

CURRICULUM VITAE

Heidi H. Harralson, MA, CDE, D-BFDE

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EDUCATION

2007 Master of Arts-Handwriting Science & Forensic Document Examination,
Prescott College, Prescott, AZ

2005 Certificate-Forensic/Crime Scene Technician, Pima Community College, Tucson, AZ

2005 Bachelor of Science-Human Services (honors graduate), University of Phoenix, Tucson, AZ

1989 Associate Degree-Business, Lamson Business College (honors graduate), Tucson, AZ

CERTIFICATION

2008 Diplomate: National Association of Document Examiners (NADE)

2005 Diplomate: Board of Forensic Document Examiners* (BFDE)
(proctored written and performance examination)
*accredited by Forensic Specialties Accreditation Board (FSAB)
(Recertified 2010, 2015)

2000 Board certified document examiner: National Association of Document Examiners
(moot court proceedings presided over by Hon. Roderick Kennedy, Presiding Judge,
New Mexico Court of Appeals)
(Recertified: 2005, 2010, 2015)

PROFESSIONAL EXPERIENCE

2009-Present: Managing Partner – Spectrum Forensic International, LLC. Professional document examination consultation and testimony offered in civil and criminal cases to public and private entities in the U.S. and internationally. Maintain document examination laboratory and conduct document examination research. Offer informational lectures and training services to public and private entities.

1997-2008: Owner – Spectrum Consultants. Professional document examination consultation provided to Office of Court Appointed Counsel, Indigent Defense Services, South Tucson Police Department, City of Bisbee Attorney's Office, Cochise County Legal Defender, attorneys, investigators, corporations, and private entities throughout the U.S. and internationally. Court-authorized in state and federal cases. Court testimony offered in court proceedings and depositions over 30 times in both civil and criminal cases. Testimony provided in state and county courts, arbitrations, the Industrial Commission, and international court proceedings.

1988-1997: Provided pro bono document examination consultation to attorneys, corporations, and private entities. Opened Spectrum Consultants in 1995.

PUBLISHED BOOKS AND BOOK CHAPTERS

- Harralson, H. H. & Miller, L. S. (2017). *Huber and Headrick's handwriting examination: facts and fundamentals, second edition*. CRC Press. In Press.
- Harralson, H. H. (2016). *Identificazione della scrittura e della firma nell'era digitale [Developments in handwriting and signature identification in the digital age]*. Urbino, Italy: Libreria G. Moretti.
- Harralson, H. H., & Miller, L. S. (2013). Documentary evidence (3rd ed.). In J. T. Fish, L. S. Miller, & M. C. Braswell (Eds.), *Crime scene investigation* (pp. 263-294). Burlington, MA: Anderson. ISBN: 978-1455775408
- Harralson, H. H. (2013). *Developments in handwriting and signature identification in the digital age*. Waltham, MA: Anderson. ISBN: 978-1-4557-3147-3.
- Harralson, H. H., & Miller, L. S. (2011). Documentary evidence (2nd ed.). In J. T. Fish, L. S. Miller, & M. C. Braswell (Eds.), *Crime scene investigation* (pp. 275-309). Burlington, MA: Anderson. ISBN: 978-1-4224-6331-4.
- Harralson, H. H. (2008). *Forensic handwriting examination of motor disorders & forgery: Research and applications*. Saarbrücken, Germany: VDM Verlag Dr. Müller. ISBN: 978-3-639-09677-4.
- Harralson, H. H., & Miller, L. S. (2007). Documentary evidence. In J. T. Fish, L. S. Miller, & M. C. Braswell (Eds.), *Crime scene investigation* (pp. 260-293). Newark, NJ: LexisNexis. ISBN: 978-1-59345-325-1.

PUBLISHED PAPERS IN JOURNALS AND CONFERENCE PROCEEDINGS

- Harralson, H. H., Waites, E., & Will, E. J. (2015). A survey of forensic handwriting examination research in response to the NAS Report. In Rémi, C., Prévost, L., & Anquetil, E. (Eds.). *Drawing, Handwriting Processing Analysis: New Advances and Challenges. Proceedings of the 17th Biennial Conference of the International Graphonomics Society*.
- Harralson, H. H., Kaufman, C., & Jarvis, M. W. B. (2015). Handwriting and visual impairment: A forensic analysis of J. S. Bach's Signatures. In Rémi, C., Prévost, L., & Anquetil, E. (Eds.). *Drawing, Handwriting Processing Analysis: New Advances and Challenges. Proceedings of the 17th Biennial Conference of the International Graphonomics Society*.
- Harralson, H. H., Teulings, H.-L., & Miller, L. S. (2013). Proficiency of forensic document examination students examining static and dynamic electronic signature data. In M. Nakagawa, M. Liwicki & B. Zhu (Eds.). *Proceedings of the 16th Biennial Conference of the International Graphonomics Society, June 13-16, 2013, Nara, Japan*. (pp. 22-25).
- Harralson, H. H. (2012). Forensic document examination of electronically-captured signatures. *Digital Evidence and Electronic Signature Law Review*, 9, 67-73.
- Harralson, H. H., Teulings, H.-L., & Miller, L. S. (2011). Temporal and spatial differences between online and offline signatures. In E. Grassi & J. L. Contreras-Vidal (Eds.). *Proceedings of the 15th International Graphonomics Society Conference, June 12-15, 2011, Cancun, Mexico*. (pp. 34-37).
- Harralson, H. H. (2010). The NAS Report: Implications for forensic document examiners. *Journal of Forensic Document Examination*, 20, 63-70.

- Harralson, H. H., Teulings, H.-L., & Farley, B. G. (2009). Handwriting variability in movement disorder patients and effects of fatigue. In A. Vinter & J.-L. Velay (Eds.). *Proceedings of the 14th Biennial Conference of the International Graphonomics Society, 13-16 September 2009, Dijon, France.* (pp. 103-107). Université de Bourgogne, Dijon, France.
- Harralson, H. H., Teulings, H.-L., & Farley, B. G. (2008). Comparison of handwriting kinematics in movement disorders and forgery. *Journal of Forensic Document Examination, 19*, 41-52.
- Harralson, H. H. (2007-2008). Differentiating the handwriting of twins. *Journal of the National Association of Document Examiners, 29*(1), p. 24-32.
- Harralson, H. H. (2007-2008). Annotated bibliography: Twin handwriting and handedness. *Journal of the National Association of Document Examiners, 29*(1), p. 33-38.
- Harralson, H. H., Teulings, H.-L., & Farley, B. G. (2007). Comparison of handwriting kinematics in movement disorders and forgery. In J. G. Phillips, D. Rogers, & R. P. Ogeil (Eds.). *Proceedings of the 13th Biennial Conference of the International Graphonomics Society, 11-14 November 2007, Melbourne, Australia.* (pp. 143-148). Monash University, Australia.
- Florence, D. C., Harralson, H. H., & Barabe, J. G. (2005-2006). An introduction to gel inks: History and analysis. *Journal of Forensic Document Examination, 17*, 33-64.
- Miller, L. S., & Harralson, H. H. (2005-2006). An examination of tremor and distortion caused by extrinsic handwriting conditions. *Journal of Forensic Document Examination, 17*, 65-82.
- Harralson, H. H. (2005). Handwriting characterization and differential analysis of Parkinson's disease and essential tremor. *Journal of the National Association of Document Examiners, 28*, 19-37.
- Harralson, H. H. (2005). Annotated bibliography: Motor disorders and handwriting. *Journal of the National Association of Document Examiners, 28*, 38-45.
- Harralson, H. H. (2003). A case of two typists. *Journal of the National Association of Document Examiners, 25*(1), 52-55.

LECTURES/ PAPERS PRESENTED

From Complexity to Transparency in Forensic Science: A Review of the Work and Legacy of Dr. Bryan Found
2017: National Association of Document Examiners, New Orleans, LA
(co-author: Emily J. Will)

Current Trends in Forensic Document Examination Standards and Reporting
2017: National Association of Document Examiners, New Orleans, LA

Trends in Training and Education in Forensic Document Examination
2016: Association of Forensic Document Examiners, Myrtle Beach, SC
(co-author: Kathryn Kohler)

Forensic Analysis of Electronic Signatures: Conventional and Dynamic Signature Examinations
2015: European Academy of Forensic Sciences, Prague, Czech Republic
(co-author: Dr. Hans-Leo Teulings)

Handwriting and Visual Impairment: A Forensic Analysis of J. S. Bach's Signatures

2015: Association of Forensic Document Examiners, San Antonio, TX
(co-author: Dr. Martin W. B. Jarvis)

A Survey of Forensic Handwriting Examination Research in Response to the NAS Report

2015: Association of Forensic Document Examiners, San Antonio, TX
2016: National Association of Document Examiners, Portland, OR
(co-authors: Emily J. Will, Elizabeth Waites)

Mitigation of Forensic Error Rates in Evaluating Pattern-Based Handwriting Evidence Using a Lineup Process

2015: Association of Forensic Document Examiners, San Antonio, TX
2015: National Institute of Standards & Technology (NIST): International Symposium on Forensic Science Error Management
(co-authors: Dr. Larry Miller)

Survey of U.S. Colleges and Universities Offering Courses in Forensic Document Examination

2015: National Association of Document Examiners, Nashville, TN
(co-author: Kathryn Kohler)

Application of Scientific Principles and Methods in Forensic Document Examination

2014: Association of Forensic Document Examiners, Salt Lake City, UT
(co-author: Dr. Larry Miller)

Forensic Analysis of Electronic Signatures: A Methodological Approach

2014: Australia & New Zealand Forensic Science Society, Adelaide, Australia
(co-authors: Dr. Larry S. Miller, Dr. Hans-Leo Teulings)

Autograph Authentication: Special Challenges in Forensic Analysis

2014: Australia & New Zealand Forensic Science Society, Adelaide, Australia
(co-author: Dr. Martin W. B. Jarvis)

A Review of Education & Training in Forensic Document Examination

2014: National Association of Forensic Document Examiners, Honolulu, HI

Electronic Signatures Workshop: A Methodological Approach

2014: National Association of Forensic Document Examiners, Honolulu, HI
(co-authors: Dr. Hans-Leo Teulings, Dr. Larry S. Miller)

Proficiency of Forensic Document Examination Students Examining Static and Dynamic Electronic Signature Data

2013: Association of Forensic Document Examiners, Chicago, IL
(co-authors: Dr. Hans-Leo Teulings, Dr. Larry S. Miller)

Challenging the Authenticity of J. S. Bach Autographs

2013: Association of Forensic Document Examiners, Chicago, IL
(co-author: Dr. Martin W. B. Jarvis)

Differentiating Genuine and Forged Signatures Using Handwriting Biometrics

2012: Association of Forensic Document Examiners, Scottsdale, AZ
(co-author: Dr. Hans-Leo Teulings)

Forensic Analysis of Painted Signatures on Artwork

2012: Association of Forensic Document Examiners, Scottsdale, AZ

2012: Charles Darwin University, School of Creative Arts & Humanities, Darwin, Australia

2012: Australia & New Zealand Forensic Science Society, Tasmania, Australia

(co-authors: Dr. Martin W. B. Jarvis, Joseph Barabe, Dr. Larry S. Miller)

Creative Forgery: Detecting Altered Documents in the Digital Age

2012: Australia & New Zealand Forensic Science Society-Northern Territory Branch, Darwin, Australia

Comparative Differences Between Electronically-Captured Signatures and Conventional Ink Signatures

2012: National Association of Forensic Document Examiners, San Diego, CA

2011: Association of Forensic Document Examiners, Louisville, KY

(co-authors: Dr. Hans-Leo Teulings and Dr. Larry S. Miller)

Review of the Criminal Justice and Forensic Science Reform Act of 2011

2011: Association of Forensic Document Examiners, Louisville, KY

What Can Static Handwriting Features Reveal About Movement Dynamics?

2010: Association of Forensic Document Examiners, Scottsdale, AZ

(co-presenter: Dr. Hans-Leo Teulings, NeuroScript, LLC)

Evaluating Testamentary Capacity from Handwriting: Research and Applications

2010: Association of Forensic Document Examiners, Scottsdale, AZ

Handwriting Variability in Movement Disorder Patients and Effects of Fatigue

2009: Association of Forensic Document Examiners, Milwaukee, WI

The National Academy of Sciences Report: Implications for Forensic Document Examiners

2009: National Association of Document Examiners, Boca Raton, FL

2009: Association of Forensic Document Examiners, Milwaukee, WI

Evaluating Line Quality Distortion

2008: Association of Forensic Document Examiners, Albuquerque, NM

(co-presenter: Dr. Larry S. Miller, East Tennessee State University Crime Lab)

Differentiating the Handwriting of Twins: Case Study and Literature Review

2008: National Association of Document Examiners, Austin, TX

Assessing Dynamic Features From Handwriting

2007: National Association of Document Examiners, Tucson, AZ

(co-presenter: Dr. Hans-Leo Teulings, NeuroScript, LLC)

Elder Abuse and Forgery: A Forensic Handwriting Investigation

2006: Prescott College Thesis Presentation, Prescott, AZ

Motor Disorders and Simulation: A Kinematical Analysis

2006: Association of Forensic Document Examiners, Chicago, IL

A Study on the Effect of Tremor Caused by Writing Surface Conditions

2005: Association of Forensic Document Examiners, San Antonio, TX

(co-presenter: Dr. Larry S. Miller, East Tennessee State University Crime Lab)

An Introduction to the Examination and Characterization of Gel Ink Pens

2005: Independent Assoc. of Questioned Document Examiners, Itasca, IL (co-presenter)

2005: National Association of Document Examiners, Quebec, Canada (co-presenter)

2004: Association of Forensic Document Examiners, Rochester, NY (co-presenter)
(co-presenters: Darlene Florence & Joseph G. Barabe, McCrone Associates)

Creative Forgery: Detecting Altered Documents

2003: National Association of Document Examiners, New Orleans, LA

Abstract Session: Foreign Investigation of Anonymous Notes in the Workplace

2000: American College of Forensic Examiners, Las Vegas, NV

Investigation of Anonymous Notes in the Workplace

2000: National Association of Document Examiners, Albuquerque, NM

Encryption

1997: National Association of Document Examiners, Las Vegas, NV

Writing History

1996: American Handwriting Analysis Foundation, San Diego, CA

Forensic Document Examination

1995: American Handwriting Analysis Foundation Tucson Chapter, Tucson, AZ

ARTICLES

Wheeler, D. (2012, January 25). Signing off: The slow death of the signature in a PIN-code world. *The Atlantic*. [H. Harralson quoted].

Harralson, H. H. (2008, January/February). Forensic signature examination: Tips and procedures for the private investigator. *PI Magazine*, 21(1), 28-33.

TEACHING AND INSTRUCTION

2014-Present – Affiliate Professor
Forensic Document Examination Graduate Certificate Program
East Tennessee State University, Johnson City, TN

2016 – Handwriting in the Digital Age workshop
Istituto Grafologico Internazionale Girolamo Moretti, Urbino, Italy

2009-2014 – Adjunct Faculty
Forensic Document Examination Graduate Certificate Program
East Tennessee State University, Johnson City, TN

2013 – Developments in Forensic Handwriting and Document Examination in the Digital Age
Pima County Public Defender continuing legal education training, Tucson, AZ

2012 – MovAlyzeR Software in Forensic Document Examination:
A Hands-On Workshop to Assist FDEs in Understanding Point-of-Sale Signatures.
Association of Forensic Document Examiners, Scottsdale, AZ
(co-presenter: Dr. Hans-Leo Teulings, NeuroScript, LLC)

Curriculum Vitae – Heidi H. Harralson, MA, CDE, D-BFDE
June 1, 2017

2012 – Institute of Management Accountants continuing education training, Tucson, AZ

2011 – Forensic Science: Cutting Edge Developments in Practice and Expertise
Pima County Bar Association continuing legal education training, Tucson, AZ

2008-2010 - Tennessee POST (Peace Officer Standards and Training)
40 hour in-service training in questioned documents (trainer)

2009 – Forensic Document Examination: What Lawyers Need To Know
Pima County Bar Association continuing legal education training, Tucson, AZ

2008 – Institute of Management Accountants continuing education training, Tucson, AZ

2008 - Motor Control Research for Forensic Document Examiners Workshop
Association of Forensic Document Examiners conference, Albuquerque, NM
(co-presenter: Dr. Hans-Leo Teulings, NeuroScript, LLC)

2008 – East Tennessee State University, Department of Criminal Justice & Criminology
Forensic Handwriting Examination (guest lecturer), Johnson City, TN

2008 - Forensic Handwriting and Document Examination Workshop
California Association of Licensed Investigators conference, Costa Mesa, CA

2006 – East Tennessee State University, Department of Criminal Justice & Criminology
Crime Investigation class (guest lecturer), Johnson City, TN

2002 - Handwriting Identification and the Judicial Process
Pima County Bar Association continuing legal education training, Tucson, AZ

TRAINING AND CONTINUING EDUCATION

Completed the following courses, workshops, and mentorship relating to the field of forensic documentation examination, forensic science, administration of justice, and legal studies:

2013 Hooke College of Applied Sciences, Print Process Identification, Westmont, IL (7.0 hours)

2007 NADE, Forensic Photography for Document Examiners Workshop, Tucson, AZ (4.0 hours)

2005 AFDE, Disguised Handwriting Workshop, San Antonio, TX (13.75 hours)

2005 College of Microscopy, Fundamentals of Microscopy, Westmont, IL (8.0 hours)

2005 NADE, Optical Microscope workshop (3.0 hours)

2004 AFDE, Print Process Identification for Forensic Document Examiner workshop (6.5 hours)

2004 Scriptos, Introduction to Document Examination Equipment, Quebec, Canada (3.0 credits)

2004 NADE, Daubert for Expert Witnesses workshop (4.0 hours)

2003-2005 Pima Community College courses in Forensic/Crime Scene Technician certificate program (Fingerprint Identification, Latent Processing, Ethics & Administration of Justice, Introduction to Photographic Equipment/Procedures, Crime Scene Photography, Blood Pattern Documentation, Ballistics, Forensic Chemistry, Courtroom Testimony & Report Writing, Rules of Evidence, Criminalistics, Intro to Admin of Justice – 22.0 credits)

1998 Laboratory for Scientific Interrogation, Scientific Content Analysis, Tucson, AZ

1996-1998 Forensic document examination mentorship, Paula A. Sassi, CDE (mentorship included training in casework, case review, methods and procedures, exhibit preparation, testimony, questioned document equipment)

1996 Andrew Bradley & Associates, Training Course in Forensic Document Examination – 20 lessons (received certificate of completion)

1995 Katherine Koppenhaver, Business of Document Examination workshop, Tucson, AZ

1995 Pima County Bar Association, Forensic Document Examination in Civil/Criminal Cases

1994 Nadelle Claypool, Forensic Document Examination workshop, Ann Arbor, MI

1990 Pima Community College, Legal Systems & Procedure (3.0 credits)

1985-Present: Self-study in handwriting identification and document examination through textbooks, papers, practical exercises.

AFFILIATION IN PROFESSIONAL ORGANIZATIONS

1997-present National Association of Document Examiners (NADE) – Certified Member

2004-2017 American Society for Testing and Materials Int'l (ASTM) – Participating Member
(Committee E.30 on Forensic Sciences)

2004-present International Graphonomics Society – Member

2013 Forensic Expert Witness Association

2008 Arizona Association of Licensed Private Investigators – Affiliate Member

2008 California Association of Licensed Investigators – Service/Industry member

2006-2007 Manuscript Society - Member

2005 Association of Certified Fraud Examiners – Student Associate Member

1998-2004 American College of Forensic Examiners – Diplomate Member

SERVICE IN PROFESSIONAL ORGANIZATIONS

2013-2017 President, National Association of Document Examiners

2013 Program Committee, International Graphonomics Society

2009-2013 Vice President, National Association of Document Examiners

2007 Conference Chair, National Association of Document Examiners

2005-2008 Certification Chair, National Association of Document Examiners

2000-2005 Certification Committee, National Association of Document Examiners

CONTINUING EDUCATION

Attended conferences offered by the following organizations relating to continuing education in forensic science and forensic document examination:

American Academy of Forensic Sciences
Association of Forensic Document Examiners
Australia and New Zealand Forensic Science Society
European Academy of Forensic Examiners
National Association of Document Examiners
National Institute of Standards & Technology
International Graphonomics Society
American College of Forensic Examiners

Designating Heidi H. Harralson as an expert witness, formally or informally, or use of her Curriculum Vitae in civil or criminal proceedings or any other venue, without specific authorization, is prohibited. Violators of this prohibition will be charged the retainer set forth in the Spectrum Forensic International, LLC Document Examination Services Fee Agreement.