

The Dental Anthropology of the Caucasus

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On a geographical map the Caucasus looks like a tiny part of the earth. Situated simultaneously between the North and the South, the West and the East of the Old World, the Caucasus region has undergone a very long and complex history. I call the Caucasus the mirror of the Old World. Isolated by mountains and seas, this region has managed to conserve the traits of history and preserve them for our contemporaries through complex national, ethnic, linguistic, religious, cultural, and political structures.

The dental anthropology of the Caucasus also reflects this situation. The main result is the high level of polymorphism characteristic for central populations of a species in the wide sense of the meaning. I have analyzed 87 samples from the living population (more than 10,000 persons total) representing all the peoples of the Caucasus, using the program and methods adopted in the USSR. I have also examined 58 cranial series of Bronze, Classic, and Feudal Age periods from the territory of the Caucasus.

The data on excavated materials showed the stability of characteristics of high taxonomic value (shoveling, deflecting wrinkle, distal trigonid crest, 2 med-II (see editor's note 1 below), Carabelli's cusp) and an increase in frequencies of reduction traits (maxillary lateral incisor, maxillary second molar metacone and hypocone, mandibular second molar hypoconulid reduction) from antiquity to the present.

The similarity between synchronous series from the Caucasus and northern Europe, which increases with antiquity, led us to hypothesize that both gracile types, the northern and the southern (see editor's note 2) developed from one gracile super-type. We also believe that the differentiations towards taxonomical subdivisions in living Caucasus populations began in ancient times, no later than the Bronze Age.

The differentiation which can be traced in living Caucasus populations is mainly determined by two morphological complexes. They are maximally expressed in the southern zones of the Caucasus. The balance of two complexes in a population seems to be the main formative factor. One of the complexes is called western because individuals within its area are characterized by high frequencies of Carabelli's cusp (40-60%), 2 med-II (30-40%), diastema (10-20%), and low concentrations of shoveling and deflecting wrinkle (0-5%). The eastern variant has the opposite tendencies. The values of morphological distances also reflect this subdivision.

The anthropological history of the populations which I have studied seems to exceed their ethnic and national history and can be compared only with their linguistic antiquity.

I will be especially appreciative to hear from other dental anthropologists who have worked in the Near East and Mediterranean countries. We know that the "western sub-type" can be traced to Greece and Bulgaria. However, we have no information for southern Europe and the Near East. I would be very pleased to receive information about ancient and contemporary peoples living in these regions.

Dental Anthropology of the Caucasus (continued)

Editor's notes:

1. 2 med-II is one of A.A. Zubov's odontoglyphic traits. Briefly put, on the metaconid, furrow 2 (a second order furrow located nearer to the center of mandibular teeth than furrow 1) goes into furrow II (a first order furrow which separates the protoconid from the metaconid). Zubov (1977) contains an explanation of odontoglyphic traits.

2. Information about the northern and southern gracile dental types can be found in Zubov (1979). Here, the northern gracile type is characterized by weak reduction of the lateral incisors, high Carabelli's trait, increased amount of four-cusped first mandibular molars, gracility of the second mandibular molars, fairly high deflecting wrinkle, low distal trigonid crest, and high variant 2 med. This type is seen in Finnish language peoples, such as Estonians and Finns. The southern gracile type has low percentages of Carabelli's trait, somewhat increased cusp 7, and low variant 2 med. The southern gracile type is characteristic for peoples of the Caucasus. Azerbaijan, Daghestan, India and Bulgaria.

Vera Kashibadze, with whom I worked in Tbilisi during all of May, 1991, considers the main characteristics of the southern gracile type to be high or increased frequencies of four-cusped first and second molars, distal trigonid crest, and deflecting wrinkle. Additional characters are increased frequencies of three-cusped third lower molars, reduction of the hypocone and metacone on maxillary second molars, and reduction of the lateral incisor.

A.M. Haeussler

References:

- Zubov AA (1977) The laws of variation of the human molar crown relief. In AA Dahlberg and TM Graber (eds.): *Orofacial Growth and Development*. The Hague: Mouton, pp. 269-282.
- Zubov AA (1979) Conclusion. In AA Zubov and NI Khaldeyeva (eds.): *Etnicheskaya Odontologiya SSSR (Ethnic Odontology of the USSR)*, Moscow: Nauka, pp. 229-251.

Upcoming Meetings

61st Annual Meeting of the American Association of Physical Anthropologists. March 30 - April 4, 1992. Las Vegas, Nevada. Program Chair: Dr. Lorna G. Moore, University of Colorado at Denver, Department of Anthropology Campus Box 105, Denver, Colorado 80217-3364. Individuals who are not members of the American Association of Physical Anthropologists, but wish to attend, should contact Local Arrangements Chairperson for hotel information. Dr. Sheilagh Brooks, Department of Anthropology, University of Nevada, Las Vegas, Nevada 89154.

Fourteenth Congress of the International Primatological Society. August 16 to 21, 1992. Strassburg, France.

3rd International Congress on Human Paleontology. Jerusalem, Israel, August 23 - 28, 1992. Deadline for abstracts December 12, 1991. For form for abstracts and additional information write: The 3rd International Congress on Human Paleontology, c/o International Ltd., P.O. Box 29313, 61292 Tel Aviv, Israel.

9th International Symposium on Dental Morphology. September 2 - 5, 1992. Florence, Italy. Those interested in participation and additional information should write to Dr. Jacopo Moggi-Cecchi, Institute di Antropologia, Universiteta di Firenze, Via del Proconsolo 12, 50122 Florence, Italy. Tel. and FAX 0039-55-239-80-65.