

REMARKS ON THE PALMAR FLEXION CREASES  
OF THE ACHRIANS (GREECE)

This investigation compares the frequency of several specially marked configurations of palmar flexion creases among samples from the three villages of Echinus, Dimarion, and Aimonion. The Achrians are a small, isolated population living at the Greek-Bulgarian border in the mountainous region near Xanthi. This investigation of morphological and haematological traits has enabled us to distinguish between the present Achrians and the Pomaks, who were at one time the same group (Xirotiris 1971 and 1974). The findings on palm and finger dermatoglyphics will be published in the near future.

This analysis of flexion creases is based on the palm prints of 182 persons from Echinus (82w; 100m), 168 persons from Dimarion (67w; 101m), and 50 from Aimonion (30w; 20m), with an age-range from 9 to 70 years.

There are a considerable number of classification systems for palmar flexion creases, e.g., those of Lestrangle (1969), Chamla and Sahly (1973), Maxia (1975), but for the present study the system of Weninger and Navratil (1957) was the most appropriate. In agreement with these authors, we distinguish the following types of flexion creases (besides the "normal" M-figure): Ia=typical simean crease; Ib=simean creases with vestiges of three-finger crease; IIa and IIb=transitional stages, no real simean crease; III="bridge", and the special configurations SF<sub>1</sub>, SF<sub>2</sub>, and SF<sub>3</sub>. The percentages given in our results refer to the number of individuals having these traits. The sample taken from Aimonion is presented for documentation only; it is too small to be used for statistical comparison with the other population groups.

Percentage differences between the sexes are more distinct in Dimarion than in Echinus. In general, the men of both villages show higher frequencies of flexion creases I, II, and III than the women, although in Dimarion the women have more special configurations (SF<sub>1-3</sub>) than the men (13.4%w; 4.9%m).

There is a tendency for the men to have higher frequencies of specially marked flexion creases on the left palm, with the exception of type III creases among the men of Dimarion (more right than left) and in Echinus (no difference). In general, the women show no significant bimanual differences, especially of the kind described in the men.

TABLE 1. PALMAR FLEXION CREASES OF THE ACHRIANS

| Classification      |                          | Echinos |      |       |      | Dimarion |      |       |     | Aimonion |     |       |      |
|---------------------|--------------------------|---------|------|-------|------|----------|------|-------|-----|----------|-----|-------|------|
| Chamla & Sahly 1973 | Weninger & Navratil 1957 | Men     |      | Women |      | Men      |      | Women |     | Men      |     | Women |      |
|                     |                          | l       | r    | l     | r    | l        | r    | l     | r   | l        | r   | l     | r    |
|                     | N                        | 100     |      | 82    |      | 101      |      | 67    |     | 20       |     | 30    |      |
| I                   | Ia                       | 2,0     | 1,0  | 0,0   | 0,0  | 3,9      | 1,9  | 0,0   | 0,0 | 0,0      | 0,0 | 3,3   | 3,3  |
|                     | Ib                       | 2,0     | 1,0  | 1,2   | 1,2  | 0,9      | 1,9  | 0,0   | 1,4 | 5,0      | 5,0 | 10,0  | 0,0  |
|                     | I(a+b)                   | 6,0     |      | 2,4   |      | 8,9      |      | 1,4   |     | 10,0     |     | 16,0  |      |
| II                  | IIa                      | 5,0     | 2,0  | 4,8   | 2,4  | 6,9      | 2,9  | 1,4   | 0,0 | 5,0      | 0,0 | 0,0   | 0,0  |
|                     | IIb                      | 1,0     | 2,0  | 1,2   | 1,2  | 0,9      | 0,0  | 0,0   | 5,0 | 0,0      | 5,0 | 3,3   | 10,0 |
|                     | II(a+b)                  | 10,0    |      | 8,5   |      | 10,8     |      | 14,4  |     | 10,0     |     | 13,3  |      |
| III                 | III                      | 14,1    | 14,1 | 7,3   | 16,0 | 10,8     | 12,8 | 4,4   | 7,4 | 10,0     | 5,0 | 3,3   | 13,3 |
|                     |                          | 28,1    |      | 23,1  |      | 23,7     |      | 11,9  |     | 15,0     |     | 16,6  |      |
| IV                  | SF <sub>1</sub>          | 1,0     | 1,0  | 0,0   | 0,0  | 1,9      | 0,9  | 1,4   | 4,4 | 0,0      | 5,0 | 3,3   | 3,3  |
|                     | SF <sub>2</sub>          | 1,0     | 0,0  | 0,0   | 0,0  | 0,0      | 0,0  | 1,4   | 1,4 | 0,0      | 0,0 | 0,0   | 0,0  |
|                     | SF <sub>3</sub>          | 0,0     | 0,0  | 0,0   | 0,0  | 1,9      | 0,0  | 2,9   | 1,4 | 0,0      | 5,0 | 0,0   | 0,0  |
|                     | SF <sub>(1-3)</sub>      | 3,0     |      | 0,0   |      | 4,9      |      | 13,4  |     | 10,0     |     | 6,6   |      |

l = left

r = right

The recent data on the whole does not allow us to make a proper comparison with the results of other researchers, since most of them considered only type I—the typical simean crease. Another difference stems from the lack of data for ethnic and locally limited population groups. The few data available from southern Europe and the Mediterranean area (all concerning type I) show percentage reanges from 3.5-5.3% for men and 1.9-4.5% for women (Chamla and Sahly, 1973). In comparison with these data, especially with the large sample of Greeks studied by Kumaris and Katritsis (1953), the men in our sample (not considering Aimonion!) show relatively higher frequencies, but the women do not.

At this stage we cannot give an exact interpretation of these findings, since we do not yet know enough about the genetical and racial significance of this trait. Therefore, we will limit ourselves at this time to a simple presentation of our findings.

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