

## HISTORY

- Juan Vucetich - 1st person to ever match a print to solve a crime; Francesca Rojas (left bloody print on door post after killing her children)
- Johann Meyer - 1st person to state no 2 people have the same fingerprints
- Night stalker- caught by leaving fingerprint on rear view mirror of getaway car
- Will and William West, reason Bertillon measurements are no longer used

## TYPES OF FINGERPRINTS

- Arches- ridge lines start on one side and end on the other; 0 or 1 delta; smallest % of all prints. 2 types A. Plain, B. Tented
- Loops- most common; always exactly 1 delta; 2 types A. Left-leaning, B. Right-leaning
- Whorls- 2 or more deltas, but always at least 2; 4 types A. Plain, B. Central Pocket, C. Double Loop, D. Mixed

-no one has identical fingerprints

-fingerprints only grow larger, they don't change in any other way

-Ridge Count is # of lines between Core and Delta

- fingerprints are formed during pregnancy

## MINUTIA

- tiny details that individualize fingerprints; Know A. Bifurcation, B. Dot, C. Ending Ridge, D. Eye, E. Hook

## TECHNOLOGY

- columnar thin film - spray microscopic glass bristles to create a film impression of fingerprints
- Ninhydrin - found in super glue, fumes make latent prints appear
- Know what AFIS stands for
- Retinal scans - actually scan blood vessels on the back of the eye.
- processing- always take pictures in every step of the process.

## GENERAL

- Primary ID #; A. All finger have #s, B. All fingers can be worth points; C. Whorls get points; D. Even points + 1/Odd points + 1
  - Layers of skin; A. Epidermis - outer; B. Dermis- middle layer, thickest; C. Basal - innermost, ridges and valleys, determines fingerprints
  - Porous substance- allows liquids to seep through; paper, cardboard
  - Nonporous- doesn't not allow liquids to seep through; glass, plastic, tile
- A. Plastic prints- impressions left in an object; shoe prints in mud, fingerprint left in candle wax; B. Latent Prints - invisible, need something like dust to make visible, C. Patent - visible because of an external substance such as ink