

# ANTHROPOLOGICAL DATA ON THE ORIGIN OF THE CRETANS

A. N. POULIANOS

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1. Utilizing the data of Physical Anthropology as a historical source, we proceed from the indisputable position that racial characteristics in no degree determine the trend of historical process, that the physical type in no way influences the form and contents of the culture of any people. But, on this basis one cannot conclude that the physical type of a population is not connected with its history. On the contrary, the formation, spread, and blending of physical types are the result of historical processes. Any change in the area of distribution of one or another type, any change in the physical composition of the population always reflects the migration and mixture of certain tribes and peoples, i.e. the processes of ethnic history.

Owing to the fact that physical characteristics are of no consequence for the development of culture, the physical type of the population of any given territory can be preserved over long periods, during which the level of development, the cultural aspect and even the language of this population is changed beyond recognition. Therefore in a series of cases only the physical anthropological material can testify to the presence or absence of migrations in the past.

In tracing the distribution of physical types in the composition of various modern ethnic groups, in comparing them (when palaeoanthropological materials are available) with the physical types of preceding epochs and taking into consideration the regularities in the variability of physical traits through time, the anthropologist often provides quite definite answers to those questions in the history of a population which data of other disciplines are powerless to supply (Debetz et al., 1952).

2. In the case of the anthropological survey of Crete an attempt is being made to answer the question whether the people of Crete are of autochthonous or foreign origin, the direction of possible migrations, the character of the mixture of different populations, etc.

3. There were examined over 1200 adult individuals (more than 1000 men and about 200 women) from all over the Crete. The data obtained included at least 53 traits from every person, and a picture was taken in three poses of almost every

second individual. The subjects were representative of the rural population of the island and their parents were native to the provinces in which they were examined.

Administrative provinces, ethnohistorical and geographical conditions were taken into consideration before the collected data were broken down into small geographical units, applying the method of „geographical differentiation“ of the anthropological traits.

4. Upon inspection of the data obtained, it is apparent that the provincial means vary among themselves in general, but no more than it would be expected from the variability of the total sample which is quite homogeneous. The provinces of Sphakia, Rizitika (Kydonia), Kroustas-Kritsa, and Sitia constitute, at a high significant level, a lack of homogeneity of the provincial means or variances of any characters, but that does not mean to say that, for no character, the population of these provinces could be regarded as not having affinities with the rest of Crete. Variances in the eastern group differ significantly in the case of stature, cephalic index, highly, too, in pigmentation. Sitia is morphologically similar to the western Asia Minor group (Poulianos, 1960), while that of Kroustas is nearer to Tsakonia (Peloponnesus) of all the provinces of Crete. About the same features differentiate the western groups. The Sphakiots are taller, have big heads especially, and their faces are broader than in the others. Among them, as well as among Kydonia, Kroustas and some other minor places, there are types one can only derive from the north. Some authorities on Crete think that the Sphakiots are the partial descendants of the Dorians who invaded the island at the end of the Minoan period. For the present time this cannot be confirmed anthropologically.

5. In Sphakia, Kydonia, Anoghia and Kroustas there has been a modification (probably from the ancient time) of the local Cretan population by a slow, but steady flow of genes from outside. The time of arrival of this element to the island of Crete is an open question to further anthropological researches.

The arrival of the early Greek speaking people may have brought partial blondism to Crete. Crete

is an island, and it is a principle of insular anthropology that when a numerous group invades an island, it has a better chance of survival than in a continental area. From this point of view Crete occupies a key position in understanding the anthropology of continental Greece.

6. Here again the two-fold problem appears so frequently occurring in extensive anthropometric studies: local populations differ from each other in a number of characters, while larger regional population incorporating them also differ. The reduction of the several differences to a single measure of divergence has been suggested, for which purpose the Generalized Distance Statistic ( $D^2$ ) has been devised (Mahalanobis, 1936). Penrose (1953) has criticized this method, as well as Debetz (1959) the Chekanowski's intricate one. In the author's opinion simple methods of analysis, can give good results in handling multivariate differences. The object most frequently envisaged in the use of metrical and morphological features is the establishment of racial affinities and non-affinities. Differences between groups may be due to differences in genotype, arising from differential hybridization, or from drift in the case of the non-adaptive "neutral" characters, or from a selection in adaptive characters; probably most features are an expression of interactions between both the genetic and the environmental components. [It is very encouraging that recent data confirm that anthropometry is "still nuclear in Physical Anthropology" (W. M. Krogman, Amer. J. of Phys. Anthrop. V, 22-1 — 1964)].

7. Three dental traits (including the third molar agenesis) were studied among all the individuals examined for genetic and evolutionary purposes. Due to the lack of facilities, no other inherited polymorphic traits (like blood groups, PTS etc.) were taken.

8. A comparison of the presented data was made with craniological series (Sergi, Luschian, Angel, Charles and others). The Cretan skulls found at various sites on the island belong to a fairly uniform type. On the whole, Cretan crania are a little smaller, than the majority of the Egyptian series and they show leanings in the direction of the Copper Age skulls from Alishar and Samtavrovo in Georgia (Abdoushellishvili, 1954).

9. The facial features of modern Cretans are purely Mediterranean-Caucasian: a mostly straight,

prominent nose, with its high root, smooth profile at the forehead, wavy or lightly curled hair form, and a rather broad-faced form; subbrachycephaly is prevalent. Most of the early Minoan skulls belong to the type just described which shows the usual neolithic variety in the Near East.

The physical type of the Cretans has changed very little since the fall of the Minoan power.

At the time of the Achaean and Dorian invasions, just as today, the Cretans were still predominant of the Mediterranean-Caucasian (Aegean) type, with a variance of elements similar to those found in Greece. (Further systematic collection of palaeo-anthropological materials by archaeologists will help to clarify who the Achaeans or the Dorians were.)

10. When Crete was first populated? Recent oceanographic and geological data have shown that the sea level in Eastern Mediterranean was lower more than a 100 m before the end of the last glacial period (11–12 thousand years ago) than it is today. Even if Crete was not united with the Asiatic continent, shallow water and the many island bridges made travelling in early Mesolithic a comparatively easy operation. (The oldest known boats in Northern Europe — Drenthe in the Netherlands dated by  $C_{14}$  — date from mesolithic times; J. H a w k e s, Prehistory, Unesco, 1960.) Only by the end of the glacial period the sea level was raised by about 6–8 m higher than it is today. Geographical distribution and compactness of traits confirm that man should have spread in Crete before that period.

11. H a w e s (1910) along with Evans, thought that a taller Mediterranean people invaded from Egypt and Libya and amalgamated with the settled population.

C. G o r d o n (1963), too, has presented the idea that Cretans are the descendants of Semites.

In both cases our data completely contradict both theories.

12. The Cretans, in the majority of the cases, are a pre-Greek autochthonous people whose affinities lead to the Caucasus area, where the mediterranean-caucasian type (or Aegean) has existed from the end of the Upper-Palaeolithic. Occupying such an important position in the crossroads of Mediterranean, the Cretans could absorb all the elements of surrounding civilizations and remold them, thus making their island the cradle of the European civilization.