A COMPARATIVE STUDY OF THE DERMATOGLYPHIC PATTERNS AMONG ECCENTRIC WOMEN WITH CRIMINAL TENDENCIES

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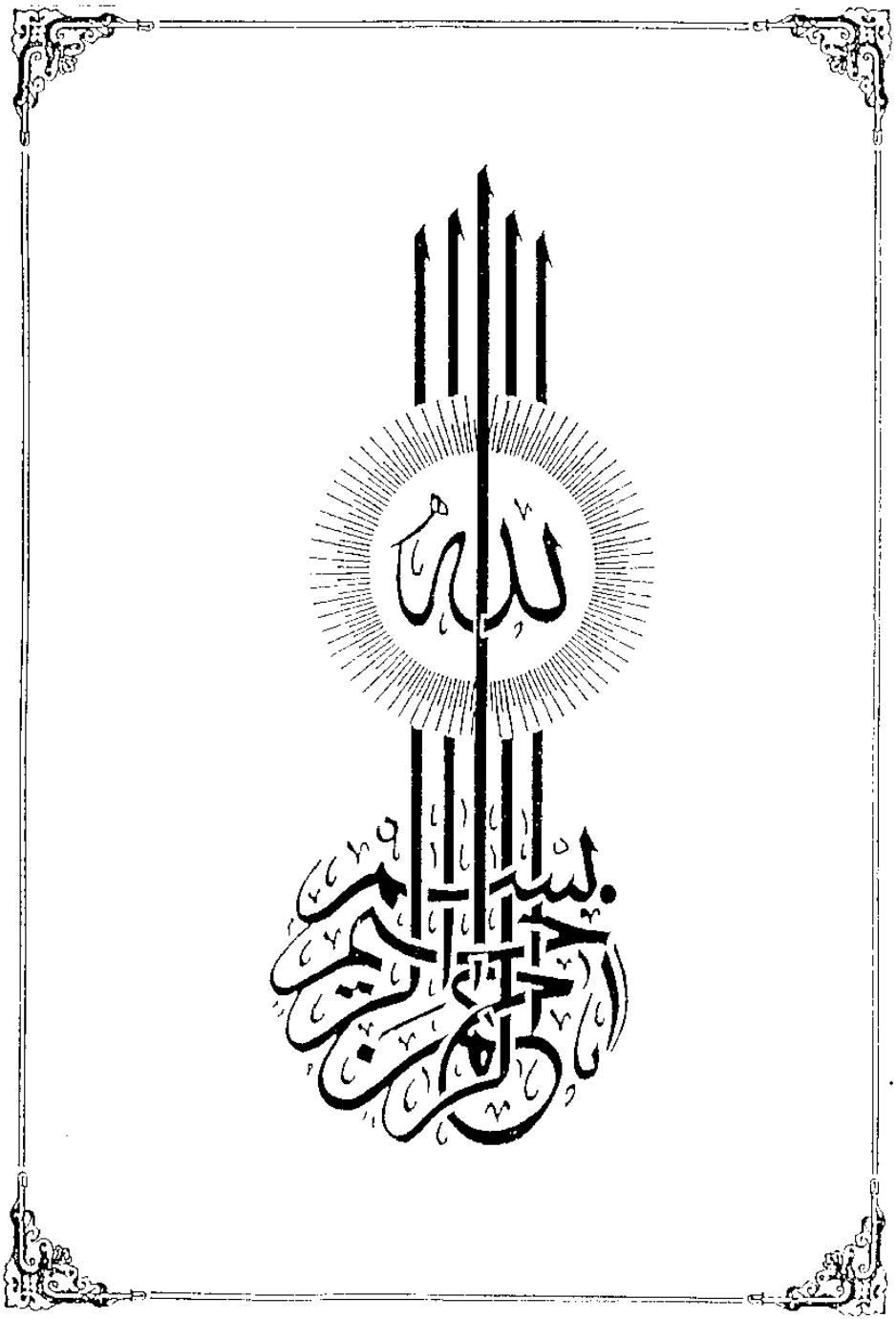

C O N T E N T S

INTRODUCTION

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In the last few years the study of the dermal ridges has attracted the attention of many investigators. Several studies were carried out on the patterns that result from special orientations of these ridges on the palmar and plantar surfaces of the hands and feet respectively. Other numerical data were suggested to give an idea about the intensity and size of these patterns as well as the dimensional proportions of the palms. The various studies in the field of dermatoglyphics followed several routes.

Many investigators registered some dermatoglyphic parameters as being characteristics to one or another homegenous population. Thus certain features were reported to be common among particular sects of the main human geographic races.

Holt submitted a number of publications through which she determined certain specific traits among the British population. In 1955 she calculated the frequency distribution of total ridge count. In 1957 she studied the relation between the total ridge count and the variability of counts

from one finger to another. In 1959 she calculated the correlation between the ridge counts on different fingers.

Parsons, (1964) studied the ridge-counts and the number of triradii in a sample of Australians of British origin.

Singh, (1967) analysed the total finger ridge counts of Caucasian Australians In (1971), he analysed the palmar dermatoglyphics of 996 Australians of European Ancestry. The analysis included the means and standard deviations of the main line index, the a - b ridge count, the atd angle, and the percentage distributions of patterns on various areas.

Benevides, et al ,(1969) studied the finger prints of Whites and Negroes from Southern Brazil.

Thoma, (1969) calculated the means of the total digital ridge count in a sample from South Hungary.

Zavala, et al ,(1969) studied the dermatoglyphic patterns in male and female residents in Mexico City. In (1971), he studied dermatoglyphic patterns in 8 Mexican

Indian groups with regards to the total ridge count, the type of pattern on each finger, the pattern intensity, the atd angle, and the a-b ridge count.

Bonne, et al , (1971) analysed the digital and palmar dermatoglyphics of the total Hebbanite community in Israel.

Loesch, (1971) investigated the genetics of palmar dermatoglyphics of a Polish sample on the basis of a topological classification of dermal ridge patterns.

Floris, (1975) tested the differences between sexes, between sides, and the correlations between four quantitative characteristics of palmar dermatoglyphics in a sample from the Sardinian population.

Populations of asiatic origin were also investigated. In 1951 Cummins, et al ,studied the dermatoglyphics of normal Australian aborigines.

Mavalwala, (1963) analysed the total finger ridge count of the Parsi Community of India.

Mukherjee, (1966) determined the pattern intensities on fingers, palms, and soles in Bengalese from Calcutta.

Dutta, et al ,(1967) submitted an account of the finger-print pattern variability of the Asura Tribe of Chotangpur in India.

Plato and Jarryd, in the same year, discussed the dermatoglyphics of the Trukese of Micronesia.

Tiwari, et al ,in the same year also analysed the finger prints of Tibetans of both sexes.

Rife, (1968) determined the digital and palmar dermatoglyphics in Seminole Indians of Florida. In 1972, he made a comparative study of palm prints among cherokee and Mohawk Indians.

Chattopadhyay, et al ,(1969) analysed the finger prints of a sample from the sub-caste Rarhi Brahmin of Bengal. In 1970 he analysed the palmar dermatoglyphics of Gujars.

Jantz, et al ,(1969 studied the finger dermatoglyphics of the Peruvian Cashinahua. In 1970, he made some other combined studies which extended to include the palm prints for the main line terminations and the palmar patterns.

In the 1969 also, Plato, et al , investigated the dermatoglyphics of Micronesians from Yap.

Again in 1969, Rothhammer, et al , analysed the dermatoglyphic patterns of interrelated Pewenche Indians. The sample for study included several sibships and children resulting from second cousin marriages.

Bhasin, (1970) investigated the palmar interdigital areas among Newars of Nepal.

Chai, (1971) made an analysis of the a-b and a-d ridge counts of individuals from 8 indogenous Taiwan populations.

In the same year, Shiono et al , studied the a-b ridge count on palms of normal Japanese.

Pena, et al ,(1972) made a comparative study of the dermatoglyphic features of Brazilian Cyapo Indian populations.

Newman, (1974) investigated the palmar and finger prints of Quechua Indians from Vicos in the north central Peruvian Sierra.

Populations belonging to the African geographic race were also a subject of dermatoglyphic studies. In 1955 Cummins analysed the finger and palmar prints in 4 groups of Bushmen in South Africa.

Glaniville, (1969) calculated the digital ridge counts among the Rfé Pygmies.

Grace and Ally, (1972) reported the distribution of finger-print pattern types, digital and total ridge counts, a-b scores and values for the atd angle for South African coloureds.

Another approach to the study of dermal ridges was to follow their embryonic development and to question the inheritance of the different dermatoglyphic traits.

Pons, in 1959 and 1963 recorded the terminations of the palmar main lines and discussed the genetics of the palmar a-b ridge count among Spaniards.

In 1961, Holt discussed the possibility of inheritance of the total ridge count. In 1969, she determined the age at which these ridges start to develop. Through this study she could find out an interrelation between determatoglyphics and proper embryonic development.

Glanville, (1965) studied the palmar main line A in relation to heredity.

Penrose, (1967) investigated the size of the finger-tip pattern in relation to normal and abnormal sex chromosome complements.

In 1970 Singh discussed the inheritance of assymetry in finger ridge counts of Australians from European families. In 1972 he applied a multivariate analysis to demonstrate the genetic differences between a number of populations. The study included Australian Europeans, Australian aborigines, Punjabi Indians and Part-aborigines.

Another group of authors tried to submit certain methods for acurate dermatoglyphic measures or to relate the dermatoglyphic parameters to certain biological constants.

Berg, (1968) questioned the accuracy of the atd angle as a means for measuring the palmar dimensions. He suggested another relation between triradii d &.t.

David, (1971) discussed the various methods for localization of the axial triradius t on the palm. He suggested a new method for its localization.

Patel, in the same year, determined certain biological constants for Tibetans at Chandragiri, Orissa and India. These constants included the genetic traits, ABO blood groups, PTC tasting and dermatoglyphics.

The present work is attempt to study the dermatoglyphics of some women practicing a variety of antisocial behaviour. It is aimed to throw some light about the biological background of delinquence. This work furnishes a part of a larger project that deals with the dermato glyphics of different sects of the Egyptian population showing one or another feature of a suspected genetic background.

MATERIAL AND METHODS

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The present work is a comparative dermatoglyphic study of a control sample and another group of eccentric women showing variable criminal tendencies. The control sample include 200 school boys and an equivalent number of school girls. Their ages ranged between 12 and 18 years. They were all reported by the medical authorities to be physically fit, and to show a moderate state of intelligence. Moreover, they were all practicing normal successful careers.

The test groups included 500 female subjects practicing various models of antisocial behaviour. They were all residents in various penal institutions, where they had to stay for some time as penality and to receive some sort of preaching and manual training. Their ages ranged between 12 and 30 on the whole. Through reference to their medical supervision, it was understood that they were all physically fit. They included the following varieties of delinquents:

1- Murderers: A group of 25 really cruel women. All of them have repeatedly practiced homicidal crimes. They possess fierce ruthless appearance, they did not mind