

G17 Morphological Patterns of Melanoderm Lip Prints In Dakar, Senegal

Khalifa Dieng, DDS, BP6602 Dakar Etoile, Dakar 8622, SENEGAL*

After attending this presentation, attendees will be educated on a variety of lip prints among the native Senegal population and the differentiation of lip prints for identification purposes.

This presentation will impact the forensic science community by describing a system which is seldom used but could be beneficial in the identification of unknown persons or suspects in criminal investigations.

In recent decades, the imprints of lips (cheiloscopy) attracted the attention of many scientists as a new tool for human identification in both civil and criminal matters. The present work was the in-depth study of lip impressions of men and women living in Senegal. A total of 200 people, including 96 men and 104 women, were included in the study. Red or black lip coloring and cellophane were used to print the lips. Each lip print was divided into six topographical areas and examined by magnifying lenses. They were then photographed and analyzed with greater magnification. Renaud classification in 1973 was used to classify the types of grooves and the results were analyzed statistically. Throughout the study, no identical lip print occurred in any two subjects. In total, impressions of lips (10.19% for both sexes) showed the same type of groove in all six areas of the lip (11.15% men and 12.56% women). It was found that 44.5% of lip prints (94 people) showed the same types of grooves in the Upper Right (UR) zone (46.88% men and 47.12% women); 45% (90 people) in the Upper Middle (UM) zone (52.08% men and 38.46% women); 52.5% (105 persons) in the Upper Left (UL) region (52.08% men and 52.88% women); 41% (82 people) in the Lower Right (LR) area (40.63% men and 41.35% women); 37.5% (75 people) in the Lower Middle (LM) zone (39.55% men and 35.58% women); 45.5% (91 people) in the Lower Left (LL) region (47.79% men and 46.15% women).

All ten types of grooves were recorded during this study. Groove type B (partial path from an edge, but not reaching the other side) was significantly more recorded (21.8%; 21.9% in men and 27.7% in women) followed by groove G (cross-linked forms) (21.3%; 21.2% in men and 27.4% in women); groove F (groove-shaped tree branch from an edge but not reaching the other side) (16.1%; 16.3% in men and 20.6% in women); groove D (fork or trident from an edge but not reaching the other side) (14.9%; 14.3 for men and 19.6% in women); groove A (complete path from one end to the other slot) (9.3%; 9.2% in men and 12.1% in women). The least observed grooves and I were in descending order (horizontal furrow or approaching the horizontal) (8%; 8.2% for men and 9.9% in women), followed by the groove J (ellipse, triangle, or V, while minor groove) (5.3%; 5.4% for men and 6.6% in women); H (intersection of groove sign of X or + sign) (1.8%; 2.5% for men and 1.6% in women); C (fork or trident from one side of the lip to the other) (0.8%; 0.7% for men and 0.8% among women), and groove E (shaped groove branch tree from one edge to the other of a lip) (0.7%; 0.4% in men and 1.1% in women). This study describes in detail the prints from the lips of melanoderm Senegalese men and women and seems to confirm that the “footprints” of lips are unique to each individual, even among twins and members of the same family. According to this finding, it is recommended that a database be set up for all individuals in the hope of being a reference in civil and criminal litigation. Further studies on a population with a larger effect on members of the same family and identical twins are recommended.

Lips, Print, Sengal