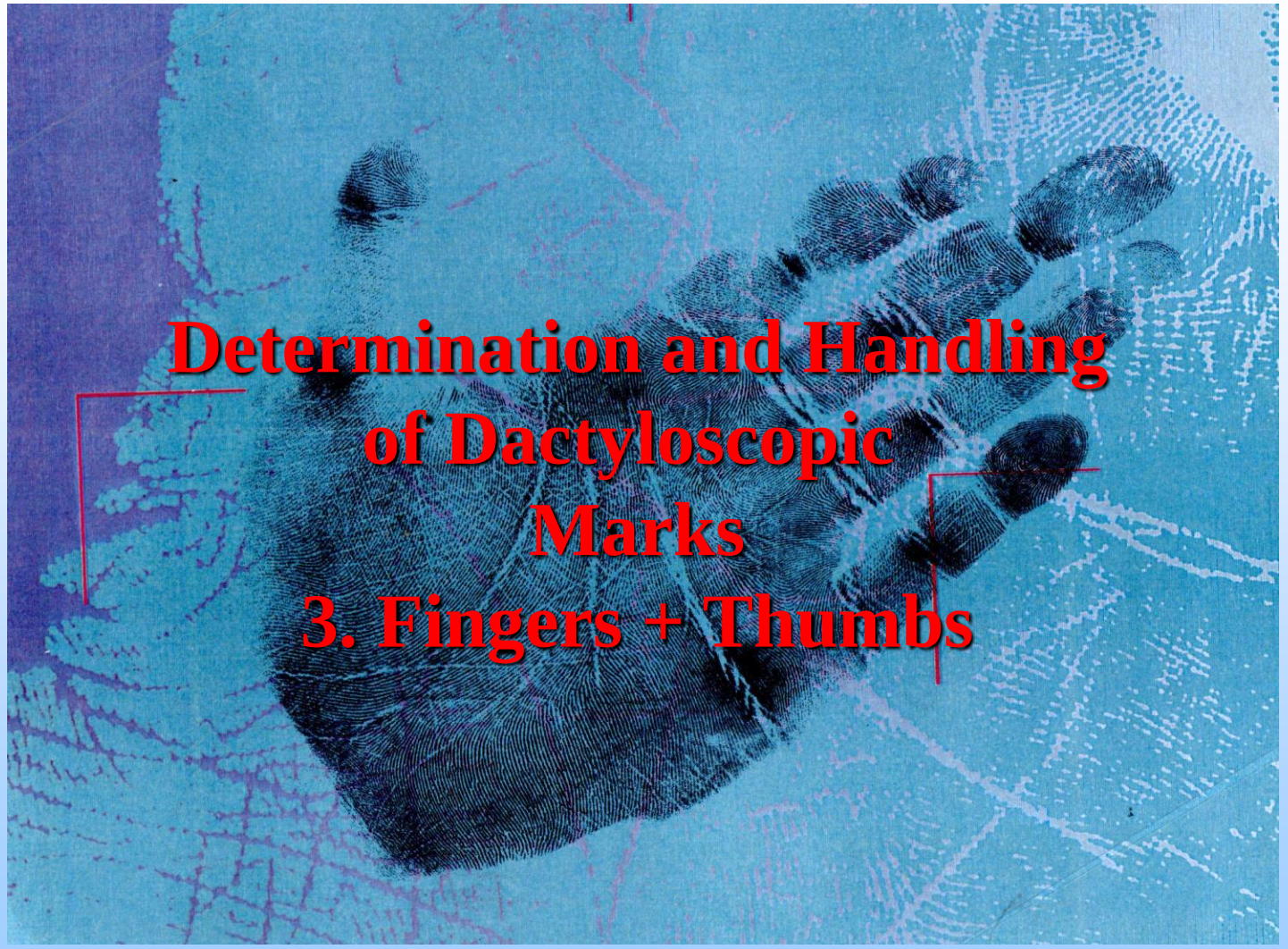
Büro für
Daktyloskopie
dewiselle

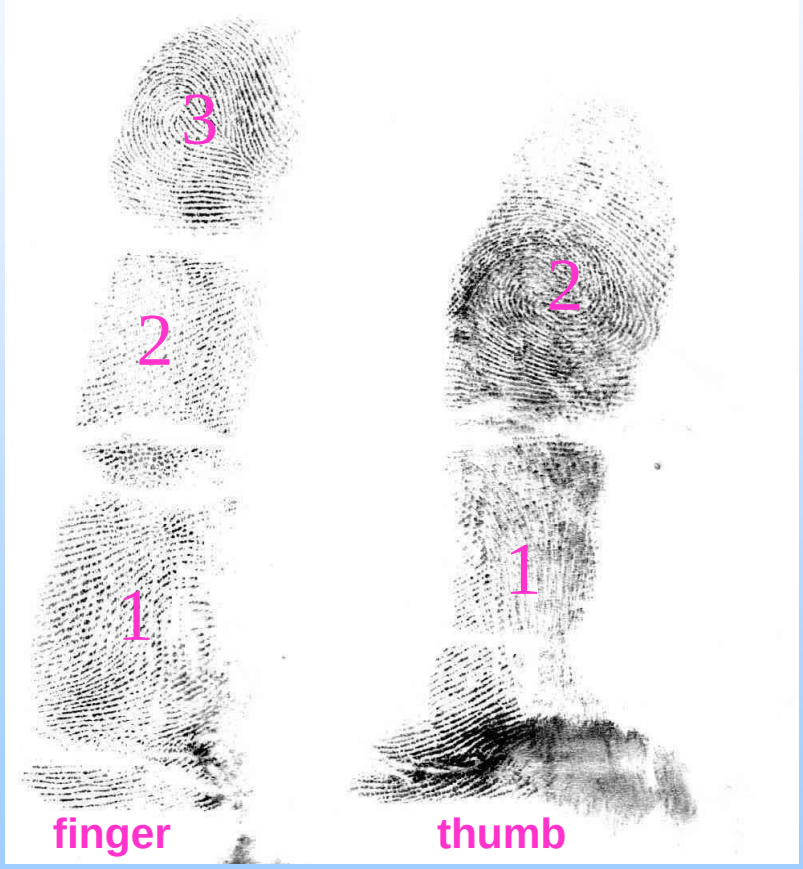


Determination and Handling of Dactyloscopic Marks

3. Fingers + Thumbs

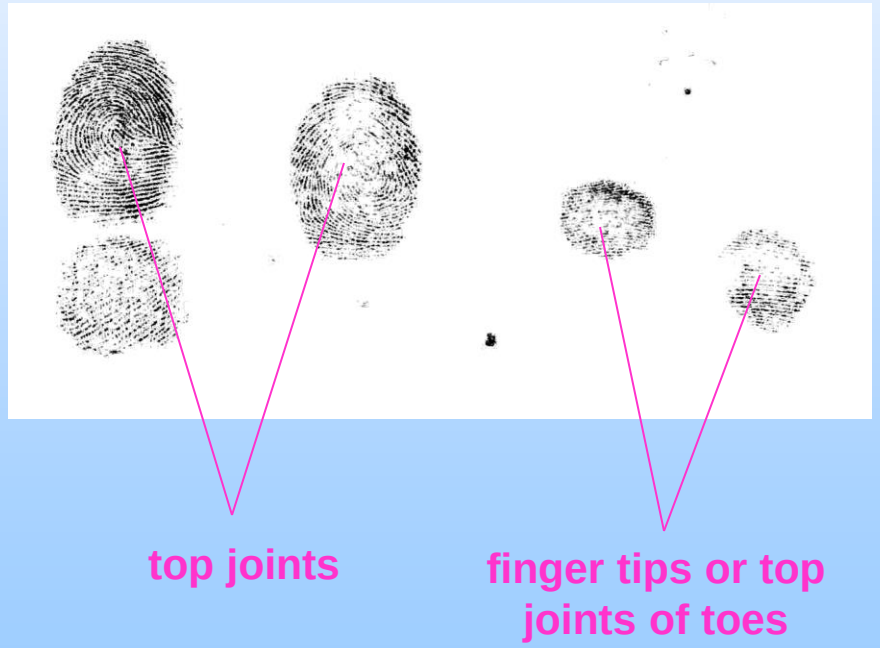
Harald Weisel, October 2005

Fingers + Thumbs



- Finger and thumb joints take typical print patterns and are usually easy to recognise.
- The thumb has only two joints, the (long) fingers, however, have three.

Top Joits of Fingers
(Distal Phalanxes)

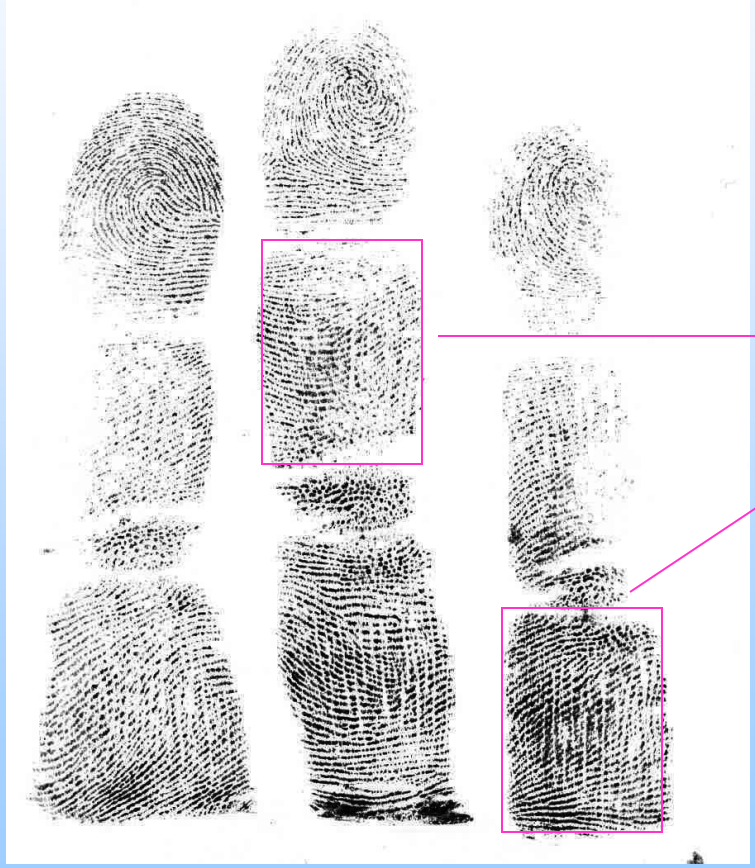


- Prints of top joints are mostly oval-shaped and of a specific size and can be recognised based on this alone and/or in connection with the middle joint print.

Top Joints of Thumbs

- Prints of top joints of thumbs are more likely to be pear-shaped or round and are mostly larger than those of top joints of fingers. The determination of these prints is often facilitated by adjacent prints of base joints.

Middle and Base Joints
(Proximal and Medial Phalanxes)

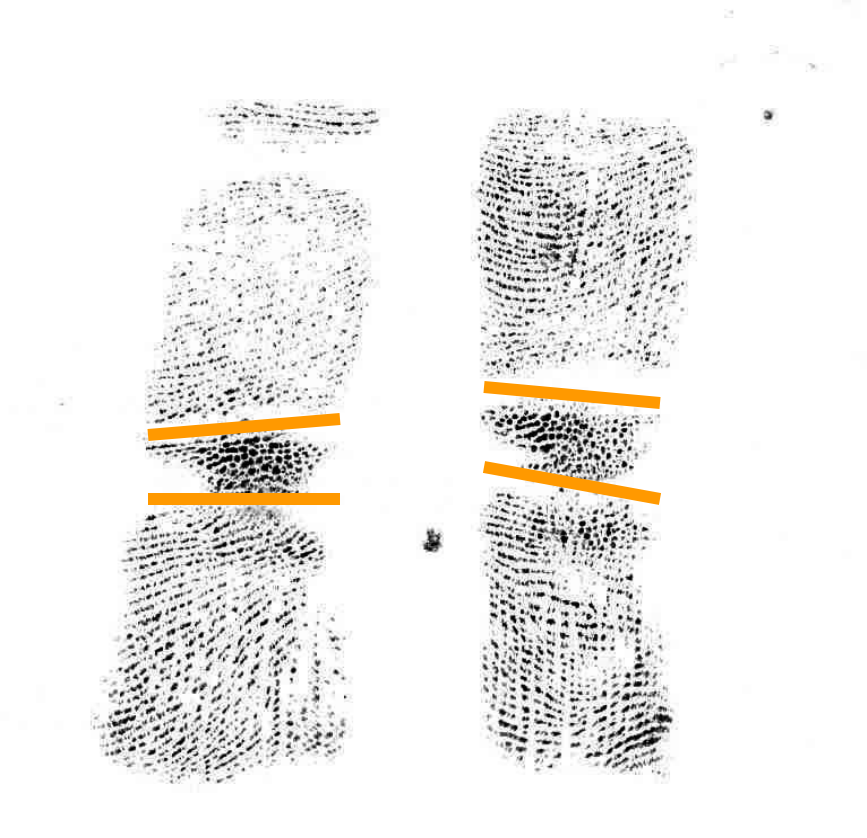


- Prints of base and middle joints are more likely to be rectangular in shape and can mostly be determined by means of prints of adjacent joints or the interdigital area.

Flexion Creases

- The flexion creases between top and middle joints of fingers and between top and base joints of thumbs are **“single creases“.** This makes them a useful aid in determining these joints.

Flexion Creases

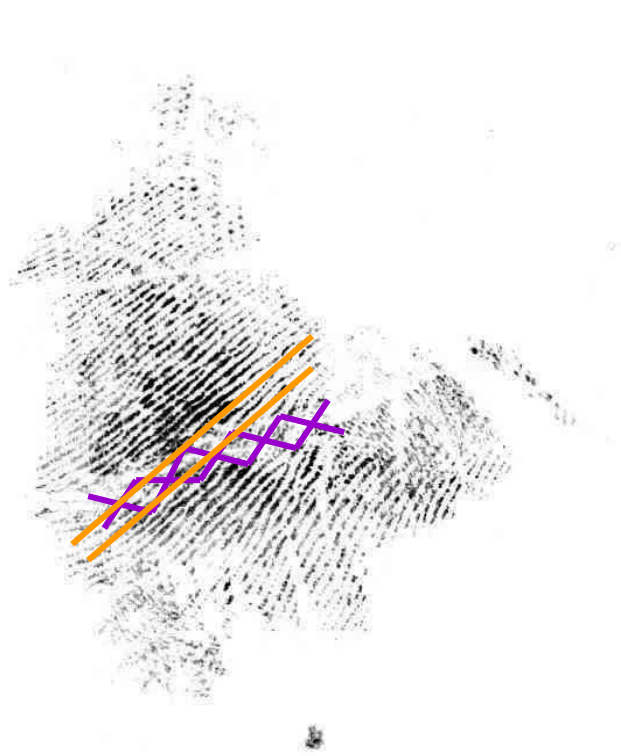


- The flexion creases between the middle and base joints of the fingers are printed as **“double creases”**, which makes them also a valuable clue when determining finger joints.

Flexion Creases

- The creases between the base joints of the fingers and the interdigital area also take a typical print pattern. They cause ⇒ **“crows feet”** at index fingers and little fingers, which open towards the outer edge of the hand.

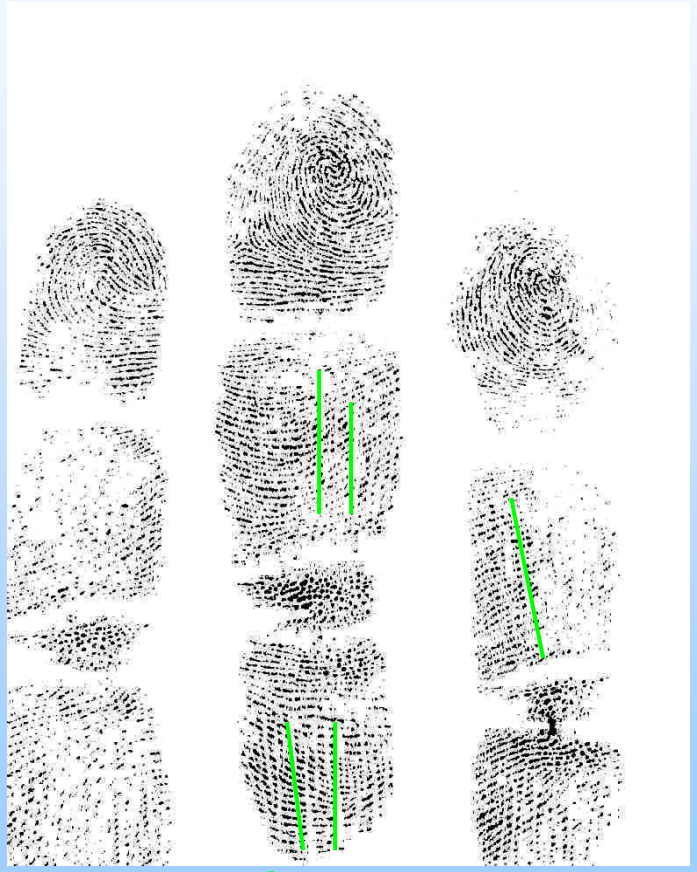
Thumb Base Crease



"Thumb Bracelet" of a right palm

- The thumb base crease often looks like a ➡ **"bracelet".** The neighbouring friction ridges do usually not run parallel to this crease.

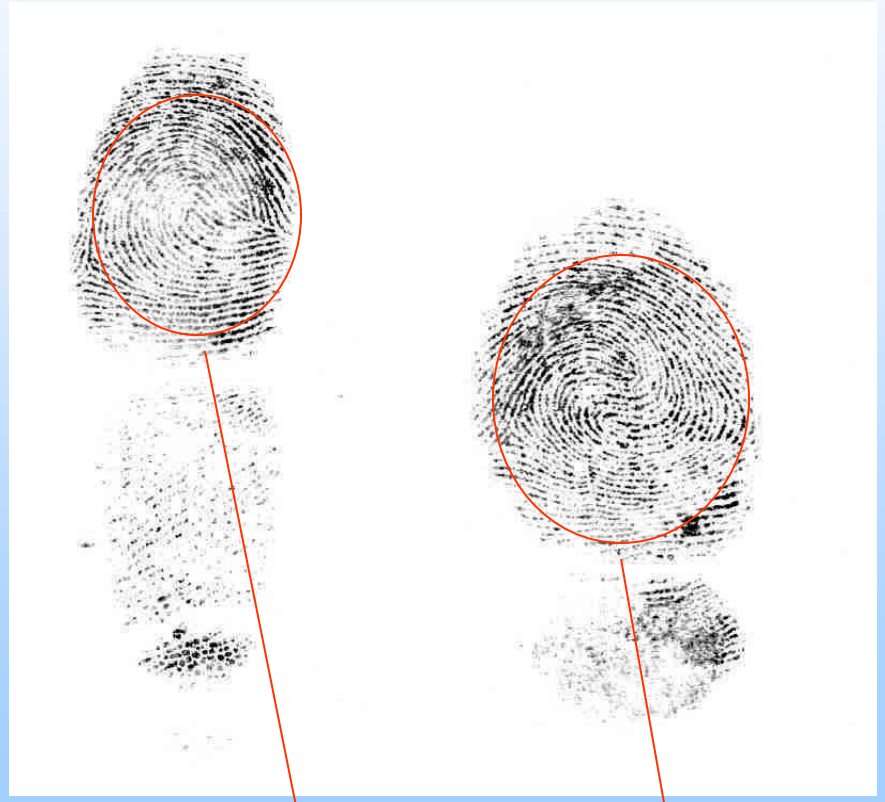
Tension Creases



tension creases

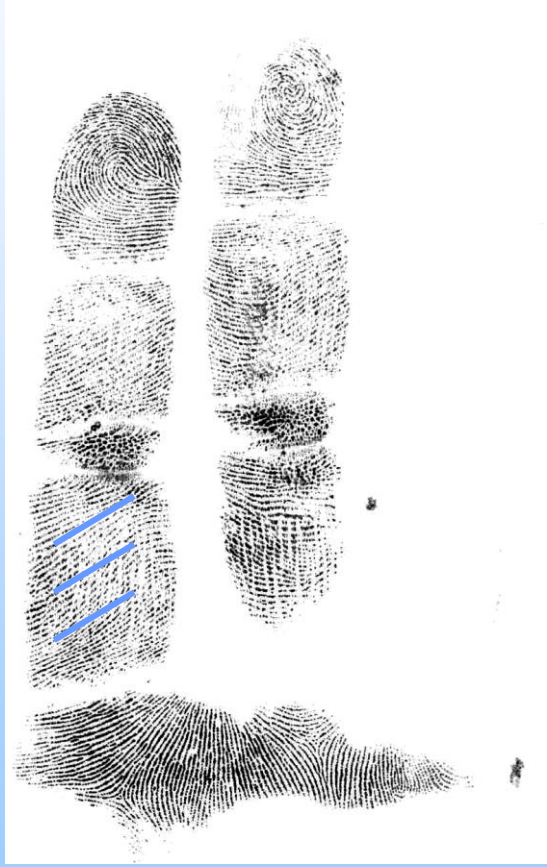
- Tension creases can appear in all joints of fingers and thumbs, but are typical of middle and base joints.

Patterns



- The ridge flows of top joints of fingers and thumbs take ➡ **“basic patterns”**. Such particular features are not found in the middle and base joints.

Outer Fingers



- The directions of flow in middle and base joints can take multifold patterns, in index and little fingers the ridges tend to point downwards towards the outer edge of the palm.

Thumb

Top joint of a finger

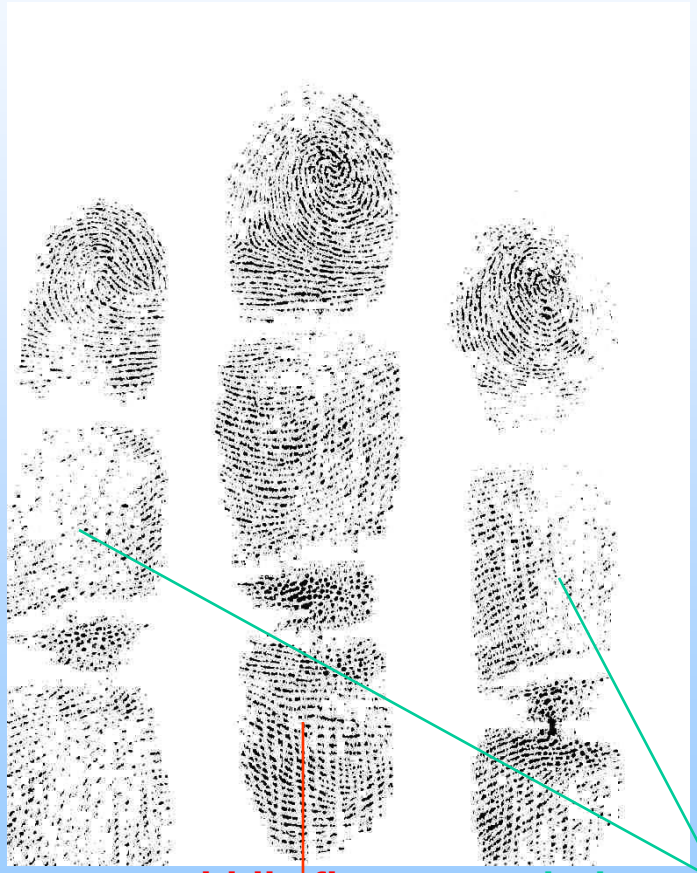
Top joint of a right thumb

- While the ➡ **“jacket lines”** in the top joints of the fingers are arched at the fingertip, they point upwards towards the edge of the nail in the top joints of the thumb.
- Attention! This phenomenon can also appear in the top joints of the middle fingers!

Determination of Fingers

- While the recognition of thumb prints is relatively easy and unambiguous, the determination of prints of the (long) fingers is clearly more difficult. It requires experience and knowledge on the circumstances under which the prints were deposited. The best way to determine fingers is to compare the natural ratio of the length of the fingers. The precondition for this method is, however, that the prints to be examined were caused in a single contact situation.

Ratio of Length



- The middle finger is mostly the longest, the little finger the shortest. The ratio of length between index and ring finger can vary.

Summary

- Should a comparison fail after specific fingers have been determined, the search must be expanded to other fingers as well.
- Note: For further information on the determination of fingers, please also refer to Section 4 of the textbook “Daktyloskopie” of the GDR, in particular the list (p. 204).