors</i>)	Ballroom 1-3
7:30 – 5:00	Vendor Area (<i>Please visit the vendors</i>)	Ballroom 1-3
8:30 – 11:00	Biology Session Criminalistics Session Questioned Document Session	Ballroom 4 Benjamin Franklin James Madison
11:00 – 12:00	Keynote Speaker – Fenella G. France, Ph.D., MBA, FAIC	Ballroom 4
12:00- 1:30 pm	Lunch <i>Sponsored by Abacus Diagnostics</i>	The Swan Terrace Restaurant
1:30 – 4:30	General Session	Ballroom 4
1:30 – 4:30	Vendor Spotlight <i>Door Prizes valued at over \$150 each will be given out after each presentation</i>	Thomas Jefferson Amphitheater
1:00 – 5:00	Continuous Break (<i>Please visit the vendors</i>) <i>Sponsored by Qiagen</i>	Ballroom 1-3
5:00 – 7:00	Business Meeting	Ballroom 4
8:00-11:00	Hawaiian Luau Dinner <i>Sponsored by Perkin Elmer</i>	Terrace
11:00pm	Hospitality Suite	Presidential Suite

Friday, May 27th

8:00– 12:00	Breakfast/Continuous Break (<i>Please visit the vendors</i>)	Ballroom 1-3
8:00 – 11:30	Vendor Area (<i>Please visit the vendors</i>)	Ballroom 1-3
8:30 – Noon	Biology Session Criminalistics Session	Ballroom 4 Benjamin Franklin

Criminalistics Sessions

Benjamin Franklin

- Wednesday** 1:00 Analysis of Explosives Using Ultra High Performance Liquid Chromatography
 1:35 Method Develop. for the Recovery of Ammonium Nitrate on Fabric Matrices Using IC
 2:00 Interpretation of Ignitable Liquid Residues in Fire Debris Analysis: Effects of Competitive Adsorption
 2:25 Disposition JWH-018 in the Mouse following Inhalation of Increasing Doses of the Herbal Incense "Buzz"
 3:20 Forensic Analysis of Synthetic Cannabinoids
 3:55 Bouncing Bullets
- Thursday** 8:00 The Analysis of Fireworks & Brake Pad Lining Particulate for Similarities of GSR
 8:35 Preliminary Mass Spectrometric Analysis of Gun Powder Residue
 9:00 Evaluation of Analytical Techniques for Comparing Trace Soil Samples
 9:25 Does the 'Scientific Method' Apply to Forensic Science? Should It?
 9:50 The Diff. Among Black Permanent Markers by TLC, UV-VIS-NIR, FTIR, & GC-MS
 10:20 Analysis and Comparison of Several Synthetic Cannabinoids
 10:45 SWGDRUG Update
- Friday** 8:30 Quadrupole-Time of Flight Mass Spectrometric Analysis of Organic Compounds in Soil
 8:55 Identification of Psilocin and Psilocybin in Hallucinogenic Mushrooms
 9:20 Evaluation of Sectioning Techniques and Acquisition Modes for Forensic Pain Analysis Using MSP
 9:45 Analysis of Bicomponent Fibers Using Raman Confocal Mapping
 10:20 Analysis of Polymeric Additives in Motor Fuel by AccuTOF-DART for Differentiation of Gasoline Brand
 10:45 The Analysis of GSR from Clothing Shot During a Rain Using ICP

Forensic Biology Sessions

Ballroom 4

- Wednesday** 1:30 Evaluation of Yield & DNA Quality from Trace Samples when using the AutoMate Express and PrepFiler Express
 1:50 Forensic DNA Processing – New Automation Technology and Validation Solutions
 2:10 A Novel Real-time Quantitation Chemistry Delivers Improved Lab Functionality
 3:10 Optimization and Application of DNA Repair Enzymes to Damaged DNA for STR Analysis
 3:40 Homicide Investigation Death of Jerisha Burton
- Thursday** 8:30 Doing More with Less: Implementing Direct Amp. with the PowerPlex 18D System
 9:00 Direct PCR Amplification of STR Loci: Protocols and Performance
 9:30 Evaluation of Sensitivity, Reproducibility, Inhibition Detection & STR Amplification Input Using Qiagen Investigator Quantiplex Kit
 10:20 Review of Microbial Forensics used by AIB during the investigation of the 2011 Anthrax letters

Forensic Biology Sessions (continued)

Ballroom 4

- Friday
- 8:30 Laboratory Automation: Go Big or Go Small
 - 9:00 Evaluation and Validation of the FSS-i3 Expert System v. 4.2.2 for Forensic Samples
 - 9:25 NIST Validation Studies on the Applied Biosystems 3500 Genetic Analyzer
 - 10:30 Analysis of Unusual Mt-DNA Control Region Profiles Using a Commercially Available Electrospray-Ionization Time-of-flight Mass Spectrometry Technique
 - 10:50 Method Development for Analyzing SNPs Associated with Stature
 - 11:15 Validation of CaseLynx- a Novel Lab Management System Incorporating RFID Tags

Questioned Documents Sessions

James Madison

- Wednesday
- 1:00 The Sovereign Citizens Movement
 - 1:50 Can You Feel The Difference? A Look At Toner Technology
 - 2:10 Correction Fluid and Tape Removal
 - 3:20 Counterfeit Printing Plants
 - 3:45 James Town – Historical Findings – A Writing Tablet
- Thursday
- 8:30 Historical Document Examination: The Case of the Stolen Hebrew Manuscript titled Sephat Emeth Velashon Zehorith, 1752
 - 8:55 Cleaning Postage Stamps for Edge Comparison
 - 9:15 Discrimination of Printer Toners by Pyrolysis-Gas Chromatography Mass Spectrometry and Laser Induced Break Down Spectroscopy.
 - 9:40 Ink and Toner Library
 - 10:20 The Future of Forensic Science
 - 10:40 Participation for Future Meetings

Plenary/General Sessions

Ballroom 4

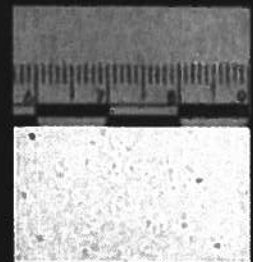
- Wednesday
- 8:30 Contributions of Analytical Chemistry to Art and Art History
 - 10:30 NAS Report: Two Years down the Road
- Thursday
- 1:30 NAS Report on Forensic Science Education
 - 2:00 Updates on Accreditation & the Value of the Undergraduate vs. the Graduate Degree in Forensic Science Education
 - 3:15 Academic Research & the Practitioner
 - 4:00 Perspectives From a Lab Practitioner
 - 4:30 Panel Discussion & Questions

See you in 2012 at Turf Valley Resort, Ellicott City, MD

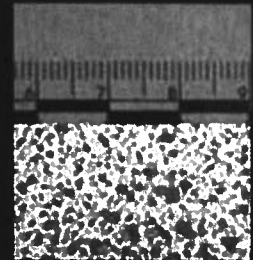
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2014: The Penn Stater, State College, PA



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