A Brief History of Friction Ridge Skin and Its Use for Identification

The use of friction ridge skin as a means of identification for crime scene investigation has been documented as early as 300 B.C. during the Qin Dynasty in China (Xiang-Xin & Chun-Ge, 1988). In European culture, the study of friction ridge skin for its uniqueness and permanence was not initiated until the seventeenth and eighteenth centuries by scholars, such as Sir Francis Galton and Sir William James Herschel. In 1892, Sir Galton was the first intellectual in English-speaking countries to ascertain the permanence and uniqueness of fingerprints (Barnes, 2011), which he published in his book *Finger Prints* (Galton, 1892). Sir Galton laid the groundwork for others within the field, like Sir William James Herschel, to study his assertions.

Sir Herschel was the first academic credited to study the permanence of friction ridge skin by recording his own prints over the course of 50 years and publishing his recorded prints (Barnes, 2011). He noticed that the details within the friction ridge skin did not change over the course of his life (Herschel, 1916). His research aided in the establishment of one of the scientific laws in friction ridge identification, which states that, "the sequence of the ridges and the arrangement of the robust minutiae do not change throughout a person's lifetime" (Langenburg, 2011). During his service as a British Administrator for the East India Company, Sir Herschel frequently used handprints as a signature on contracts and subsequently became the first European recorded to use friction ridge as a form of identification (Barnes, 2011).

While Sir Galton and Sir Herschel are very important historical figures in the friction ridge community, other academics also helped pave the way for latent print identifications in criminal investigations, including Dr. Henry Faulds and Sir Edward Richard Henry. Dr. Faulds was a Scottish physician who developed an interest in friction ridge skin while conducting missionary work in Japan and began to research by collecting prints from both humans and monkeys for comparison (Barnes, 2011). In a letter he wrote to *Nature* magazine, Dr. Faulds iterates the importance of fingerprints in criminal investigations. As proof, he cited two cases in which he was able to use fingerprints for identification. In one case, he was able to identify the guilty party, and in the other case, he was able to exonerate an innocent person (Faulds, 1880).

Realizing the importance of fingerprints in criminal matters, the English government set up the Troup Committee in 1893 to discuss better ways to identify habitual offenders. At the time, it was common practice for body measurements, known as anthropometry, to be taken for identification purposes and filed through a classification system based on the body's measurements. Without a proper fingerprint classification system, the committee recommended that criminal's body measurements be documented and fingerprint recordings attached to the anthropometric information. However, this did not alleviate the need to retrieve fingerprint records for comparison to unknown latent prints from crime scenes. A classification system for fingerprint retrieval needed to be created, and in 1894, Sir Edward Richard Henry tasked himself with designing a classification system for the retrieval of fingerprint records. With the help of Sir Galton and various Indian police officers, Sir Henry created the first fingerprint classification system in English-

speaking jurisdictions. His fingerprint classification system was adopted by the English government in 1900 and quickly spread worldwide. His method, known as the Henry Classification System, was used in English-speaking countries for nearly 100 years before being replaced due to advances in technology (Barnes, 2011).

Systematic use of fingerprints first began in the United States in 1902. Like England, body measurements of an individual were taken and fingerprint recordings attached to the documentation (Barnes, 2011). The superiority of fingerprint identification over anthropometry was recognized when confusion ensued at the Leavenworth Penitentiary in 1903. An inmate, by the name of Will West, was arrested and taken into custody. During his initial intake, his body measurements were documented, but records showed that he was already in confinement for murder under the name William West. Prison staff thought the inmate had escaped without anyone noticing. Upon checking the fingerprint recordings, personnel quickly realized they were dealing with two different individuals. Will West and William West had the same name, similar body measurements, and bore a striking resemblance. Although their body measurements were indistinguishable from one another, their fingerprints were able to differentiate the two (Daluz, 2014). This event, along with the newly developed Henry Classification System, was the beginning of friction ridge classification and identification in the United States.

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