

# Lip Print Evidence: Poland as the Last Bastion of Practical Cheiloscopy

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## TABLE OF CONTENTS

INTRODUCTION .....	56
I. THE HISTORICAL RISE OF POLISH CHEILOSCOPY .....	56
A. A Short View of the History of Cheiloscopy .....	56
B. Fundamentals of the Polish Cheiloscopy Identification Method .....	58
C. Cheiloscopic Experience as Evidence Before the Court .....	61
II. THE CURRENT LIP PRINT IDENTIFICATION CONTROVERSY .....	64
A. Lip Prints and the NAS Report .....	64
B. <i>People v. Lavelle Davis</i> , or the (Unfounded) Proscription of Lip Print Identification .....	64
III. CHALLENGES AND FUTURE DIRECTIONS .....	65
A. Gray Literature, Standards, and Globalization .....	65
B. Integration, Visibility, and Communication .....	66
CONCLUDING REMARKS .....	67
REFERENCES .....	67
ABOUT THE AUTHORS .....	70

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**ABSTRACT:** Cheiloscopic examinations have long been conducted, and many scientists have reported the usefulness of cheiloscropy for personal identification with a characteristic and individual pattern of furrows on the vermilion lip. For almost 40 years, research conducted in Poland has determined the patterns of these furrows and the separation and development of their individual features. This was the basis for forming expert opinions and presenting them in court as evidence. In Poland, cheiloscopic expertise is performed and the results of precise procedures that are accredited and assessed serve as evidence. Although the legal system in Poland (continental system) is completely different from the American system, cheiloscopic expertise was also assessed in detail according to the American standards of evidence. This narrative review presents the problem of cheiloscopic expertise as a scientific and practical issue and provides a brief historical overview of this field and the foundations of the Polish cheiloscopic identification method. We conclude that Poland has sufficient historical background and a robust development of cheiloscropy in the field on a scientific and legal basis; however, due to its reports being in the Polish language, its absence from the most relevant specialized literature, or simply a lack of cooperation between countries and experts, the country has unfairly been left out of the discussion. We believe that a new look at the Polish contribution to lip print identification is necessary to reinsert this topic into the current discussion of a new identification paradigm.

**KEYWORDS:** Cheiloscropy, forensic evidence, lip prints, lip print identification.

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## INTRODUCTION

Cheiloscropy is the branch of forensic science that examines lip prints for human identification [2]. Research on these traces and the possibility of using them for identification has been conducted worldwide for several decades. The catalog of publications on this subject is extensive. Many authors have pointed only to the theoretical possibilities of such identification, while others have attempted to combine the results of their research with forensic practice and develop methods to implement their expertise. While lip prints have been described as “a less common type of impression evidence” [60] and cheiloscropy as an “unusual” method [11] of identifying a person, contemporary forensic science may not recognize what constitutes a typical or atypical method in human identification. A certain atypical feature of this identification method may be its infrequent use in practice as well as the limited knowledge of law enforcement officials, prosecutors, and judges. However, it has been mentioned that cheiloscropy meets the criteria of scientific evidence and that the expertise carried out constitutes full proof in the case [38].

We present a narrative review in which we explore the historical and present background of Polish cheiloscropy, the possible reasons why this knowledge has not transferred sufficiently to the scientific community, and a proposal to vindicate it considering the new identification paradigm.

## I. THE HISTORICAL RISE OF POLISH CHEILOSCROPY

### A. A Short View of the History of Cheiloscropy

The first references to the practical use of lip prints for forensic identification were published in France. In 1931, the *Revue Internationale de Criminalistique*, the official journal of *l'Académie Internationale de Criminalistique*, highlighted the proposal of M. Diou, an empiricist from Lille, who stated that lip prints could be useful for criminal investigation [16]. Claps, the author of that article, along with the editor of the journal, Edmond Locard (the well-recognized father of French criminalistics), at that time called for an investigation into whether lip designs could be considered individualizing and immutable, and varied enough to be used in personal identification [16]. A few short years later, Locard declared that lip prints on different supports enabled identification, and although the cheiloscopic technique may not be in daily use, it should not be forgotten that it exists and is viable [53]. It took a few more years for these hypotheses to crystallize in the resolution of a case. In 1950, LeMoyne Snyder, in his famous book *Homicide Investigation* [70], reported an interesting case handled by Lieutenant Lee Jones of the Los Angeles Police (CA, US): A girl was hit by a Dodge coupe and seriously injured, and her lips came into contact with the top of the right front fender. Once the suspect's



**Jerzy Kasprzak** was born on April 24, 1954 in Lodz (Poland). From 1973 to 1977, he studied at the Faculty of Law and Administration of the University of Lodz and obtained a master's degree in law. After serving in the military from 1977 to 1978, in 1978, he remained in professional service as a lecturer at the Military Police Training Center, and since 1994, as Director of the Forensic Laboratory of the Military Police Headquarters in Warsaw. In 2000, he was transferred to the reserve with the rank of colonel.

In 1987, he obtained a doctoral degree in law from the Faculty of Law and Administration of the University of Warsaw with his PhD thesis "Forensic issues of human identification based on traces of lip prints". In 1994, he participated in a military mission in Haiti. In 1998, he completed a specialist course at the Infantry School of Bundeswehr in Hammelburg (Germany). Between 1998 and 1999, he served as a UN military observer in the UNIKOM — Iraq–Kuwait Mission. In 1999 and 2000, he completed an expert course at the Police Academy in Zuphen (Netherlands).

Between 1987 and 2003, he worked as a scientific consultant at the Centralne Laboratorium Kryminalistyczne Policji (Central Forensic Laboratory of Police) in Warsaw with the right to give expert opinions in the fields of dactyloscopy, cheiloscopy, otoscopy, and odontology. From 2000 to 2004, he was employed as an assistant professor in the Department of Forensic Science and Forensic Medicine of the Faculty of Law and Administration of the University of Warmia and Mazury (UWM) in Olsztyn (Poland). He obtained the degree of doctor habilitated in the legal sciences in 2004 from the Faculty of Law and Administration of the University of Warsaw. In 2005, he was appointed the head of the Department of Criminal Procedure, and by the resolution of the UWM Senate in 2005, he was nominated as professor at the University of Warmia and Mazury in Olsztyn. From 2006 to 2013, he was employed as a second-time professor in the Department of Criminal Law at the Faculty of Law at the University of Bialystok (Poland), where he headed the Criminalistics Laboratory.

By the order of the President of the Republic of Poland, in 2013 he received the title of professor. Since September 2022, he has been employed as a professor at the Pedagogical University of Krakow, heading the Department of Evidence Law and Forensic Technology. He has authored approximately 200 publications in the fields of human identification methods, forensic methods of firearms examination, theory of forensic science, and the law of evidence.

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**Gabriel M. Fonseca** received his dental degree in 1993 and his PhD in 2009, both from the National University of Córdoba (Córdoba, Argentina). Between 1991 and 2017, he was a professor and researcher at the Faculty of Dentistry of the National University of Córdoba, managing the Department of Oral Pathology (as full professor between 2012 and 2017). Between 2012 and 2014, he managed the Department of Legal and Forensic Odontology at the Catholic University of Córdoba (Argentina). In 2013, he participated as a visiting professor in the Faculty of Dentistry at the Universidad de La Frontera (Temuco, Chile), where he settled in 2015. He is currently an Associate Professor and Vice Dean, also directing the Center for Research on Legal and Forensic Odontology in that faculty.

Dr. Fonseca's research has focused on forensic odontology, especially on oral lesions detectable during medicolegal autopsy, dental age estimation, and lip print identification, with more than 100 publications in indexed journals and more than 500 conferences all over the world. He has participated in national and international projects, and has also supported doctoral theses and master's theses as tutor. His greatest interest has been to contribute to the vindication of "forensic oral pathology", i.e., the specialty of dentistry that studies the "identification, documentation, recovery, and saving of all signs in oral soft and hard tissues to make available the legal evidence", with which he sought to revalue the role of the forensic odontologist during the procedures, both at the crime scene and in the medicolegal autopsy.

He is a founding member and has chaired for four terms the Society of Ibero-American Forensic Odontostomatologists (SOFIA), a society with more than 160 members from 20 countries throughout Latin America, Europe, and Asia. For 10 years, he advised the Medicolegal Team of the Federal Courts in Córdoba to actively participate in the field, and was decorated by the Ministry of Foreign Affairs of Argentina for his tasks in the identification of victims of the AeroCaribbean flight 883 air crash in Cuba in 2010. He is currently a forensic advisor to the Public Criminal Defender's Office in Chile.