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DENTAL DATA AS A SOURCE OF ETHNOGENETIC INFORMATION BASED ON MATERIALS FROM THE CULTURE OF THE CHERNYAKHIVSK

The culture of the Chernyakhivsk represents one of the most outstanding cultural and historic formations of the first part of the first millennium A.D. from the north-eastern part of Europe. During its golden age (III–IV century) it embraced most of the Ukraine, Moldovia, and some of the neighbouring regions of Poland, the Russian federation and Romania. Thousands of settlements and cemeteries have been discovered in these areas. From the point of view of the burial customs, the ceramics, and the remains of buildings, there are three local groups of Chernyakhivsk Culture, connected with specific regions, namely: the area of the north-west Black Sea side, the lands near the Dneestr, the Prut and the Danube, and the Forest and Steppe Zones of the Ukraine (Baran 1981).

Historic and archaeological literature have no common point of view on the ethnic origin of the Chernyakhivsk Culture. The attempts to associate it with some single ethnos turned out to be fruitless. The majority of present day researchers share the opinion that the Scythians, the Sarmatians, the Geths, the Goths, and the East Slav Anths tribes all took part in the creation of this cultural and historic entity (Baran, Gorokhovsky, Magomedov 1990).

As a result of the excavation of Chernyakhivsk cemeteries during recent decades, about two dozen different sized cranial series were obtained. The findings of the majority of them were published by T. S. Konduktorova (1972) and M. S. Velikanova.
Table 1

Variations of the main dental traits of the Chernyakhivsk Cultures series

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Shovel-shape ( M_1 )</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>23</td>
<td>4.3</td>
<td>1</td>
<td>0.0</td>
<td>9</td>
<td>11.1</td>
<td>3</td>
<td>0.0</td>
</tr>
<tr>
<td>Carabelli’s cusp</td>
<td>32</td>
<td>28.1</td>
<td>6</td>
<td>66.7</td>
<td>12</td>
<td>58.3</td>
<td>14</td>
</tr>
<tr>
<td>4-cusped ( M_1 )</td>
<td>28</td>
<td>7.1</td>
<td>10</td>
<td>10.0</td>
<td>18</td>
<td>11.0</td>
<td>10</td>
</tr>
<tr>
<td>6-cusped ( M_1 )</td>
<td>28</td>
<td>0.0</td>
<td>10</td>
<td>10.0</td>
<td>47</td>
<td>5.9</td>
<td>11</td>
</tr>
<tr>
<td>4-cusped ( M_2 )</td>
<td>36</td>
<td>97.2</td>
<td>5</td>
<td>80.0</td>
<td>18</td>
<td>88.9</td>
<td>8</td>
</tr>
<tr>
<td>Deflecting wrinkle ( /M_1/ )</td>
<td>13</td>
<td>7.7</td>
<td>6</td>
<td>0.0</td>
<td>10</td>
<td>20.0</td>
<td>6</td>
</tr>
<tr>
<td>Distal trigonid crest ( /M_1/ )</td>
<td>26</td>
<td>7.7</td>
<td>9</td>
<td>11.1</td>
<td>15</td>
<td>0.0</td>
<td>8</td>
</tr>
<tr>
<td>2 med ( /I/ )</td>
<td>12</td>
<td>25.0</td>
<td>7</td>
<td>14.3</td>
<td>10</td>
<td>20.0</td>
<td>6</td>
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</table>
(1975). Their papers made an essential contribution in the study of the origins and ethnic history of Chernyakhivsk Culture. Nevertheless, they undoubtedly did not exhaust elucidation on all the anthropological possibilities of this topic.

Along with conventional cranial features, the data of ethnic dentology may be widely used at the present stage to settle various historic questions. It is agreed that features of dental construction distinguish quite well the representatives of large ethnic groups of mankind (Hanigara 1967, Zubov 1974) and create in the limits of Caucasoid race diffusion large territorial groupings types (“Ethnic odontology of the USSR” 1979).

The analysis of the interrelations of dentalogical types provides the opportunity to substantially enrich the ethnogenetic information obtained by means of other morphological systems.

The most significant finding reported in this paper is the data, which was obtained by the author during dental researches of cranial series from six Chernyakhivsk cemeteries of the Ukraine: Zhurivka, Boromlya, Uspenka, Gavriliivka, Koblevo and Kholmske. Scarce literature data was also used (Graveree 1987). For intergroup comparisons the author’s private dental materials from the Scythians tribes of the Forest and Steppe Zones of the Dnepr regions and the Steppes near The North Black Sea Side, the Sarmatians, and ancient Rus settlements were used. The total number of analysed sculps was about 500.

All the series, with no exception, were analysed in accordance with the programme and methodology adopted in Soviet anthropology (Zubov 1968, 1973).

The analysis of the variations of the leading dental features of the seven cranial series of the Chernyakhivsk Culture (Tab. 1) proves that they are within the limits usual for the Caucasoid race at large. However, within these limits, they have quite a wide range of variability and one can detect some conformity with natural laws in the geographical distribution of many important markers.

So there are grounds to distinguish three regional complexes among the re-searched groups of the Chernyakhivsk population of the present territories of the Ukraine and Moldova’s namely: the eastern and the western watershed of Dnepr and the Danube-Dnestr.

The first complex is distinguished by the material of the Zhurivka series, which has 47 sculps. It is characterised by an average level of reduction of the first lower molar, low and moderate concentration of features of “eastern” origin (shovel shape 1', deflecting wrinkle, distal trigonid crest, etc.) and average values of Carabelli’s cusp, with a low-average percentage of 2 (II) med.

The above mentioned combination of features is described as the “Middle Europe dental type” (“Ethnicodontology of the USSR” 1979), one modification of which is typical of the Scythians of the Forest and Steppe Zones of the Right Bank of the Dnepr region. The results of dental researches prove that Chernyakhivsk tribes of this regional complex were formed on the Scythians basis.

The next complex, the western watershed of Dnepr is distinguished by the materials closely related to the Boromlya and Uspenka series (45 sculps). It is charac-
terised by an increased level of reduction of the first lower molar, very high Carabelli’s cusp, increased in view of the Caucasoid scales concentration of some “eastern” features (6-cusped first lower molars, deflecting wrinkle and very low percentage of variant 2 (II) med).

This above mentioned combination of features is typical of representatives of the western branch of the southern gracile type, which was spread in ancient times in the Steppe Zone of Europe, the Northern Caucasus, and Middle Asia (“Ethnico-dontology of the USSR” 1979, Ismagulov, Sikhimbayeva, 1989). In view of dental researches the Chernyakhivites of the western watershed of Dnepr are noticeably similar to certain groups of the Scythians population of the North Black Sea Side and the late Sarmathians. It is the evidence of their genetic relationship.

The third dental complex, the Danube-Dnestr, is distinguished by the researches of the Kholmske, Budeshty and Malayeshty series (approximately 30 sculps), close to them is the Koblevo series. Distinguishing features are an increased level of reduction of the lower molars, absence of “eastern” features, a low value of Carabelli’s cusp and, otherwise – a very high variant 2 (II) med. It is necessary to point out that paleoantropological literature has no data about the more or less close analogy with this combination of dental features. There are some grounds for assuming that the basis of the Danube–Dniestar complex consists of the Geths (the Thracian) substrata.

The Gavrilivka’s series is characterized by quite an original combination of features. It may not be attributed to any of the above described complexes.

In general, the results of intergroup analysis show a heterogenity of anthropological and ethnological composition of the Chernyakhivsk Culture’s bearers.

Much disagreement emerged, concerning the role of the Goths (an East German tribe, which at the end of the II–III centuries A.D. moved from South Eastern Scandinavia southwards in the political and ethnic history of Eastern Europe in the first half of the first millennium A.D.) soon after the discovery by V. V. Khvoiko in 1901 of the Chernyakhivsk Culture’s first monument-cemetery at the village of Chernyakhiv near Kiev. An echo of these discussions may also be found in the pages of related anthropological publications (Konduktorova 1972, Alexjeeva 1973). Nevertheless, the possibilities were quite limited in this study in view of the absence of the Goths cranial series proper. Further, the materials which provide even an approximate picture of the physical features of the terrible inhabitants of the Middle Ages on the Island of Gotland were studied in accordance with the craniologic program only.

The use of dental methodology in the discussion about the problem of the Goths became possible thanks to the help of Polish colleagues, the researchers of the Chair of Polish Archaeology from the University of Marie Curie-Skłodowska, Lublin, at whose invitation the authors of this paper together with W. Kozak-Zychman had the opportunity to be acquainted with the crania series from the cemeteries of the IV centuries A.D. in Maslomench and Grudek, situated in the South Eastern part of Poland in the watershed of the Western Bug.
In the view of the founder of the excavation, A. Kokowski, who distinguished this local group of Chernyakhivsk-Velbar monuments on the Bug bank, it had probably been created by the Goths and local tribes, which had been assimilated by the Goths on their south-eastward movement (Kokowski 1987).

The analysis of dental features of the united “Maslomench group” shows that it was typical of the features of a north gracile dental type. This is widespread in the ancient and modern population of Scandinavia, south-east of the Baltic area and north-west of the Russian Federation (“Ethnic odontology of the USSR” 1979, Groveree 1987). It differs considerably from bearers of the three above mentioned dental complexes of the Chernyakhivsk Culture. Particularly worth mentioning is the fact that some features of the north gracile type, for example, the combination of a high level of reduction of the low molar with the high frequency of a deflecting wrinkle, was detected in the series of sculps from the Gavrilivka cemetery, which is situated in the Lower Dnepr Side. I would like to point out, that these observations correspond quite well with the results of craniologic researches (Konduktorova 1972).

Anthropological literature of the last decades has discussed many times the question of the part taken by Slav tribes in establishing the Chernyakhivsk Culture. Nevertheless, the settling of this question is complicated by the scarcity of source material due to the cremation practice amongst the forbearers of the Zarybinets, Volhynia-Podolia and Early Slav Culture at the end of the first millennium B.C. and during the first millennium A.D. This means that the single source for this topic study is the comparative analysis of sculps from the Chernyakhivsk and Early Rus cemeteries from the Forest and Steppe Zones of the Ukraine. The chronological disrupter between them is not less than seven centuries.

As a result of the comparative analysis, a significant similarity of the dental features of the Chernyakhivsk and the Early Rus population of the Middle Dnepr was detected. It is an evidence of their genetic relationship. This means that the Slavs either assimilated part of the Chernyakhivites and obtained their features or belonged to a conglomerate of a tribes who were the creators of the Chernyakhivsk Culture. The last proposition is the more probable one, because it is typical of the Chernyakhivsk and Early Rus series, the historic heart of the Ukraine, the “Middle Europe dental type”, which was widely spread during the Middle Ages among modern Slav and Balts groups. The idea that it is the dental equivalent to the Slavs-Balts community that existed in the past has obtained a strong position in anthropological literature (Zubov 1987, Segeda 1987).

Certain joint features between the Chernyakhivsk and the Early Rus population can be found in areas along the left bank of the Middle Dnepr.

The evidence above proves that dental features may be an important source of ethnogenetic information. Of course, some of the conclusions and theories of this paper may be changed in the obtaining of new data. Nevertheless, the use of dental methodology in this area of study seems to be a justifiable one.
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