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Unidentified Human Remains Investigations 101

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Disclaimer

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Lara Newell, MA, F-ABMDI

Lara Newell is a board-certified medicolegal death investigator who is currently employed at the Virginia Office of the Chief Medical Examiner (VA OCME) as the Long-Term Unidentified Coordinator. Currently, her caseload exceeds 300 cases, and she works closely with local, state and federal law enforcement, private and state funded laboratories, genealogists, the National Center for Missing & Exploited Children (NCMEC), the National Missing and Unidentified Persons System (NamUs), and other partners on Virginia's long term unidentified cases. With over a decade of experience in death investigation and a focus on unidentified cases, Lara leads statewide efforts in identification, outreach and training. Lara is also adjunct faculty at Virginia Commonwealth University (VCU) and manages two internships, one with VCU and one with Randolph Macon College. Lara currently serves as the secretary for the American Academy of Forensic Sciences' (AAFS') Academy Standards Board (ASB) Medicolegal Death Investigation Consensus Body. Lara is a FY23 Bureau of Justice Assistance (BJA) Missing and Unidentified Human Remains (MUHR) Program grant recipient and has been using funds for exhumations and forensic genetic genealogy (FGG).



Senior Special Agent Douglas R. Hubert

Senior Special Agent Douglas R. Hubert began his law enforcement career with the Virginia State Police in 1998, following honorable service in the US Navy as a 3rd Class Petty Officer assigned to the US Navy Ceremonial Honor Guard in Washington, DC. After graduating from the Virginia State Police Academy, he was assigned to Fairfax County, where he served on the Crash Reconstruction Team and responded to several high-profile incidents, including the September 11th Pentagon attack and the DC sniper investigation.

In 2003, Hubert transferred to Roanoke County and went on to serve in a variety of specialized roles, including the Sex Offender Unit, Firearms Transactions Section, US Marshals Fugitive Task Force, and as a certified Crash Reconstruction Expert and Field Training Officer. He was promoted to Special Agent in the Bureau of Criminal Investigation in 2017 and now focuses on major violent crimes, including homicides, sexual assaults, and cold cases.

As one of the primary crime scene agents for the Salem Field Office, Hubert leads in crime scene documentation and evidence collection, including officer-involved shooting investigations. He is a trained Bloodstain Pattern Analyst, Leica Scanner Operator, Rapid DNA Program Lead, and Crime Scene Reconstructionist. A graduate of the Virginia Department of Forensic Science Academy, he has received extensive training in forensic evidence and crime scene analysis.

Hubert holds a Bachelor's degree in Criminal Justice from Bluefield College.



<https://vsp.virginia.gov/>

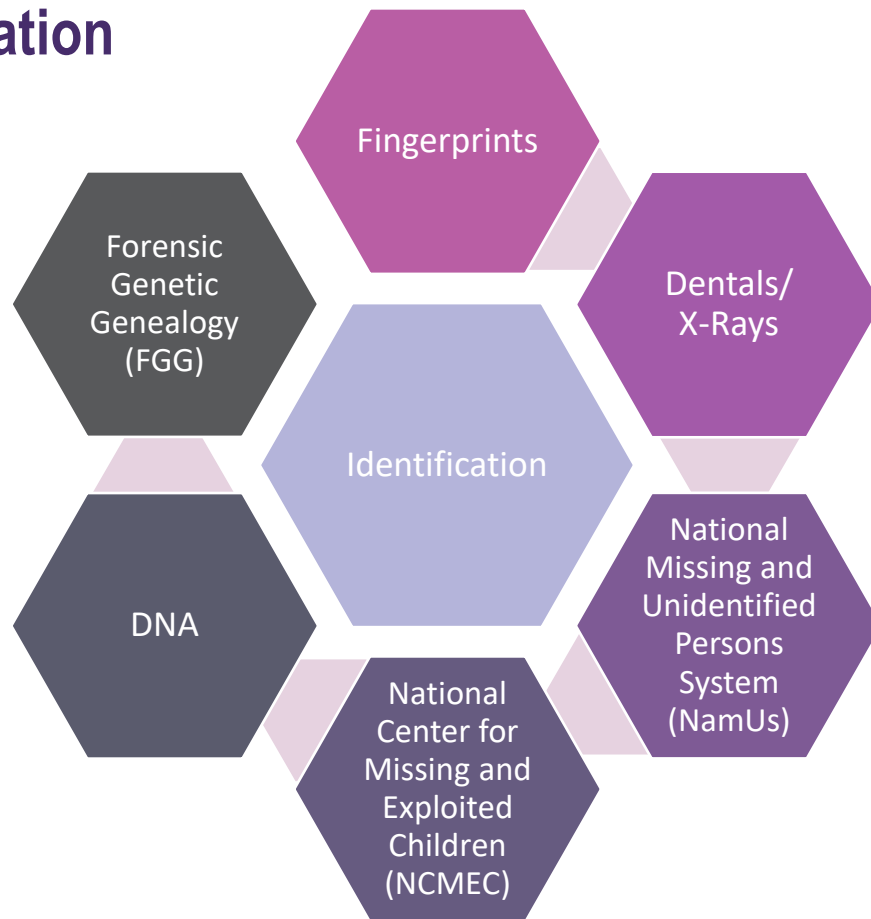
WARNING

This presentation contains graphic images that are sensitive in nature which may be considered triggering to some audiences.



Identifying Unidentified Human Remains: Suggested Best Practices from the Medical Examiner's Perspective

Goal: Identification



How a Case Starts

- Remains found in the woods, on abandoned property, in a storage shed, in a homeless camp, in a river...
- What do we look for first?
 - ID (driver's license, credit card, birth certificate, immigration papers, etc.)
 - Tattoos, scars, marks
 - Anything else on scene that can help
- How do we autopsy?
 - In the standard way but with:
 - Dental x-rays
 - Anthropology
 - Evaluation for fingerprints
- What then?
 - In VA, case is referred to me



The Discovery

Remains are
found floating
in a river

Decomposed,
not visually
ID'able

Clothing intact
and
waterlogged

The “Easy” Stuff

- Fingerprints
 - Federal Bureau of Investigation (FBI) Latents
 - Online trainings for difficult to print remains
- Dentals/X-Rays
 - Assist with age, especially if juvenile/young adult remains
 - Unique dental and skeletal features
 - Locate previous trauma/healing trauma



Autopsy

Exam findings consist with drowning

Photos taken of:

- Clothing, to include size and label
- Footwear
- Coins found in pocket
- Belt and belt buckle

X-Rays:

- Of body – show healed fractures to ribs (car crash? abuse?)

OCME staff unable to fingerprint



Fingerprint Assistance

FBI Lab Latent Prints Unit

- Waterlogged
- Burned
- Mummified
- As long as there is tissue, there is a print
- No hits in online and offline searches
- Prints entered into FBI's Next Generation Identification (NGI) system as unidentified individual

Creating an Image

- Anthropology
 - Height, ancestry, age, sex, post-mortem interval (PMI)
 - Ante-/peri-/post-mortem trauma
- Facial Approximation
 - FBI trace unit, operational support
- Transnational Anti-Gang (TAG) Task Force
 - Tattoos/Markings/Brandings

Searchable Databases



<https://namus.nij.ojp.gov/>

- National database
- Unidentified Person (UP) & Missing Person (MP) cases
- Public vs Professional
- Biometrics
- Comparisons



https://archives.fbi.gov/archives/news/stories/2008/august/vicap_080408

- Violent crimes, including homicides
- Managed by the FBI
- Undetermined – with suspicion of violence



<https://leb.fbi.gov/bulletin-highlights/additional-highlights>

- Not just for UHR/MPs
- Law Enforcement Agencies (LEAs) can track violent crimes across state lines
- Entries expire

NCMEC



www.missingkids.org

- Intake Criteria:
 - Remains assessed to be under the age of 21
 - Top of age range cannot exceed 25
 - Age assessment completed by forensic professional
 - Infant cases must be ruled a homicide
 - No single body parts (some exceptions made based on totality of circumstances)
 - Law Enforcement Agency or Medical Examiner/Coroner/Forensic Anthropologist may request NCMEC's assistance

NCMEC (*continued*)

- Biometric Support
 - Facilitate the collection of biometrics
 - DNA (for Combined DNA Index System [CODIS] = short tandem repeats [STRs] and mitochondrial DNA [mtDNA])
 - Dental Records
 - Fingerprints
 - Ensure biometric information is uploaded into all appropriate national databases
 - NGI – Next Generation Identification
 - NCIC – National Crime Information Center
 - CODIS – Combined DNA Index System
 - NamUs – National Missing and Unidentified Persons System

Fingerprints

United States Secret Service
Criminal Justice Information Services (CJIS)

Dentals

3 Forensic Odontologists

DNA

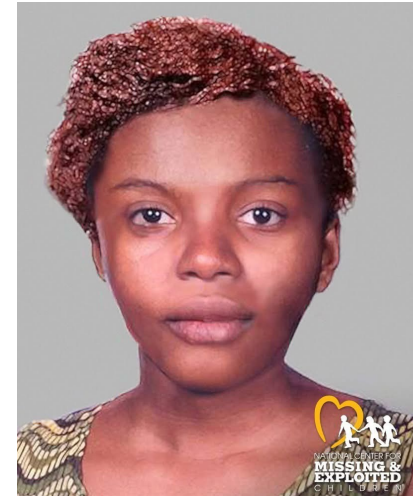
FBI and NamUs
6 State Laboratories (UNT HSC, MN BCA,
VA DFS, OH BCI, NY OCME, CA DOJ)

NCMEC (continued)

- Public Engagement
 - Four forensic artists
 - Facial reconstruction
 - Clothing or personal item reconstruction
 - Tattoo reconstruction
 - Communications Team
 - Press notifications
 - Poster distribution
 - Social media
 - Blog and videos



<https://www.facebook.com/HelpIDme>



<https://www.facebook.com/HelpIDme>



<https://www.missingkids.org/blog/2019/post-update/you-could-solve-mystery-of-apache-junction-jane-doe>

NCMEC (*continued*)

- Other services offered:
 - Analytical Services (public records, proof of life, lead enhancement)
 - Exhumation Assistance
 - FGG
 - M-Vac™
 - Forensic Odontology
 - Pollen and Soil Analysis
 - Case Reviews and Evidence Reviews
 - Image and Audio Enhancement
 - Rapid DNA
 - Clandestine Grave Search Efforts
 - Forensic Anthropology
 - Mapping, Timelines, Link Analysis



Identifying Unidentified Human Remains: Suggested Best Practices from Law Enforcement's Perspective

Investigative Challenges

A UHR case can be more complicated to investigate than a missing person investigation

- No victimology
- Timeline challenges
- Corresponding missing person reports likely don't exist therefore no family reference samples in CODIS
- Manner of death certification may affect investigative resources
- Resources for identification

Cold Case Strategy

The case's age and the status of remains will dictate possible investigative strategies:

- Reviewing Interviews
- Reviewing Evidence
- Forensic Analyses

For “cold” or “historical” cases, best practice is to bring the case up to modern standards to have visibility on action items moving forward:

- Organize file in searchable format (digitize all reports, photos, and recordings)
 - Create a searchable PDF including a name index
 - Use interns or new agents/detectives
 - Word or Excel best for universal access
 - Create a timeline
 - Schedule interviews if suspects or witnesses are alive; if deceased, confirm alibi

Evidence Review

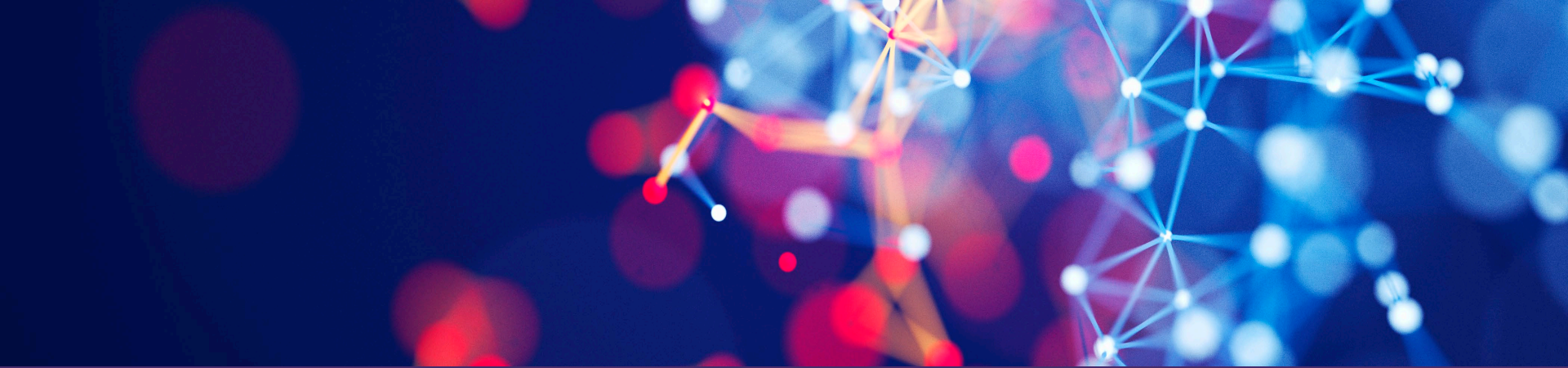
- Gather all evidence and property
 - Ensure a thorough understanding of all evidence collected
- Repackage and photograph all evidence according to current standards
- Review available evidence to determine evidentiary value
- Evaluate whether new forensic methods can be used for the first time or re-examination using new methods
 - If using a private laboratory, check with your local/state laboratory on protocols. Many need to sign off that they've exhausted their resources or don't have a certain test before sending out for private testing
- Consider reviewing evidence with prosecutor if it's a criminal case
- Outside the box funding for testing should be considered – non-profits, families, victim witness

Investigative Tools

- NCIC
 - Enter, Re-Enter, Yearly Validations!
 - Offline requests for potential matches
 - For assistance with offline searches, contact CJIS (ioau@leo.gov)
 - Tip: The NCIC Missing Person File was implemented in 1975. If you are seeking entries prior to 1975, check the Wanted Persons System (WPS)
- NamUs
 - Work with Medical Examiner/Coroner to ensure entry into NamUs
 - Available resources include free forensic services and investigative support
 - For more information, visit <https://namus.nij.ojp.gov/>
- NCMEC
 - UHR is believed to be under the age of 21
 - Ensure UHR is registered with NCMEC (1-800-THE-LOST)
- ViCAP
 - Manner of death is known or suspected to be a homicide
 - Analysts seek to identify potential links between cases and assist with investigations
 - For assistance, contact vicap@fbi.gov

Investigative Tools *(continued)*

- Fingerprints
 - If fingerprints are available, contact FBI's CJIS Deceased Persons Identification (DPI) Services
 - DPIservices@fbi.gov
 - Other state and local databases
- CODIS
 - Ensure sufficient profiles searching in the National DNA Index System (NDIS)
 - mtDNA and STRs
 - Review old reports, ask questions!
- Media tips and tricks
 - Suspect communication online
 - Media interviews
 - Billboards



Case Study

1987 John Doe Case Study



Images provided by Virginia State Police

May 27, 1987

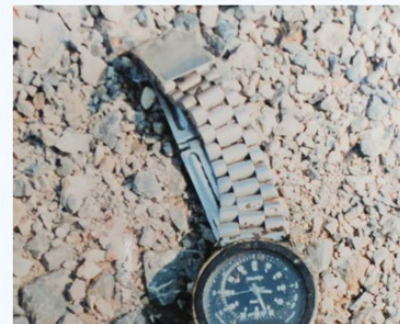
Highway workers discovered a partially decomposed body along the southbound shoulder of I-81 South, Mile Post 183. The victim died as a result of a gunshot wound to the right side of the head and right side of the body. Handwritten notes in the victim's pocket referred to a truck and trailer number from J.B. Hunt Trucking Company, a trucking firm out of Lowell, Arkansas.

1987 John Doe Case Study *(continued)*

Glasses for a near-sighted person; the prescription is as follows:

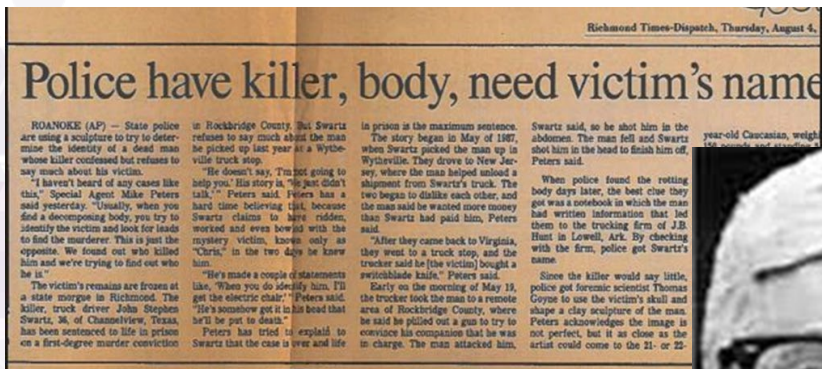
- Right OD – 2.25 Spherical 5ph Cylindrical
- Left OS – 2.25 Spherical 5ph Cylindrical
- Distance pd = 61mm
- BC 4.25 OV
- Single-vision clear glass, similar style issued by Veteran's Administration

Short-sleeved shirt with a specialist E4 rank (US Army) insignia on the sleeve



Images provided by Virginia State Police

1987 John Doe Case Study (continued)



Images provided by Virginia State Police

PERSONAL IDENTIFICATION		TYPE OR PRINT ALL INFORMATION IN BLACK	
SEE REVERSE SIDE FOR FURTHER INSTRUCTIONS		LAST NAME (NAME)	FIRST NAME
SIGNATURE OF PERSON FINGERPRINTED		Unknown Deceased	
RESIDENCE OF PERSON FINGERPRINTED		FINGERPRINTS SUBMITTED BY	
PERSON TO BE NOTIFIED IN CASE OF EMERGENCY		DATE FINGERPRINTED	AGE
NAME		5/29/87	21
ADDRESS		SOCIAL SECURITY NO.	SEX
FINGERPRINTED BY		CLARK	HEIGHT
Michael R. Grimm		19 0 140000	WEIGHT
SCARS AND MARKS		1 220 000	HAIR
FINGERPRINTS		EYES	
1. L. INDEX		Approx. 22 yrs	
2. L. MIDDLE		PLACE OF BIRTH	
3. L. RING		CO	
4. L. PINKY		CO	
5. R. INDEX		CO	
6. R. MIDDLE		CO	
7. R. RING		CO	
8. R. PINKY		CO	



1987 John Doe Case Study *(continued)*

On March 31, 1988, John Swartz was convicted in Rockbridge County Circuit Court (VA) of first-degree murder and using a firearm in the commission of a felony. He received life in prison. John Swartz is the suspect in multiple death investigations on the East Coast interstate system before 1987.

After the suspect was convicted, Virginia State Police declared they “solved the case”.

- Don't forget the UHR. Keep going to give them their name back! This often means you need to re-enter in NCIC.

1987 John Doe Case Study *(continued)*

On February 20, 1989, Lead Trooper, Master Trooper Hines, the lead trooper on the case, was shot and killed following a traffic stop on Interstate 81 near Lexington.

- The case lost its 1st driving force.

Convicted killer John Swartz died in prison. Prior to his death, Swartz provided the names “Chris” or “Steve” for the deceased. He changed his accounts of how, when, and where he met the unidentified victim.

The Lead Special Agent promoted and transferred to another location in Virginia.

- The case lost its 2nd driving force.



Image provided by Virginia State Police

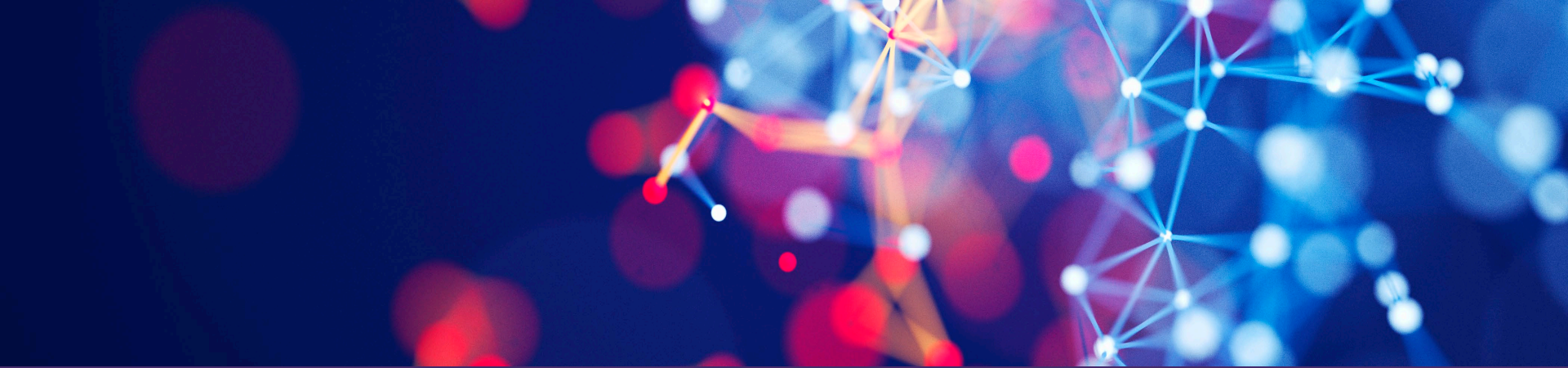
Jerry Lynn Hines
1940 -1989

Why is 1987 John Doe Still Unidentified?

- All property and evidence destroyed
 - According to the Commonwealth Attorney, all items in this case were to be destroyed on May 16, 1996. “The victim’s personal effects have been in the VSP evidence room for nine years. It would appear there is no hope of ever identifying him.”
- Virginia OCME cremated the unidentified body
 - No DNA card or tissue/bone saved
- There are no photos of clothing
- Cannot locate dental x-rays
- DNA testing was attempted on cremated remains (2021-2022)
- The clay bust was molded using the skull and jawbone; the bust was destroyed, and the skull and jaw were cremated with other remains

What if 1987 John Doe Were Found Today?

- The modern tools used by criminal investigators for suspect identification can now be used to identify the unknown
- DNA
 - CODIS
 - FGG
- Digital Forensics
 - Tower dumps
 - Geofencing
 - GPS information from tractor-trailer
 - Closed-circuit television cameras



Questions?

Contact Information

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