

INTRODUCTION TO FORENSIC SCIENCE

School Year 2023-2024
jwardisiani@pths209.org

BELL-RINGER



- Where are people most likely to die in their homes?
- How might understanding insects help in a Forensic Investigation?
- Describe the process of Rigor Mortis

DEFINITION

- Forensic Science is the application of science to criminal and civil laws.
- The subject matter of this book emphasizes the application of science to those criminal and civil laws that are enforced by police agencies in a criminal justice system.

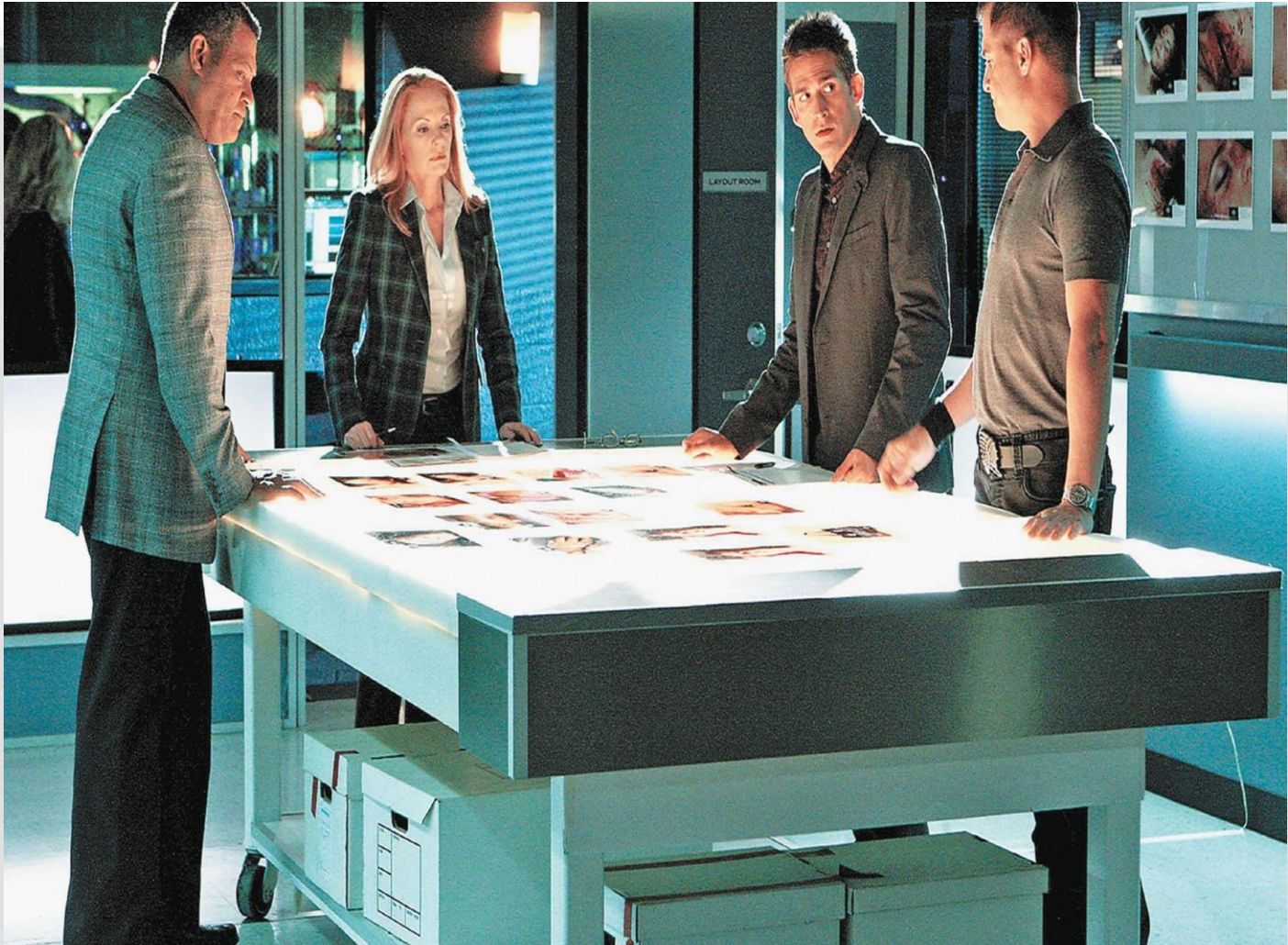


DEFINITION

- Forensic science owes its origins to individuals such as Bertillon, Galton, Lattes, Goddard, Osborn, and Locard who developed the principles and techniques needed to identify or compare physical evidence.



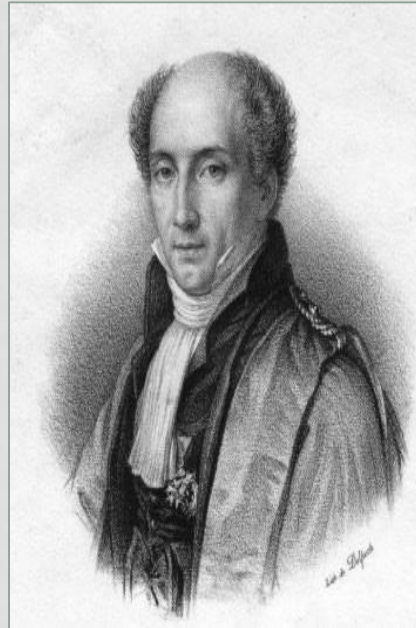
CSI



HISTORY

Mathieu Orfila

- The father of forensic toxicology.



Alphonse Bertillon

- Devised the first scientific system of personal identification in 1879.



HISTORY

- Francis Galton
- Conducted the first definitive study of fingerprints and their classification.
- Leone Lattes
- Developed a procedure to determine blood type from dried bloodstains.



(a) Whorl



(b) Plain Arch



(c) Right Loop



(d) Left Loop



(e) Central Pocket



(f) Tented Arch



(g) Twin Loop



(h) Accidental

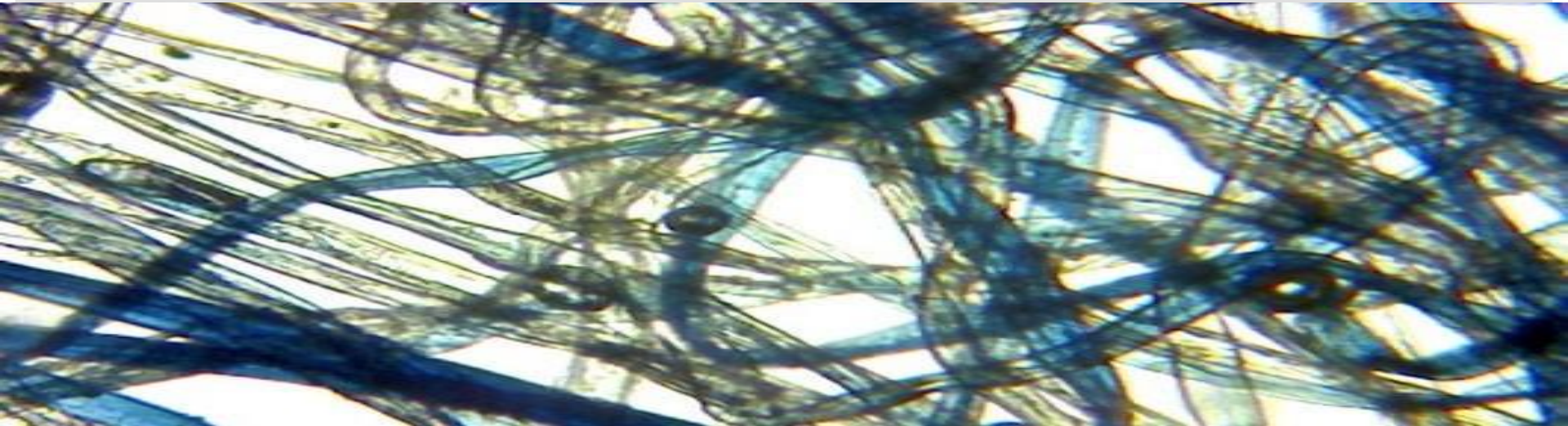
HISTORY

- Calvin Goddard
- Used a comparison microscope to determine if a particular gun fired a bullet.
- Albert Osborn
- Developed the fundamental principles of document examination.



HISTORY

- **Walter McCrone**
- Utilized microscopy and other analytical methodologies to examine evidence.
- **Hans Gross**
- Wrote the first treatise describing the application of scientific principles to the field of criminal investigation.



HISTORY

- Edmond Locard
- Incorporated Gross' principles within a workable crime laboratory.
- Locard's Exchange Principle
- States that when a criminal comes in contact with an object or person, a cross-transfer of evidence occurs.



THE CRIME LAB

- The ever increasing number of crime laboratories is partly the result of the following key points:



THE CRIME LAB

- 1. Supreme Court decisions in the 1960s responsible for police placing greater emphasis on scientifically evaluated evidence.
- 2. Crime laboratories inundated with drug specimens due to accelerated drug abuse.
- 3. The advent of DNA profiling.



Journal Entry

- List the following on a separate paper
 - 3 things you learned
 - 2 things you liked or disliked
 - 1 question you have
- Comments or Questions?

