

A HISTORICAL DEVELOPMENT OF THE FINGERPRINT IN INDIA WITH SPECIAL REFERENCE TO AYURVEDA***Dr. Varsha R. Yadav**

Assistant Professor, Department of Agadtantra, ITM Ayurvedic Medical College, Gorakhpur.

***Corresponding Author: Dr. Varsha R. Yadav**

Assistant Professor, Department of Agadtantra, ITM Ayurvedic Medical College, Gorakhpur.

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ABSTRACT

Long before its application in criminal justice, fingerprinting held a unique place in ancient India. Primarily utilized for astrological interpretations, both palm and fingerprint readings were deeply ingrained in Indian culture. However, it wasn't until British rule that the revolutionary potential of fingerprinting as a tool for criminal identification was recognized. Sir William Herschel emerged as a pioneer, championing its use in establishing individual identities within the legal system. In this article we will be analyzing about historical development of fingerprint in India with special reference to Ayurveda.

KEYWORDS: Fingerprint; History; India; Ayurveda.**INTRODUCTION**

The history of fingerprint identification in India is a fascinating journey that spans centuries. Rooted in ancient Indian traditions, such as those reflected in the Samudra Shastra, the concept of recognizing individual uniqueness evolved from philosophical observations to a powerful tool for modern forensics.

Pioneering figures like Sir William Herschel played a crucial role in establishing fingerprint classification and its application in criminal investigations during the British era. The establishment of the Bengal Fingerprint Bureau marked a significant step forward, driving advancements in fingerprint recording and analysis.

Post-independence, India embraced technological innovation with the development of NAFIS, a sophisticated database that has revolutionized crime investigation. This powerful tool, with its vast repository of fingerprint data, has significantly enhanced law enforcement capabilities, demonstrating the effectiveness of technology and inter-agency collaboration in improving public safety.

While the connection between fingerprint patterns and Ayurvedic doshas is still being explored, the journey of fingerprint identification in India exemplifies the evolution of human understanding, from ancient philosophical observations to modern scientific applications.

MATERIAL AND METHODS

A variety of information gathered from various Ayurvedic textbook, modern textbooks, research papers, articles, and internet.

Review of Literature**Ancient Era**

While the "Law of Manu" and "Vasishtha Rules" may not explicitly mention palm reading, they reflect an ancient Indian tradition of observing and interpreting unique physical characteristics. This focus on individual traits, initially driven by spiritual and divinatory pursuits, laid the groundwork for a deeper understanding of human uniqueness.

For centuries, humans have intuitively grasped the unique nature of individual fingerprints. This inherent understanding paved the way for fingerprint analysis, a scientific technique that utilizes the distinctive patterns on our fingertips to identify individuals. It underscores the enduring human drive to comprehend and classify individual differences, a pursuit fueled by both spiritual exploration and practical necessities.

The concept of fingerprint uniqueness, a cornerstone of forensic science today, has roots in the ancient Indian scripture, Samudra Shastra.

While Samudra Rishi, the author of Samudra Shastra, focused on astrological interpretations, his detailed observations of fingerprint patterns, including the identification of "sankhas," "chakras," and "seeps"

(corresponding to loops, whorls, and arches), remarkably mirror the three primary fingerprint patterns recognized in modern science.

Furthermore, the ancient scripture acknowledges minute fingerprint details, such as "apuran java," "puran java," "padam," and "aax," which correspond to modern fingerprint terminology like forks, lakes, hooks, and islands. This suggests an ancient understanding of the unique characteristics that distinguish individual fingerprints.

The information emphasizes that while Samudra Rishi's focus was on astrology, the recognition of fingerprint uniqueness in ancient India predates its application in modern criminology.

This intriguing convergence of ancient wisdom and modern science underscores the long and fascinating history of fingerprint analysis and its profound impact on our understanding of human individuality.

Medieval India

In medieval India, hand prints held a deeper meaning than simple signatures, and evolved into potent symbols of authority and personal commitment. While rulers routinely signed routine documents, hand prints were reserved for matters of utmost importance, such as royal edicts or treaties.

This practice was not an isolated event, but rather a reflection of the cultural significance of hand prints within the context of power. Mughal Emperor Shah Jahan, for example, recognized hand prints as a symbol of distinction and royal favor. Furthermore, defeated rulers, such as Shahuji Bhosle and Amar Singh Sisodia, were required to imprint their hands on treaties, signifying their submission and allegiance to the Mughal Emperor.

This tradition continued into the 19th century, as illustrated by the handprint of Maharaja Ranjit Singh on a significant treaty. In addition to their function as a means of authentication, these handprints served as powerful symbols of authority, conveying a sense of personal involvement and unwavering dedication.

While the primary purpose of hand prints in medieval India was not criminal identification, their use as a symbol of authority and personal commitment demonstrates a fundamental understanding of the unique and distinguishing nature of individual markings, a concept that played a crucial role in the later development of fingerprint science.

Modern Era

In 1858, Sir William Herschel, a British administrator in India, pioneered the use of fingerprinting for identification. He began by having a local contractor, Rajyadhar Konai, place his handprint on a contract to

authenticate it. This led Herschel to explore the use of fingerprints in other government-related matters. He implemented a system for recording the thumb impressions of government employees and pensioners to prevent fraud. Herschel also made it mandatory for individuals to include their fingerprints on legal documents. He later documented his findings in his book "The Origin of Finger Printing," emphasizing the significance of Konai's contract as the first official document to use fingerprints for identification.

In 1877, in Hoogly near Calcutta, they started using fingerprints on important papers like contracts and legal documents. They also used fingerprints to make sure that only the right people could collect the pensions of government employees after they died.

Dr. Henry Fauld, a medical missionary to India and Japan, studied fingerprint structure extensively. He was first European to publish an article stating that visible fingerprints such as bloody, greasy, or sooty fingerprints, may be useful for solving crime.

British Era

In 1897, the world's first fingerprint bureau, the "Bengal Fingerprint Bureau," was established in Calcutta's Writer's Building. Its primary goal was to standardize the processes involved in fingerprint identification, including recording, detection, classification, development, and preservation.

Two police sub-inspectors, Khan Bahadur Azizul Haque and Rai Bahadur Hem Chandra Bose, were appointed to advance the science of fingerprinting.

Rai Bahadur Hem Chandra Bose made significant contributions, developing an extended system for sub classifying fingerprints, a telegraphic code for fingerprint impressions, and a system for single-digit classification.

Azizul Haque developed a mathematical formula that aided Edward Henry in devising a pigeonhole cabinet system for sorting fingerprint forms based on their patterns.

The establishment of the Bengal Fingerprint Bureau in Calcutta represents a crucial step in the evolution of fingerprint identification as a scientific discipline. The research and development conducted at this bureau laid the foundation for modern fingerprint analysis techniques used worldwide today.

After Independence

The journey of fingerprint identification in India began with the establishment of the Central Fingerprint Bureau in Calcutta in 1955. This bureau, initially under the Intelligence Bureau, later transitioned to the CBI and finally found its home under the National Crime Record Bureau (NCRB) in New Delhi in 1986.

A cornerstone of modern Indian forensics, the National Automated Fingerprint Identification System (NAFIS) has revolutionized crime investigation. This pan-India database, managed by the NCRB, aims to digitize and interconnect fingerprint records from across the country.

The impact of NAFIS is undeniable. In April 2022, Madhya Pradesh became the first state to leverage NAFIS to identify a deceased person, showcasing the system's potential. While DNA evidence holds immense value, NAFIS has a distinct advantage: the sheer volume of fingerprint data stored within its vast database. This extensive repository significantly enhances the chances of solving crimes by facilitating rapid and accurate identification.

The evolution of fingerprint identification in India, with the establishment of the Central Fingerprint Bureau and the development of NAFIS, showcases the power of technology and inter-agency collaboration in enhancing crime-solving capabilities and improving public safety.

Fingerprint and ayurveda

While Ayurveda and fingerprint analysis both emphasize individuality, research exploring a direct link between fingerprint patterns and Ayurvedic doshas (Vata, Pitta, Kapha) is still in its early stages.

One study observed a correlation between dosha types and fingerprint pattern diversity. Individuals with Vata constitution, characterized by mobility, showed greater variation in fingerprint patterns compared to those with Kapha constitution, associated with stability. Pitta individuals exhibited intermediate levels of variation.

However, specific associations, such as arches with Vata, loops with Pitta, and whorls with Kapha, have not been conclusively proven. Further research is needed to establish a definitive link between fingerprint patterns and individual Ayurvedic constitutions.

DISCUSSION

Ancient Indian texts, like Samudra Shastra, while primarily focused on astrology, demonstrated a foundational understanding of the unique patterns found on human fingerprints. This early recognition of individual characteristics aligns with the emphasis on individual traits found in ancient Indian texts like the "Law of Manu" and "Vasishtha Rules."

This early understanding paved the way for later developments, from the use of hand prints by Indian rulers to signify authority and personal commitment in medieval India, to the pioneering work of Sir William Herschel in modern India, who established the use of fingerprints for identification.

Today, India boasts the National Automated Fingerprint Identification System (NAFIS), a powerful tool in crime investigation. While research into a potential link

between fingerprint patterns and Ayurvedic doshas is ongoing, the enduring importance of fingerprints in human history, from ancient spiritual beliefs to modern forensic science, is undeniable.

CONCLUSION

In conclusion, the study of fingerprints in India has a rich history, rooted in ancient texts that recognized individual characteristics. This early understanding evolved into practical applications, from royal decrees to modern forensic science.

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