

## PALMAR TRI-RADII

By Lloyd Hamilton

Beside loops and whorls the skin ridge patterns include ridges joining up in a Y shapes termed “tri-radii”. They are typically found mid-way across the area at the base of the fingers (Figure 1).

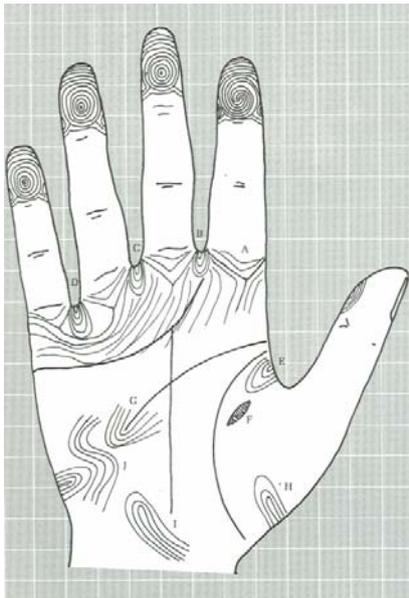


FIGURE 1 Palmar skin ridge patterns from Fitzherbert (1986)

If the tri-radius below the index finger is displaced to the thumb-side of the hand the person is likely to be adventurous or unpredictable in some way. If it is displaced toward the other side the owner is likely to be cautious (Figure 2 shows a Jupiter, index finger, tri-radius displaced toward Saturn, the medius finger)



FIGURE 2 Jupiter tri-radius displaced toward Saturn

If the tri-radius below Apollo (the ring finger) is missing, the skin ridge pattern around forms what is called a "giraffe woman's collar" (from Hutchinson, 1967, referring to African women's long necks due to wearing collar-like necklaces). This forms a barrier to energy coming into the Apollo finger which rules love of the arts and hobbies. It indicates a lack of cheerfulness and is a barrier to the enjoyment of life. When these people do something enjoyable they should pause to really feel it. The palm's Apollo Line can cut the giraffe woman's collar and over-ride this restriction (Figure 3).



FIGURE 3 Giraffe woman's collar – no tri-radius below the Apollo finger – relieved by the presence of an Apollo Line.

If the tri-radius below the ring finger has a loop formation in the lower part of the Y it shows affinity with animals (figure 4) Animals respect these people and vice versa.

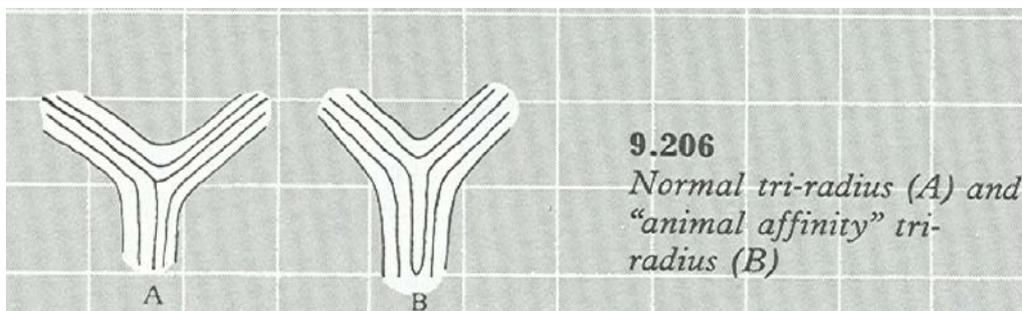




FIGURE 4 Apollo tri-radius showing affinity with animals (the top diagram comes from Fitzherbert, 1986).

**TRI-RADII BELOW THE FINGERS**

The information presented here in Table 1 comes from Fitzherbert (1986), a review by Campbell (1996), and discussion with the Queensland Palmistry Guild. This applies to the right hand. For the left hand reverse “displaced to left” and “displaced to right”.

	<b>JUPITER</b>	<b>SATURN</b>	<b>APOLLO</b>	<b>MERCURY</b>
<b>Central</b>	Balanced risk taker and ego	Balanced judgement	Balanced creativity	Balanced communicator, good with words
<b>Displaced up</b> toward the finger - or high set	Active leader	Intellectual interests	Extrovert, artistic	Fast, eloquent communicator
<b>Displaced down</b>	Team worker, practical	Conservative interests	introvert	Slow communicator
<b>Displaced to left</b> , ulnar side	Low risk taker, Self conscious  (Saturn side)	Non-materialistic (creative judgement)  (Apollo side)	Good or creative conversationalist  (Mercury side)	Written communication easier, business acumen  (ulnar side)
<b>Displaced to right</b> , radial side	High risk taker (thumb side) adventurous	Materialistic (ego in judgement)  (Jupiter side)	Intellectual creativity  (Saturn side)	Vocal communication easier,  (Apollo side)  Common position

TABLE 1 Placement and meanings for tri-radii below the fingers for the right hand

Tri-radii with 6 or 7 ridges from the line of attachment to the fingers are regarded as high, or close to the fingers. With 14 or more they are low, but the Saturn tri-radius is habitually high.

## **AXIAL TRI-RADII**

The axial tri-radius is normally located mid-way across the base of the palm in the Mount of Neptune. If it is displaced a long way from there such as in the centre of the palm, or more than a few centimetres higher than the normal position, there is likely to be some sort of genetic abnormality (e.g. a congenital heart weakness). It is common for people with Down's Syndrome (Fincham, 2005). The same applies if there is a normal tri-radius and an extra one in this high position.

Colin Phillips of the Queensland Palmistry Guild (personal communication) finds that if the tri-radius is a little high the person tends to drive themselves at their work. The higher it is the harder they drive themselves.

Holtzman (2004) uses more psychodiagnostic language to describe a similar thing and terms it "mosaicism" where a sense of balance in the inner psychological environment is lost resulting in some form of agitation. This leads to an unconscious search for balance which is unattainable because the person has no way of knowing that their disquiet originates from within. One thing after another is identified as needing fixing e.g. a career change, a marriage change, wrong friends, wrong home, wrong city or something else wrong. This can be very stressful but Holtzman says, "an awareness of its dynamics permits not only a comfortable accommodation of its effects but may, in some instances, contribute to substantial life achievements. If the focus of these changes is within a profession that accommodates, or preferably demands, changes and adjustments, we can expect that the outer dimensions of this person's life (home, family, marriage) will enjoy a very real stability and sense of quiet and continuity."

Jobs where the work is much the same from one day to the next are not suitable for these people e.g. some salespeople, bank clerks, or brick layers. They are better off in more varied work such as being a police detective, hotel manager, explorer or scientist. The mosaic condition should be understood as something to be accommodated not overcome.

The higher the displaced position of the axial tri-radius the more pronounced is the mosaicism. If this sign is found together with a strong curved toxin line the attention deficit disorder (ADD) is suggested and may be typified by physical and emotional unrest. But Holtzman went on to point out that a high tri-radius together with a confusion of small lines in the centre of the hand can indicate a state that is easily confused with attention deficit hyperactivity disorder (ADHD) for which the treatment required is quite different. ADD and ADHD are not yet fully understood.

The axial tri-radius can be displaced upward toward the Saturn finger or toward the Mercury finger so that it lies on the Mount of Luna. Both positions seem to have similar effects. Tri-radii can also appear on the Mount of Venus. The only reference I have found is by Hutchinson (1969) who noted it on the

hands of "Orientals and Jews". She made no further comments. I have seen it on western people in association with a loop of courage. This can be expected as the loop disturbs the normal dermal line pattern.

Tri-radii also can occur on the fingers tips. Normally a whorl has two tri-radii associated with it and a loop has one. An arch usually has no tri-radius with it unless it's a tented arch. No special significance has been attributed to tri-radii formed to accommodate whorls or loops.

## MEDICAL AND ANTHROPOLOGICAL DERMATOGLYPHICS

### Terminology

Medical people and anthropologists tend to examine details of skin ridge patterns far more than palmists. For example they count ridges between tri-radii. The tri-radii are noted as A,B,C,D, and T (Figure 5). The average for the AB ridge count is 34 – 40. The angle between theoretical lines joining AT and DT is the ADT angle. It is usually about 45 - 50°. If there is a second, higher tri-radius, it is ignored for the ADT angle. It is designated T1 or T' or T2.

Ridges are counted on finger pads from the tri-radius to the core of the loop or whorl. Arches count as zero. With whorls, two counts can be made because there are tri-radii on each side. The count with the largest number of ridges is used. The total number of tri-radii on all fingers is counted as the pattern intensity. The Main Line Index or Cummin's Index is another. In this the downward pointing branch of the A tri-radius and that of the D tri-radius are traced to the percussion (ulna) edge of the hand and their lengths, in centimetres, are added e.g. 6+3=9.

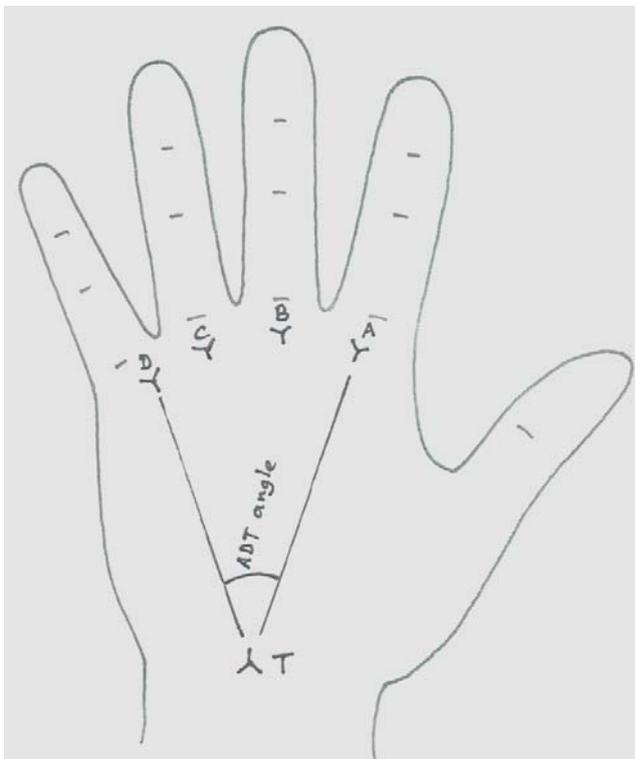


FIGURE 5 Names of tri-radii

## MEDICAL DATA

Campbell quoted the following characteristics for “normal” hands from Dr Scheimann:

- 1) There are no patterns on the mounts of Venus and Luna
- 2) They do not have the same fingerprint on all ten fingers
- 3) The ATD angle is around 45%;
- 4) The average loop count is from 12 to 14; and
- 5) The AB ridge count is around 34.

If a person lacks 3 or more of these characteristics he is more likely to have some form of congenital defect.

As with most things seldom is one sign alone significant and statistics have to be used. Usually strange looking ridge patterns are associated with some sort of abnormality in the body or personality.

An example of a cluster of signs can be shown in Down’s Syndrome. This set shown below comes from Johnny Fincham at <http://www.johnnyfincham.com/history/dermatoglyphics.htm>

“The features commonly seen include:

- increased incidence of ulna loops (83%) (normally 63%)
- often have 10 ulna loops (35% of Down’s Syndrome people have 10 ulna loops, the normal count is only 5%)
- ulna loops are very high and L-shaped
- reduced incidence of whorls (12%) and arches (3%)
- decreased incidence of radial loops but increased incidence of radial loops on fingers other than the Water (index) finger. (Fire/Air fingers i.e. ring and little fingers, normally never have radial loops)
- displaced axial tri-radius to t2 position, occurring on 85% of DS hands (4% in controls)
- large dermatoglyphic patterns in hypothenar (Luna) area of the hand in 80% of DS hands
- Interdigital Loop I3 is very commonly occurring on 90% of DS hands (only 40% normally)
- transverse alignment of skin ridges in the interdigital area
- low A-B ridge count
- increased incidence of skin ridge dissociation”.

Fincham (2005) notes that 9 or 10 fingerprint loops is a pointer to Alzheimer’s disease and senile dementia. Three or more fingertip whorls points to eye weaknesses such as myopia and cataracts.

Whorls on the Luna Mount point to schizophrenia. Three or more simple arches on the fingertips could indicate intestinal obstruction, constipation and intestinal disorders. Four or more whorls on fingertips could point to congenital heart disease but a more important indicator is the axial tri-radius being displaced or duplicated.

The composite whorl (entwined loops) shows up in 18% of schizophrenic hands according to [http://www.handanalysis.net/library/derm\\_history.htm](http://www.handanalysis.net/library/derm_history.htm)

Dr Babler (1978) found a high frequency of arch prints associated with spontaneous abortion, suggesting evidence for prenatal selection in human abortuses. This suggests that pattern frequencies during early prenatal development differ from those of later foetal and postnatal periods.

In a Persian study the ulnar loop frequency in a control group was 57.15% but in the group with congenital heart disease it was 64.4%. The ADT angle in this group was 49.31 but was 42.28 in the control group (Anon.1, 2005).

In a comparative study of dermatoglyphic patterns in patients with myocardial infarction it was found that the patients had 7.2% arch prints whereas a control group had 3.7%. Patients also had 46.8 % loops and 46.0% whorls whereas the control group had 50.7% loops and 45.5% whorls (Anon 2, 2002).

Mitral valve prolapse, a form of heart disease, is associated with an abnormally high number of arches. Breast Cancer has been linked to a high number of whorl patterns. Genetically inherited diseases have received the most scrutiny but correlations have also been found for Alzheimer's, tuberculosis, diabetes, cancer, heart disease and many more medical conditions (Johnny Fincham, [http://www.handanalysis.net/library/derm\\_history.htm](http://www.handanalysis.net/library/derm_history.htm) )

There are different views on the use of dermatoglyphics. T.J. David (1981) looked at 800 patients and concluded that "claims that there are diagnostically useful dermatoglyphic changes in congenital heart disease can be disregarded". It seems that we do not have the final answers yet.

An increased frequency of whorl patterns on fingertips, presence of axial tri-radii in position t1 on palms and an increase of the main line index was found with trisomy 4 patients in Italy (Mastroiacovo, 1976)

According to Johnny Fincham. "In Germany, dermatoglyphic assessment has been taken very seriously indeed, to the extent that computer programmes have now been designed to perform rapid multivariate assessments of hand imprints which can predict with up to an 80% accuracy the chances of a new-born child developing heart disease, cancer, leukaemia, diabetes or mental illness. Such is the status of dermatoglyphic analysis in Germany that it has become an integral part of the medical syllabus in many German universities and it would seem that, before too long, the diagnosis of disease from the patterns of the hand will become a quite ordinary and commonplace activity.

Many good references on medical dermatology can be found at <http://www.dse.nl/~frvc/handresearch/publications.htm>

## ANTHROPOLOGICAL DATA

Early attempts at establishing dermatoglyphic links to race and intelligence by people such as Galton were unsuccessful but more careful work has revealed some new information. For example, whorls occur on about 25% of fingers of Europeans but on 50% of Pygmy's fingers.

Dermatoglyphic evidence indicates that the original inhabitants of the Pacific Islands emigrated from Asia, not South America (Johnny Fincham). Groups of Polish peoples have been distinguished from each other on the basis of dermatoglyphs.

The incidence of ulnar loop type, whorl type, radial loop type, and arch type was 50.4%, 42.9%, 3.8%, and 2.9%, respectively in a Korean group. By comparing that with other data it was concluded that the Korean people belong to the "Asians and become closer to the Whites and Blacks in which loop type is frequent and whorl type is not frequent" (Anon.3, 1997).

Some people claim to have found ridge patterns in the prints of Big Foot in USA. Apparently these are unlike human or monkey dermatoglyphic patterns.

Left-handed people tend to have more whorls (Anon 4, 2005.).

### References

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