Büro für
Daktyloskopie
dewiselle

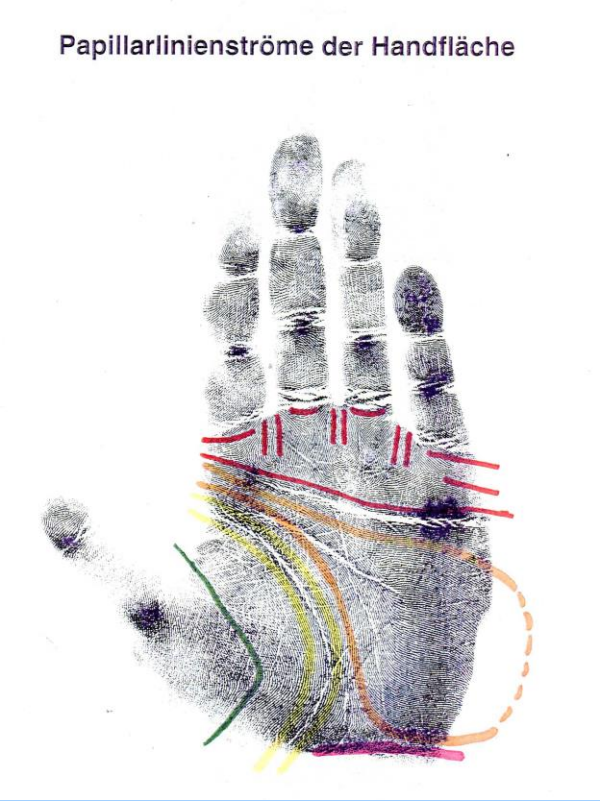
Determination and Handling of Dactyloscopic Marks

7. Directions of Flow

Directions of Flow of the Palm

- Due to the organic preconditions of the hand as a prehensile organ, the friction ridge skin shows particular regulary-occurring features, such as flexion creases, which influence the flow of the friction ridges. The ➡ ”friction ridge flows” are bound to take characteristic courses, e. g. deltas, which are helpful when determining partial impressions.

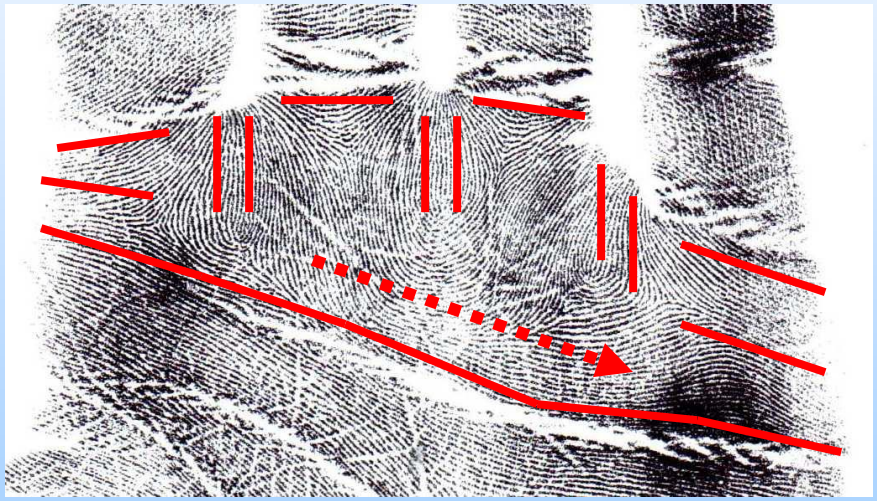
Friction Ridge Flows



The fact that the friction ridges run parallel to the flexion creases leads to typical ridge flows in the palm which are found in most palm prints.

- Within the friction ridge flows, ridges can take particular courses and develop e. g. patterns, which have in themselves different shapes, each typical of an individual area.

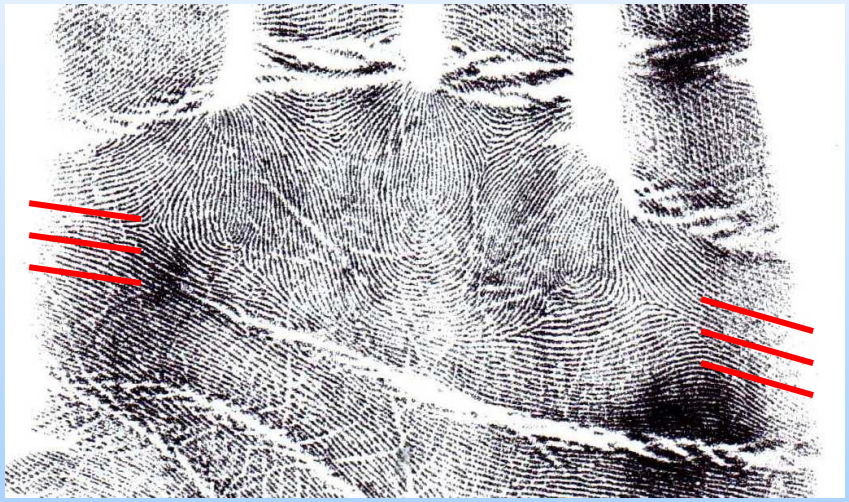
Interdigital Area



major ridge flow towards the outer edge of the hand

- The friction ridges parallel the creases in the interdigital area - in a print image the friction ridges will be more or less horizontal, between the fingers parallel to the longitudinal axis of the fingers, i. e. vertical.
- The major ridge flow finally follows the ⇨ **distal transverse crease** towards the outer egde of the hand.

Interdigital Area



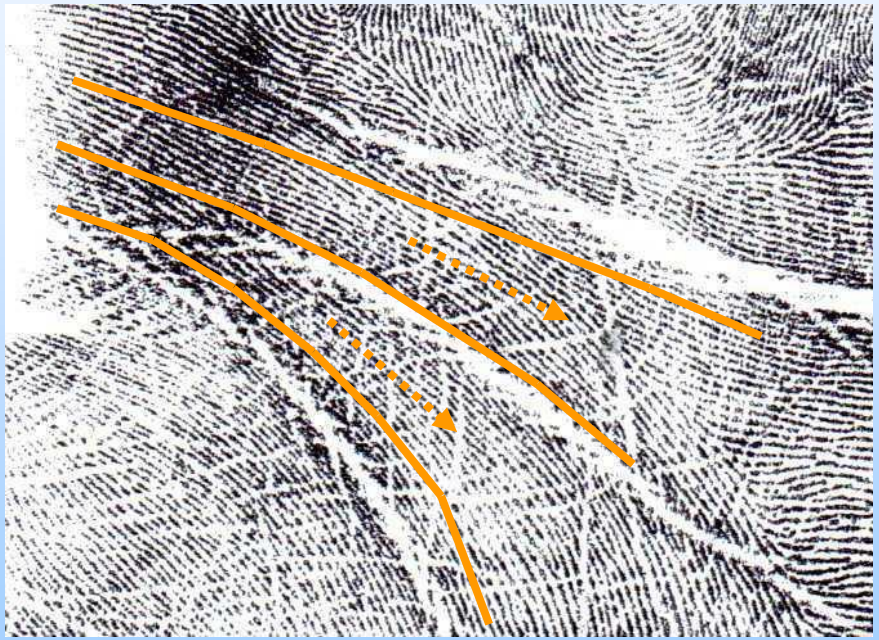
horizontal zones in the interdigital area

- The outer edges of the hand can be determined by the almost horizontal and parallel course the ridges take in these areas underneath both the index finger and the little finger.

Interdigital Area

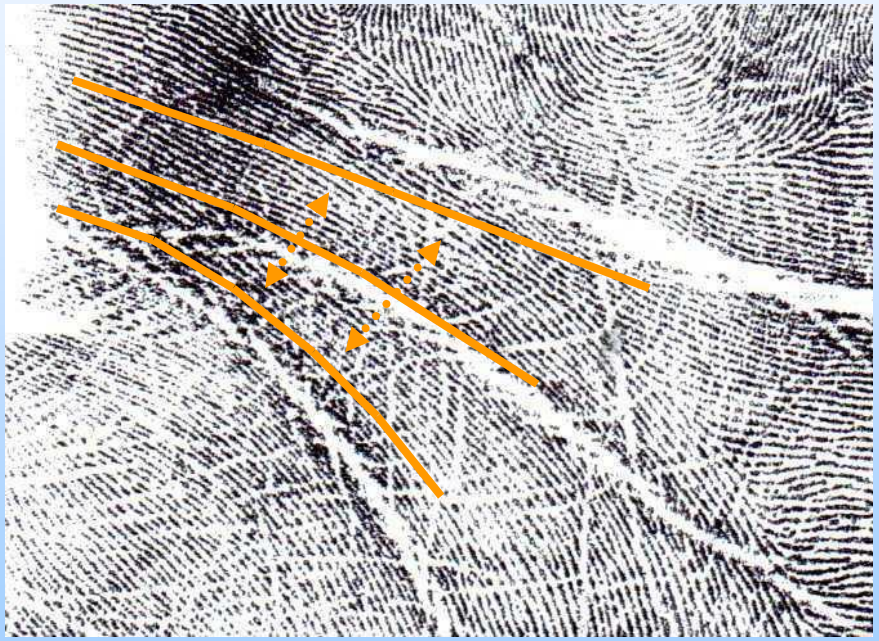
- The horizontal flow of the friction ridges is a clue to the outer edge of the palm (underneath the little or index finger), while the vertical ridges indicate that this area of the mark must be oriented towards the ring and/or middle finger.

Metacarpus



- The ridge flow starts between the interdigital and the thenar area, travels parallel to the three major creases and then “spreads out“ into the metacarpus.

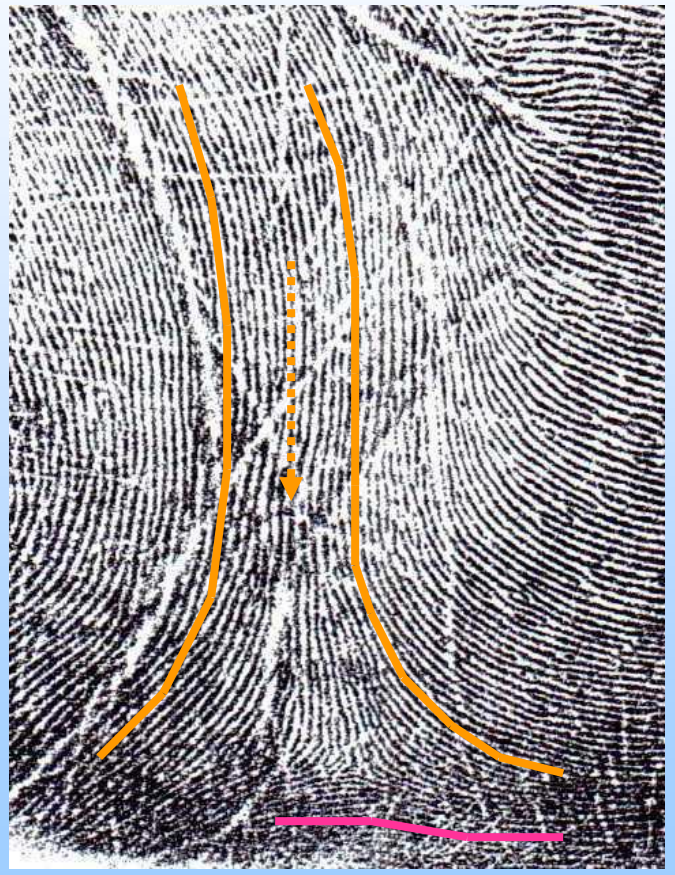
Metacarpus



tunnel region

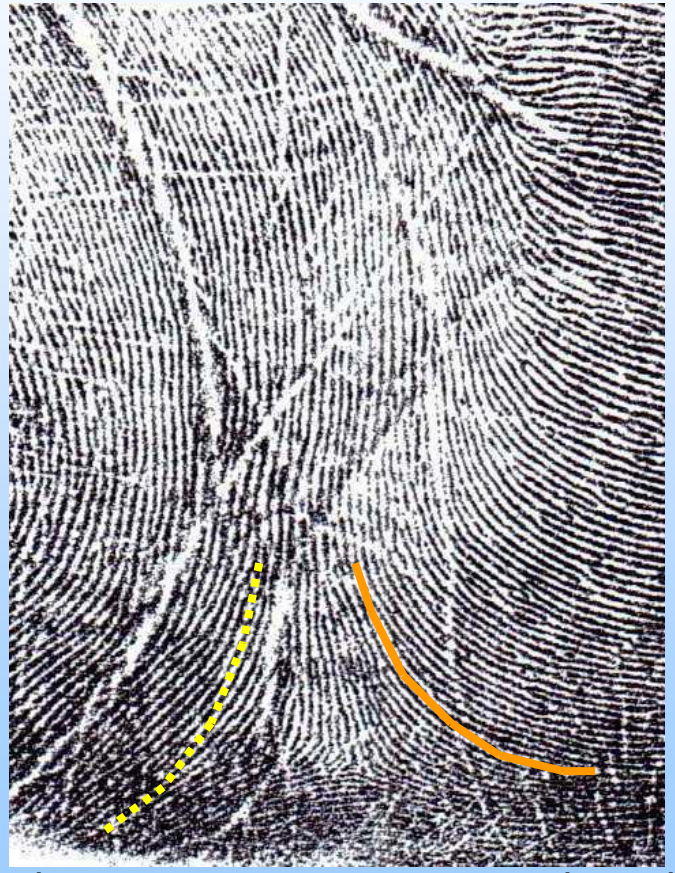
- This area where the friction ridges bundle is referred to as the ➡ **”tunnel region”**.

Metacarpus



- The friction ridges then take an almost horizontal course as in a ➡ **”dive”** downwards to the heel of the hand, where they have to give way to the friction ridges running parallel to the ➡ carpal crease.

Metacarpus



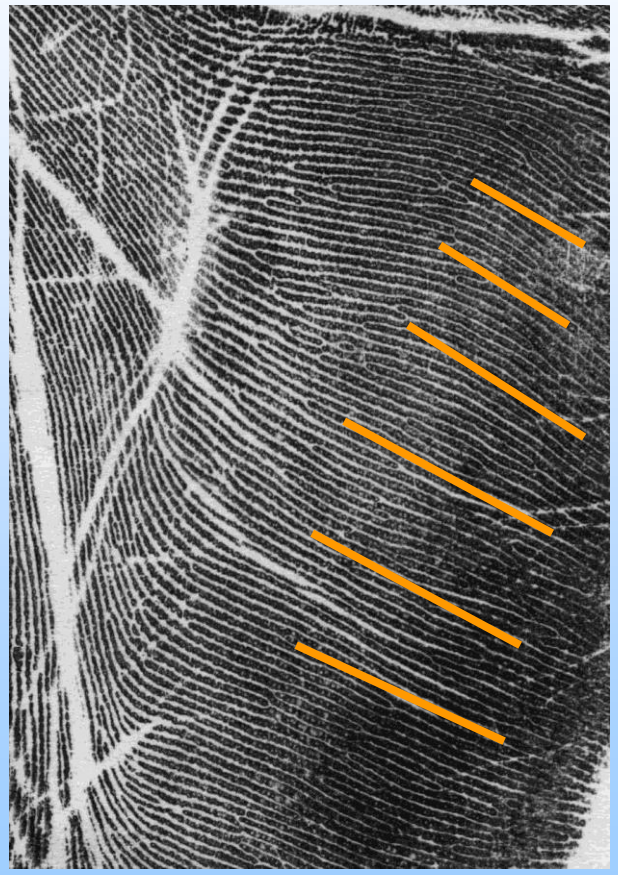
- Towards the hypothenar area, the friction ridges show a typical bend, the so-called ➡**”belly out”**, while they take an only slightly arched course towards the thenar.

Metacarpus

convergence

- The present mark shows a characteristic formation of ridges, a ➡ **”convergence”**, which is typical here, but can also occur in other areas of the palm in similar forms.

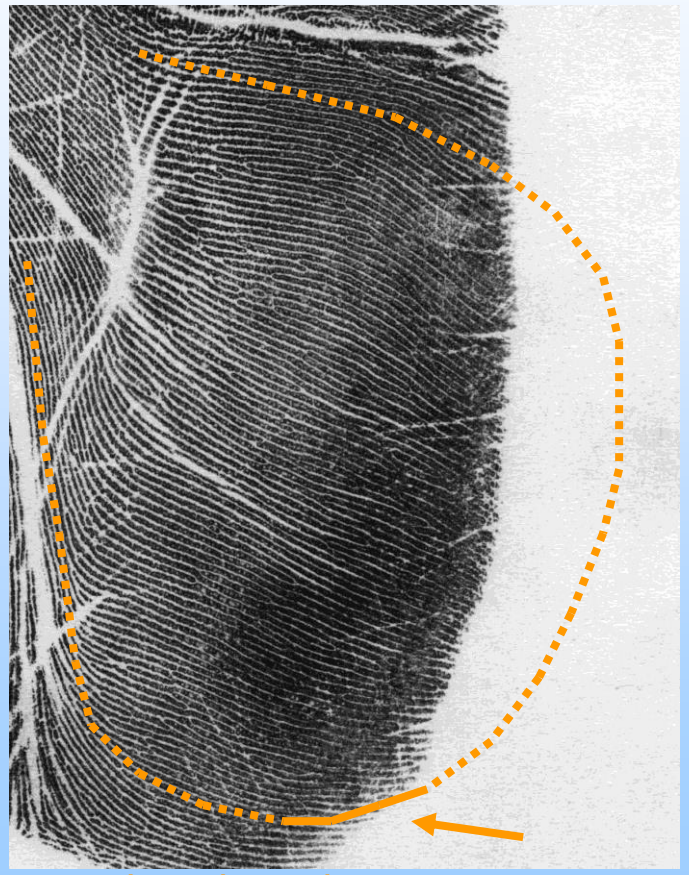
Hypothenar Area



outer edge of the hand →

- This is a large area with a relatively even ridge flow, the friction ridges point down and out.

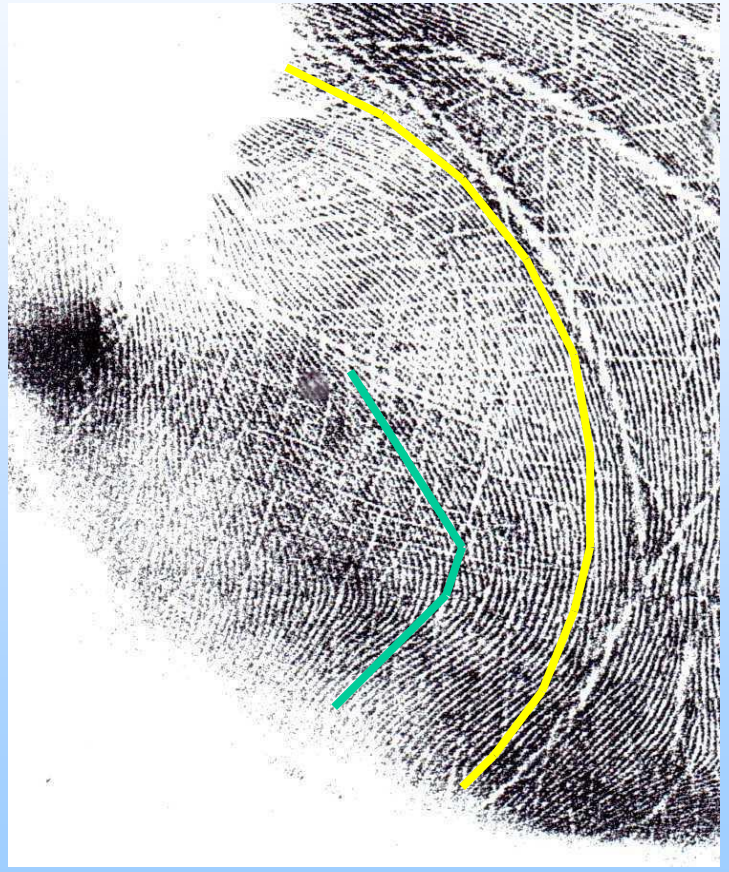
Hypothenar Area



imaginary loop

- Given the fact that the general pattern here is to be understood as a big ➡ **”imaginary loop”**, an upwards bend of the friction ridges can develop in the lower hypothenar area.

Thenar Area



boomerang

- Along the radial longitudinal crease, the friction ridges flow in a semi-circular shape, but close to the centre they form a characteristic right-angled kink, the ⇨ **”boomerang”**.