

An Anthropological Characterization of the Sarmatians in the Volga Area

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On the anthropological type of the Sarmatians, living in the not too distant past in the area of the Soviet Union, it was only from G. F. DEBETS' paper, published in 1936, that we had some information; the paper discussed two relatively small osteological series deriving from Saratov beyond the Volga and from the County of Astrahan. Prior to these, some Sarmatian crania originating from Western Kazakhstan and the Ural area were studied (M. N. KOMAROVA, 1927).

At the same time, G. F. DEBETS remarked that the problem of the ethnogenesis of the Sarmatians was not to be solved satisfactorily, since there were no available anthropological finds deriving from the transitional period between the Bronze Age and the Sarmatian cultures.

Excavations conducted in the fifties made it possible to study not only the Sarmatians of the Lower Volga area, but also the population of the earlier period, the Sauromatians.

The Sauromatian crania of the Lower Volga area were studied by N. M. GLASKOVA and V. P. TSHTETSOV (1960), as well as by B. V. FIRSTSTEIN (1961). This latter author, summarizing all Sauromatian materials, pointed out that they belonged to the Europoide great race and, furthermore, stood near the Bronze Age populations of the Lower Volga area and Kazakhstan, and the synchronous population of the Predgorny-Altay as well.

The basis of the type-composition of the Sauromatians had evidently been the characters of the Protoeuropoide features of the Bronze Age population of Western Kazakhstan and those of the Volga area (preponderantly Andronovo, Northern, and Mediterranean). It was merely on a single female cranium that clear indications of a Mongoloide influence have been established.

One may, however, note that the anthropological type of the Sauromatians differs from the Scythians of the Dnyeper area, which latter are characterized by a more elongately shaped head and a narrower face.

The large-scale excavations, exposing many hundreds of cemeteries in the fifties of our century, made it possible to study relatively great cranial series of Sarmatians originating from the Lower Volga area, Saratov, Volgograd, and Astrahan (V. V. GINSBURG, 1959; N. M. GLASKOVA and V. P. TSCHTETSOV, 1960; B. V. FIRSTSTEIN, 1961), as well as to analyse the Sarmatian finding of the Lower Dnyepir area in Ukraine (T. S. KONDUKTOROVA, 1956). The small cranial series of Sarmatians from the Don area was studied by L. G. VUITSH (1958).

During their entire course of history, embracing eight centuries, the Sarmatians belonged to the Europoide great race, with its diverse types and cranial index variations from dolichocrany to brachycrany. Still, the predominant cranial type is meso-brachycrany.

In general, the Sarmatians are characterized by mesocrany, a medium high brain case, moderately arching forehead and averagely developed glabella. The

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COMPARISON OF DIFFERENT

| | Ethnic groups | Sarmathians | Sarmathians | Usuns | Usuns | Usuns |
|-------|----------------------------|--------------------|--------------|----------------------|-----------------------------|---------------------|
| | Regions | Volga, Ural | Dnyeper | East Kazakh- stan | Area of the Seven Rivers | Tien-Shan |
| | Authors | Firshtein, Debets, | Konduktorova | Ginsburg | Ismagulov | Miklashevs- kaya |
| N | | 95-189 | 9-19 | 6-10 | 8-30 | 13-23 |
| 1. | Glabello-Occipital length | 182.2-185.0 | 183.8 | 176.0 | 181.9 | 178.9 |
| 8. | Maximum breadth of cranium | 145.9-147.5 | 146.3 | 147.1 | 144.6 | 146.6 |
| 17. | Basion-bregma height | 132.5-133.9 | 134.1 | 137.0 | 138.1 | 132.6 |
| 45. | Bizygomatic breadth | 137.2-138.7 | 137.0 | 136.9 | 139.7 | 137.1 |
| 48. | Upper facial height | 70.4-71.9 | 70.8 | 73.3 | 73.2 | 71.2 |
| 32. | Frontal angle (nasmet.) | 81.5-82.5 | 83.5 | 87.2 | 84.7 | 84.0 |
| 75/1. | Nasalspine angle | 30.5-31.1 | 30.9 | 25.8 | 29.6 | 28.5 |
| 77. | Nasomalar angle | 139.2-141.4 | 140.0 | 144.3 | 143.7 | 143.1 |
| - | Zygomaxillar angle | 130.0-131.9 | 130.5 | 130.2 | 130.7 | 131.5 |
| 8:1 | Cranial index | 79.2-80.2 | 79.7 | 83.6 | 79.9 | 81.8 |
| 48:45 | Upper facial index | 51.3-51.9 | 51.6 | 53.6 | 52.7 | 52.8 |
| 54:55 | Nasal index | 47.9-48.4 | 49.5 | 49.6 | 49.3 | 50.4 |
| DS:DC | Dacryal index | 59.9-65.8 | 60.0 | 61.7 | 57.1 | 57.4 |
| SS:SC | Stomotal index | 52.7-57.9 | 52.7 | 48.0 | 46.9 | 49.7 |
| 52:51 | Orbital index | 75.3-76.3 | 75.4 | 76.2 | 77.9 | 77.2 |
| | (Glabella 1-6) | 3.39-3.88 | 2.9 | 3.1 | 3.1 | 3.0 |
| | (Fossa canina (mm)) | 5.29-5.8 | 6.13 | 4.9 | 4.6/4.1 | 4.6 |

facial skeleton is medium high, relatively broad, orthognathous, of medium profile in the horizontal section, the fossa canina deeper than medium, the nose medium broad and significantly projecting, the orbita medium high.

In a comparison with the crania of the population of the Srubnaya culture of the Bronze Age in the Lower Volga area, the Sarmatians are characterized by the less elongated brain case, the smaller rate of facial and nasal profiles, and the slightly higher orbita; these features indicate that they tend to some extent toward the Mongoloide racial characters. The relatively higher vertical craniofacial index reveals the same tendency. This deviation appears already in the Sauromatians, to whom the Sarmatians are nearly allied with respect to their physical type.

The comparison of the cranial series of Sarmatians deriving from divers regions (Ural area, Saratov, Volgograd, Astrahan, and Dnyepyr area) shows extremely small variational amplitudes in the mean values (both as to absolute measurements and indices) of the respective characters. Every group of the Sarmatians represent, with reference to the mean values, an essentially uniform anthropological type, characterizable by the transitional position between the Andronovo and interfluvial types of Central Asia.

The study of the individual crania revealed a wide variability of their characteristics, resulting in well distinguishable craniological types within the group which, again, manifestly reflect the ethnogenesis of the various Sarmatian groups.

These types are occasionally well expressed, but more frequently appearing in less clear and more in mixed forms. The proportion of the given character is different in the various groups. Thus the basic type in the Volgograd group of the Sarmatians may be characterized by mesocrany, medium developed glabella, narrow and not high face, medium deep fossa canina, low orbita and significantly projecting nose. This type stands near to the one represented also by a part of the population along the Don, in the Kuban area, and in Northern Caucasus in the first century A.D.,

CRANIOLOGICAL SERIES (MALES)

| Srubnaya cult. | Andronovo cult. | Sauromathians | Scythians | Saks | Saks |
|-------------------|---------------------------|-------------------------------|-----------|-----------------|-------------|
| Volga | Central-, East Kazakhstan | | Dnyeper | East Kazakhstan | South Pamir |
| Firshtein | Ismagulov, Ginsburg | Firshtein, Debets Glaskova | Debets | Ginsburg | Ginsburg |
| 15-42 | 8-18 | 11-22 | 13-44 | 3-5 | 11-14 |
| 188.6 | 185.4 | 184.8 | 189.7 | 176.7 | 187.8 |
| 138.4 | 141.5 | 144.6 | 138.3 | 146.2 | 131.8 |
| 136.2 | 136.8 | 134.3 | 136.6 | 130.0 | 136.4 |
| 136.6 | 137.4 | 138.8 | 133.9 | 133.9 | 126.1 |
| 70.3 | 68.3 | 71.5 | 70.0 | 68.4 | 73.6 |
| 81.4 | 86.1 | 80.8 | 84.1 | 84.3 | 80.2 |
| 33.9 | 31.4 | 31.4 | 33.9 | 25.7 | 34.2 |
| 137.0 | 138.1 | 140.0 | 137.6 | 150.0 | 135.9 |
| 128.3 | 127.4 | 129.3 | 128.1 | 132.0 | 124.6 |
| 73.4 | 76.4 | 78.3 | 73.0 | 82.7 | 70.2 |
| 51.4 | 50.5 | 51.5 | 52.3 | 51.2 | 58.2 |
| 49.0 | 49.3 | 48.8 | 50.5 | 52.4 | 46.1 |
| 66.0 | 62.4 | 59.5 | 57.7 | 48.2 | 64.4 |
| 58.0 | 60.2 | 53.7 | 55.2 | 36.2 | 54.9 |
| 74.2 | 73.4 | 76.6 | 76.4 | 74.8 | 81.2 |
| 3.6 | 3.22 | 3.32 | 3.27 | 2.8 | 3.14 |
| 5.88 | 5.15 | 6.06 | 5.80 | 4.75 | 4.17 |

and which seems to be transitional from the types of the earlier Bronze Age cultures in the area between the Volga, the Don, and the Caucasus to more brachycranial and gracile types characterizing a significant portion of the population in the Northern Caucasus, the Volga, and the Don area, around the border of the first and second millennia A.D.

V. V. BUNAK described an analogous type of a more brachycranial variety from the Northern Caucasus, defining it as an Eurasian steppe-type (1953), to which we consider as nearly related the "steppe-type" demonstrated by us in the Sarmatians of Volgograd (1959) and in the slightly later population of the Don area.

As a second type, though represented by a considerably smaller amount, is the Andronovo one demonstrated among the Volgograd Sarmatians beyond the Volga. This Europeide type can also be characterized by mesocrany, a well developed glabella, wide and not high face, low orbita, and strongly projecting nose.

The Andronovo type was a characteristic feature of the Bronze Age population of Kazakhstan. In the Iron Age, the Andronovo type became more gracile in the Sauromatians and the Sarmatians in the western part of the area, and in the Saks and Usunys in the eastern confines of the region. In the Saratov and Ural groups of the Sarmatians, the amount of crania showing the Andronovo or some nearly related cranium is significantly greater than in the Volgograd or Astrahan groups.

In the Astrahan group, studied considerably less than the other ones, the interfluvial Central Asian type is well observable. This is a brachycranial, Europeide type, with a straight forehead and weakly developed glabella, medium face height and width, a medium rate of horizontal profile, medium deep fossa canina, medium high orbita, and moderately projecting nose. This type is well represented also in the Ural group, displaying to a certain rate the deviation of the characters toward the Mongoloide. The Mongoloide effect can, though rarely, be observed also in other groups of the Sarmatians in the Volga area, and mainly in the later period. As com-

pared to the Central Asian interfluvial type, the steppe-type of the Sarmatians exhibits a slightly more elongated skull, more strongly curving forehead, and more sharply delineated Europoide features.

The small collection of Sarmatians deriving from the Don area and studied by L. G. VUITSH may be characterized by the Central Asiatic interfluvial and steppe-type. Finally, the Sarmatians of the Dnyepyr area stand, as pointed out by T. S. KONDUKTOROVA, nearer to the ones of the Saratov group than to the others.

The above data confirm the archeological hypothesis on the dispersion and settling of the tribal groups of the Sarmatians (K. F. SMIRNOV, 1950), and the fact that they had been in contact primarily with the surrounding populations.

The Sarmatians of the Volga area indulged in cephalic deformation, applied by a bandage around the skull of the new-born infant. This came into usage here around the turn of our era (in the Middle Sarmatian period), and was extensively practiced during the time of the Late Sarmatian culture.

The custom of cephalic deformation was wide-spread in Central Asia (in the Hun — Usuny setting), in the Volga area and the Northern Caucasus (with the Sarmatians and Alans), and in the plains of the Central Danubian region (in the Sarmatians and Pre-Avar groups of Hungary), in the first Millennium A.D.

This custom was practiced considerably earlier in the Volga and the Kuban areas namely in the Bronze Age. However, it was not demonstrated in the Sauromatians. Hence we have better grounds now to assume that this usage arrived with the Huns (Heftalites, Hionites) from the east rather than to presume that it already existed in the Volga and Kuban areas in the Bronze Age, and that it came into vogue again after an interval of nearly a thousand years of disuse, and then spread towards the east. Even so, the problem of the origin and courses of spreading of cephalic deformation with respect to the Sarmatians is still unclarified.

Despite the considerable variability of the anthropological types studied in the Sarmatian groups, the mean values of the given characters, obtained from large series, are similar in all groups examined.

The data discussed above testify to the comprehensive genesis of the Sarmatians, Sauromatians, and the earlier Bronze Age populations of not only the Volga area, but also to those of the Don and Dnyepyr regions.

The available findings, displaying the symbiosis of various types during the entire existence of the Sarmatian culture, also reveal that, with respect to the Sarmatians, the arrival of the given ethnic groups and their intermixing with the aboriginal population was continuous and had not been delimited to some short period. In this latter case, the levelling up of the types would have come into existence, but this is not observable.

Concerning the Sarmatians of the Volga area, the intermingling increases with both the Transvolga and the Ukrainian populations, among others, with the Scythians in the Dnyepyr area. The diminishing cranial index of the Sarmatians in the later period amply testifies this.

The levelling up of the characters in all Sarmatian groups, — observable in the proximity of the mean values as well as in the close means calculated per the given age — correctly reflect the ethnic unity and the common course of development of all Sarmatians and not the partial period of the ethnogenesis of the several tribal groups, to be clarified by intraserial type-analyses.

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