

CRANIOMETRY OF THE BRONZE AGE STEPPE POPULATIONS OF SOUTHERN RUSSIA AND UKRAINE (WITH REFERENCE TO THE INDO-EUROPEAN PROBLEM)

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Archaeological and linguistic data suggest that Chalcolithic and Bronze Age inhabitants of the Russian and Ukrainian steppes were mostly Indo-Europeans. Which of the theories concerning the Indo-European (IE) homeland – “Kurgan”, Central/Western European (CWE) or Anatolian – shows a better agreement with the cranial evidence? What can cranial data tell us about the dispersal of filial IE groups such as Indo-Aryans and Iranians? My database includes more than 250 male cranial series. Measurements were processed using canonical variate analysis and Mahalanobis distance.

Most Early and Middle Bronze Age series (all Pit-Grave and 20 of 22 Catacomb as well as Poltavka and Potapovka) are closer to the pooled local Chalcolithic (Sredni Stog and Khvalynsk) group than to the pooled Chalcolithic and Bronze Age groups either from CWE or the Near East, indicating population continuity in the steppes but, in contrast to what most EU homeland theories predict, few migrations either to or from the steppes. Exceptions are Maikop, Kemi-Oba, Tamar-Utkul, two early Catacomb, Babino, and one Sintashta group. They are closer to the pooled Near Eastern series than to the steppe Chalcolithic. Three early Catacomb groups and Babino deviate also toward the pooled CWE series.

A more detailed analysis reveals CWE parallels to certain Pit-Grave and Catacomb series. An especially close analogy is the Ostorf group, northern Germany, representing the Tiefstichkeramik variant of the Funnel Beaker Culture, which may be proto-EU. Apart from steppe parallels, this group has a geographically remote parallel in Central Asia – the Bronze Age Okunev group from Aimyrlyg, Tuva, which also resembles certain Pit-Grave and Catacomb people. This might evidence a long-distance eastward migration of Indo-Iranians along the steppes. The Aimyrlyg skeletons, like the Xinjiang mummies, possibly mark the easternmost reaches of that migration. Among the later (Early Iron Age) people, the Aimyrlyg population is very similar to European steppe Scythians, supporting the archaeological theory of their Central Asian origin. If this theory is correct, then Scythians may have acquired their Iranian language not from their predecessors in the steppes – the Timber-Grave people – but from an early group of Iranian migrants from Europe to Central Asia.

Key words: *Indo-Europeans, indo-european homeland, indo-european migrations, Indo-Iranians, Aryans, Iranians, Scythians, physical anthropology, craniometry*

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GENETICS, GENOMICS AND METABOLOMICS OF HUMAN BODY COMPOSITION

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A chronic degenerative disease is a disease in which irreversible degenerative changes occur in the affected anatomical structure(s) and/or physiological function(s) and which progressively deteriorate over time. This disease may affect virtually any organs' system and function, including body composition, which will be in the focus of the present talk. Basically, body composition components include lean, fat and bone body mass. All three components are highly important for normal physiology and metabolism, and deviations from normal values are often associated with various pathological conditions. They include age related loss of muscle and bone mass (sarcopenia and osteoporosis respectively). However, despite extremely high incidence of both these conditions in the developed countries, often considered as new epidemics, and well established major contribution of the genetic factors, identification of the specific genetic polymorphisms is far from the comple-