

Today's Presentation

Program: Live & Zoom: An Introduction to Finger Print Examination: History, Science, and Practice

Speaker: David Zauner

Introduced by: Joyce Mallett

Attendance: 112 (NESC 61, Zoom 51)

Guests: Claire Collins, Sally Endo, Beverly Monts, Ray Boyd, Augusto Simons

Scribe: Russell Judd

Editor: Bill Elliott

A recording of today's Zoom presentation may be viewed at: <http://www.scientechclub.org/zoom/466.mp4>

The talk today was given by David Zauner and his title was "Introduction to Fingerprint Examination, History, Science and Practice." After graduating from Purdue in 1978 he spent 37 years in Identification and forensic science. His professional career started with the Fort Wayne Police Department; Mr. Zauner then moved on to the Indiana State Police Regional Laboratory, and the Marion County Forensic Service Agency. Currently, he is an adjunct instructor at IUPUI.

He discussed "what is a print?" The skin of the fingers, hands and feet are covered with skin made up of dermal and epidermal layers. From fetal life till death, this "friction skin" has characteristic ridges, furrows, and sweat glands in it. Interest in the value of fingerprints has been complex and long. Meyer, in 1788, thought prints might be unique. Golton, in 1888, also thought they were permanent and unique to each individual. In 1900, Whipple and Welder started the foundation for modern scientific anatomy and development. Up till then, identification could be problematic. People might grow, and people's pictures could change with time. Faulds, in 1888, thought finger prints could be useful in cases involving crime. Vulcetek, in 1896, created a standard classification of prints based on the anatomy and detail of the print skin ridges. Prints are examined for the type of ridges, their flow and sweat pores. The quality and quantity of print material has to be adequate to make a diagnosis and the diagnosis must be verified.

Computers have played a role since the 1980s. They are automated and used for storage and retrieval of data. A list of candidates with certain print patterns are fed into the computer for possible matches and then reviewed by trained examiners.

Mr Zauner discussed obtaining prints. Some are visible but some are latent due to oil, contamination or perspiration. Some surfaces make finding a print difficult. Several methods are sometimes helpful in enhancing a print: powders, various chemicals and optics.

The value of a print is that it does prove contact. Exclusion may indicate that no contact occurred. You can't know how long a print has been on a surface. Identification is not proof of guilt. Investigation must establish a crime or sequence of events.

Admissibility for law trials has been established because prints have been accepted and validated by the scientific community.

Mr. Zauner made a point of saying that the criteria for employment of a forensic print person depends on the employer. Education, good personal attributes, training, professional development, and integrity are all needed for a good examiner.

Thank you Mr. Zauner for a very interesting talk.



David Zauner