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MATTHEW NOEDEL, NOEDEL SCIENTIFIC FORENSIC SCIENTIST

EDUCATION

University of Montana, Missoula, MT 1985

Bachelor of Science - Microbiology
Bachelor of Science - Medical Technology
Minor in Chemistry

California State University, Sacramento, CA 1987

Bachelor of Science - Forensic Science
30 Quarter units of graduate credit in Criminal Justice with Forensic Emphasis

PROFESSIONAL AFFILIATIONS

American Academy of Forensic Scientists
Regular Member

Association of Crime Scene Reconstruction
Board of Directors (February 2005)
Program Chair Annual Meeting 2007
Treasurer (February 2007)

Association of Firearm and Tool Mark Examiners (AFTE)
Distinguished Member
Certified Member (Firearm, Tool Marks and Gunshot Residue)
Editor AFTE Journal (2002-2007)
Member of the Year (2009)
Nominating Committee (2009)
Assistant Conference Chair (2010)

International Association of Bloodstain Pattern Analysts
Regular Member
Ethics Committee (2009)

Northwest Association of Forensic Scientists
Member at Large (2005)
Program Chair Annual Conference (2000, 2011)
Vice President (2006)
President (2007, 2010, 2011)

CERTIFICATIONS

Certification in Firearms, Tool Marks, and Gunshot Residue Examination
Association of Firearm and Tool Mark Examiners (AFTE)

EMPLOYMENT

Nov. 7, 2005 – Present Noedel Scientific

Forensic Consultant *Forensic Consultation, Reconstruction, Training, Testimony, Analysis*

Noedel Scientific provides expert forensic analysis in a variety of areas including crime scene reconstruction, firearms examination, bloodstain pattern analysis, and case review. Examinations conducted are prepared with an emphasis on scientific detail for future court presentation.

Apr. 9, 1990 - Nov. 4, 2005 Washington State Patrol Crime Lab

Forensic Scientist III *Crime Scene Response, Firearm and Tool Mark Exam, Bloodstain Pattern Analysis, Chemistry, Trace Evidence*

The Washington State Patrol Crime Laboratory provided forensic examinations for all of the police, sheriff, and prosecuting attorneys in the state of Washington. Of the services offered by the Tacoma Crime Lab, I worked in Chemistry, Drug Analysis, Fire Debris, Trace Evidence, Crime Scene Response, Bloodstain Pattern Interpretation, Firearms and Tool Mark Analysis.

April 1987-April 1990 Chemwest/CompuChem Laboratories

Toxicologist

I was responsible for the forensic examination of biological samples for the presence of drugs, alcohol, poisons and toxins. Both screening and confirmation for these chemicals was conducted in this high volume laboratory setting.

OTHER RESPONSIBILITIES

- Former Chemical Hygiene and Safety Officer-Tacoma Laboratory
- Former Leaf Marijuana identification Instructor
- Instruct various Crime Scene Training—Firearms
- Certified IBIS and Drugfire computerized database operator
- Washington State Patrol Firearms Review Committee
- Primary Responder and Crime Scene Consultant—Washington State Patrol Crime Lab Crime Scene Response Team

TOURS ATTENDED

- ❖ Nosler bullet Factory, Bend Oregon
- ❖ CCI/Speer Ammunition Factory, Lewiston, Idaho
- ❖ Arnold Arms Specialty Rifle Manufacturer, Arlington, WA
- ❖ Olympic Arms Pistol and Rifle Manufacturing, Olympia WA
- ❖ Alchemy Arms Pistol Manufacturing, Auburn, WA
- ❖ Ruger Firearms & Investment Casting, Ct. Facility
- ❖ Marlin Rifle Factory
- ❖ Savage Arms Factory
- ❖ Wilson Arms barrel making facility
- ❖ Barnes Bullet Manufacturing
- ❖ North American Arms Manufacturing
- ❖ Schneider Barrel Manufacture-Payson, AZ
- ❖ Ruger Firearms, Prescott, AZ Facility
- ❖ LAR Firearms-Jordon, UT

SPECIALIZED TRAINING

Factory Authorized Armory Training from the following firearm manufacturers:

| | | |
|-----------|-----------------------|-----------|
| Colt | Smith & Wesson | Ruger |
| Sig Sauer | Glock | Remington |
| Beretta | Heckler & Koch (MP-5) | Hi-Point |

- Beeman Air Rifle Workshop
- Lassen College Law Enforcement School
- ATF Arson and Accelerant Detection
- California Department of Justice Basic Forensic Hair examination
- Restek Capillary Chromatography Seminar
- Tire Footprint Workshop
- McCrone's Advanced Microscopy
- Crime Scene Photography
- Hewlett Packard Gas Chromatography Inlet Systems
- Infra-red Technology--Bio Rad
- Advanced Crime Scene Response
- Crime Scene response In Service Training
- Exterior Ballistics and Reloading
- Crime Scene Response-Criminal Justice Training Center
- Characterization of Projectile Performance-Yuma proving Grounds
- ATF Serial Number Restoration
- Basic Bloodstain Pattern Analysis—TBI
- FBI Gunshot and Primer Residue School-Dillon/Rosati—August 1997
- Exterior Ballistics and Long Range Trajectory Workshop—July 2001
- Washington State Patrol Firearms Instructor—June 2001

SPECIALIZED TRAINING CONTINUED

- Investigation of Occult Crime Scenes—Lt. Randy Johnson; April 18th 2001
- Explosion and Bombing Crime Scenes—James Crippen; April 19th 2001
- Advanced Bloodstain Pattern Analysis Workshop—Toby Wolson, Metropolitan Police Institute, Miami, FL –May 7-11, 2001
- Marshall's Reagent and GSR Workshop-April 22, 2002
- Examination of the Taser non lethal weapon character-April 22, 2002
- Consecutive Manufactured Knife Blade Study- April 22, 2002
- Black Powder and Black Powder Substitute Analysis-April 23, 2002
- Ricochet Workshop—April 7, 2003 Instructed by Lucian Haag at the CAC/NWAFS joint meeting in Reno, NV
- Colt 1911 Style Pistol Armorer's Course—April 8th, 2003 Instructed by Vancouver PD Rob Caunt at the CAC/NWAFS joint meeting in Reno, NV
- Crime Zone Software Tools-October 14, 2003 NWAFS meeting Portland, OR
- Utilization of Crime Zone 7.0-October 24, 2003 ACSR Annual Conference Oklahoma City, OK
- Adobe Photoshop Techniques-October 24, 2003 ACSR Annual Conference Oklahoma City, OK
- Fluorescein Techniques-April 19-21, 2004 NWAFS Spring Meeting Missoula, Montana
- Putting Power in your Point-February 11, 2005 ACSR Annual Conference 2005
- LED/UV macro Photography-February 11, 2005 ACSR Annual Conference 2005
- Investigation of Lethal Force Encounters-June 10, 2005 CJTC--Dr. Lewinski of the Force Science Research Center, Mankato, MN
- Investigation of Firearms Misadventures-June 2005 AFTE Annual Conference, Indianapolis, Indiana
- Innovative Forensic Techniques-August 31, 2005. Oregon State Police Crime Lab sponsored training from Kjell Carlson, the inventor of the casting material Mikrosil
- Math, Physics and Computers in Advanced Bloodstain Pattern Analysis, October 24-28, 2005; Alberta Justice Staff College, Edmonton, Alberta
- Forensic Ethics by Peter Barnett, Carolyn Gannett-February 2010, ACSR Annual Conference San Diego, CA
- The Basics of Firearm Mechanism, by Rob Caunt, Vancouver Police Crime Laboratory NWAFS Conference September 29, 2010
- Photogrammetry in Post Scene Analysis and Reconstruction Workshop February 9, 2011 ACSR Conference Jacksonville, FL

PUBLICATIONS/PRESENTATIONS

Technical notes published in Microgram-An International U.S. Department of Justice, Drug Enforcement Administration publication dedicated to reporting trends and topics related to current controlled substance analysis.

“Separation of Isomers of (d/l) Amphetamine and (d/l) Methamphetamine from Urine by GC and GC/MS”. Presented at the 29th annual meeting of the American Academy of Forensic Scientists; Las Vegas, NV. February 1988

“Solid Phase Extraction of Morphine and Codeine”. Presented at the Fall meeting of the California Association of Toxicologists, San Diego, Ca. 1989

“Variations on Charcoal Strip Exposure for Absorption/Elution Recovery of Flammable Liquids”. Presented at the Fall meeting of the Northwest Association of Forensic Scientists; Portland Oregon, October 1992

“Understanding Your Mass Spectrometer” Crime Scene—A Quarterly Newsletter of the Northwest Association of Forensic Scientists; Volume 21--#3 p. 9 1995

“Uses and Implementation of the Caswell Indoor Firing Range for Forensic Purposes”. Presented at the Firearms Round Table during the Northwest Association of Forensic Scientists Spring Conference, Spokane Wa. April 1996

“Drop Testing a .45 Auto Colt 1911”. Association of Firearm and Toolmark Examiners Journal Volume 29 #2 Spring 1997 p. 183

“Persistence of Gunshot Residue on Clothing”. Presented at the Spring Northwest Association of Forensic Scientists meeting Missoula, MT. April, 1997

“Velocity Drop During the Depletion of CO2 Cartridges in a Pellet Pistol”. Association of Firearm and Tool Mark Examiners Journal Volume 30, Number 3; Summer 1998 p. 435;

- Presented at the Northwest Association of Forensic Scientists Fall Meeting Las Vegas, NV Fall 1997

“Slam Firing Calico M-100/M-100P Firearms”. Association of Firearm and Tool Mark Examiners Journal Volume 30, Number 3; Summer 1998 p. 527

“Lead Patterns Observed in Ricochets”. Presented at the Spring Northwest Association of Forensic Scientists meeting Anchorage, AK. April, 1999

“An Unusual Jennings By Bryco Model 59”. Association of Firearm and Tool Mark Examiners Journal Volume 31, Number 2; Summer 1999 p. 147

PUBLICATIONS/PRESENTATIONS CONTINUED

“Tap Rack No Bang”. Presentation at the Spring Northwest Association of Forensic Scientists meeting Sacramento CA May, 2000

“Full Auto Armory and Workshop” Instructor...Fall 2000 NWAFFS Conference...Seattle, WA

“Examination of Unusual .22 Caliber Ammunition”. Presentation at the Association of Firearm and Tool Mark Examiners Annual Conference St. Louis, MO; June, 2000.

“Examination of 12 Gauge Flare Guns”. Presentation at the Association of Firearm and Tool Mark Examiners Annual Conference Newport Beach CA; July 11th, 2001

“Detection of Gunshot Residues on Secondary Surfaces”. Presentation at the NWAFFS Spring Conference, Spokane, WA; April 25th, 2002.

“Forensic Black Powder Workshop”. Instructor at the NWAFFS Spring Conference, Spokane, WA; April 23rd, 2002

“Firearms in the Forensic Environment” Instructor at the IAI Spring Conference, Tacoma, WA; May 7, 2003.

“Semiautomatic Firearm Ejection Patterns” Instructor at the NWAFFS Fall Conference, Portland, OR; October 15, 2003

“An Interesting Shotgun Pattern Reconstruction” Presentation at the ACSR annual conference (Last Piece Society) Oklahoma City, OK; October 23, 2003

“Tool Marks in Bone—Evaluation of a “Sawzall” Presentation at the NWAFFS Spring Conference, Missoula, Montana April, 2004

“Evaluation of Non-Replenishing Blood Drip Trails” Presentation at the IABPA Annual Conference October 2004; Tucson Arizona (Second presentation at the request of the Scientific Working Group for Bloodstain Pattern Analysis April 4, 2005)

“Trajectory Documentation Using a 360 Degree Scale” Instructor for the Washington State Patrol Crime Laboratory—presented to the Washington State Patrol Crime Scene Response Team, July 27, 2005

“Special Topics for Crime Scene Examination” Instructor for the Joint IAI/NWAFFS Conference May 18, 2005

PUBLICATIONS/PRESENTATIONS CONTINUED

“Shabazz v Shabazz-An Interesting Shooting Reconstruction” Presentation at the ACSR annual conference (Last Piece Society) Albuquerque, NM; February, 2006

“The Influence of Intermediate Objects Positioned Close to the Muzzle of a Firearm” Presented at the Association of Firearm and Tool Mark Examiners Annual Conference Springfield, Massachusetts-- June, 2006.

“Processing and Reconstructing Shooting Crime Scenes”—A 40 hour course on crime scene processing in shooting incidents. Instructor July 24-28, 2006—Olympia Police Department, Olympia, WA

“Processing and Reconstructing Shooting Crime Scenes”—A 40 hour course on crime scene processing in shooting incidents. Instructor December 19-23, 2006—Seattle Police Department, Seattle, WA

"Understanding and Exploring Gunshot Residue"--Lecture and Practical examinations pertaining to GSR. Instructor-January 23, 2007--Association for Crime Scene Reconstruction

"Microscopic Examination of Hair Damaged by the Passage of a Fired Bullet" Hamburg*, Chris & Noedel, Matthew. A technical presentation presented January 22, 2007-- Association for Crime Scene Reconstruction

"Using Adobe Photoshop Tools for Bloodstain Documentation" A technical presentation at the International Association for Bloodstain Pattern Analysts. San Antonio, Texas, October 4, 2007

“Processing and Reconstructing Shooting Crime Scenes”—A 40 hour course on crime scene processing in shooting incidents. Instructor November 26-30, 2007—Olympia Police Department, Olympia, WA

“Processing and Reconstructing Shooting Crime Scenes”—A 40 hour course on crime scene processing in shooting incidents. Instructor December 5-9, 2008, Norman Police Department, Norman OK

“Exploring the CSI Effect” A presentation for the “Inn at the Court” February 9th, 2009 Tacoma, WA

“Using Lasers to Document Bullet Trajectories” Instructor--Presented in two sessions at the Association for Crime Scene Reconstruction Conference Feb 10-14, 2009, Denver, CO

PUBLICATIONS/PRESENTATIONS CONTINUED

“Preparing Reports for Shooting Crime Scenes” Instructor--Presented in two sessions at the Association for Crime Scene Reconstruction Conference Feb 10-14, 2009, Denver, CO

“Processing and Reconstructing Shooting Crime Scenes”—A 40 hour course on crime scene processing in shooting incidents. Instructor July, 2009, Tacoma Police Department, Tacoma, WA

“Examination of Vehicles for Shooting Reconstruction”—Sep 22, 2009. Instructor--NWAFS Annual conference, Ft. Collins, Colorado

“Life of a Bullet” Presented at the 2009 Seventh Annual Violent Crimes Investigators’ Regional Training Conference, November 5, 2009-Seattle, WA

“Practical Crime Scene Analysis and Reconstruction” Gardner, RM; Bevel, Tom. Contributing Author Chapter 7—Shooting Scene Processing and Reconstruction CRC Press, Published July 2009

“Semiautomatic Firearm Ejection Patterns”—February 11, 2010. Instructor to two sessions of this hands on workshop. ACSR Conference-San Diego, February 2010.

“Shooting Scenes” What You Don’t Know Can Hurt You”—May 11, 2010. A CLE training session at the Snohomish County Public Defenders Association, Everett, WA

“Processing and Reconstructing Shooting Crime Scenes”—A 40 hour course on crime scene processing in shooting incidents. Instructor April 2010, Olympia Police Department, Olympia, WA

“Forensic Aspects of Airsoft Replica Arms” Instructor of this 8 hour workshop that covered the design, construction, forensic examination and importance of airsoft firearms in forensic applications. NWAFS Training Conference-Portland OR, September 29, 2010

“Exploring the Limit of Gunpowder Particle Quantity for Distance Determination” A presentation at the NWAFS Technical Session October 1, 2010-Portland OR

“Processing and Reconstructing Shooting Crime Scenes”—A 40 hour course on crime scene processing in shooting incidents. Instructor April 2011, Spokane County Sheriff’s Office/Spokane Police Department, Spokane, WA

“Omni-Car: Crime Scene Processing” Co-instructor for a workshop involving techniques to process automobiles for trajectory, bloodstains, bullet documentation and recovery, shoe print, DNA considerations and overall vehicle processing. September 2011-NWAFS Conference-Tacoma, WA

“Techniques for Successful Presentations with PowerPoint™” Co-instructor for a workshop involving techniques to organize, present and enhance digital material for

presentation in court or at professional settings. September 2011-NWAFS Conference-Tacoma, WA

“Fired Bullet Impact Site Evaluation: Tumbling Bullet versus Angled Shot” Matthew Noedel, Noedel Scientific-Puyallup, WA--A presentation outlining how to evaluate bullet impact sites in context to a crime scene processing and reconstruction. September 2011-NWAFS Conference-Tacoma, WA

“Special Research Workshop #2: Characterizing Bullet Damage in Clothing”
Mentor of basic research in the performance of various caliber and design of fired bullets through a variety of clothing items. September 2011-NWAFS Conference-Tacoma, WA

“Trajectory Documentation” Instructor of this 3-day class for Washoe County Sheriff Office FIS Section. Class involved the proper evaluation, documentation and processing of fired bullet paths and determining horizontal and vertical trajectory values in simulated building material and vehicles. October 2011

SELECT TESTIMONY

Testimony related activity has involved serving as an expert witness in firearms, crime scene examination and crime scene reconstruction for over 15 years. An average year involves providing approximately 2-5 testimonies from events ranging from simple firearm function testing to complete crime scene reconstruction. A select list of recent, complicated casework during which I was accepted as an expert are summarized below:

June 2007

State of Washington v Belz

Thurston County Juvenile Court—Olympia, WA

Testimony involved the examination of a pistol for accidental versus unintentional discharge and the reconstruction of a single gunshot that occurred in a confined space. Specialized testing involved generating a test drop pendulum device and the characteristics of a dropped versus fired semiautomatic pistol.

July 2006

State of Washington v Benjamin Asaeli et al.

Pierce County Superior Court—Tacoma, WA

Testimony involved the examination, appearance and deformation of fired bullets and gunshot residues detected on the clothing of the victim. Residues that support a close range gunshot to the side of the victim were located and processed using infra-red video techniques and fired bullets were assessed to determine which had gone through the windshield of a vehicle, versus those that did not impact a significant intermediate object.

May 2006

State of Minnesota v Larry Clark—Conspiracy to commit Murder

Ramsey County Superior Court-St. Paul, MN

Testimony involved the examination of documents and crime scene work to reconstruct the trajectory of a single fired bullet that struck and killed a police officer in the year 1970. By examination of the old police reports, examination of the physical evidence and the current appearance of the scene, information missing from the 1970 era examination was filled in and documented with 2006 technologies. This analysis helped demonstrate the most likely trajectory of the fatal shot.

SELECT TESTIMONY CONTINUED

December 2005

State of Washington vs William Joice—Attempted Murder 1st degree
King County Superior Court

Testimony involved the examination of a vehicle that had been struck by fired bullets in conjunction with a recovered semiautomatic pistol, a suppressor and fired ammunition. The reconstruction presented revealed the position a shooter would have been in to deliver the shots and the trajectory that each shot would have traveled. One fired bullet struck the victim in the back of the head and bloodstain pattern examination helped position the victim at the time he was struck by the bullet.

September 2005

State of Washington vs Dwight C. Feeser—Homicide
Grays Harbor County Superior Court

Testimony involved the analysis of a sawed off shotgun in association with a wound pattern observed on the body of the deceased victim. Testing identified the range and orientation of the fatal shot. Distance determination based on the spread of the shot was presented and discussed during the trial.

May 2005

State of Washington vs Trollers Takbar Fleming —Homicide
Pierce County Superior Court

Testimony involved the analysis of a pistol, fired bullets, fired cartridge cases and multiple bullet holes through a driver's window (from inside to outside). Shot sequencing and positional information was related based on trajectory examination, bloodstain patterns and shooting reconstruction. The shooting had occurred from inside the car while the car was being driven. The victim was the driver who had received multiple gunshot wounds to the head, all of which exited.

February 2005

State of Washington vs Jerry Bartlett Jones—Homicide
Snohomish County Superior Court

Testimony involved the examination of clothing, old crime scene documentation and data and bloodstain patterns from a 17 year old stabbing homicide. Crime scene reconstruction was based on the examination and testing of original photos, suspects' statements and newly examined evidence. This case was reviewed and presented on the CBS television show 48 Hours.

ADDITIONAL RECENT TESTIMONY

The following testimonies were presented in various courts since 2006:

2/13/2006 State of WA v Paul Nunn
3/1/2006 State of WA v Mario Sanchez
3/27/2006 State of WA v Elmore
6/12/2006 State of WA v Schreiber
8/7/2006 State of WA v Pearson
2/6/2007 State of WA v Brightman
3/15/2007 State of WA v Holloway
10/30/2007 State of WA v Moi
11/7/2007 State of WA v Hunter
12/11/2007 State of Nevada vs Hartzog—(Las Vegas NV)

5/5/2008 State of WA-vs Tony Smith—Triple Homicide—5/5/2008
King County Superior Court

5/8/08 Las Vegas, NV Superior court: State of Nevada v Victor Anthony
Ramos... LVMPD event 07 1007 0044

6/10-11/08
Event 07-0203-0334 and 07-0203-0669
State of NV vs Frank Macias

10/21/08
State of WA vs Fortier, Bryce D.
GSR on white coat--Snohomish County

11/7/08
State of WA vs O'Reilly
Officer involved shooting reconstruction—Snohomish County, WA

5/22/09
State of WA vs Roy Clark
Walla Walla, WA
Officer Involved Shooting Reconstruction-Columbia County WA

10/1/09
State of KS-v- Kim Hudson
District 5 Judge S. R. Tatum
Officer Involved Shooting, Olathe, KS

ADDITIONAL RECENT TESTIMONY CONTINUED

11/3/09

State of CA-v-Threats
Superior Court-Vista, CA Dept 22
Judge Kirkman (Death Penalty Case)
San Diego, CA
San Diego County Public Defenders Office
Tool Mark case/homicide

11/19/09

State of WA-v-Besabe
Seattle, WA
King County Prosecutor's Office
Firearm/Shooting Reconstruction

12/17/09

State of WA-v-Hedgcoth
Everett, WA
Snohomish County Public Defender's Assn.
Homicide case/Reconstruction/Bloodstain pattern exam

2/2/2010

State of Alabama-v-Benjamin
Dothan, AL
Judge Menheim, Houston County
Dothan AL
Shooting reconstruction and distance determination in death penalty case

3/10/2010

State of WA-v-Steele
Tacoma, WA
Judge Culpepper, Pierce County, WA
Pre-Trial Motions involving trajectory analysis and documentation

3/23/2010

State of WA-v-Steele
Tacoma, WA
Judge Culpepper, Pierce County, WA
Criminal trial involving trajectory analysis and documentation

3/31/2010

State of WA-v- Weens
Seattle, WA
Judge Yu, King County WA
Firearm operability and recognition, Robbery/FA Enhancement

ADDITIONAL RECENT TESTIMONY CONTINUED

5/10/2010

State of WA-v-Steele

Tacoma, WA

Judge Flemming, Pierce County, WA

Criminal trial involving trajectory analysis and documentation

6/15/2010

State of NV v Carvell Roots

Las Vegas, NV

Dept. 4 Judge Hardcastle

Criminal Trial—Firearm exam and comparison

8/26/2010

State of WA vs Moore

Seattle, WA

Judge Cahan-King County Superior Court

Assault case/firearm properties

2/23/2011

Utah County Sheriff Case # 06UC04447

Sieloff-v-Overson et. al

Salt Lake City, Utah

District Court #S35 Lee A. Dever Judge

Civil case-reconstruction of a long range fired bullet trajectory

5/30-31/2011

Australia Testimony via Video Link

Western Australia-v- Mikhail

Examination of shotgun components and scene reconstruction relative to a double homicide

6/2/2011

State of Texas v Charles Payne

Dallas, TX

Superior court testimony in an Officer Involved Shooting

6/21/2011

Las Vegas, NV

Grand Jury testimony reference forensic firearms examinations conducted at the Las Vegas Metro Crime Lab

ADDITIONAL RECENT TESTIMONY CONTINUED

10/26-27/2011

Tacoma, WA

State of WA v. Kitsap Rifle and Revolver Club

Deposition 10/7/11; testimony 10/26-27/11

Reconstruction of long range trajectories in relation to the Kitsap Rifle Club

11/22/11

State of WA-vs-Rance Cox

Tacoma, WA

Superior Court Judge Grant

Re-trial 1992 era examination of Cocaine