F36   Cheiloscopy: A Reliable Tool in Human Identification - Part Two

Sylvain Desranleau, DDS*, Clinique Dentaire Sylvain Desranleau, 273 boul. Laurier, Mont St-Hilaire, J3H 3N8, CANADA; Sylvain Laforte, DMD*, Centre dentaire Laforte, 5773 Bannantyne Street, Verdun, PQ H4H 1H2, CANADA; and Robert B.J. Dorion, DDS, Laboratoire S.J.M.L., Edifice Wilfrid-Derome, 1701 Parthenais, 12ieme, Montreal, QC H2K 3S7, CANADA

After attenting this presentation attendees will be shown a "modern" glimpse at cheiloscopy.

This presentation will impact the forensic science community by providing a new perspective to cheiloscopy. The use of modern technology will elevate the understanding, identification, and application of lip print comparison.

Many techniques exist to establish a person's identity. DNA, finger prints, and the dentition are the most reliable scientific methods for human identification. Cheiloscopy (from Greek cheilos, lips and skopein, to see) is the name given to the study of lip prints and is also known as quieloscopy. Like finger prints and palatal rugae, lip prints are unique to one person (Suzuki and Tsuchihashi 1970:52-57; Cameron and Sims 1974:3). Lip grooves rarely change throughout life; they are permanent and unchangeable with few exceptions: physical or chemical burns and pathology may permanently alter the lip subtract.

Even though some rare exceptions, the study of lip prints has been neglected in the past. Historically cheiloscopy earliest study dates to 1902 with the biological description of lip patterns by Fischer. Later in the century, cheiloscopy was used in criminology. By the 1950s, the possibility of using lip prints in human identification was developed. Santos, in 1960, was one of the first to suggest that lip patterns could be classified. In 1972, Renaud's study of 4,000 lip prints confirmed the singularity of the human lip pattern. In 1974, Suzuki and Tsuchiashi developed a new classification for lip prints. They concluded not only lip print singularity but also the response of the lip tissue to different forms of trauma. After healing the lip pattern normally returns to its initial state. The goal of this presentation is to revive interest in this potentially useful tool in human identification.

A first paper on the current subject was presented at the AAFS annual meeting in Washington D.C. in February 2008 by Dr. Sylvain Laforte. It included a historical review of cheiloscopy with an overview of the different classifications (Santos, Suzuki and Tsuchiashi, Renaud, Afchar-Bayat and Domingues). Techniques of lip print lifting and transfer were also demonstrated as well as the use of Photoshop CS2 for lip print photographic enhancement.

The current paper deals with methodology and the use of different materials of impression taking and comparison. In fingerprint analysis, the use of cyanoacrylate, Rhodamine, Bright Yellow, Black Powder, and Red Wop powder are very useful in detection and/or lifting techniques; cups, mugs, glasses, cigarettes, cigars, oral instruments, pencils, pens, humans, etc., are also all potential recipients of lip prints. They may be left by suspects at crime scenes.

This paper will expose a variety of techniques and alternate methodologies resulting in a proposal for a new lip print classification - The Desranleau-Laforte method.

References:

A New Attempt of Personnal Identification By Means of Lip Print. K. Suzuki and Y. Tsuchiahashi. Journal of Forensic Science Vol.4 Dec. 1971

Skin Research and Technology. Vol. Ii Issue #3, Page 157-164 Aug 2005.

A Three-Dimensional Qualitative Analysis of Lips in Normal Young Adults. Ferrario, V.F., Chiarella,S. Serrao, G. Cleft Palate Cranio-Facial Journal. Jan 2000, Vol.37, 31

Normal Growth and Development of The Lips, A 3-Dimensional Study From 6 Year to Adulthood Using a Geometric Model. Ferrario Et Al. J. Anat. 2000, 196. Pages 415-423

Luminous Lip Prints as Criminal Evidence. Castelli Et Al. Forensic Science International Vol155, Issue 2-3, Dec 2005 P. 185-187

Establishing Identity Using Cheiloscopy And Palatoscopy.Abel

Salazar Biomedical Institute of Oporto University, Portugal

Cheiloscopy, Lip Prints, Odontology