

# DERMATOGLYPHICS STUDY OF THE SHOMPEN OF GREAT NICOBAR

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*The finger and palm prints of 20 male and 18 female Shompen of Great Nicobar were examined. The distribution of finger patterns and of palmar main line formulae showed significant sex differences. Main line index was higher on right than on left hands in both sexes. Axial triradius t was most frequently observed on both hands in the two sexes.*

## INTRODUCTION

Shompen are a small tribe of the island of Nicobar; being difficult to reach and to study, very little is known about them, not even the exact size of their population, although their estimated number is about 150.

Like Nicobarese, Shompen are basically Mongoloids and the nominal differences observed between these two groups have been attributed to their life in isolation in different islands (Temple 1901). According to Man (1886) and Boden Kloss (1903), the Nicobar islands were originally inhabited by the Malaysians who were gradually drawn south by immigrants from the coast of Burma. Malaysians who resisted the invaders and maintained their entity in the dense forest formed the present day Shompen tribe.

Only few physical anthropological aspects of the Shompen have so far been studied (Agrawal 1967). Finger and palm prints have therefore been examined on a sample of 38 subjects (20 M and 18 F), according to the methods described by Cummins and Midlo (1961).

## RESULTS AND DISCUSSION

### *Fingers*

The distribution of digital patterns showed the following decreasing progression in frequency: *males*, whorls: I, II, IV, III, V,

and loops: V, III, IV, I, II; *females*, whorls: V, I, III, II, IV, and loops: I, V, IV, III, II. In both sexes, whorls were more frequent on the right hands and loops on the left hands, while arches were totally absent. The distribution of finger patterns showed statistically significant differences between sexes ( $\chi^2 = 5.6241$ ,  $df = 1$ ,  $0.02 > p > 0.01$ ).

### *Palms*

Main line formula 7.5.5 was more frequent on the left hands, and 9.7.5 on the right hands, with identical distributions in the two sexes. The distribution of main line formulae showed statistically significant differences between sexes ( $\chi^2 = 6.7205$ ,  $df = 2$ ,  $0.05 > p > 0.02$ ).

The D Line ended most frequently at positions 9 on the right and 7 on the left hand, with an almost identical termination pattern in the two sexes. The C Line ended most frequently at positions 7 on the right and 5" on the left hand, with an almost identical termination pattern in the two sexes. The B Line, in males, ended most frequently at positions 5" on the right and 5 on the left hand, whereas, in females, at position 5" on both hands. The A Line, in males, ended most frequently at positions 5 on the right and 3 on the left hand, whereas, in females, at position 3 on both hands.

In order to express the transversality of ridges, the main line index was calculated: the values were 7.90 (right) and 6.60 (left) in males, and 6.66 (right) and 5.94 (left)

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in females, i.e., apparently higher on the right than on the left hand in both sexes. Hypothenar patterns were more frequent on right hands in males, but on left hands in females. Thenar patterns were more frequent on the left hand in both sexes. In the II interdigital area, patterns were totally absent in both sexes; in the III, they were more frequent on right hands in males and totally absent in females; and in the IV, they were more frequent on right hands in both sexes.

The axial triradius *t* was most frequently observed on both hands, with an identical distribution in the two sexes.

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