

History of Dactiloscopia in Hungary

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Abstract

This paper in a brief overview of the “fingerprint history” in Hungary, from the medieval naive usage through the scientifically sound personal identification till the recent situation. This conference paper was presented in Bratislava, 18th of October, 2018, at the celebration of 100 years old Slovak Police (100 ROKOV ČESKOSLOVENSKEJ ŠTÁTŇOSTI, PRÁVNICTVA A BEZPEČŇOSTI).

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(The Lord) sealeth up the hand of every man, that all men whom he hath made may know `it'. (Job 37:7).¹

All of the finger print community of the world know well that the history of dactiloscopia has started at least four thousand years ago. As we can see in the motto from the Holy Bible, the ancient people were also interested in the special patterns on their fingertips and palms. The naive or primitive usage of fingerprints is well-known from the age of Hammurapi (Babylon)² or the Far-East cultures (like China during the Tang Dynasty)-finger prints (especially prints of the thumb or the right index finger) were widely used as a personal signature on contracts or official documents.

The Hungarian forensic literature before the second world war mentions the first naive usage of finger prints in Hungary (and in Europe): like in China, in the medieval Transsylvania contracts

and other official documents were often signed by finger prints.³ Possibly this is the only one known utilization of finger prints in the medieval Europe. Unfortunately, in the second world war, all of the dactiloscopia records and collections were completely destroyed, so, today we can not find original medieval fingerprint-signed documents, supposedly all of them are lost.

As that time Hungary was part of the Habsburg Empire the great Czech anatomist Jan Evangeliste Purkinje should be mentioned, who first recognized the nine different pattern type of the human fingerprints. He was professor in Wrocław (Vratislava, Boroszló) University.

In the third half of the 19th century the French method called “Bertillonage” became the first scientific base of the personal identification. It had three parts: portrait photography, “portrait parlé” (description) and measurement of many anatomic features of the adult body.

Note that the “portrait parlé” (description of personal details) and the portrait photography is part of the criminal records even the recent practice of personal identification. After a famous miss-identification, the measurement of anatomic features (third but main part of Bertillonage) were changed to the dactiloscopia, worldwide, in the first decade of the twentieth century. In the end of the nineteenth century Hungary didn't have enough

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money to establish the Bertillonage system.⁴ So, in Hungary the rising dactiloscopia had no rival.

The first handbook of forensic science in Hungary was published in 1897. It was the adaptation of the Handbook of Hans Groß (1893). In the first Hungarian handbook, just after five years of the "Finger Prints" of Francis Galton,⁵ the author mentions the fingerprints, in the chapter of blood stains. The author highlighted the marks of the bloody hands and fingers, which would provide personal identification, because of the uniqueness and permanency of the friction ridges. Also wrote a proper method to collect known prints.⁶

In 1902 the deputy commander of Budapest City Police (BRFK) spent his summer holiday in London. During his holiday he visited the Scotland Yard, and observed the brand new fingerprint method for personal identification. In the next years official delegations visited London, and in 1904 the dactiloscopia has been started, second in Europe after England, first in the Continental Europe. In 1904, the Budapest City Police established the first fingerprint record database, in the next years many other police departments followed this, and in 1909 the fingerprint database became nationwide. Initially the fingerprint method was for identifying criminals and outcasts (hobos, vagabonds, gypsies). Forensic usage of latent prints from crime scene has started in 1907.

In 1907, the notorious crime case of Dános, where four people were robbed and murdered, had been solved by latent prints, which were developed from a wine bottle.⁷ In 1907, the rural area of Dános belonged to the jurisdiction of the Hungarian Royal Gendarmery, but that time only the Budapest City Police had fingerprint lab. The gendarme officer recognized the potential importance of the evidence, collected and preserved it and sent it to the lab from the scene. Gábor Béla, expert of fingerprints examined the wine bottle and the known prints from the suspects, and introduced the evidence in front of the court in 1908. Denying suspects faced with the "brand new" evidence confessed. The case of Dános became famous everywhere in Europe at that time, including the role of the fingerprint evidence. Other cases (mostly burglaries) were also solved by fingerprints in 1907–1908. Dános was the first crime scene with fingerprints, but not the first court trial with fingerprint evidences and expert witnesses.

Till the Second World War many criminal records were collected and dactiloscopia kept its indisputable role in crime scene investigation and personal identification. Practical manuals and

forensic books discussed the fingerprints in details. The first handbook of fingerprints was published in 1905,⁸ first handbook on the latent prints of crime scenes was published in 1912.⁹

In the First World War the country became smaller but Budapest and the criminal records remained intact.

In 1924, a forensic handbook wrote that not every police station has the capability to do fingerprinting. So, the small police stations or law enforcement units in rural area needed to request the "Royal Prosecutor Offices" or the local courts— these offices were equipped with fingerprinting tools and employed trained personnel also.¹⁰ In 1925, a fingerprint book described the powdering-lifting method and the iodine fuming method. The author also complained about the neglect detectives who can easily destroy the latent prints at the crime scene.¹¹

In 1936, the most detailed handbook of forensic science was published in the royal Hungary. It mentions the complex and differentiated fingerprint record system: fingerprints of criminals, fingerprints of gypsy people, mono-dactiloscopia records for burglars.¹² The handbook contains a very detailed discussion on the development of latent prints. Describe 13 different type of fingerprint powders. Also wrote about the following chemical enhancement methods: silver nitrate, osmium acid, iodine fuming, Sudan black, tannin, palladium chloride.¹³

In the Second World War, during the siege of Budapest, the police buildings were destroyed. The Bureau of Criminal Records was destroyed in an air raid, all records of the first forty years were burned. In addition, many policemen and gendarme also died in the war, some of the survivors were convicted, some survivors escaped. The first half decade were spent to re-establish everything.

In 1949, a short manual was published on the dactiloscopia. The manual copied the 1936 handbook (without citing...) and mentions the chemical enhancement techniques (with misspelling...). It details only the iodine fuming technique. Also mentions sticky or wet surfaces.¹⁴ (Many handbooks and issues from the socialist era had this attitude: Copy of the older books and articles without citing, and in the same time, deny every value of the pre-socialist forensic science...).

In 1972, three main problems were discussed and published in a "Top Secret" issue of the Ministry of Interior. These problems were the following: The Hungarian CSI personnel do not use the foreign

(western) fingerprint powders what were bought for USD, they use only the old types. CSI personnel do some kind of pre-evaluation, without adequate (expert) competency. Because of this two point, the crime rate became higher but the number of the developed fingerprints decreased.¹⁵

During the sixties, crime scene investigator units were established in every police unit. County departments were equipped with crime labs. The central unit, "Crime Technical Institute" were also established. Fingerprint records were collected continuously.

During the socialist-era some development in dactiloscopia science also happened, for example the efforts for a complex mono-dactiloscopia system by Kiss Ernő. He had started to develop his one-fingerprint recording system before the Second World War, but finished it only in the sixties. Also a five-fingerprint recording system were established till the eighties, but had not worked properly.¹⁶

In 1989, as the socialist-era had been ended, an extremely crime boom had occurred. In addition, some of the most experienced police personnel were retired or left the police. In addition, the forensic units, like all of the police, were faced to underpayment and lack of financing.

The early ninety's were the age of the first applications of automated fingerprint identification systems (AFIS). Mono-dactiloscopia was tried to be computerized in the mid-eighties, but it was not a proper AFIS system, yet.¹⁷ Even Hungarian companies were made AFIS (Recoware), but the first AFIS became Printrak (1992), then Sagem Morpho (2002), and last the Cogent (2012).

The first palm-print identification with computer had been done in 1994, Szolnok, Hungary. This was the very first palmprint identification in the world.¹⁸ The second was made by Scottish Police in 1996.¹⁹ The palm-print identification software and the know-how later was sold to the USA. Today, the National Institute of Forensic Science (NSZKK, Budapest) has monopoly in fingerprint identification. The identification process follows the internationally recognized ACE-V methodology, and has been accredited under the ISO 17025 standard. Latent prints under 10 minutia are insufficient for identification. There is no probability result: It can only be 100% identification or 100% exclusion.

The four basic databases (criminal records, immigration records, records of asylum-seekers, and latent prints from crime scenes of unsolved cases) are connected with other EU countries

through the Euro DAC and the Prüm Treaty. Criminal database has over 1 million records, immigration and asylum-seeker database has about 200–200,000 records, crime scene database has about 100,000 records.

Conflicting Interest: No

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