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SCYTHIAN DESCENDANTS ON THE LOWER DNIEPER RIVER ACCORDING TO THE ANTHROPOLOGICAL MATERIAL FROM THE NIKOLAEVKA—KAZATSKOE CEMETERY

(Third final part)

The Ukraine of the 2nd- 5th centuries A.D. is characterized by the wide-spread Chernyakhov culture (some specialists put its latest finds to the 6th century and other as late as to the 7th century). The earliest dates of the Chernyakhov Culture thus coincide with the dating of the studied burial place. It is therefore very purposeful to use the Chernyakhov craniological series for compative analysis (Konduktorova, 1958, 1972). The Chernyakhov culture occupied a large area of western Ukraine, Moldavia northern Donets Valley and from Volhynia and Kursk to the northern coast of the Black Sea. The existing skeletal material comes mostly from the middle Dnieper. (Zhuravka, Chernyakhov, Maslovo, etc.), i.e. from areas situated more to the north than the studied burial place. From the lower Dnieper basin we know only the group from Gavrilovka ("The Dnieper Basin Sheep Farm") but it contains only a small number of skulls. We have some scarce material also from various individual finds of the northern Black Sea coast (see *tables 21—22* and *figs. 32—33*). Since the differences between the individual Chernyakhov groups are not great and some of the groups are not numerous it is better to use for analysis all these finds as a single group.

The comparison of the group from Nikolaevka-Kazatskoe with the groups of the Chernyakhov Culture reveals their morphological similarity. Some characters demonstrate only small differences — perhaps it would be better to speak of tendencies, not of differences. For example in the Chernyakhov series the muscular relief is less expressed while the front is better vaulted, which is quite in keeping with the chronological development. These groups are somewhat dolichocraneous. They have smaller dimensions. We can definitly say that the Chernyakhov people had high skulls. The differences in the value of facial height and cranial height index and in the cranial height and cranial breadth are therefore more significant. The first index is in the Chernyakhov groups smaller and the second is larger.

This means that the late Scythians could have participated in the formation of the Chernyakhov population as one of the components only. We cannot expect naturally the same degree of their participation in various Chernyakhov culture groups, since the Chernyakhov culture was geographically very wide-spread. The other component belonged obviously to some high-skulled dolichocraneous population with deep canine fossa, smaller facial dimensions and not too broad nose. It is difficult to find a concrete group with these characters among the hitherto discovered finds. High skull is not characteristic neither of the Germanic populations nor of Sarmatian groups. This compenent must be

probably looked after among the local Ukrainian stock, not among the immigrants, since relatively high skulls appeared here already in the Bronze Age (Konduktorova, 1973). In clear form appears such character as the combination of dolichocrany with relatively narrow noses, found in the people of the Komarov Culture, as we can judge from the fragmentary skeletal remains unearthed by E. F. Lagodovskaya in the village Kolosovka (Voytsekhovka). The material is now under study. Relatively high skull can be seen in some finds of the Scythian period from the middle Dnieper region (Konduktorova, 1972). Due to the absence of anthropological materials we cannot say anything about the Zarubinets populations, though some archaeologists attribute them a great role in the forming of the Chernyakhov Culture (Symonovich, 1970a). Perhaps the higher degree of dolichocrany in the finds from the villages Maslovo and Chernyakhov means a larger share of the second component than in the Zhuravka finds. In cranial height these groups have not shown any analogical trend (for archaeological data on the Zarubinyest Culture see Maximov, 1972).

We can conclude in our comparative analysis that similarly as the late Scythians also some further component participated in the formation of the Chernyakhov populations, similarly as the late Scythians. This component was more long- and high-headed than the late Scythians. Let us remark also that if we combine the brachycranial type with Sarmatians, we have even less reason to speak of Sarmatian contribution to the Chernyakhov population than in the case of the late Scythian population.

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To consider the late Scyths as part of the Chernyakhov population means to accept their participation in the origin of the Slavonic populations as the participation of the Chernyakhov groups in the composition of the Slavonic tribes was proved by the anthropological study (Konduktorova, 1972). We shall compare our group directly with the Slavs admitting that the degree of participation of the late Scythians in the various Slavonic and Chernyakhov groups diferred a great deal. The archaeological finds prove this idea (Sedov, 1974).

From the well-known Ukrainian finds that could be used for comparative analysis let us mention the Medieval groups of the Dnieper basin, especially the Poljans, whose finds have been unearthed in the region adjoining Nikolaevka-Kazatskoe. The Poljans are represented by the Chernigov and Kiev groups found both in barrows and cemeteries. They are represented also in the Pereyaslav barrow group and are dated into the 10th to 13th centuries. The barrow finds belonged to rural populations, while the cemeteries to towndwellers. Skulls of the Severjans are known from the Chernigov, Orlov and mainly from the Kursk regions, while the skulls of the Drevljans come mostly from the area around the Slutch and Pripyat rivers. Both belong to the 10th—13th centuries. It is obvious that the use of these groups for comparison with our group has only limited importance due to their territorial and chronological isolation. Such comparisons, however, must be done in order to obtain at least some general idea on the possibility of the participation of the Nikolaevka-Kazatskoe people or morphologically similar populations in the Slavonic ethnogenesis. The territorial distance of other Slavonic groups of East Europe is even greater and their use for our analysis would be even less purposeful. The earlier Slavonic finds did not contain any skeletal material, since they were cremating their dead. One of the recent studies T. I. Alexeyeva (1973) contain detailed information on the East-Slavonic populations. We shall use her data also in this study.

The Nikolaevka-Kazatskoe group shows greatest morphological similarity with the Poljans, namely with the group of rural population, especially with the Pereyaslav Poljans. This group is territorially the nearest one to our finds *(tables 23—24, figs. 34—37).*

The similarity of our group with the rural Pereyaslav Poljans is demonstrated mainly in principal cranial diameters, with the exception of the greatest breadth in the female group. The facial breadth has in Pereyaslav Poljans similar values as in Nikolaevka-Kazatskoe. Their faces are somewhat lower. The nasomalar and zygomaxillar angles are almost identical with our group. Somewhat weaker are the muscle reliefs in the Poljans — quite in keeping with the chronological developmental changes. The differences in other characters are only slight — but we shall stop here to show the components incorporated into the Poljan population.

The nose is less prominent in almost all the Poljan groups than in Nikolaevka-Kazatskoe. There are differences in the nasal angle and in the degree of the prominence of the nasal bones (simotical index). T. I. Alexeyeva (1973) mentions that the nasal angle and the values of the simotical index of the Eastern Slavs decrease towards east and north-east and she explains this decrease with contacts with Finno-Ugrian populations having relatively weak nasal angle and simotical index. There are some differences also in the value of the nasal index. The Poljans, similarly as the other East-Slavonic populations, have wider noses compared with other Slavs. Their noses are wider also in comparison with our studied group. T. I. Alexeyeva attributes this feature also to Finno-Ugrian influence. We shall mention here the slight differences in the nasal and facial height and in orbital dimensions between our group and the Poljans to underline the fact they show the same tendency as the differences with the Finno-Ugrian people of the East European plains. So that it can be also explained as the result of Finno-Ugrian influence. But when accepting this idea we must not forget that the above mentioned changes may have been caused, similarly as the more gracile muscular relief of the Poljans, by chronological developmental changes.

The decrease of facial dimensions occurs usualy to the partial detriment of the facial breadth, not of the facial height. But the difference here is demonstrated in facial height. It cannot be ruled out that the two processes are correlated.

It appears that the range of intergroup variability in a number of characters is higher in urban Poljan population (A l e x e y e v a, 1973). I.e. mainly in cranial index and facial breadth, values differentiating the East-Slavonic groups. These information have proved it, even if we can a priori suppose greater mobility in urban populations.

If the urban population shows more mobility, we can expect that the rural population will preserve its original features for a longer period. The more profound morphological similarity namely of the rural population of the Pereyaslav group with the finds from Nikolaevka-Kazatskoe, as well as with the Zolotaya Balka finds points towards the genetic roots of the Poljans. The similarity of our group with the Pereyaslav group can be accepted as a natural consequence of the fact that in the formation of the Poljans participated mainly people whose morphological features had been very close to those of the Nikolaevka-Kazatskoe population. We can find the morphological character of the population of Nikolaevka-Kazatskoe in the region of the middle Dnieper in the Zhuravka burial site belonging to the Chernyakhov Culture, chronologically very close to the Nikolaevka-Kazatskoe site. The Zhuravka site contained the most instructive skeletal materials among all the Chernyakhov localities. This also proves that the territory later inhabited by the Poljans was settled in the first-half of the first millenium A.D. by a people morphologically very close to the studied Nikolaevka-Kazatskoe population. Contacts with Finno-Ugrians weakened some of the Europoid character and increased the value of the nasal index.

The Severjans compared with the Nikolaevka-Kazatskoe finds have greater values of cranial length and lower cranial breadth, i.e. also lower cranial index. Smaller are also their facial dimensions. In a higher degree it holds also good for facial heigth, less for facial breadth, resulting in a lower upper facial index value. They have also smaller nasal heigth and somewhat greater nasal width. The relation of these two dimensions results in higher nasal index compared with the Nikolaevka-Kazatskoe finds, i.e. the Severjans had relatively broader noses. The differences in the nasal angle and in the simotic index are also well perceptible. They are stronger than the differences between the studied Nikolaevka-Kazatskoe material and the Poljan finds.

We have already mentioned that some of the characters of the Poljans, e.g. lower nasal angle and broader nose compared with other Slavonic groups can be explained by the influence of Finno-Ugrians. The same explanation can be applied also in the case of the Severjans (A l e x e y e v a, 1973).

In fact only the smaller nasal angle and the relatively broad nose distinguishes the Poljans from the Nikolaevka-Kazatskoe finds. As we have mentioned in the Severjans — compared with the Nikolaevka-Kazatskoe finds — we can see also differences in the facial dimensions and in the cranial breadth. The Poljans showed differences only in the facial dimensions. In other words there are several definite differences between the Severjans and the Nikolaevka-Kazatskoe finds. These differences, with the exception of the facial breadth, are unfortunately not in keeping with the chronological developmental changes. It holds especially for the value of the main cranial index. The studied period is more characterized with brachycephalization. It is hard to say whether the original morphological roots of the Severjans had been identical with those of the Poljans. Anyhow it is evident that if the formation of Severjans took place with the contribution of morphologically similar populations, their contribution had been much smaller than in the case of Poljans. It is also obvious that the contribution of the Finno-Ugrians was more extensive here than in the previous case. In connection with the dolichocrany of the Severjans and with their relatively high skulls we must mention the finds from the village Chernyakhov with low skull index, and as is typical of all Chernyakhov finds relatively high skulls *(tables 21—22)*. Since differences between the individual Chernyakhov groups have not been proved statistically, we cannot draw any conclusions from them as far as the origin of the Severjans is concerned. Furthermore we must not neglect the fact that no Chernyakhov culture localities have been found on the territory settled by Severjans.

The Drevljans and Volhynians living more close to the Drevljans differ from the Poljans groups through larger dimensions of both the braincase and facial part of the skull. They were relatively high-headed and broad-faced with prominent noses. These groups have higher heads and broader faces than the finds from Nikolaevka-Kazatskoe. We must stress in this connection that the Chernyakhov groups were more high-headed compared with our Nikolaevka-Kazatskoe finds and with the finds from Zolotaya Balka. The Drevljans are, as mentioned above, also highskulled but have broader faces that the Chernyakhov people. We must take into account also the fact that the Drevljans are a chronologically later group. The chronological development results here in lessening the facial breadth as a rule — it means that the differences between the Chernyakhov people and Drevljans are on the increase in this respective character. We can therefore hardly assume any direct genetic relationship between the Chernyakhov populations and the Drevljans. But the above character, of both groups, the relative high-headedness suggests that the same population, or several genetically closely related populations had contributed to the formation of both the Drevljans and of the Chernyakhov people. Prehistoric skeletal material from the territory settled by the Drevljans is almost completely missing. There exist various hypotheses as to the formation of the Drevljan group, but they have little to do with our basic task, with the ana-

lysis of the Nikolaevka-Kazatskoe burial site. T. I. Alexeyeva has made several important remarks in her study on the origin of the Drevljans (1973a). Here we shall limit ourselves to the presumed lack of direct genetic contacts between the Chernyakhov populations and Drevljans, as mentioned above. Similar connection is missing also between Drevljans and our Nikolaevka-Kazatskoe finds. For such a consideration are the Nikolaevka-Kazatskoe finds of fundamental importance. Let us try to imagine the morphological type of the late Scythian period from a territory quite distant from ours. There are very few finds from the middle Dnieper region of the Scythian period. We hope that we shall acquire soon new skeletal materials from this area and that these new finds will bring us new facts.

The skulls from the Nikolaevka-Kazatskoe burial place are characterized by slight dolichocrany, medium cranial breadth and height, above-the-average cranial length, not too high orbits and strongly protruding not very broad nose, medium developed relief and well expressed horizontal profile.

The finds from Nikolaevka-Kazatskoe show a high degree of morphological similarity with the Zolotaya Balka group. Some of the values are so close that they can often be considered as identical. From the Crimean finds we have studied a morphologically similar group from the Eastern Cemetery (Scythian Neaples). It is evident that the three burial places belonged to the same population connected in their origins with the Scyths. This assumption is fully supported by the archaeological facts.

The Ukrainian Sarmatians differ considerably from the people of Nikolaevka-Kazatskoe. Nevertheless we can speak of the penetration of Sarmatians to this people — according to certain correlation coefficients and character variability parameters. The complex of morphological characters found in underground female graves also indicate possible contacts with Sarmatians, while the morphological characters from the underground male graves show the traces of possible contacts with Greeks. It is very probable that people closely related with the population of the Nikolaevka-Kazatskoe burial site, inheriting certain morphological features of the Scythians, contributed to the formation of the population of the Chernyakhov Culture. It can be also assumed that besides them also a high-skulled population participated in the formation of the Chernyakhov people. It is hard to say concretely which of the currently known groups it was. This component, however, should not be looked for among the Sarmatian or Germanic populations, since they are not characterized by relatively high skull, not regarding the different complex of characters as a whole.

The comparative analysis of our finds with the Germanic groups has not convinced us about the presence of Gothic elements in the Nikolaevka-Kazatskoe population.

After studying Slavonic finds we have concluded that a people similar to the type of the Nikolaevka-Kazatskoe population participated also in the formation of the Poljans. This can be proved by the great morphological similarity between the Nikolaevka-Kazatskoe finds and the rural Pereyaslav Poljans. Such a participation may have occured in the Chernyakhov period.

TABLE XII. *Mean values of the cranial dimensions and indices of the groups of male skulls from Scythian and Sarmatian period from Ukrainean Black Sea steppes*

Characters	Nikolaevka-Kazatskoe	Zolotaya Balka (Konduktorova 1972)	Nikolaevka-Kazatskoe and Zolotaya Balka	Sarmatians (Konduktorova 1972)	Scythians		
					Black Sea Steppes	Middle Dnieper Region	Isolated group (Konduktorova 1972*)
1. Greatest length	185.7 (66)	184.8 (23)	185.5 (89)	184.2 (21)	186.9 (28)	191.6 (10)	188.1 (38)
8. Greatest breadth	139.8 (66)	139.2 (24)	139.6 (90)	146.5 (22)	140.5 (27)	135.5 (10)	139.1 (37)
17. Basion bregma height	133.9 (62)	134.6 (17)	134.0 (79)	133.8 (12)	134.1 (18)	137.6 (6)	135.2 (24)
5. Basicranial length	101.0 (59)	100.4 (17)	100.9 (76)	100.1 (12)	104.2 (18)	102.8 (6)	104.6 (24)
20. Auricular height	114.1 (66)	112.3 (24)	113.6 (90)	116.2 (21)	114.2 (21)	115.0 (9)	114.5 (30)
9. Minimal frontal diameter	96.6 (69)	95.0 (23)	96.2 (92)	96.6 (22)	97.7 (30)	97.3 (9)	97.4 (39)
AS. Length of the supraorbital arcs	68.3 (67)	68.9 (22)	68.4 (89)	66.5 (21)	70.3 (13)	67.3 (3)	69.7 (16)
Cranial volume (Lee-Pearson)	1440.2 (66)	1415.0 (23)	1433.7 (89)	1498.8 (20)	1443.2 (21)	144.6 (9)	1444,2 (30)
45. Facial breadth	133.1 (65)	132.9 (23)	133.0 (88)	136.8 (18)	135.5 (25)	133.2 (6)	135.0 (31)
40. Facial length	96.6 (58)	96.2 (14)	96.5 (72)	96.5 (12)	97.7 (30)	96.6 (5)	97.5 (20)
48. Upper facial height	71.6 (68)	69.7 (21)	71.1 (89)	71.3 (19)	72.1 (25)	71.3 (6)	71.8 (32)
47. Total facial height	117.0 (60)	114.4 (19)	116.4 (79)	117.7 (14)	117.0 (13)	120.0 (3)	117.6 (16)
55. Nasal height	51.53 (67)	49.95 (20)	51.17 (87)	51.86 (19)	51.84 (25)	51.17 (6)	51.71 (31)
54. Nasal breadth	24.76 (68)	24.90 (19)	24.79 (87)	25.35 (19)	25.20 (25)	25.29 (7)	25.22 (32)
51. Orbital breadth (from maxillofrontale)	41.25 (68)	41.27 (21)	41.25 (89)	42.07 (19)	42.52 (19)	40.17 (6)	41.95 (25)
51a. Orbital breadth from dacryon)	39.70 (49)	39.61 (11)	39.68 (60)	40.61 (16)	40.45 (23)	38.60 (5)	40.12 (28)
52. Orbital height	32.93 (68)	32.86 (21)	32.91 (89)	32.78 (20)	33.29 (28)	31.53 (6)	32.98 (34)
Fossa canina depth. (mm)	5.23 (66)	6.04 (17)	5.40 (83)	5.88 (19)	4.12 (19)	4.10 (5)	4.11 (24)
32. Frontal angle n—m to the horizontal line	83.6 (63)	81.7 (20)	81.2 (83)	83.7 (18)	81.7 (20)	82.3 (6)	81.8 (26)
72. Total facial angle	85.6 (61)	85.5 (18)	85.6 (79)	84.8 (18)	85.3 (21)	85.8 (6)	85.4 (27)
74. Alveolar angle	83.2 (55)	82.4 (14)	83.0 (69)	77.3 (15)	81.6 (15)	85.2 (5)	82.5 (20)
75. Nasal bones angle	32.4 (50)	32.8 (12)	32.5 (62)	30.1 (15)	32.7 (21)	33.2 (7)	32.4 (26)
77. Nasomalar angle	137.2 (64)	137.7 (20)	137.1 (84)	139.6 (19)	137.2 (20)	136.8 (11)	137.1 (28)
LZm. Zygomaxillar angle	125.5 (64)	124.0 (18)	125.2 (82)	129.9 (19)	128.1 (17)	123.9 (9)	127.5 (23)
glabella (1—6)	3.43 (69)	3.09 (23)	3.34 (92)	2.76 (21)	3.00 (31)	3.60 (10)	3.15 (41)
Supraorbital arcs size (1—6)	3.98 (68)	3.52 (23)	3.86 (91)	3.63 (19)	3.60 (15)	3.87 (8)	3.69 (23)
Fossa canina depth. (0—4)	2.67 (69)	2.55 (20)	2.64 (89)	2.73 (19)	2.26 (23)	3.00 (5)	2.39 (28)
Percentage of the anthropine forms of the nasal opening	92.7 (69)	85.0 (20)	91.0 (89)	94.8 (19)	72.0 (25)	71.4 (7)	71.9 (32)
Anterior nasal spine (1—5)	3.53 (58)	4.08 (13)	3.63 (71)	3.58 (17)	3.47 (19)	3.70 (3)	3.50 (22)
Protuberantia occipitalis ext. (0—5)	2.86 (67)	2.76 (21)	2.84 (88)	2.81 (22)	2.80 (20)	3.00 (10)	2.95 (30)
Processus styloides (1—3)	2.67 (69)	2.54 (24)	2.64 (93)	2.41 (22)	2.78 (22)	2.10 (10)	2.56 (32)
8:1. Cranial index	75.4 (66)	75.2 (23)	75.3 (89)	79.5 (21)	75.3 (27)	70.8 (10)	84.1 (37)
17:1. Height-length index	72.2 (61)	72.8 (17)	72.3 (79)	73.5 (12)	72.5 (17)	71.6 (7)	72.2 (23)
20:1. Auricular height-length index	61.6 (65)	60.8 (23)	61.4 (88)	63.0 (20)	62.5 (19)	52.9 (9)	61.4 (28)
17:8. Height-breadth index	95.6 (62)	97.4 (17)	95.9 (79)	90.2 (11)	95.9 (17)	101.1 (6)	97.2 (23)
20:8. Auricular height-breadth index	81.7 (66)	81.1 (23)	81.5 (89)	79.4 (21)	81.8 (19)	85.2 (10)	82.2 (28)
9:8. Transversal frontal index	69.3 (67)	68.0 (21)	69.0 (88)	66.0 (22)	69.9 (25)	71.7 (12)	70.2 (34)
AS:43. Supraorbital arcs length index	65.3 (67)	65.5 (21)	65.3 (88)	62.3 (20)	65.4 (13)	62.8 (9)	64.3 (19)
48:17. Facial height index	53.5 (61)	51.8 (15)	53.2 (76)	52.8 (12)	53.5 (16)	51.0 (6)	53.2 (21)
45:8. Facial breadth index	95.3 (65)	96.4 (22)	95.6 (87)	93.1 (18)	96.4 (21)	97.9 (9)	97.1 (27)
40:5. Facial length index	95.8 (56)	95.5 (14)	95.7 (70)	96.6 (11)	94.2 (14)	95.4 (6)	94.0 (20)
48:45. Upper facial index	53.7 (64)	52.1 (20)	53.3 (84)	51.9 (17)	54.0 (23)	52.8 (8)	53.9 (28)
47:45. Total facial index	87.6 (56)	85.4 (18)	87.1 (74)	86.7 (14)	86.4 (12)	81.5 (1)	86.0 (13)
54:55. Nasal index	48.9 (67)	49.8 (19)	49.1 (86)	49.0 (19)	48.6 (25)	52.3 (4)	48.7 (31)
52:51a. Orbital index	82.5 (49)	82.3 (11)	82.5 (60)	81.4 (15)	81.9 (22)	83.8 (5)	82.2 (27)
52:51. Orbital index	80.2 (68)	79.8 (21)	80.1 (89)	77.9 (19)	79.0 (19)	78.0 (4)	78.9 (25)
63:62. Upper platal index	88.4 (46)	87.9 (14)	88.3 (60)	86.5 (15)	88.3 (11)	85.8 (4)	86.6 (17)
AS:50. Maxillofrontal index	47.8 (61)	50.3 (17)	48.3 (78)	43.3 (16)	48.3 (14)	39.8 (3)	46.8 (17)
DS:DC. Transversal nasal root index	57.3 (38)	95.5 (7)	57.6 (45)	59.5 (12)	56.7 (11)	56.0 (5)	56.6 (16)
SS:SC. Transversal nasal bones index	56.1 (60)	52.3 (15)	55.3 (75)	52.5 (16)	56.9 (19)	50.9 (6)	55.4 (25)

*) *The "Scythian" group consits of the material studied by Konduktorova (1964) and also of the skulls studied by G. P. Zinevich (1967) and G. F. Debets.*

**) *In this and all following tables the longitudinal dimensions are in mm, angles in degrees and volume in cm³. The number of measurements is in brackets.*

TABLE XIII. *Mean dimensions of the female skulls of the groups of Scythian and Sarmation period comming from the North Black Sea Ukrainean Steppes*

Characters	Nikolaevka-Kazatskoe	Zolotaya Balka (Kondukto-rova 1972)	Nikolaevka-Kazatskoe and Zolotaya Balka	Sarmatians (Kondukto-rova 1972)	North Black Sea Steppes	Scythians	
						Middle Dnieper Region	Isolated Group (Kondukto-rova 1972*)
1. Greatest length	176.3 (57)	176.8 (37)	176.5 (94)	177.5 (11)	178.7 (20)	180.8 (8)	179.3 (38)
8. Greatest breadth	136.1 (57)	136.2 (38)	136.1 (95)	144.4 (11)	134.6 (20)	134.7 (8)	134.7 (28)
17. Basion bregma height	127.8 (56)	128.4 (34)	128.0 (90)	125.0 (5)	127.8 (11)	136.0 (2)	129.0 (13)
5. Facial length	94.6 (54)	95.9 (31)	95.1 (85)	96.1 (6)	99.1 (9)	03.3 (3)	98.2 (12)
20. Auricular height	109.3 (57)	109.9 (37)	109.5 (94)	110.4 (11)	108.9 (11)	113.3 (6)	110.5 (17)
9. Minimal frontal diameter	93.8 (60)	93.5 (37)	93.7 (97)	96.8 (13)	93.7 (22)	93.6 (7)	93.7 (29)
AS. Length of the supraorbital arcs	61.4 (57)	61.1 (35)	61.3 (92)	60.5 (11)	63.5 (8)	65.0 (4)	64.0 (12)
Cranial volume (Lee-Pearson)	1282.0 (55)	1291.9 (38)	1286.0 (93)	1343.1 (10)	1285.8 (11)	1331,6 (6)	1303.2 (17)
45. Facial breadth	124.8 (56)	124.3 (35)	124.6 (91)	129.6 (9)	124.4 (18)	126.0 (6)	124.7 (23)
40. Facial length	89.7 (47)	91.2 (25)	90.2 (72)	91.2 (5)	91.9 (8)	97.0 (2)	92.9 (10)
48. Upper facial height	67.7 (57)	66.4 (32)	67.2 (89)	67.5 (12)	66.7 (17)	64.8 (6)	66.3 (23)
47. Total facial height	110.5 (47)	109.7 (24)	110.2 (71)	108.1 (11)	108.8 (6)	101.5 (2)	107.7 (8)
55. Nasal height	48.88 (56)	48.49 (30)	48.74 (86)	49.31 (13)	49.86 (18)	47.60 (5)	49.35 (23)
54. Nasal breadth	24.15 (53)	24.81 (27)	24.04 (80)	23.55 (12)	24.18 (18)	22.96 (5)	23.91 (23)
51. Orbital breadth (from maxillofrontale)	40.10 (55)	39.97 (31)	40.05 (86)	40.41 (14)	40.20 (10)	39.88 (6)	40.08 (16)
51a. Orbital breadth (from dacryon)	38.66 (31)	38.38 (13)	38.58 (44)	38.91 (9)	38.20 (15)	38.50 (6)	38.28 (21)
52. Orbital height	32.92 (55)	32.83 (31)	32.89 (86)	32.88 (13)	33.12 (17)	33.83 (6)	33.31 (23)
Fossa canina depth (mm)	4.88 (54)	5.47 (28)	5.08 (82)	5.73 (11)	3.72 (8)	5.79 (7)	4.69 (15)
32. Frontal angle n—m to the horizontal line	85.4 (49)	85.2 (29)	85.3 (78)	84.2 (12)	83.1 (15)	85.0 (6)	83.6 (21)
72. Total facial angle	85.5 (46)	84.7 (25)	85.2 (71)	85.1 (11)	84.2 (15)	85.2 (6)	84.5 (21)
74. Alveolar angle	82.4 (42)	80.1 (17)	81.7 (59)	76.4 (11)	80.3 (7)	79.0 (6)	79.7 (13)
75I. Nasal bones angle	29.5 (32)	27.2 (19)	28.6 (51)	27.7 (10)	26.1 (13)	23.7 (3)	25.6 (16)
77. Nasomalar angle	138.0 (50)	137.4 (30)	137.8 (80)	137,8 (12)	136.1 (10)	138.3 (6)	136.9 (16)
LZm. Zygomaxillar angle	126.8 (48)	124.6 (21)	126.1 (69)	131.6 (10)	126.4 (9)	124.5 (6)	125.6 (15)
glabella (1—6)	1.83 (60)	1.95 (37)	1.88 (97)	1.82 (13)	2.00 (20)	2.43 (7)	2.11 (27)
Supraorbital arcs size (1—6)	2.05 (60)	2.00 (36)	2.03 (96)	2.08 (13)	2.50 (8)	3.00 (4)	2.67 (12)
Fossa canina depth (0—4)	2.57 (56)	2.65 (31)	2.60 (87)	2.50 (12)	2.12 (16)	3.00 (5)	2.30 (21)
Percentage of the anthropine forms of the nasal opening	100.1 (51)	96.6 (29)	98.8 (80)	100.0 (13)	95.2 (21)	71.4 (7)	89.4 (28)
Anterior nasal spine (1—5)	3.05 (41)	2.86 (14)	3.00 (55)	3.70 (10)	3.06 (17)	2.50 (4)	2.95 (21)
Protuberantia occipitalis ext. (0—5)	1.61 (60)	1.32 (37)	1.50 (97)	1.25 (12)	2.22 (9)	2.00 (7)	2.12 (16)
Processus styloides (1—3)	1.56 (61)	1.58 (38)	1.57 (97)	1.49 (12)	1.54 (13)	2.00 (7)	1.70 (20)
8:1. Cranial index	77.2 (57)	77.0 (39)	77.1 (96)	81.4 (11)	74.8 (20)	74.7 (8)	75.3 (28)
17:1. Height-length index	72.6 (54)	72.8 (32)	72.7 (86)	71.3 (5)	71.6 (11)	74.2 (2)	72.0 (13)
20:1. Auricular height-length index	62.2 (55)	62.1 (37)	62.2 (92)	61.8 (10)	60.9 (10)	63.6 (5)	61.6 (15)
17:8. Height-breadth index	93.9 (54)	95.3 (32)	94.4 (86)	87.6 (5)	95.4 (11)	102,0 (2)	96.4 (13)
20:8. Auricular height- breadth index	80.5 (55)	81.0 (37)	80.7 (92)	76.9 (10)	80.3 (10)	83.5 (6)	81.5 (16)
9:8. Transversal frontal index	69.0 (57)	68.8 (37)	68.9 (94)	66.8 (10)	69.4 (20)	69.5 (7)	69.5 (27)
AS:43. Supraorbital arcs—length index	60.7 (54)	60.9 (35)	60.8 (89)	58.4 (11)	61.6 (8)	64.4 (4)	62.5 (12)
48:17. Facial height index	50.0 (53)	51.6 (28)	50.6 (81)	54.6 (5)	54.0 (8)	53.6 (1)	5.93 (9)
45:8. Facial breadth index	91.7 (52)	91.4 (35)	91.6 (87)	91.2 (9)	92.6 (14)	93.4 (4)	92.7 (18)
40:5. Facial length index	95.2 (47)	95.0 (25)	95.1 (72)	95.3 (5)	96.7 (8)	94.2 (2)	96.2 (10)
48:45. Upper facial index	54.3 (54)	54.7 (32)	54.5 (86)	52.5 (9)	53.6 (16)	51.7 (6)	53.1 (22)
47:45. Total facial index	88.2 (46)	88.5 (24)	88.3 (70)	84.2 (9)	86.7 (6)	79.5 (1)	85.6 (7)
54:55. Nasal index	49.5 (53)	49.3 (27)	49.4 (80)	48.2 (12)	48.6 (18)	48.4 (5)	48.5 (23)
52:51a. Orbital index	85.0 (31)	85.9 (31)	85.3 (44)	84.6 (9)	86.4 (15)	87.9 (6)	68.8 (21)
52:51. Orbital index	82.0 (55)	81.9 (31)	82.0 (86)	81.2 (13)	81.7 (10)	84.9 (6)	82.8 (16)
63:62. Upper palatal index	87.9 (28)	83.8 (12)	86.7 (40)	87.2 (6)	86.2 (2)	80.6 (3)	82.8 (5)
AS:50. Maxillofrontal index	45.7 (45)	44.1 (26)	45.1 (71)	38.3 (10)	43.8 (8)	40.3 (4)	42.6 (12)
DS:DC. Transversal nasal root index	55.4 (28)	56.5 (9)	55.7 (37)	50.0 (7)	52.3 (7)	54.3 (5)	53.1 (12)
SS:SC. Transversal nasal bones index	48.6 (47)	44.4 (25)	47.1 (72)	53.2 (11)	44.0 (9)	44.4 (5)	44.1 (14)

*) *The "Scythian" group consist of the material studied by the author, and of the materials published by G. P. Zinevich (1967) and G. F. Debec (Konduktorova 1964).*

TABLE XIV. *Mean dimensions of the male skulls from the Crimean Sarmatian period and of the Taurid group*

Characters	Nikolaevka-Kazatskoe	Scythian Neaple			Zavetnoe (Zinevitch 1971)	Crimean Taurids (Zinevitch 1973 according to Debec, Zbirov, Sokolova)
		Stone graves and mausoleum (Konduktorova 1972)	Eastern cemetery	Isolated group		
1. Greatest length	185.7 (66)	181.7 (9)	186.1 (51)	185.4 (65)	185.5 (23)	182.3 (10)
8. Greatest breadth	139.8 (66)	139.2 (8)	139.6 (49)	139.5 (62)	140.2 (24)	144.3 (10)
17. Basion bregma height	133.9 (62)	129.0 (2)	136.1 (36)	135.7 (41)	132.0 (13)	128.3 (3)
5. Basicranial length	101.0 (59)	99.5 (2)	102.6 (29)	102.2 (35)	101.4 (13)	102.0 (3)
20. Auricular height	114.1 (66)	114.0 (5)	115.2 (51)	115.1 (61)	118.8 (17)	112.8 (6)
9. Minimal frontal diameter	96.6 (69)	93.5 (6)	96.7 (50)	96.2 (60)	98.8 (23)	97.0 (7)
AS. Length of the supraorbital arcs	68.3 (67)	63.6 (6)	68.6 (48)	67.9 (58)	—	—
Cranial volume (Lee-Pearson)	1440.2 (66)	1428.5 (5)	1453.6 (49)	1450.8 (59)	1487.1*)	—
45. Facial breadth	133.1 (65)	130.3 (3)	133.5 (43)	133.1 (50)	133.7 (13)	135.5 (4)
40. Facial length	96.6 (58)	100.0 (2)	96.7 (17)	97.2 (23)	99.5 (10)	98.3 (3)
48. Upper facial height	71.6 (68)	69.3 (6)	71.5 (42)	71.3 (53)	72.4 (19)	59.8 (5)
47. Total facial height	117.0 (60)	115.7 (3)	117.9 (29)	117.5 (32)	—	—
55. Nasal height	51.53 (67)	49.66 (6)	50.83 (40)	50.68 (51)	51.8 (18)	51.2 (5)
54. Nasal breadth	24.76 (68)	24.42 (6)	24.78 (41)	24.75 (52)	25.4 (17)	23.8 (5)
51. Orbital breadth (from maxillofrontale)	41.25 (68)	40.60 (5)	40.77 (44)	40.69 (54)	42.5 (17)	43.0 (5)
51a. Orbital breadth (from dacryon)	39.70 (49)	39.00 (6)	38.32 (7)	38.82 (18)	39.6 (16)	40.0 (4)
52. Orbital height	32.93 (68)	32.41 (6)	33.07 (46)	32.91 (57)	33.3 (18)	33.4 (5)
Fossa canina depth. (mm)	5.23 (66)	3.40 (5)	4.89 (28)	4.66 (38)	4.73 (18)	4.75 (4)
32. Frontal angle n—m to the horizontal line	83.6 (63)	82.3 (3)	83.7 (34)	83.8 (42)	82.3 (11)	81.2 (5)
72. Total facial angle	85.6 (61)	83.0 (0)	84.7 (26)	84.6 (34)	84.4 (12)	85.8 (5)
74. Alveolar angle	83.2 (55)	82.5 (2)	81.8 (24)	82.1 (30)	76.0 (4)	—
75I. Nasal bones angle	32.4 (50)	29.3 (5)	30.0 (19)	29.8 (27)	32.6 (9)	32.0 (4)
77. Nasomalar angle	137.2 (64)	139.5 (6)	137.2 (41)	137.6 (51)	139.5 (13)	132.4 (3)
LZm. Zygomaxillar angle	125.5 (64)	124.0 (5)	124.8 (25)	125.6 (33)	127.5 (13)	125.6 (3)
glabella (1—6)	3.43 (69)	2.90 (10)	2.85 (53)	2.86 (67)	4.12 (25)	—
Supraorbital arcs size (1—6)	3.98 (68)	3.40 (10)	3.22 (55)	3.22 (69)	—	—
Fossa canina depth. (0—4)	2.67 (69)	2.16 (6)	2.67 (37)	2.56 (48)	—	—
Percentage of the anthropine forms of the nasal opening	92.7 (69)	100.: (2)	95.2 (42)	92.6 (54)	85.0 (20)	—
Anterior nasal spine (1—5)	3.53 (58)	3.66 (6)	3.50 (22)	3.51 (31)	3.55 (18)	—
Protuberantia occipitalis ext. (0—5)	2.86 (67)	2.66 (3)	2.69 (49)	2.68 (57)	—	—
Processus styloides (1—3)	2.67 (69)	2.71 (7)	2.60 (55)	2.59 (67)	2.82 (23)	—
8:1. Cranial index	75.4 (66)	76.0 (4)	75,4 (49)	75.4 (62)	75.5 (23)	79.3 (10)
17:1. Height-length index	72.2 (61)	70.7 (2)	73.5 (35)	73.4 (41)	73.6 (13)	72.7 (3)
20:1. Auricular height-length index	61.6 (65)	61.9 (5)	62.1 (50)	62.1 (60)	63.4 (17)	—
17:8. Height-breadth index	95.6 (62)	89.0 (2)	97.7 (34)	97.2 (40)	98.4 (13)	89.6*)
20:8. Auricular height-breadth index	81.7 (66)	81.9 (5)	82.6 (48)	82.5 (58)	84.5 (18)	—
9:8. Transversal frontal index	69.3 (67)	69.5 (4)	69.4 (47)	69.4 (55)	71.5 (21)	67.2*)
AS:43. Supraorbital arcs length index	65.3 (67)	60.9 (5)	65.3 (44)	64.8 (53)	—	—
48:17. Facial height index	53.5 (61)	58.2 (2)	52.9 (28)	53.3 (34)	54.9*)	54.4*)
45:8. Facial breadth index	95.3 (65)	90.1 (3)	95.4 (40)	95.2 (47)	95.2*)	93.9*)
40:5. Facial length index	95.8 (56)	100.5 (2)	94.8 (17)	95.7 (13)	97.1 (11)	96.1 (3)
48:45. Upper facial index	53.7 (64)	55.3 (3)	53.4 (37)	53.6 (44)	53.1 (11)	51.4 (4)
47:45. Total facial index	87. (56)	90.0 (2)	87.4 (26)	87.4 (28)	—	—
54:55. Nasal index	48.9 (67)	49.3 (6)	48.7 (39)	48.9 (50)	48.7 (56)	47.6 (4)
52:51a. Orbital index	82.5 (49)	83.1 (6)	81.6 (7)	82.1 (18)	84.8 (17)	—
52:51. Orbital index	80.2 (68)	80.9 (5)	81.1 (43)	81.0 (53)	78.9 (17)	81.4 (4)
63:62. Upper palatal index	88.4 (46)	66.4 (2)	87.1 (13)	87.0 (18)	86.4 (10)	—
AS:50. Maxillofrontal index	47.8 (61)	38.7 (5)	46.5 (25)	44.9 (34)	—	—
DS:DC. Transversal nasal root index	57.3 (38)	52.9 (3)	59.4 (5)	56.2 (12)	57.3 (13)	56.0 (3)
SS:SC. Transversal nasal bones index	56.1 (60)	49.0 (5)	49.0 (35)	49.0 (40)	48.0 (14)	50.1 (3)

*) *Calculated from the mean values.*

TABLE XV. *Mean dimensions of the female skulls of the Crimean Sarmatian period groups*

Characters	Nikolaevka-Kazatskoe	Scythian Neaples			Zavetnoe (Zinevich 1971)
		stone graves and mausoleum (Konduktorova 1964)	eastern cemetery (Konduktorova 1964)	isolated group (Konduktorova 1964)	
1. Greatest length	176.3 (57)	172.2 (4)	179.2 (16)	177.4 (24)	179.4 (22)
8. Greatest breadth	136.1 (57)	135.2 (4)	135.4 (16)	135.2 (24)	135.2 (23)
17. Basion-bregma height	127.8 (56)	127.5 (4)	132.1 (15)	130.9 (22)	135.2 (15)
5. Basicranial length	94.6 (54)	93.5 (4)	96.0 (12)	95.5 (19)	98.8 (13)
20. Auricular height	109.3 (57)	112.0 (3)	114.3 (16)	113.1 (23)	116.5 (19)
9. Minimal frontal diameter	93.8 (60)	93.2 (5)	96.2 (16)	94.5 (25)	94.3 (23)
AS. Length of the supraorbital arcs	61.4 (57)	60.8 (5)	62.2 (15)	62.0 (23)	—
Cranial volume (Lee-Pearson)	1282.0 (55)	1280.0 (3)	1336.5 (16)	1315.7 (23)	1356.8*)
45. Facial breadth	124.8 (56)	124.7 (3)	126.5 (16)	125.7 (23)	125.0 (18)
40. Facial length	89.7 (47)	90.0 (3)	90.7 (10)	90.5 (16)	93.8 (12)
48. Upper facial height	67.7 (57)	68.3 (4)	67.1 (14)	67.1 (22)	68.7 (19)
47. Total facial height	110.5 (47)	—	109.0 (9)	109.0 (9)	—
55. Nasal height	48.86 (56)	48.50 (4)	49.11 (14)	48.61 (22)	48.5 (19)
54. Nasal breadth	24.14 (53)	23.25 (4)	23.47 (14)	23.64 (22)	24.3 (19)
51. Orbital breadth (from maxillofrontale)	40.10 (55)	40.25 (4)	39.50 (13)	39.76 (21)	40.3 (19)
51a. Orbital breadth (from dacryon)	3 8.66 (31)	38.75 (4)	37.00 (2)	38.20 (10)	37.5 (19)
52. Orbital height	32.92 (55)	32,62 (4)	33.06 (13)	32.65 (21)	32.3 (20)
Fossa canina depth. (mm)	4.88 (54)	6.00 (4)	5.11 (9)	5.28 (17)	4.40 (18)
32. Frontal angle n—m to the horizontal line	85.4 (49)	88.0 (3)	87.3 (9)	87.4 (16)	84.0 (12)
72. Total facial angle	85.5 (46)	88.5 (2)	86.0 (10)	85.6 (17)	84.2 (14)
74. Alveolar angle	82.4 (42)	86.0 (3)	79.1 (7)	81.3 (14)	73.1 (7)
751. Nasal bones angle	29.5 (32)	26.7 (3)	27.4 (8)	25.8 (14)	28.9 (9)
77. Nasomalar angle	138.0 (50)	142.0 (4)	137.9 (13)	138.9 (21)	139.8 (15)
LZm. Zygomaxillar angle	126.8 (48)	123.0 (3)	124.4 (11)	125.3 (18)	129.1 (16)
glabella (1—6)	1.83 (60)	2.00 (5)	2.05 (16)	2.03 (25)	2.00 (28)
Supraorbital arcs size (1—6)	2.05 (60)	2.20 (4)	2.19 (16)	2.20 (16)	—
Fossa canina depth (0—4)	2.57 (56)	2.75 (4)	2.92 (13)	2.90 (21)	—
Percentage of the anthropine forms of the nasal opening	100.0 (51)	100.0 (4)	100.0 (15)	100.0 (23)	95.7 (19)
Anterior nasal spine (1—5)	3.05 (41)	2.66 (3)	3.57 (7)	3.23 (13)	3.10 (16)
Protuberantia occipitalis ext. (0—5)	1.61 (60)	1.75 (4)	1.94 (16)	1.79 (24)	—
Processus styloides (1—3)	1.56 (61)	1.50 (4)	1.37 (16)	1.45 (24)	1.93 (22)
8:1. Cranial index	77.2 (57)	78.7 (4)	75.6 (16)	76.3 (24)	75.1 (22)
17:1. Height-length index	72.6 (54)	74.0 (4)	74.0 (15)	74.0 (22)	77.1 (13)
20:1. Auricular height-length index	62.2 (55)	65.9 (3)	63.8 (16)	63.9 (23)	65.3 (19)
17:8. Height-breatdh index	93.9 (54)	94.6 (4)	97.6 (15)	97.0 (22)	99.7 (14)
20:8. Auricular height-breadth index	80.5 (55)	81.4 (3)	84.5 (16)	83.6 (23)	86.3 (20)
9:8. Transversal frontal index	69.0 (57)	69.3 (4)	70.4 (16)	70.0 (24)	69.0 (18)
AS:43. Supraorbital arcs length index	60.7 (54)	60.9 (5)	61.0 (15)	61.3 (23)	—
48:17. Facial height index	53.0 (53)	55.2 (3)	50.6 (13)	51.6 (19)	50.8*)
45:8. Facial breadth index	91.7 (52)	90.6 (3)	93.4 (16)	92.8 (23)	92.4*)
40:5. Facial length index	95.2 (47)	97.1 (3)	94.7 (10)	95.0 (16)	94.5 (12)
48:45. Upper facial index	54.3 (54)	56.1 (3)	53.6 (14)	53.9 (21)	53.9 (15)
47:45. Total facial index	88.2 (46)	—	86.1 (9)	86.1 (9)	—
54:55. Nasal index	49.5 (53)	47.9 (4)	47.8 (14)	48.8 (22)	50.3 (19)
52:51a. Orbital index	85.0 (31)	84.1 (4)	92.0 (2)	84.8 (10)	87.8 (19)
52:51. Orbital index	82.0 (55)	81.0 (4)	83.0 (13)	82.2 (21)	81.0 (17)
63:62. Upper palatal index	87.9 (28)	82.0 (2)	87.1 (4)	86.4 (10)	87.4 (11)
AS:50. Maxillofrontal index	45.7 (45)	43.4 (4)	44.6 (8)	45.5 (16)	—
DS:DC. Transversal nasal root index	55.4 (28)	55.5 (3)	52.7 (1)	51.8 (6)	50.9 (17)
SS:SC. Transversal nasal bones index	48.6 (47)	40.0 (4)	46.3 (11)	43.6 (19)	41.8 (17)

*) *Calculated from the mean values.*

TABLE XVI. *Mean dimensions of the male skulls of some Greek groups from the Nikolaevka-Kazatskoe Cemetery*

Characters	Nikolaevka-Kazatskoe	Greece		
		650—150 B.C.	150 B.C.—450 A.D. (Angel 1944)	450 A.D.—1300 A.D.
1. Greatest length	185.7 (66)	186.6 (57)	183.0 (21)	180.8 (26)
8. Greatest breadth	139.8 (66)	140.7 (56)	142.0 (21)	137.9 (27)
17. Basion-bregma height	133.9 (62)	133.0 (49)	132.2 (19)	134.2 (19)
5. Basicranial length	101.0 (59)	101.1 (44)	101.5 (16)	100.2 (20)
9. Minimal frontal Diameter	96.6 (69)	96.6 (51)	97.3 (19)	96.1 (24)
45. Facial breadth	133.1 (65)	131.5 (29)	133.8 (18)	132.1 (18)
40. Facial length	96.6 (58)	96.2 (33)	96.5 (16)	95.4 (18)
48. Upper facial height	71.6 (68)	68.6 (36)	69.4 (17)	68.6 (18)
47. Total facial height	117.0 (60)	116.0 (19)	109.5 (8)	114.3 (12)
55. Nasal height	51.5 (67)	50.8 (37)	51.9 (17)	50.3 (19)
54. Nasal breadth	24.8 (68)	24.8 (35)	25.1 (17)	24.7 (20)
51a. Orbital breadth from dacryon	39.7 (49)	39.7 (35)	39.7 (16)	39.7 (18)
52. Orbital height	32.93 (68)	32.96 (37)	32.4 (17)	33.1 (17)
72. Total facial angle	85.6 (61)	85.9 (29)	88.5 (15)	86.9 (17)
74. Alveolar angle	83.2 (55)	69.5 (29)	73.4 (15)	71.2 (17)
75_1. Nasal bones angle	32.4 (50)	30.3*)	34.6*)	28.8*)
8:1. Cranial index	75.4 (66)	75.5 (56)	77.6 (21)	76.6 (25)
17:1. Height-length index	72.2 (61)	71.5 (49)	72.0 (19)	74.9 (19)
17:8. Height-breadth index	95.6 (62)	94.6 (49)	93.6 (19)	96.3 (19)
9:8. Transversal frontal index	69.3 (67)	68.6 (50)	68.7 (19)	69.5 (23)
48:17. Facial height index	53.3 (61)	51.6**)	52.5**)	51.3**)
45:8. Facial breadth index	95.3 (65)	92.4 (29)	94.7 (18)	94.0 (15)
40:5. Facial length index	95.8 (56)	95.1**)	95.1**)	95.2**)
48:45. Upper facial index	53.7 (64)	52.6 (27)	51.7 (17)	52.9 (14)
47:45. Total facial index	87.6 (56)	88.7 (17)	82.8 (8)	86.7 (10)
54:55. Nasal index	48.9 (67)	49.0 (35)	48.6 (17)	48.9 (18)
52:51a. Orbital index	82.5 (49)	83.1 (36)	81.6 (16)	83.5 (17)

*) *Calculated from the mean values (as the difference between the 72 and 75 dimensions).*
**) *Calculated from the mean values.*

TABLE XVII. *Mean dimensions of the male skulls from the Nikolaevka-Kazatskoe and of some Crimean groups*

Characters	Nikolaevka-Kazatskoe	II—IVth cc. A.D. Chernorechensk Inkerman (Sokolova 1969)	Early Middle Ages V—VII th cc. A.D. Chufut-Kale (Sokolova 1958b)
1. Greatest length	185.7 (66)	187.0 (13)	185.3 (12)
8. Greatest breadth	139.8 (66)	146.6 (13)	141.1 (11)
17. Basion bregma height	133.9 (62)	138.3 (7)	136.5 (8)
5. Basicranial length	101.0 (59)	103.7 (7)	101.1 (7)
9. Minimal frontal diameter	96.6 (69)	97.4 (9)	98.9 (10)
45. Facial breadth	133.1 (65)	135.8 (6)	135.0 (4)
40. Facial length	96.6 (58)	130.9 (7)	97.0 (5)
48. Upper facial height	71.6 (68)	72.1 (11)	69.2 (6)
32. Frontal angle n-m to the horizontal line	83.6 (63)	84.5 (5)	82.5 (4)
72. Total facial angle	85.6 (61)	84.8 (6)	84.4 (5)
75_1. Nasal bones angle	32.4 (50)	28.0 (7)	30.0 (5)
LZm. Zygomaxillar angle	125.5 (64)	126.0 (7)	125.3 (3)
glabella (1—6)	3.43 (69)	3.5 (3)	3.8 (11)
Fossa canina depth (mm)	2.67 (69)	2.6 (9)	2.0 (5)
Percentage of the anthropine forms of the nasal opening	92.7 (69)	50.0 (5)	100.0 (5)
Anterior nasal spine (1—5)	3.53 (58)	3.8 (9)	4.0 (2)
8:1. Cranial index	75.4 (66)	78.6 (13)	76.0 (10)
17:1. Height-length index	72.2 (61)	74.3 (7)	73.6 (7)
17:8. Height-breadth index	95.6 (62)	93.5 (7)	95.8 (7)
9:8. Transversal frontal index	69.3 (67)	65.8 (9)	70.4 (9)
40:5. Facial length index	95.8 (56)	97.4 (8)	96.5 (6)
48:45. Upper facial index	35.7 (64)	53.1 (6)	52.3 (3)
54:55. Nasal index	48.9 (67)	48.9 (11)	48.9 (5)
52:51a. Orbital index	82.5 (49)	83.4 (9)	82.6 (6)

TABLE XVIII. *Mean dimensions of the female skulls from Nikolayevka-Kazatskoe and of some Crimean groups*

Characters	Nikolaevka-Kazatskoe	II.—IV th cc. A.D. Chernorechensk Inkerman (Sokolova 1963)	Early Middle Ages V-VIIth cc. A.D. Chufut-Kale (Sokolova 1958b)
1. Greatest length	176.3 (57)	175.6 (7)	175.3 (7)
8. Greatest breadth	136.1 (57)	140.4 (7)	138.6 (7)
17. Basion-bregma height	127.8 (56)	126.7 (3)	133.0 (1)
5. Basicranial length	94.6 (54)	93.3 (3)	—
9. Minimal frontal diameter	93.8 (60)	94.8 (6)	94.7 (7)
45. Facial breadth	124.8 (56)	122.0 (3)	129.0 (1)
40. Facial length	89.7 (47)	88.3 (3)	—
48. Upper facial height	67.7 (57)	69.0 (5)	65.7 (3)
32. Frontal angle n—m to the horizontal line	85.4 (49)	84.3 (4)	84.0 (1)
72. Total facial angle	85.5 (46)	84.2 (4)	87.0 (1)
75_1. Nasal bones angle	29.5 (32)	29.5 (4)	31.0 (1)
LZm. Zygomaxillar angle	126.8 (48)	122.7 (3)	128.0 (2)
glabella (1—6)	1.83 (60)	1.7 (6)	2.0 (7)
Fossa canina depth (0—4)	2.57 (56)	1.6 (5)	1.6 (5)
Percentage of the anthropine forms of the nasal opening	100.0 (51)	100.0 (5)	100.0 (5)
Anterior nasal spine (1—5)	3.05 (41)	3.5 (4)	2.8 (4)
8:1. Cranial index	77.2 (57)	80.4 (7)	79.1 (7)
17:1. Height-length index	72.6 (54)	73.1 (3)	73.9 (1)
17:8. Height-breadth index	93.9 (54)	89.9 (3)	95.9 (1)
9:8. Transversal frontal index	69.0 (57)	67.4 (6)	68.4 (7)
40:5. Facial length index	95.2 (47)	94.9 (3)	—
48:45. Upper facial index	54.3 (54)	53.8 (3)	53.6 (1)
54:55. Nasal index	49.5 (53)	47.0 (5)	51.4 (4)
52:51a. Orbital index	85.0 (31)	87.4 (5)	85.8 (5)

Early Middle Ages		VIII-Xth cc. A.D. Koktebel-Sudak (Sokolova 1958b)	Late Middle Ages end of the Ist—begining of the IInd mil A.D.			
IV—VIIth cc. A.D. Sakharnaya golovka (Sokolova 1963)	VI—VIIthe cc. A.D. Bashantovka (farm Pitheki) (Sokolova 1958b)		**Eski-Kermen (Debec 1948)**	Mangup-Kale (Debec 1948)	Khersones (Debec 1948)	Alushta (Sokolova 1958a)
183.5 (25)	183.8 (6)	185.0 (23)	**175.0 (144)**	178.7 (27)	180.1 (99)	176.9 (33)
141.2 (25)	142.8 (6)	139.5 (23)	**147.8 (138)**	147.7 (27)	145.2 (94)	151.7 (33)
133.9 (18)	138.7 (4)	138.9 (9)	**132.6 (119)**	134.1 (26)	134.1 (26)	135.9 (34)
100.6 (17)	98.5 (5)	99.8 (9)	**99.3 (118)**	100.5 (25)	101.1 (84)	100.7 (22)
97.9 (23)	95.1 (6)	95.8 (20)	**97.0 (133)**	99.2 (26)	98.7 (104)	100.8 (30)
133.2 (15)	136.3 (4)	131.8 (11)	**138.6 (98)**	132.3 (19)	136.0 (68)	137.1 (17)
95.7 (13)	94.5 (5)	93.6 (8)	**95.2 (85)**	95.0 (22)	96.2 (65)	95.1 (16)
68.8 (15)	70.3 (5)	69.5 (11)	**69.3 (100)**	72.2 (23)	71.2 (91)	70.8 (20)
82.8 (16)	84.3 (3)	87.5 (8)	**83.9 (90)**	81.8 (24)	82.1 (69)	78.8 (13)
85.4 (15)	83.8 (5)	87.2 (8)	**86.4 (81)**	87.6 (22)	85.2 (70)	84.5 (13)
32.1 (14)	25.7 (3)	27.8 (8)	**33.1 (140)**	32.6 (18)	32.8 (59)	31.4 (13)
129.2 (12)	130.0 (3)	133.5 (10)	**128.4 (68)**	130.8 (17)	128.6 (79)	127.7 (15)
3.6 (25)	4.2 (4)	3.5 (21)	**3.23 (149)**	3.11 (27)	3.16 (111)	3.9 (28)
2.33 (15)	2.15 (6)	2.36 (11)	**2.54 (112)**	2.39 (23)	2.76 (96)	2.9 (20)
87.5 (14)	80.0 (4)	50.0 (6)	**77.1 (84)**	52.4 (11)	72.4 (68)	95.0 (18)
4.3 (12)	4.0 (3)	3.5 (11)	**3.13 (81)**	3.44 (9)	3.15 (71)	4.5 (18)
77.2 (25)	77.6 (6)	75.6 (23)	**84.3 (135)**	82.7 (27)	81.0 (94)	85.7 (33)
72.3 (17)	74.2 (5)	87.6 (9)	**75.7 (118)**	75.9 (26)	74.1 (81)	76.5 (24)
95.2 (17)	94.4 (5)	99.6 (9)	**89.5 (112)**	90.9 (26)	92.2 (79)	89.5 (29)
69.1 (23)	67.8 (7)	67.6 (20)	**65.7 (121)**	67.0 (26)	68.3 (89)	66.6 (24)
95.4 (13)	96.5 (5)	94.5 (8)	**96.2 (83)**	94.5 (22)	95.4 (64)	94.5 (15)
51.1 (14)	51.5 (4)	52.7 (8)	**50.6 (86)**	52.3 (19)	52.5 (65)	52.6 (15)
50.6 (16)	51.6 (5)	50.9 (12)	**48.2 (107)**	48.2 (23)	48.2 (91)	48.4 (23)
84.8 (15)	81.5 (5)	87.7 (11)	**83.2 (115)**	84.5 (24)	84.6 (92)	88.8 (21)

Early Middle Ages	VII-X th cc. A.D. Koktebel Sudak (Sokolova 1958b)	L ate Middle Ages end of the Ist—begining of the IInd mil. A.D.			
IV—VII th.cc. A.D. Sakharnaya golovka (Sokolova 1963)		Eski-Kermen (Debec 1948)	Mangup-Kale (Debec 1948)	Khersones (Debec 1948)	Alushta (Sokolova 1958a)
175.8 (17)	168.3 (14)	169.1 (137)	171.1 (30)	172.0 (92)	170.5 (28)
133.6 (17)	141.9 (14)	142.3 (130)	141.6 (30)	139.9 (88)	145.4 (28)
130.6 (13)	126.8 (5)	126.4 (112)	129.7 (29)	128.1 (79)	132.5 (19)
98.9 (12)	96.6 (5)	93.8 (112)	96.0 (29)	95.6 (77)	93.6 (12)
94.2 (15)	95.1 (12)	94.7 (136)	94.2 (30)	95.2 (95)	95.3 (22)
125.4 (11)	128.8 (4)	127.8 (99)	129.4 (25)	128.3 (66)	128.4 (8)
94.3 (9)	93.0 (5)	91.0 (90)	92.2 (24)	93.3 (56)	89.0 (8)
65.5 (11)	69.0 (5)	66.0 (115)	67.1 (27)	67.4 (75)	65.2 (12)
86.6 (12)	82.8 (5)	85.0 (93)	84.7 (26)	83.2 (67)	81.3 (7)
84.5 (11)	85.8 (5)	85.6 (84)	86.3 (24)	83.8 (56)	84.3 (6)
26.0 (11)	24.8 (4)	28.3 (73)	31.7 (13)	26.5 (41)	32.0 (6)
127.5 (10)	126.6 (5)	129.0 (94)	129.2 (22)	131.3 (64)	128.5 (9)
2.2 (17)	2.4 (11)	2.18 (141)	1.93 (30)	2.14 (100)	2.0 (19)
2.36 (11)	2.2 (5)	2.43 (122)	2.53 (30)	2.85 (84)	2.2 (12)
66.7 (8)	80.0 (4)	83.0 (98)	84.6 (22)	81.2 (65)	100.0 (11)
3.1 (11)	3.2 (5)	2.83 (85)	2.86 (14)	2.79 (53)	3.7 (10)
76.4 (17)	84.6 (14)	84.2 (124)	82.8 (30)	81.5 (87)	85.5 (28)
73.8 (13)	73.8 (5)	74.9 (109)	75.9 (29)	74.5 (78)	77.8 (19)
95.5 (9)	88.5 (5)	89.2 (105)	91.4 (29)	91.7 (76)	91.7 (19)
68.6 (15)	66.7 (12)	66.7 (99)	66.6 (30)	68.0 (85)	65.5 (2)
95.5 (9)	96.3 (5)	96.9 (87)	95.7 (24)	97.3 (55)	95.9 (8)
51.6 (10)	52.4 (4)	51.4 (92)	52.0 (23)	53.0 (54)	52.3 (6)
50.5 (11)	48.3 (5)	49.0 (119)	48.9 (28)	49.1 (77)	49.2 (11)
88.5 (12)	94.0 (5)	84.9 (124)	84.2 (29)	86.4 (81)	91.2 (11)

TABLE XIX. *Mean dimenions of the male skulls of some Skandinavian and North Germany groups and of the Nikolaevka-Kazatskoe Cemetery*

Characters	Nikolaevka-Kazatskoe	Neolithic	
		Gotland Island (Steinberg 1943)	North Germany (Schliz 1908)
1. Greatest length	185.7 (66)	192.0 (11)	190.0 (5)
8. Greatest breadth	139.8 (66)	143.5 (11)	138.4 (5)
17. Basion-bregma height	133.9 (62)	137.9 (11)	134.0 (5)
9. Minimal frontal diameter	96.6 (69)	99.6 (11)	98.2 (5)
45. Facial breadth	133.1 (65)	139.6 (11)	136.2 (5)
48. Upper facial height	71.6 (68)	74.6 (11)	68.0 (5)
55. Nasal height	51.5 (67)	54.4 (10)	45.4 (5)
54. Nasal breadth	24.76 (68)	22.9 (10)	24.4 (5)
51. Orbital breadth (from maxillofrontale)	41.25 (68)	—	39.2 (5)
52. Orbital height	32.93 (68)	34.7 (11)	32.2 (5)
8:1. Cranial index	75.4 (66)	74.7 (11)	72.9 (5)
17:1. Height-length index	72.2 (61)	71.9 (11)	70.5*)
18:8. Height-breadth index	95.6 (62)	96.2 (11)	96.8*)
9:8. Transversal fontal index	69.3 (67)	69.5 (11)	71.0 (5)
48:17. Facial height index	53.5 (61)	54.1*)	50.7 (5)
45:8. Facial breadth index	95.3 (65)	97.3*)	98.5 (5)
48:45. Upper facial index	53.7 (64)	53.5 (11)	49.8 (5)
54:55. Nasal index	48.9 (67)	42.1 (10)	54.0 (5)
52:51. Orbital index	80.2 (68)	—	82.5 (5)

*) *Index of mean values.*

TABLE XX. *Mean dimensions of the female skulls of the some Skandinavian and North Germany groups and of the Nikolaevka-Kazatskoe Cemetery*

Characters	Nikolaevka-Kazatskoe	Neolithic	
		Gotland Island (Steinberg 1943)	North Germany (Schliz 1908)
1. Greatest length	176.3 (57)	181.3 (12)	179.3 (4)
8. Greatest breadth	136.1 (57)	137.7 (12)	127.8 (4)
17. Basion-bregma height	127.8 (56)	130.4 (7)	136.2 (4)
9. Minimal frontal diameter	93.8 (60)	94.2 (12)	93.2 (4)
45. Facial breadth	124.8 (56)	129.4 (9)	127.7 (4)
48. Upper facial height	67.7 (57)	70.9 (8)	64.0 (4)
55. Nasal height	48.88 (56)	50.0 (8)	46.5 (4)
54. Nasal breadth	24.15 (53)	23.0 (8)	24.2 (4)
51. Orbital breadth (from maxillofrontale)	40.10 (55)		39.8 (4)
52. Orbital height	32.92 (55)	34.0 (7)	32.5 (4)
8:1. Cranial index	77.2 (57)	76.0 (12)	71.3 (4)
17:1. Height-length index	72.6 (54)	71.8 (7)	76.0*)
9:8. Transversal frontal index	69.0 (57)	68.5 (12)	79.0 (4)
58:17. Facial height index	53.0 (53)	54.4*)	47.1 (4)
45:8. Facial breadth index	91.7 (52)	94.0*)	100.1 (4)
48:45. Upper facial index	54.3 (54)	53.9 (8)	50.2 (4)
54:55. Nasal index	49.5 (53)	45.2 (7)	52.4 (4)
52:51. Orbital index	82.0 (55)		78.1 (4)

*) *Index of mean values.*

Neolithic	Late neolithic	Neolithic and Bronze Age	Iron Age		
Sweeden (Retzius 1900 Fürst 1912)	Denmark (Bröste et al. 1956)	Norway (Schreiner 1946)	Sweeden (Steffensen 1953)	Denmark (Steffensen 1953)	Norway (Steffensen 1953)
187.8 (45)	185.8 (56)	189.6 (7)	188.5 (15)	190.8 (41)	190.8 (55)
140.6 (44)	143.3 (56)	144.3 (6)	140.4 (15)	137.8 (41)	139.6 (55)
136.4 (29)	141.2 (42)	134.0 (2)	136.9 (15)	133.3 (27)	134.6 (49)
98.3 (42)	98.4 (56)	99.9 (7)	98.3 (14)	95.8 (36)	96.7 (50)
133.8 (18)	135.5 (43)	137.3 (4)	132.2 (12)	127.0 (28)	135.9 (27)
70.2 (23)	70.5 (44)	69.3 (2)	69.5 (11)	69.5 (28)	71.0 (32)
51.7 (23)	49.9 (41)	49.0 (2)	51.2 (10)	51.3 (28)	51.1 (35)
23.6 (22)	24.6 (40)	24.0 (2)	24.1 (10)	24.1 (27)	24.1 (30)
41.2 (20)	41.2 (48)	41.3 (3)	39.3 (12)	40.4 (29)	42.8 (36)
32.7 (20)	31.3 (48)	31.3 (3)	32.2 (12)	33.0 (29)	33.8 (38)
75.1 (44)	77.2 (56)	75.5 (6)	74.6 (15)	72.3 (41)	73.5 (55)
72.6*)	76.0*)	70.7*)	72.6 (15)	70.5 (27)	70.9 (49)
97.0*)	98.5*)	92.9	97.5 (15)	98.2 (27)	69.9 (49)
70.2 (41)	68.6 (56)	69.3 (6)	70.0 (15)	69.0 (35)	69.2 (50)
51.5*)	52.2 (39)	48.8 (2)	50.8*)	52.1*)	52.8*)
92.1*)	94.4 (42)	—	94.5 (12)	92.7 (27)	97.6 (25)
54,2 (19)	52.3 (38)	—	52.5 (11)	55.4 (22)	52.8 (23)
45.7 (22)	49,5 (37)	50.3 (2)	47.1 (10)	46.9 (26)	46.8 (30)
79.1 (19)	75.1 (45)	75.9 (3)	82.0 (12)	81.2 (29)	79.2 (35)

Neolithic	Late neolithic	Neolithic and Bronze Age	Iron Age		
Sweeden (Retzius 1912)	Denmark (Bröste et al. 1956)	Norway (Schreiner 1946)	Sweeden (Steffensen 1953)	Denmark (Steffensen 1953)	Norway (Steffensen 1953)
178.8 (24)	178.3 (16)	178.0(10)	180.3 (14)	183.4 (36)	179.5 (36)
134.0 (25)	137.8 (16)	134.9 (9)	131.9 (14)	133.8 (36)	134.4 (30)
130.1 (13)	133.0 (12)	129.0 (5)	130.6 (13)	131.4 (16)	126.4 (22)
94.6 (23)	96.5 (15)	92.7 (9)	93.1 (14)	93.6 (29)	93.3 (29)
123.1 (8)	128.5 (13)	—	124.6 (10)	120.7 (20)	124.4 (11)
65.1 (10)	65.8 (12)	64.0 (3)	65.2 (10)	66.7 (22)	66.2 (17)
46.8 (8)	64.9 (11)	45.7 (3)	49.0 (10)	49.5 (21)	48.2 (18)
22.9 (8)	23.9 (11)	23.7 (3)	23.7 (10)	22.6 (20)	22.6 (16)
37.3 (6)	39.8 (13)	39.5 (4)	39.2 (11)	40.0 (22)	40.8 (19)
30.6 (8)	30.8 (12)	31.7 (4)	32.6 (11)	33.8 (22)	33.4 (20)
74.9 (24)	77.4 (16)	75.4 (9)	73.2 (14)	72.9 (36)	74.9 (30)
72.8*)	74.6*)	72.5*)	72.4 (14)	72.1 (16)	70.9 (21)
70.0 (23)	70.2 (15)	68.9 (8)	70.6 (14)	70.1 (29)	69.5 (27)
50.4*)	51.2 (11)	49.4 (3)	49.9*)	50.7*)	52.4*)
91.9*)	93.8 (13)	—	95.4 (10)	90.7 (20)	93.3 (11)
53.9 (8)	51.2 (11)	—	51.7 (9)	55.4 (18)	53.1 (10)
49.0 (8)	51.1 (10)	51.8 (3)	48.6 (10)	45.9 (22)	47.2 (16)
80.0 (6)	77.1 (12)	80.5 (4)	83.6 (11)	84.4 (22)	81.2 (19)

TABLE XXI. *Mean dimensions of the male skulls from* ***Nikolaevka-Kazatskoe*** *and of some groups with Chernyakhov culture*

Characters	Nikolaevka-Kazatskoe	Chernyakhov culture	
		Zhuravka (Konduktorova 1972)	Chernyakhov (Konduktorova 1972 measured)
1. Greatest length	**185.7 (66)**	185.3 (24)	186.1 (14)
8. Greatest breadth	**139.8 (66)**	139.3 (23)	134.5 (14)
17. Basion-bregma height	**133.9 (62)**	137.0 (19)	137.1 (11)
5. Basicranial length	**101.0 (59)**	103.6 (11)	103.0 (8)
20. Auricular height	**114.1 (66)**	115.4 (23)	115.2 (6)
9. Minimal frontal diameter	**96.6 (69)**	95.3 (23)	94.4 (14)
AS. Length of the supraorbital arcs	**68.3 (67)**	65.5 (21)	66.2 (6)
Cranial volume (Lee-Pearson)	**1440.2 (66)**	1470.7 (22)	1446.7 (6)
45. Facial breadth	**133.1 (65)**	131.9 (19)	129.8 (9)
40. Facial length	**96.6 (58)**	97.3 (11)	100.0 (6)
48. Upper facial height	**71.6 (68)**	70.8 (20)	71.5 (8)
47. Total facial height	**117.0 (60)**	115.6 (20)	116.7 (4)
55. Nasal height	**51.53 (67)**	51.85 (20)	52.25 (8)
54. Nasal breadth	**24.76 (68)**	24.67 (20)	24.12 (8)
51. Orbital breadth (from maxillofrontale)	**41.25 (68)**	40.33 (21)	41.60 (5)
51a. Orbital breadth (from dacryon)	**39.70 (49)**	38.46 (5)	38.52 (6)
52. Orbital height	**32.93 (68)**	33.45 (20)	32.38 (8)
Fossa canina depth (mm)	**5.23 (66)**	5.70 (20)	6.94 (5)
32. Frontal angle n—m to the horizontal line	**83.6 (63)**	83.9 (14)	84.7 (6)
72. Total facial angle	**85.6 (61)**	86.0 (14)	86.3 (6)
74. Alveolar angle	**83.2 (55)**	83.8 (10)	83.5 (4)
75_1. Nasal bones angle	**32.4 (50)**	31.6 (8)	29.5 (6)
77. Nasomalar angle	**137.2 (64)**	136.0 (18)	136.0 (5)
LZm. Zygomaxalar angle	**125.5 (64)**	125.8 (16)	124.0 (5)
glabella (i!—6)	**3.43 (69)**	3.00 (23)	2.85 (13)
Supraorbital arcs size (1—6)	**3.98 (68)**	3.27 (23)	3.40 (5)
Fossa canina depth (0—4)	**2.67 (69)**	2.86 (21)	3.00 (8)
Percentage of the anthropine forms of the nasal opening	**92.7 (69)**	94.1 (17)	100.0 (8)
Anterior nasal spine (1—5)	**3.53 (58)**	3.25 (8)	3.80 (5)
Protuberantia occipitalis ext. (0—5)	**2.86 (67)**	2.21 (24)	2.00 (6)
Processus styloides (1—3)	**2.67 (69)**	2.66 (24)	2.33 (6)
8:1. Cranial index	**75.4 (66)**	75.2 (23)	72.3 (14)
17:1. Height-length index	**72.2 (61)**	74.2 (20)	73.5 (11)
20:1. Auricular height-length index	**61.6 (65)**	62.2 (23)	61.2 (6)
17:8. Height-breadth index	**95.6 (62)**	98.0 (18)	102.0 (11)
20:8. Auricular height-breadth index	**81.7 (66)**	82.6 (22)	84.7 (6)
9:8. Transversal frontal index	**69.3 (67)**	68.6 (23)	69.3 (14)
AS:43. Supraorbital arcs length index	**65.3 (67)**	63.3 (8)	63.3 (6)
48:17. Facial height index	**53.5 (61)**	51.0 (16)	52.6 (8)
45:8. Facial breadth index	**95.3 (65)**	94.7 (19)	95.4 (9)
40:5. Facial length index	**95.8 (56)**	93.7 (12)	96.0 (6)
48:45. Upper facial index	**53.7 (64)**	53.7 (19)	55.4 (8)
47:45. Total facial index	**87.6 (56)**	87.8 (18)	91.4 (4)
54:55. Nasal index	**48.9 (67)**	47.9 (19)	46.3 (8)
52:51a. Orbital index	**82.5 (49)**	83.2 (19)	80.0 (5)
52:51. Orbital index	**80.2 (68)**	89.5 (5)	82.7 (6)
63:62. Upper palatal index	**88.4 (46)**	85.6 (8)	90.9 (1)
AS:50. Maxillofrontal index	**47.8 (61)**	47.3 (18)	43.8 (4)
DS:DC. Transversal nasal root index	**57.3 (38)**	56.8 (4)	53.1 (2)
SS:SC. Transversal nasal bones index	**56.1 (60)**	53.0 (17)	56.7 (4)

*) *The group Middle Dnieper Region include skulls from the cemeteries* ***Zhuravka****, Chernyakhov, Maslovo, Derevyanoe, Teleshovka, Romashki, Dedovshchina.*

Chernyakhov culture				
Middle Dnieper Region	Gawrilovka	Kosanovo	North Black Sea Region	Ukraina united group
(the author and F. Debec)	(Konduktorova 1958)	(Zinevich 1967)	(Konduktorova 1972)	(Konduktorova 1972 measured by the author, by Debec and by Zinevich)
186.4 (49)	189.0 (8)	196.0 (3)	184.6 (8)	186.9 (68)
137.2 (48)	139.5 (8)	136.3 (3)	139.0 (8)	137.6 (67)
137.3 (17)	136.8 (5)	151.5 (2)	135.2 (6)	137.7 (30)
104.1 (30)	103.0 (5)	116.5 (2)	99.4 (5)	104.0 (42)
116.2 (32)	116.9 (8)	128.0 (2)	113.6 (7)	116.4 (49)
95.3 (48)	95.4 (10)	95.0 (3)	94.2 (8)	95.2 (69)
65.7 (30)	65.0 (10)	—	61.9 (8)	64.9 (48)
1473.6 (32)	1489.1 (8)	1623.5 (2)	1426.7 (7)	1475.5 (49)
131.5 (36)	131.2 (9)	122.0 (1)	131.8 (6)	131.3 (52)
99.3 (40)	95.0 (5)	115.5 (2)	94.5 (4)	99.1 (51)
70.8 (36)	70.1 (10)	71.3 (3)	71.7 (7)	70.8 (56)
115.5 (27)	116.1 (7)	—	115.0 (5)	115.5 (39)
51.88 (36)	51.57 (10)	52.33 (3)	51.08 (6)	51.76 (55)
24.91 (36)	24.41 (10)	25.33 (3)	25.21 (7)	24.88 (56)
40.83 (29)	41.80 (9)	41.33 (3)	40.50 (6)	41.01 (47)
39.18 (17)	41.70 (5)	38.66 (3)	37.20 (6)	39.53 (26)
32.82 (37)	32.86 (9)	37.33 (3)	32.56 (6)	33.03 (55)
6.11 (28)	5.68 (8)	5.00 (3)	5.87 (8)	5.93 (47)
84.2 (27)	85.5 (8)	77.5 (2)	80.8 (5)	83.7 (42)
85.8 (27)	87.0 (8)	84.0 (2)	84.7 (4)	85.8 (41)
83.5 (17)	85.0 (7)	68.0 (1)	85.0 (3)	83.5 (28)
31.2 (17)	36.0 (6)	26.0 (1)	37.5 (2)	32.6 (26)
135.4 (26)	137.3 (9)	131.3 (3)	131.4 (7)	134.9 (45)
125.2 (24)	125.0 (8)	125.5 (2)	125.8 (4)	125.2 (38)
3.00 (46)	3.11 (9)	2.33 (3)	3.20 (10)	3.01 (68)
3.36 (31)	3.40 (10)	—	3.60 (10)	3.41 (51)
3.00 (37)	2.80 (10)	—	3.00 (9)	2.96 (56)
93.9 (33)	100.0 (10)	33.3 (3)	100.0 (8)	92.6 (45)
3.61 (18)	3.33 (6)	2.50 (2)	3.25 (4)	3.43 (30)
2.15 (33)	2.11 (9)	1.66 (3)	2.70 (10)	2.22 (55)
2.61 (33)	2.70 (10)	2.66 (3)	2.70 (10)	2.64 (56)
73.7 (48)	73.9 (8)	69.3 (3)	75.4 (8)	73.7 (67)
73.7 (38)	73.5 (4)	75.8 (2)	74.3 (6)	73.8 (50)
62.2 (32)	61.9 (8)	64.0 (2)	61.5 (7)	62.1 (49)
99.7 (36)	94.2 (4)	112.7 (2)	97.5 (6)	99.5 (48)
83.7 (31)	83.9 (8)	95.3 (2)	81.5 (7)	83.9 (48)
69.3 (48)	68.2 (8)	69.7 (2)	67.9 (8)	69.0 (66)
63.0 (27)	63.2 (10)	—	58.9 (6)	62.2 (43)
51.2 (31)	52.7 (5)	48.5 (2)	54.0 (5)	51.6 (43)
95.2 (36)	93.3 (7)	87.1 (1)	95.7 (6)	95.7 (50)
94.8 (24)	92.4 (5)	89.3 (2)	94.6 (4)	94.1 (35)
53.9 (35)	53.5 (9)	48.4 (2)	55.2 (6)	53.8 (52)
88.2 (25)	87.0 (6)	—	89.8 (4)	88.2 (35)
48.2 (35)	47.4 (10)	48.4 (3)	49.6 (6)	48.2 (54)
81.8 (2)	78.9 (9)	89.7 (3)	80.4 (6)	81.5 (48)
82.7 (17)	81.9 (5)	96.6 (3)	99.4 (1)	84.7 (26)
86.1 (9)	92.3 (6)	—	86.8 (3)	88.2 (18)
46.4 (25)	48.0 (6)	33.3 (1)	46.8 (3)	46.3 (35)
55.6 (6)	64.2 (2)	—	—	37.7 (8)
53.0 (24)	56.5 (6)	45.8 (1)	59.2 (4)	54.1 (35)

TABLE XXII. *Mean dimensions of the Nikolaevka Kazatskoe skulls and of some groups with the Chernyakhov culture*

Characters	Nikolaevka-Kazatskoe	Chernyakhov culture	
		Zhuravka (Konduktorova 1972)	Chernyakhov (Konduktorova 1972 measurements of the author and of Debec)
1. Greatest length	176.3 (57)	177.4 (31)	178.8 (8)
8. Greatest breadth	136.1 (57)	134.4 (32)	133.1 (8)
17. Basion-bregma height	127.8 (56)	129.0 (21)	130.0 (8)
5. Basicranial length	94.6 (54)	97.3 (22)	98.8 (8)
20. Auricular height	109.3 (57)	110.6 (31)	106.5 (2)
9. Minimal frontal diameter	93.8 (60)	92.9 (31)	93.0 (8)
AS. Length of the supraorbital arcs	61.4 (57)	56.9 (30)	55.5 (2)
Cranial volume (Lee-Pearson)	1282.0 (55)	1281.5 (30)	1293.4 (34)
45. Facial breadth	124.8 (56)	123.7 (20)	124.8 (8)
40. Facial length	89.7 (47)	91.1 (14)	93.8 (8)
48. Upper facial height	67.6 (57)	66.7 (25)	66.5 (8)
47. Total facial height	110.5 (47)	107.2 (21)	110.0 (2)
55. Nasal height	48.88 (56)	48.32 (25)	49.48 (8)
54. Nasal breadth	24.15 (53)	23.63 (23)	24.44 (8)
51. Orbital breadth (from maxillofrontale)	40.10 (55)	40.00 (23)	40.75 (2)
52. Orbital height	32.92 (55)	32.54 (24)	33.00 (8)
Fossa canina depth. (mm)	4.88 (54)	4.68 (22)	6.75 (2)
32. Frontal angle n—m to the horizontal line	85.4 (49)	85.8 (20)	87.2 (8)
72. Total facial angle	85.5 (46)	85.5 (18)	84.9 (8)
74. Alveolar angle	82.4 (42)	79.1 (16)	76.0 (1)
75_1. Nasal bones angle	29.5 (32)	26.7 (12)	24.8 (7)
77. Nasomalar angle	138.0 (50)	136.9 (24)	138.5 (2)
LZm. Zygomaxillar angle	126.8 (48)	126.6 (16)	123.5 (2)
glabella (1—6)	1.83 (60)	1.53 (30)	1.67 (9)
Supraorbital arcs size (1—6)	2.05 (60)	1.68 (31)	2.00 (2)
Fossa canina depth (0—4)	2.57 (56)	2.44 (25)	3.37 (8)
Percentage of the anthropine forms of the nasal opening	100.0 (51)	92.4 (26)	80.0 (10)
Anterior nasal spine (1—5)	3.05 (41)	2.82 (12)	2.25 (4)
Protuberantia occipitalis ext. (0—5)	1.61 (60)	1.33 (30)	1.00 (2)
Processus styloides (1—3)	1.56 (61)	1.48 (31)	1.50 (2)
8:1. Cranial index	77.2 (57)	75.4 (30)	74.5 (9)
17:1. Height-length index	72.6 (54)	72.4 (21)	72.8 (8)
20:1. Auricular height-length index	62.2 (55)	62.1 (30)	58.4 (2)
17:8. Height-breadth index	93.9 (54)	96.7 (20)	97.8 (8)
20:8. Auricular height index	80.5 (55)	82.3 (30)	79.8 (2)
9:8. Transversal frontal index	69.0 (57)	69.4 (28)	70.2 (9)
AS:43. Supraorbital arcs length index	60.7 (54)	57.1 (26)	55.6 (2)
48:17. Facial height index	53.0 (53)	51.1 (18)	51.2 (8)
45:8. Facial breadth index	91.7 (52)	91.8 (19)	93.8 (8)
40:5. Facial length index	95.2 (47)	95.0 (14)	95.0 (8)
48:45. Upper facial index	54.3 (54)	54.2 (21)	53.4 (8)
47:45. Total facial index	88.2 (46)	86.9 (20)	88.8 (2)
54:55. Nasal index	49.5 (53)	49.1 (24)	49.6 (8)
52:51a. Orbital index	85.0 (31)	83.8 (8)	86.3 (8)
52:51. Orbital index	82.0 (55)	81.3 (24)	83.4 (2)
63:62. Upper palatal index	87.9 (28)	88.1 (11)	86.7 (1)
AS:50. Maxillofrontal index	45.7 (45)	44.1 (22)	42.1 (2)
DS:DC. Transversal nasal root index	55.4 (28)	53.8 (8)	49.9 (2)
SS:SC. Transversal nasal bones index	48.6 (47)	50.1 (22)	39.0 (2)

*) *The group Middle Dnieper Region includes skulls from the cemeteries Zhuravka, Chernyakhov, Maslovo, Derevyanoe, Teleshkova, Romaskhi, Dedovshchina.*

Chernyakhov culture				
Middle Dnieper Region	Gawrilovka	Kosanovo	North Black Sea Region	Ukraina united group
	(Konduktorova 1958)	(Zinevich 1967)	(Konduktorova 1972)	(Konduktorova 1972 mesaured by the author, by Debec and Zinevich)
178.0 (47)	180.1 (7)	169.5 (2)	175.1 (9)	177.5 (65)
134.1 (47)	135.1 (7)	150.5 (2)	133.8 (9)	134.6 (65)
129.6 (31)	132.2 (6)	119.0 (1)	128.8 (5)	129.6 (43)
97.4 (32)	92.5 (6)	89.0 (1)	96.2 (4)	96.4 (43)
110.9 (35)	112.9 (7)	111.5 (2)	109,6 (7)	111.0 (51)
93.0 (48)	92.0 (9)	98.5 (2)	94.2 (9)	93.1 (68)
57.1 (34)	57.8 (8)	—	57.4 (8)	57.2 (50)
1183.4 (7)	1276.8 (2)	1276.9 (2)	1253.5 (6)	1272.1 (49)
124.3 (32)	121.1 (7)	135.0 (1)	122.0 (6)	123.6 (46)
92.3 (23)	93.2 (4)	94.0 (1)	91.8 (4)	92.4 (32)
66.8 (39)	65.6 (8)	68.0 (1)	65.8 (6)	66.5 (54)
107.8 (24)	106.2 (8)	—	103.8 (7)	106.7 (39)
48.58 (39)	48.76 (8)	50.00 (1)	49.08 (6)	48.68 (54)
23.92 (37)	23.11 (8)	26.00 (1)	24.65 (6)	23.91 (52)
40.02 (26)	39.66 (8)	44.50 (1)	39.46 (8)	39.94 (43)
32.58 (38)	32.14 (8)	36.00 (1)	32.01 (8)	32.49 (55)
4.94 (25)	5.43 (8)	4.25 (2)	5.38 (6)	5.06 (41)
86.3 (31)	90.2 (6)	78.0 (1)	88.0 (6)	86.8 (44)
85.4 (28)	84.0 (6)	73.0 (1)	80.3 (5)	84.2 (40)
78.9 (17)	79.7 (6)	—	79.3 (3)	79.1 (26)
26.4 (20)	26.4 (7)	28.0 (1)	25.7 (4)	26.4 (32)
137.4 (28)	138.0 (9)	141.0 (1)	135.9 (8)	137.3 (46)
126.2 (18)	125.2 (8)	136.0 (1)	125.8 (7)	126.2 (34)
1.64 (48)	1.77 (9)	1.00 (2)	1.60 (10)	1.62 (69)
1.71 (35)	2.11 (9)	—	1.90 (10)	1.81 (54)
2.84 (38)	2.62 (8)	—	2.43 (7)	2.75 (53)
90.5 (42)	100.0 (8)	100.0 (1)	100.0 (7)	93.1 (58)
2.70 (20)	3.40 (5)	2.00 (1)	3.00 (1)	2.81 (27)
1.32 (34)	1.37 (8)	1.00 (2)	1.11 (9)	1.27 (53)
1.51 (35)	1.33 (9)	1.50 (2)	1.67 (9)	1.51 (55)
75.2 (45)	75.3 (7)	8.88 (2)	76.3 (9)	75.7 (73)
72.6 (31)	72.9 (5)	72.1 (1)	73.8 (5)	72.8 (42)
62.1 (34)	62.7 (7)	66.2 (2)	61.8 (6)	62.3 (49)
96.8 (30)	96.9 (5)	73.5 (1)	96.2 (5)	96.2 (40)
82.3 (34)	83.5 (7)	72.2 (2)	81.2 (6)	81.2 (49)
69.6 (44)	67.9 (7)	63.6 (2)	70.2 (9)	69.3 (62)
57.2 (30)	58.4 (7)	—	55.9 (7)	57.1 (44)
51.2 (28)	48.9 (5)	57.1 (1)	51.4 (4)	51.0 (38)
92.3 (30)	89.8 (6)	84.4 (1)	91.4 (6)	91.6 (43)
95.0 (23)	95.7 (4)	109.3 (1)	95.4 (4)	95.5 (32)
54.0 (33)	53.9 (7)	—	54.0 (6)	53.9 (46)
87.2 (23)	87.6 (7)	—	85.7 (6)	87.0 (36)
49.4 (38)	47.6 (2)	52.0 (1)	50.7 (6)	49.3 (53)
84.9 (20)	84.3 (7)	83.7 (1)	86.4 (3)	84.8 (31)
81.6 (27)	81.2 (8)	81.8 (1)	81.5 (8)	83.3 (44)
88.0 (12)	86.4 (4)	90.2 (1)	—	87.7 (17)
43.9 (24)	46.8 (7)	38.1 (1)	39.2 (4)	43.7 (36)
53.8 (8)	62.8 (4)	58.1 (1)	37.0 (1)	55.4 (14)
49.2 (24)	49.2 (8)	39.1 (1)	36.4 (4)	47.5 (37)

TABLE XXIII. *Mean dimensions of the male skulls of Polyans, Severyans, Drevlyans and from the Nikolaevka-Kazatskoe group*

Characters	Nikolaev-ka-Ka-zatskoe	Pereyaslav Polyans (rural population)	Kiev Polyans (rural population)	Chernyigov Polyans (rural population)	Chernyigov Polyans (urban population)	Kiev Polyans (urban population)	Severyans (rural population)	Drevlyans (rural population)
1. Greatest length	185.7 (66)	186.6 (85)	183.5 (36)	183.3 (32)	181.7 (42)	181.5 (36)	187.7 (21)	187.9 (14)
8. Greatest breadth	139.8 (66)	138.1 (84)	139.2 (35)	137.3 (29)	138.5 (38)	139.9 (35)	135.7 (19)	142.6 (14)
17. Basion-bregma height	133.9 (62)	134.9 (80)	134.8 (34)	135.5 (31)	135.7 (34)	134.1 (36)	136.7 (19)	139.7 (10)
5. Basicranial length	101.0 (59)	102.3 (76)	103.1 (13)	100.3 (31)	100.9 (34)	101.5 (35)	103.1 (19)	102.7 (10)
20. Auricular height	114.1 (66)	113.3 (38)	—	113.4 (30)	114.0 (30)	112.1 (33)	115.5 (20)	—
9. Minimal frontal diameter	96.6 (69)	96.3 (87)	95.8 (36)	94.9 (32)	95.5 (40)	93.7 (35)	96.5 (20)	98.6 (14)
45. Facial breadth	133.1 (65)	132.5 (70)	132.0 (32)	130.9 (22)	132.1 (35)	134.1 (28)	130.5 (17)	136.6 (13)
40. Facial length	96.6 (58)	98.6 (62)	98.3 (11)	98.1 (26)	97.2 (28)	97.9 (29)	98.3 (16)	97.8 (7)
48. Upper facial height	71.6 (68)	69.8 (79)	68.0 (34)	68.5 (28)	67.0 (36)	67.6 (35)	67.7 (17)	72.0 (10)
55. Nasal height	51.53 (67)	50.1 (82)	49.6 (35)	50.2 (30)	49.7 (37)	49.9 (36)	48.8 (18)	50.7 (14)
54. Nasal breadth	24.76 (68)	25.1 (81)	25.3 (34)	25.6 (28)	25.3 (38)	25.6 (35)	25.7 (18)	24.7 (13)
51. Orbital breadth (from maxillofrontale)	41.25 (68)	41.0 (74)	40.7 (35)	40.5 (25)	40.9 (39)	41.3 (35)	42.6 (18)	41.7 (14)
51a. Orbital breadth (from dacryon)	39.70 (49)	39.0 (80)	—	38.1 (28)	38.7 (39)	39.3 (35)	39.2 (17)	39.2 (14)
52. Orbital height	32.93 (68)	31.7 (81)	32.5 (34)	31.5 (30)	31.2 (39)	31.0 (35)	31.6 (17)	32.0 (14)
Fossa canina depth (mm)	5.23 (66)	6.23 (70)	—	5.20 (27)	5.7 (34)	5.5 (31)	4.8 (17)	—
32. Frontal angle n—m to the horizontal line	83.6 (69)	84.1 (70)	—	84.2 (25)	84.8 (33)	83.4 (28)	85.9 (18)	—
72. Total facial angle	85.6 (61)	84.3 (63)	—	83.0 (23)	84.0 (30)	83.6 (28)	84.0 (17)	—
75_1. Nasal bones angle	32.4 (50)	28.7 (53)	—	28.2 (12)	28.1 (23)	27.3 (22)	27.3 (14)	—
77. Nasomalar angle	137.2 (64)	137.5 (42)	—	138.2 (23)	138.8 (37)	137.8 (35)	37.1 (17)	—
LZm. Zygomaxillar angle	125.5 (64)	128.1 (33)	—	125.3 (17)	218.6 (30)	128.5 (25)	126.0 (16)	—
glabella (1—6)	3.43 (69)	3.28 (85)	—	2.85 (33)	2.83 (42)	3.56 (37)	3.43 (21)	—
Percentage of the anthropine forms of the nasal opening	92.7 (69)	79.8 (63)	—	58.6 (17)	64.7 (22)	82.8 (29)	94.4 (17)	—
Anterior nasal spine (1—5)	3.53 (58)	3.27 (43)	—	2.46 (13)	2.58 (26)	2.41 (17)	2.50 (10)	—
Processus styloides (1—3)	2.67 (69)	2.19 (42)	—	—	2.03 (38)	2.03 (37)	2.38 (13)	—
8:1. Cranial index	75.4 (66)	74.1 (82)	75.9 (34)	74.7 (28)	76.3 (39)	77.5 (32)	73.0 (18)	75.9*)
17:1. Height-length index	72.2 (61)	74.1 (74)	73.5*)	74.6 (30)	74.5 (35)	71.8 (33)	72.0 (21)	74.3*)
18:8. Height-breadth index	95.6 (62)	97.2 (73)	96.8*)	96.6 (27)	95.7 (34)	91.7 (34)	95.8 (17)	98.0*)
9:8. Transversal frontal index	69.3 (67)	69.8 (81)	68.8*)	69.0 (29)	68.8 (37)	68.6 (32)	71.3 (17)	69.1*)
48:17. Facial height index	53.5 (61)	51.7*)	50.4*)	50.6*)	49.4*)	50.4*)	49.5*)	51.5*)
45:8. Facial breadth index	95.3 (65)	95.9*)	94.8*)	95.3*)	95.4*)	95.9*)	96.2*)	95.8*)
40:5. Facial length index	95.8 (56)	95.6 (61)	95.3*)	96.9 (26)	91.9 (28)	94.6 (29)	96.1 (16)	—
48:45. Upper facial index	53.7 (64)	52.9 (68)	51.5 (32)	52.3 (20)	50.9 (35)	50.9 (27)	51.6 (15)	52.7*)
54:55. Nasal index	48.9 (67)	50.0 (82)	51.0*)	51.1 (28)	51.0 (38)	52.3 (34)	51.5 (18)	48.7*)
52:51a. Orbital index	82.5 (49)	82.3 (79)	—	83.5 (28)	81.9 (38)	79.5 (34)	80.1 (17)	—
52:51. Orbital index	80.2 (68)	77.0 (39)	79.0 (35)	77.8 (26)	76.6 (38)	74.7 (34)	74.2 (17)	76.7*)
63:62. Upper palatal index	88.4 (46)	85.3 (24)	—	91.7 (24)	89.0 (11)	86.9 (18)	88.3 (13)	—
DS:DC. Transversal nasal root index	57.3 (38)	58.4 (40)	—	54.9 (26)	58.9 (33)	58.2 (34)	55.3 (17)	—
SS:SC. Transversal nasal bones index	56.1 (60)	50.2 (41)	—	48.1 (29)	47.6 (35)	48.9 (35)	44.9 (18)	—

*) *Index of the group.*

TABLE XXIV. *Mean dimensions of the female skulls of Polyans, Severyans and from the Nikolaevka-Kazatskoe group*

Characters	Nikolaev-ka-Kazats-koe	Pereyaslav Polyans (rural population)	Kiev Polyans (rural population)	Chernyigov Polyans (rural population) 1973	Chernyigov Polyans (urban population)	Kiev Polyans (urban population)	Severyans (rural population)
1. Greatest length	176.3 (57)	175.7 (14)	177.8 (25)	175.9 (19)	172.5 (34)	173.1 (19)	177.7 (32)
8. Greatest breadth	136.1 (57)	133.1 (18)	135.0 (24)	133.5 (19)	137.6 (34)	137.9 (19)	131.7 (31)
17. Basion-bregma height	127.8 (56)	128.7 (15)	129.1 (25)	129.5 (13)	127.9 (28)	128.3 (20)	127.9 (27)
5. Basicranial length	94.6 (54)	95.5 (15)	94.4 (5)	96.5 (12)	95.7 (29)	98.3 (20)	95.1 (26)
20. Auricular height	109.3 (57)	109.3 (13)	—	108.4 (22)	109.4 (24)	110.0 (18)	108.1 (29)
9. Minimal frontal diameter	93.8 (60)	92.7 (14)	93.5 (25)	93.1 (17)	95.1 (36)	93.7 (18)	93.5 (32)
45. Facial breadth	124.8 (56)	126.3 (10)	121.4 (20)	126.3 (9)	125.3 (28)	126.7 (15)	123.3 (25)
40. Facial length	89.7 (47)	90.5 (11)	91.2 (4)	90.7 (6)	94.6 (24)	95.1 (14)	90.3 (20)
48. Upper facial height	67.7 (57)	65.3 (12)	64.7 (22)	62.1 (12)	65.0 (25)	65.8 (16)	64.0 (28)
55. Nasal height	48.88 (56)	48.5 (13)	47.9 (25)	47.0 (13)	47.2 (26)	48.3 (15)	47.8 (28)
54. Nasal breadth	24.15 (53)	25.1 (13)	24.1 (25)	24.6 (12)	25.3 (25)	25.1 (15)	24.9 (27)
51. Orbital breadth from maxillofrontale)	40.10 (55)	40.5 (13)	38.7 (25)	39.7 (13)	40.3 (27)	40.0 (15)	40.2 (28)
51a. Orbital breadth (from dacryon)	38.66 (31)	37.6 (13)	—	37.6 (13)	37.4 (26)	37.9 (15)	38.1 (28)
52. Orbital height	32.92 (55)	31.4 (13)	32.6 (26)	31.3 (13)	31.7 (28)	30.7 (16)	32.0 (28)
Fossa canina depth. (mm)	4.88 (54)	4.90 (12)		5.00 (12)	5.4 (26)	4.6 (15)	4.6 (28)
32. Frontal angle n—m to the horizontal line	85.4 (49)	84.0 (7)	—	88.0 (10)	87.6 (24)	86.9 (14)	87.6 (26)
72. Total facial angle	85.5 (46)	82.7 (6)	—	84.1 (6)	82.7 (23)	83.2 (13)	85.3 (25)
75. Nasal bones angle	29.5 (32)	23.7 (4)	—	27.0 (5)	25.2 (17)	22.6 (11)	23.4 (18)
77. Nasomalar angle	138.0 (50)	138.8 (12)	—	137.6 (14)	140.7 (33)	140.0 (17)	136.4 (30)
LZm. Zygomaxillar angle glabella (1—6)	126.8 (48)	127.1 (11)	—	128.1 (8)	126.7 (23)	129.1 (13)	125.5 (24)
Percentage of the anthropine forms of the nasal opening	1.83 (60)	1.71 (17)	—	1.37 (16)	1.55 (36)	1.89 (18)	1.50 (32)
Anterior nasal spine (1—5)	100.0 (51)	100.0 (13)	—	60.0 (6)	56.0 (14)	78.6 (11)	96.3 (26)
Processus styloides (1—3)	3.05 (41)	2.50 (10)	—	2.00 (5)	2.26 (15)	2.50 (12)	2.39 (18)
8:1. Cranial index	1.56 (61)	1.54 (13)	—	1.13 (15)	1.35 (34)	1.61 (18)	1.56 (27)
17:1. Height-length index	77.2 (57)	75.9 (13)	76.9 (23)	76.1 (19)	80.3 (33)	78.9 (20)	73.9 (30)
17:8. Height-breadth index	72.6 (54)	73.5 (11)	73.8*)	72.7 (13)	74.7 (27)	74.6 (20)	71.7 (26)
9:8. Transversal frontal index	93.9 (54)	93.9 (14)	95.6*)	96.2 (13)	92.0 (27)	92.6 (19)	95.7 (24)
48:17. Facial height index	69.0 (57)	70.1 (14)	69.3*)	70.0 (15)	68.7 (34)	68.3 (18)	71.5 (30)
45:8. Facial breadth index	53.0 (53)	50.7*)	50.1*)	47.9*)	50.8*)	51.3*)	50.0*)
40:5. Facial length index	91.7 (52)	94.9*)	89.9*)	94.6*)	91.0*)	91.9*)	93.6*)
48:45. Upper facial index	95.2 (47)	94.6 (11)	—	95.2 (6)	96.3 (23)	90.5 (14)	93.8 (21)
54:55. Nasal index	54.3 (54)	53.0 (8)	53.2 (20)	49.8 (8)	49.8 (24)	52.2 (15)	52.1 (23)
52:51a. Orbital index	49.5 (53)	51.5 (12)	50.4 (25)	51.8 (11)	53.6 (25)	51.4 (14)	50.7 (27)
52:51. Orbital index	85.0 (31)	84.0 (13)	—	83.0 (13)	84.3 (25)	82.5 (15)	86.5 (28)
63:62. Upper palatal index	82.0 (55)	76.9 (13)	84.5 (25)	78.7 (13)	78.2 (26)	77.6 (15)	79.7 (28)
DS:DC. Transversal nasal root index	87.9 (28)	84.3 (7)	—	90.1 (15)	85.5 (14)	83.1 (14)	90.7 (17)
SS:SC. Transversal nasal bones index	55.4 (28)	51.3 (10)	—	56.0 (8)	57.6 (23)	50.1 (15)	50.4 (26)
	48.6 (47)	44.0 (11)	—	39.2 (8)	38.8 (30)	41.9 (17)	42.6 (29)

*) *Index of the group.*

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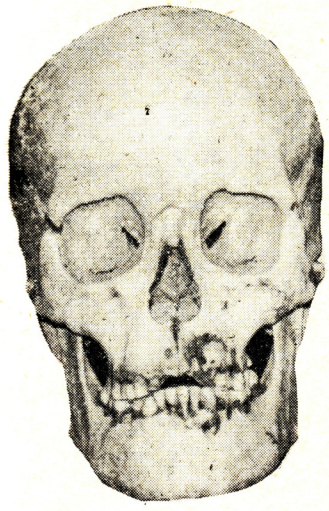
80

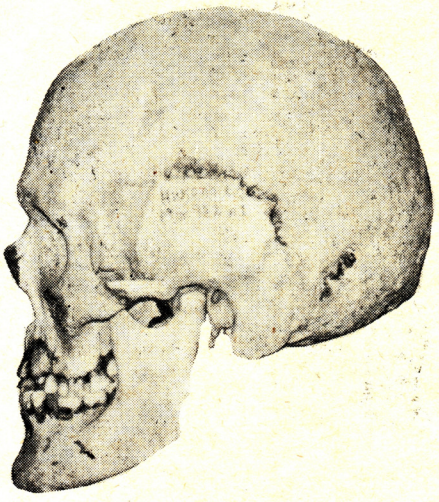
81

FIG. 79 a, b, c.
Male skull 50—60 years.
Grave 111, burial 1.
Inventory Nr. 267/8.

FIG. 80 a, b, c.
Female skull 40—50 years.
Grave 112, burial 10.
Inventory Nr. 267/10.

FIG. 81 a, b, c.
Male skull more than 60 years.
Grave 112, burial 2.
Inventory Nr. 267/11.





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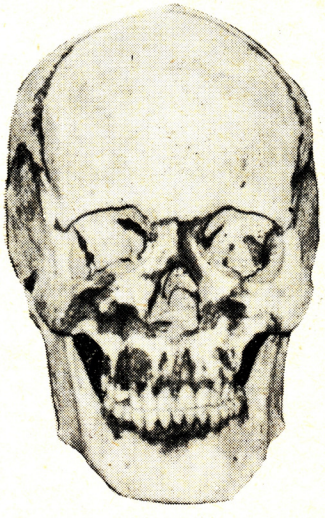
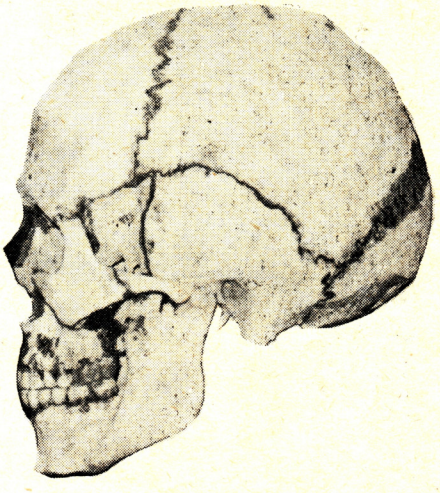
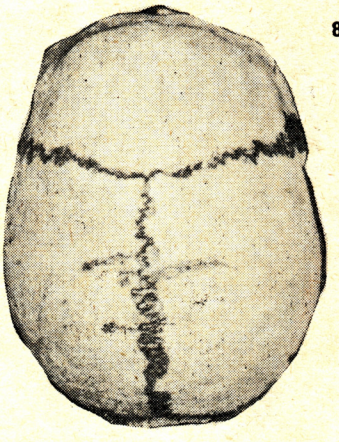






83

84

FIG. 82 a, b, c.
Male skull 30—40 years.
Grave 123, burial 1.
Inventory Nr. 267/18.

FIG. 83 a, b, c.
Male skull 30—40 years.
Grave 123, burial 2.
Inventory Nr. 267/19.

FIG. 84 a, b, c.
Male skull 50—60 years.
Grave 122, burial 1.
Inventory Nr. 267/20.

FIG. 85 a, b, c.
Female skull 35—45 years.
Grave 125, burial 1.
Inventory Nr. 267/21.

FIG. 86 a, b, c.
Male skull 30—40 years.
Grave 126, burial 1.
Inventory Nr. 267/22.

FIG. 87 a, b, c.
Juvenile skull.
Grave 126, burial 3.
Inventory Nr. 267/23.

88

89

90

FIG. 88 a, b, c.
Female skull 25—35 years.
Grave 126, burial 2.
Inventory Nr. 267/24.

FIG. 89 a, b, c.
Female skull 18—25 years.
Grave 130, burial 1.
Inventory Nr. 267/28.

FIG. 90 a, b, c.
Male skull 50—60 years.
Grave 135A, burial 1.
Inventory Nr. 267/36.

91

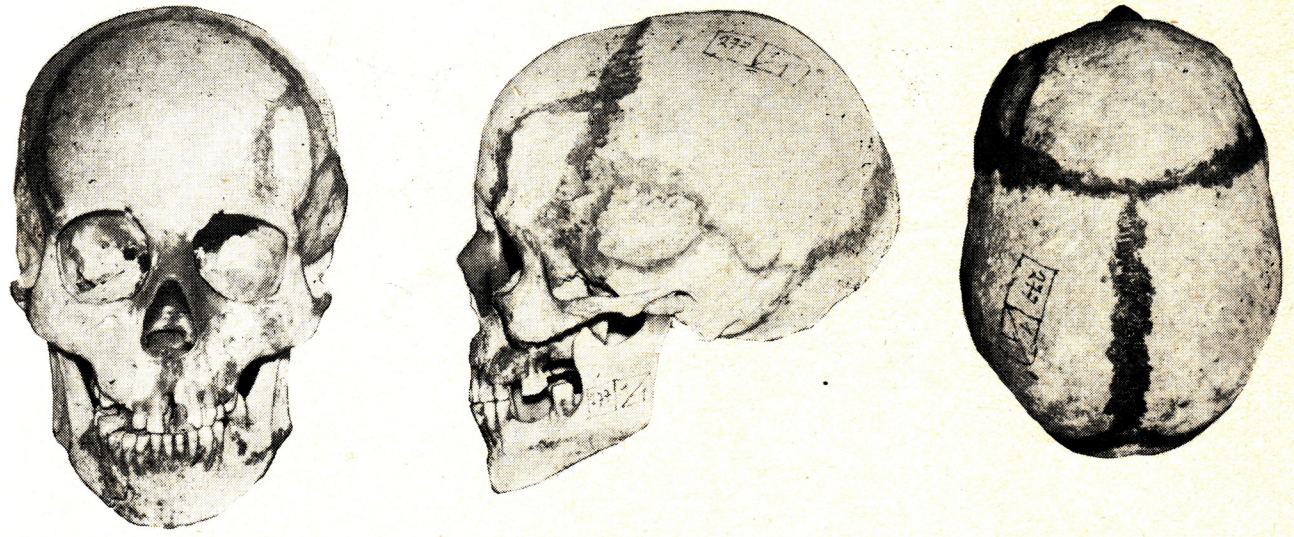
92

93

FIG. 91 a, b, c.
Male skull more than 55 years.
Grave 135A, burial 2.
Inventory Nr. 267/39.

FIG. 92 a, b, c.
Female skull 25—35 years.
Grave 136, burial 2.
Inventory Nr. 267/42.

FIG. 93 a, b, c.
Male skull 45—55 years.
Grave 138, burial 1.
Inventory Nr. 267/44.



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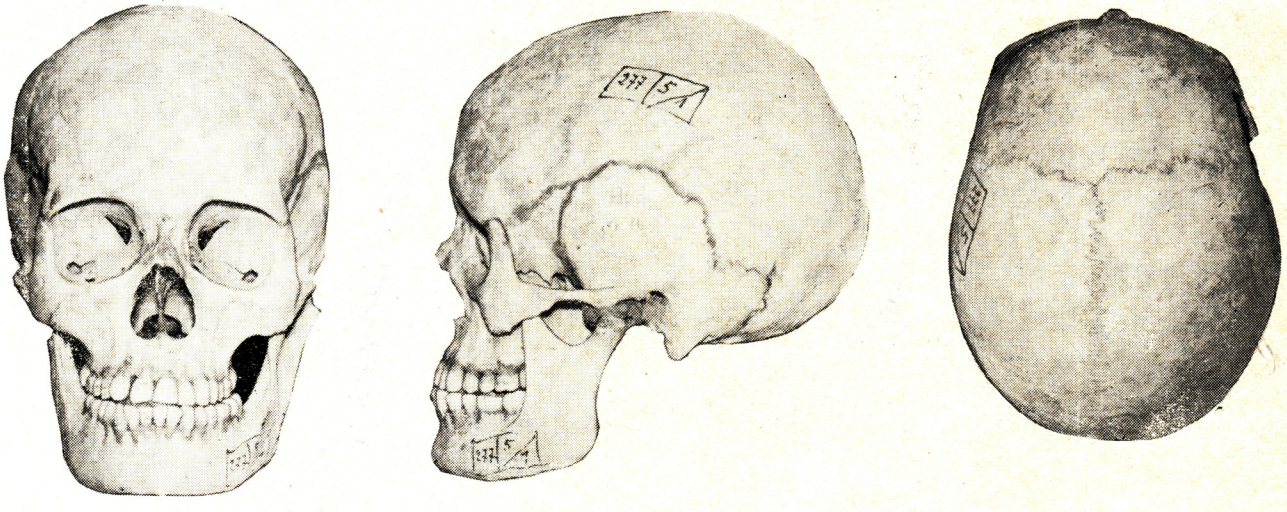

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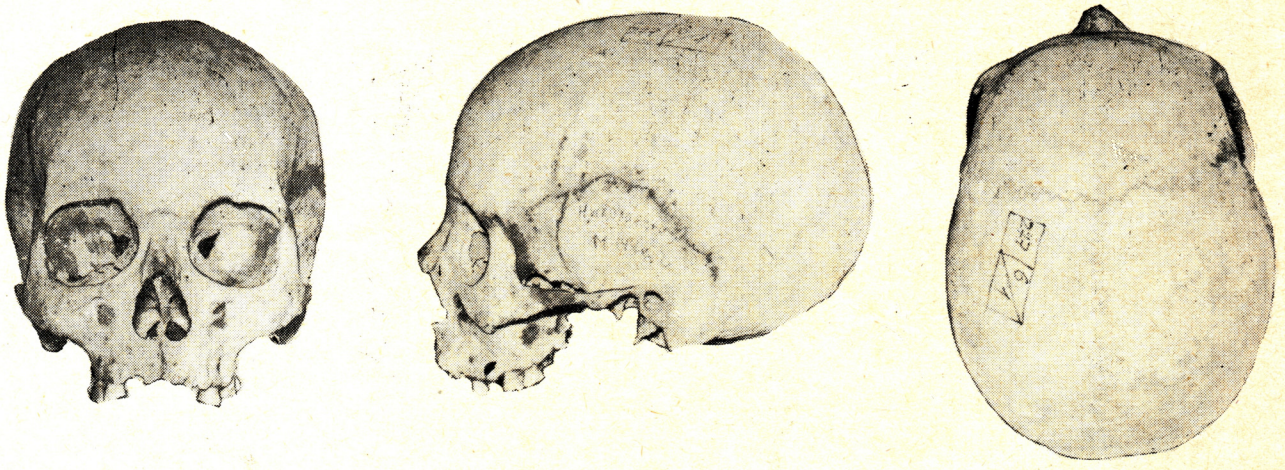
FIG. 94 a, b, c.
Female skull 30—40 years.
Grave 143, burial 1.
Inventory Nr. 277/1.

FIG. 95 a, b, c.
Male skull 25—35 years.
Grave 142, burial 1.
Inventory Nr. 277/4.

FIG. 96 a, b, c.
Female skull 20—25 years.
Grave 144, burial 1.
Inventory Nr. 277/5.

97



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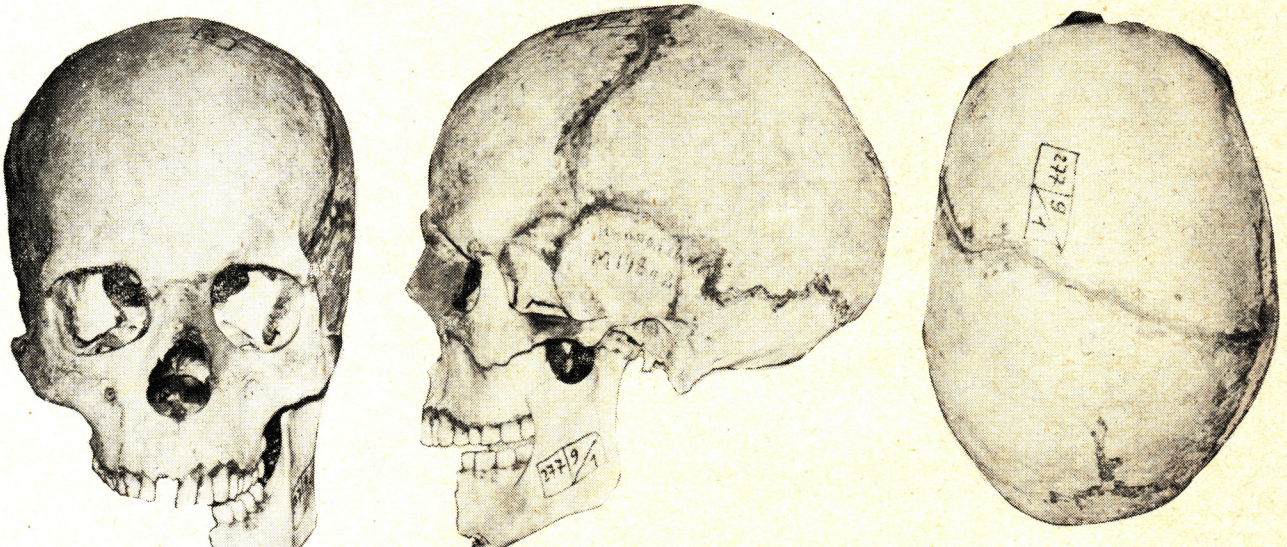

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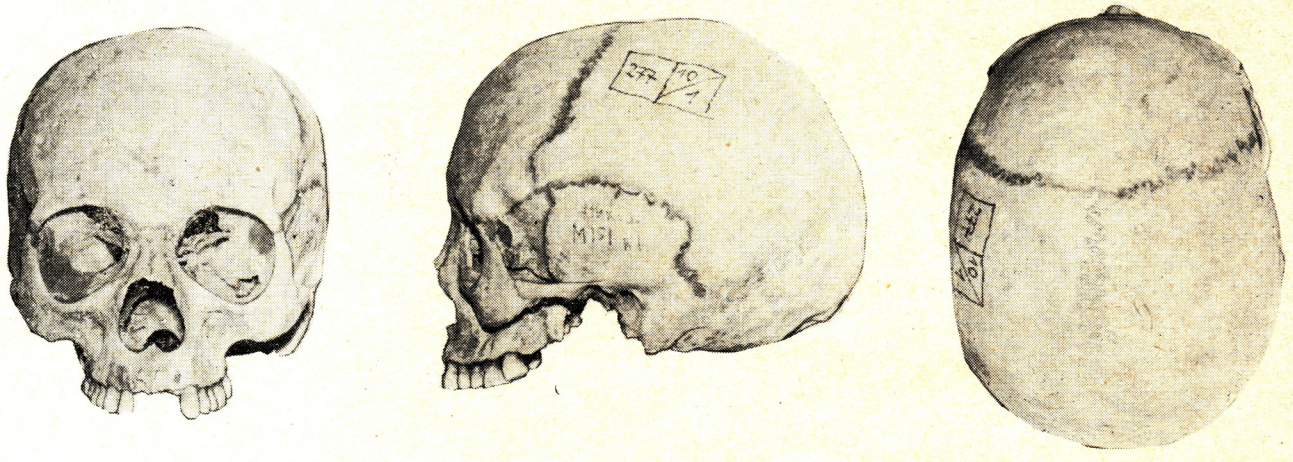

FIG. 97 a, b, c.

Female skull 35—45 years.

Grave 144, burial 2.

Inventory Nr. 277/6.

FIG. 98 a, b, c.

Male skull 35—45 years.

Grave 148, burial 2.

Inventory Nr. 277/9.

FIG. 99 a, b, c.

Female skull 25—35 years.

Grave 151, burial 1.

Inventory Nr. 277/10.

100

101

102

FIG. 100 a, b, c.
Female skull 40—50 years.
Grave 151, burial 2.
Inventory Nr. 277/11.

FIG. 101 a, b, c.
Male skull 50—60 years.
Grave 151, burial 23.
Inventory Nr. 277/12.

FIG. 102 a, b, c.
Male skull 15—18 years.
Grave 153, burial 1.
Inventory Nr. 277/13.

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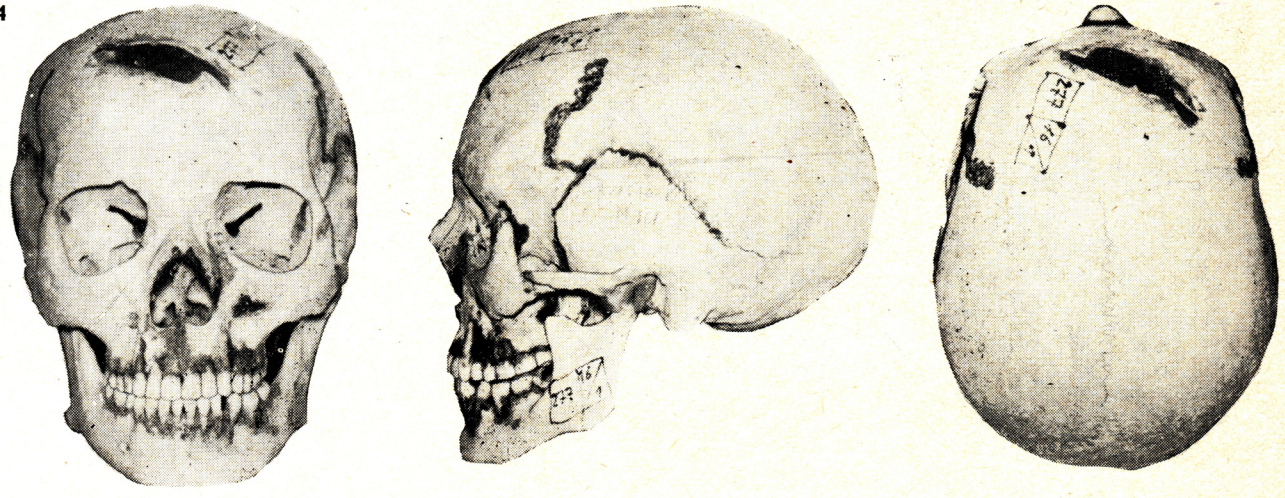

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FIG. 103 a, b, c.
Male skull 45—55 years.
Grave 159, burial 1.
Inventory Nr. 277/15.

FIG. 104 a, b, c.
Female skull 30—35 years.
Grave 161, burial 1.
Inventory Nr. 277/16.

FIG. 105 a, b, c.
Female skull 45—55 years.
Grave 163, burial 1.
Inventory Nr. 277/17.

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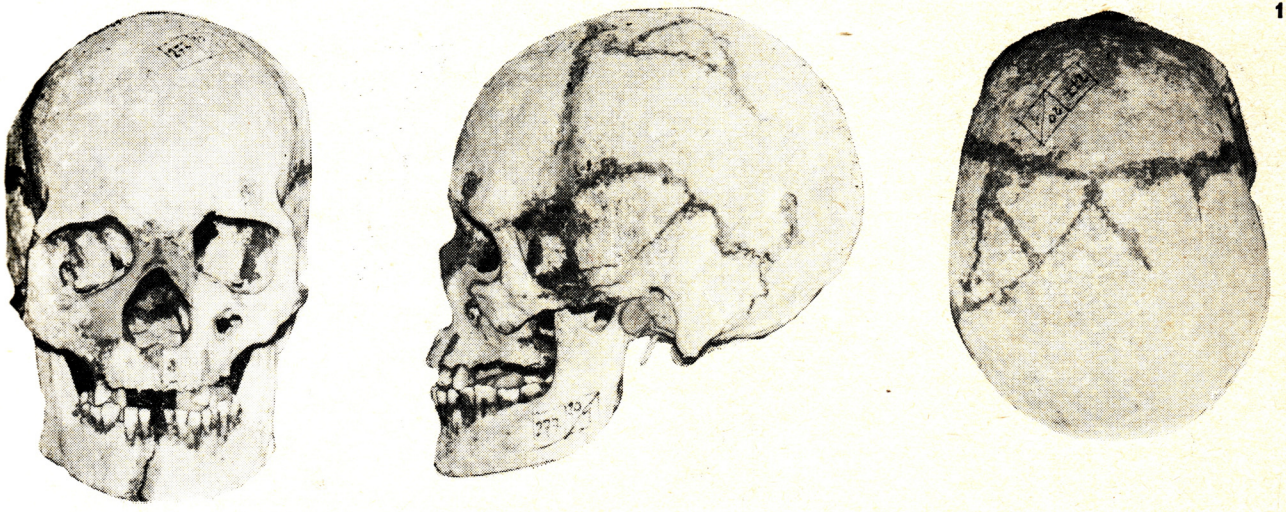

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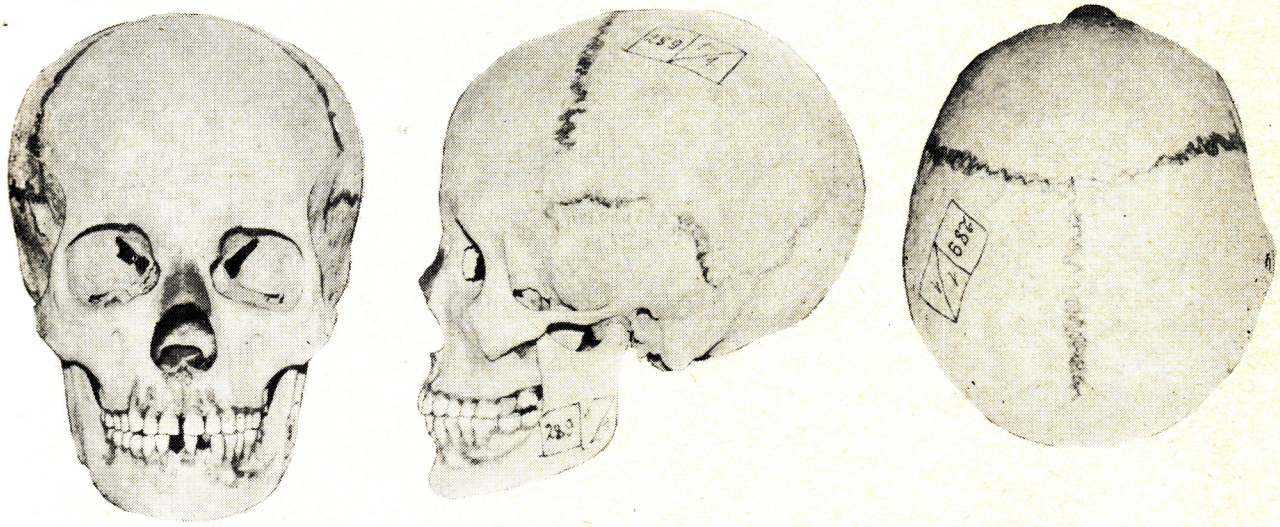

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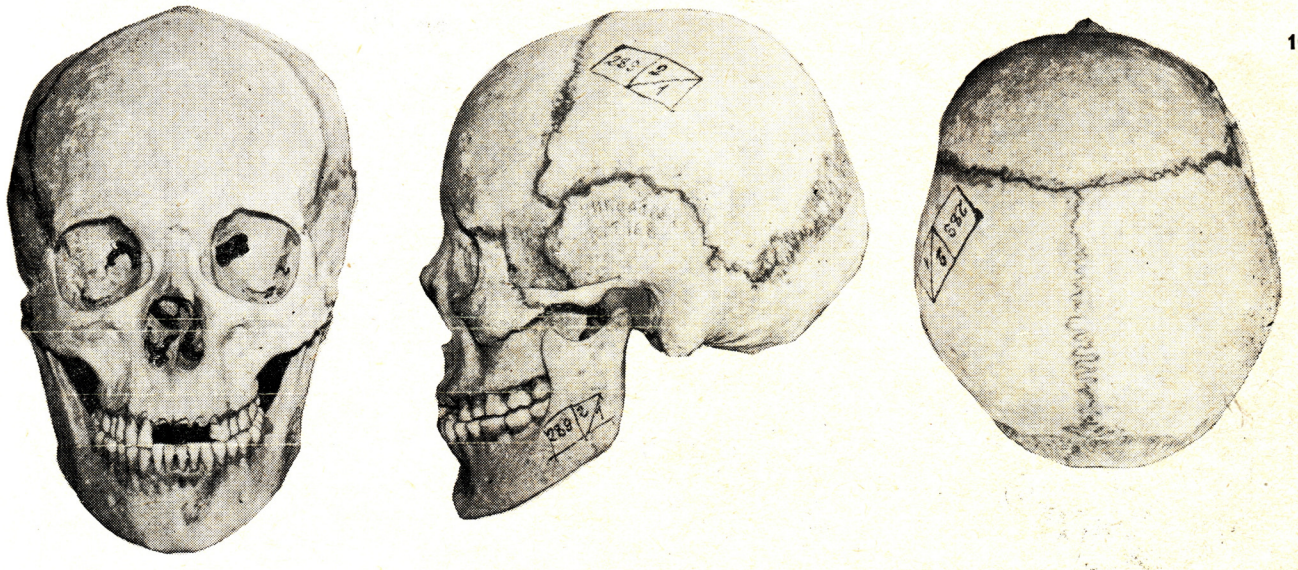


FIG. 106 a, b, c.
Female skull 50—60 years.
Inventory Nr. 277/20.

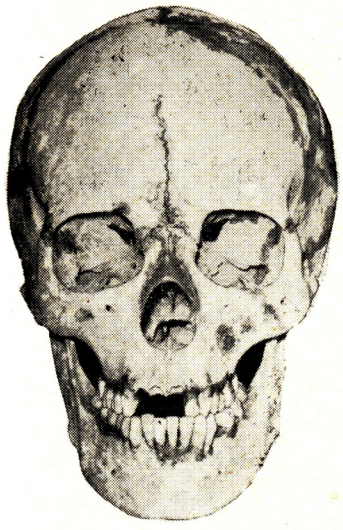
FIG. 107 a, b, c.
Female skull 20—30 years.
Grave 167, burial 2.
Inventory Nr. 289/1.

FIG. 108 a, b, c.
Female skull 25—35 years.
Grave 168, burial 1.
Inventory Nr. 289/2.

FIG. 109 a, b, c.
Female skull 45—55 years.
Grave 168, burial 2.
Inventory Nr. 289/3.

FIG. 110 a, b, c.
Male skull 45—60 years.
Grave 169, burial 1.
Inventory Nr. 289/4.

FIG. 111 a, b, c.
Female skull 18—25 years.
Grave 169, burial 2.
Inventory Nr. 289/5.



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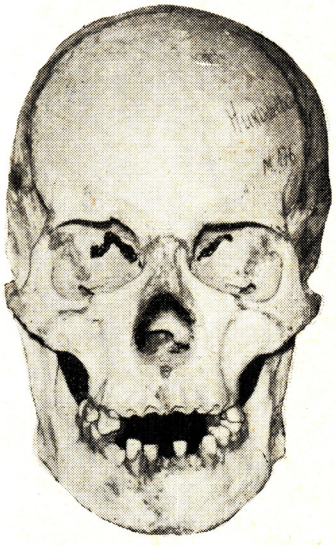

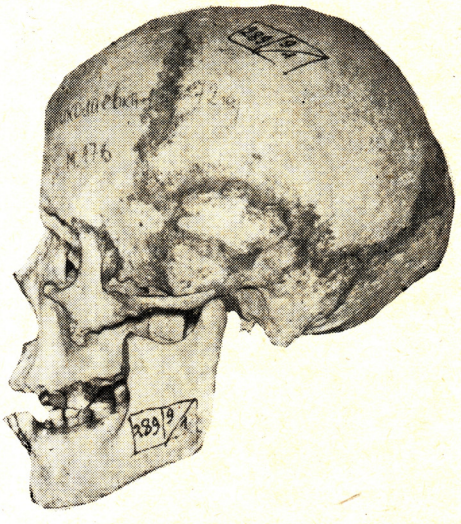

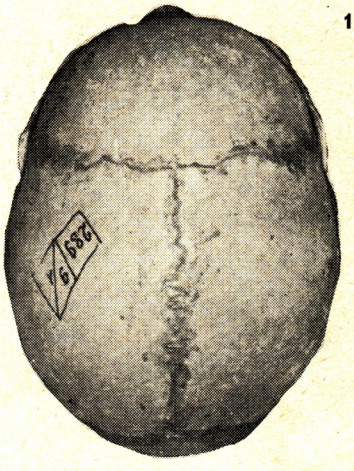

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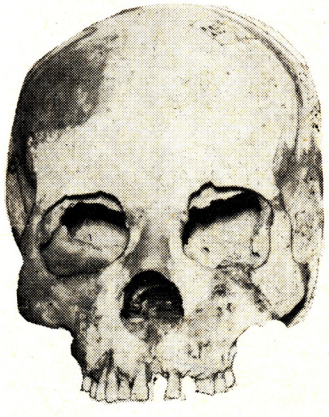


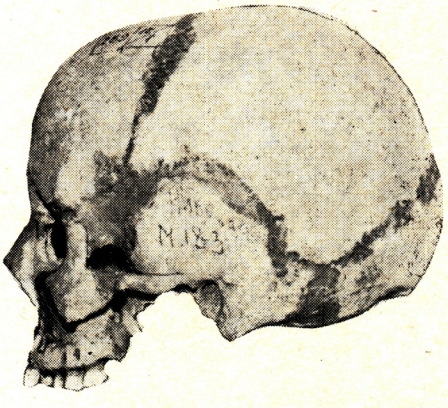


FIG. 112 a, b, c.
Female skull 18—25 years.
Grave 170, burial 1.
Inventory Nr. 289/6.

FIG. 113 a, b, c.
Male skull 40—50 years.
Grave 176, burial 1.
Inventory Nr. 289/9.

FIG. 114 a, b, c.
Female skull 40—50 years.
Grave 183, burial 1.
Inventory Nr. 289/12.

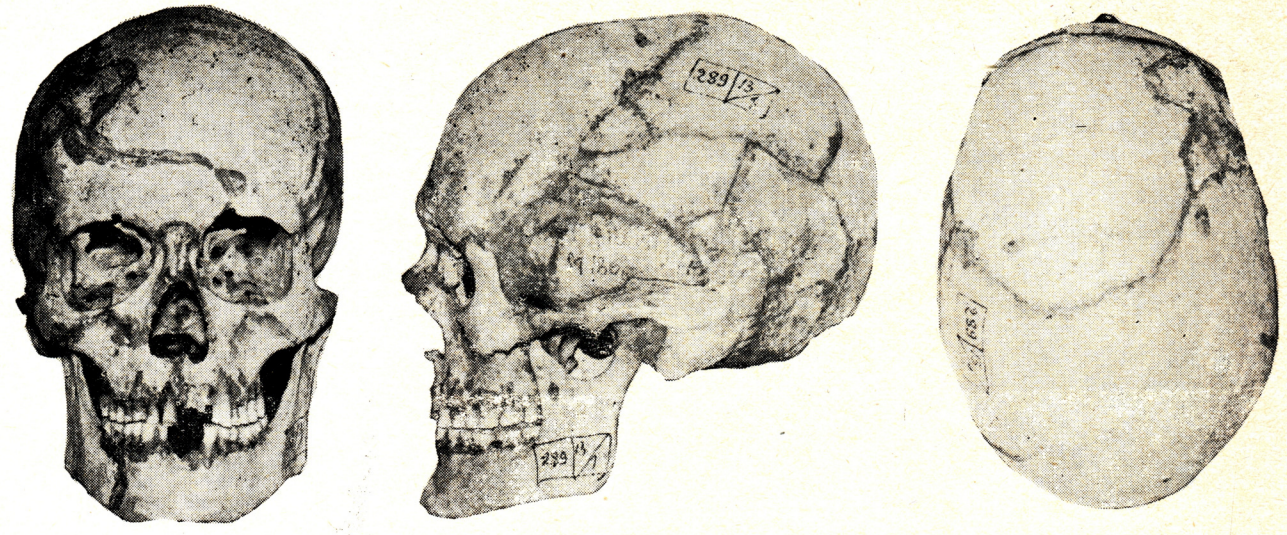


FIG. 115 a, b, c.

Male skull 60—65 years.

Grave 186, burial 1.

Inventory Nr. 289/13.

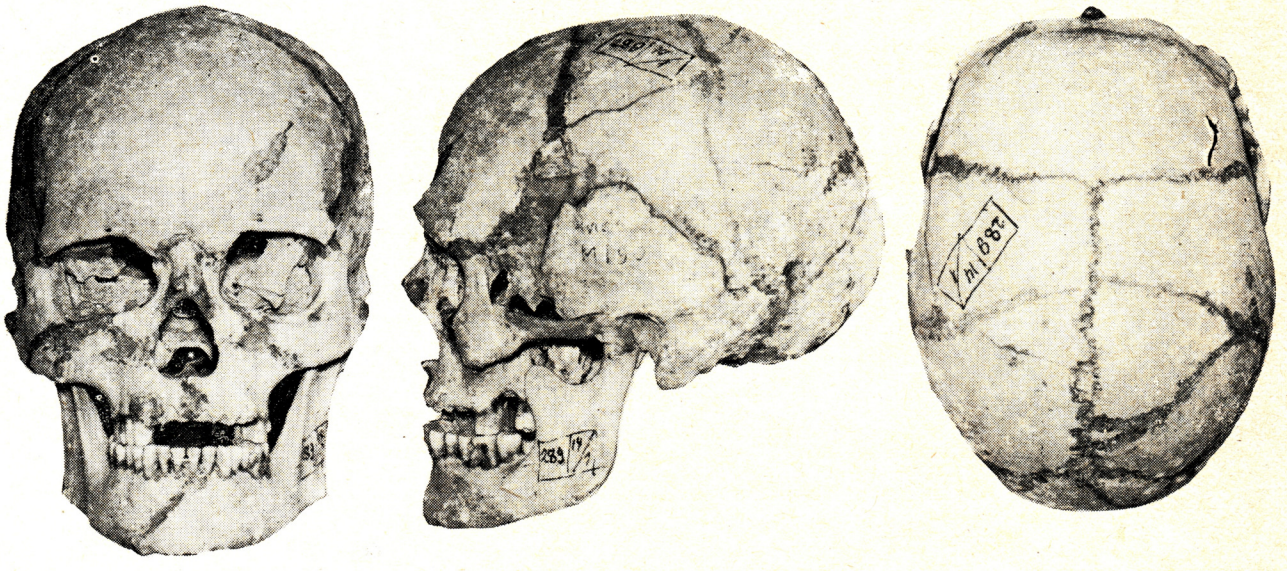


FIG. 116 a, b, c.

Male skull 45—55 years.

Grave 190, burial 1.

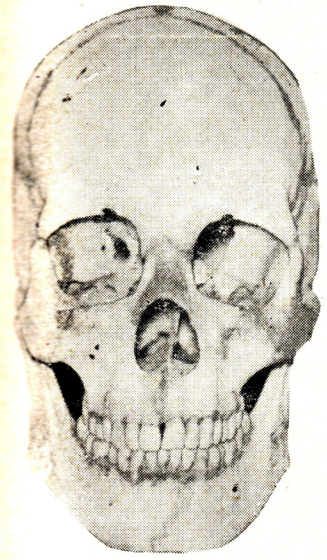
Inventory Nr. 289/14.

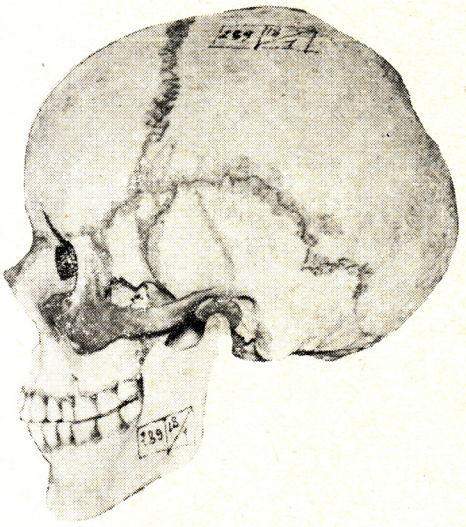
FIG. 117 a, b, c.

Female skull 65—75 years.

Grave 195, burial 1.

Inventory Nr. 289/17.





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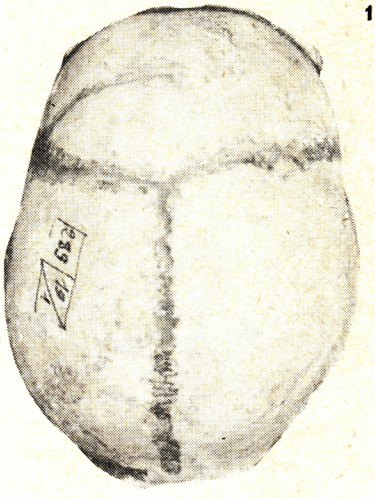

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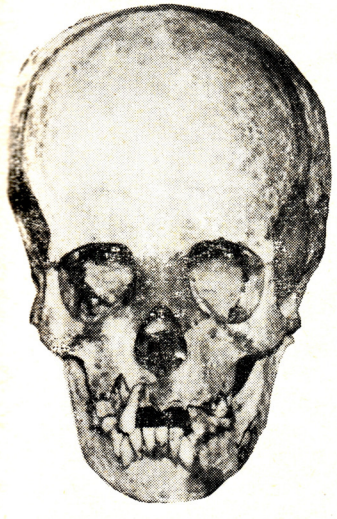

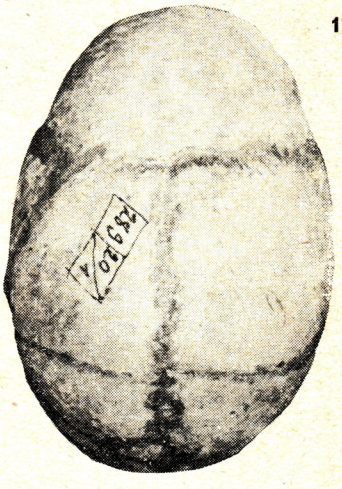

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FIG. 118 a, b, c.
Male skull 40—50 years.
Grave 197, burial 1.
Inventory Nr. 289/18.

FIG. 119 a, b, c.
Male skull 40—50 years.
Grave 198, burial 1.
Inventory Nr. 289/19.

FIG. 120 a, b, c.
Juvenile skull.
Grave 198, burial 2.
Inventory Nr. 289/20

FIG. 127 a, b, c.

Female skull 20—25 years.

Grave 205, burial 1.

Inventory Nr. 289/29.

LITERATURE

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FIG. 128: *Inventory number 88/1. Woman, 45—55 years. Broken nasal bones.*

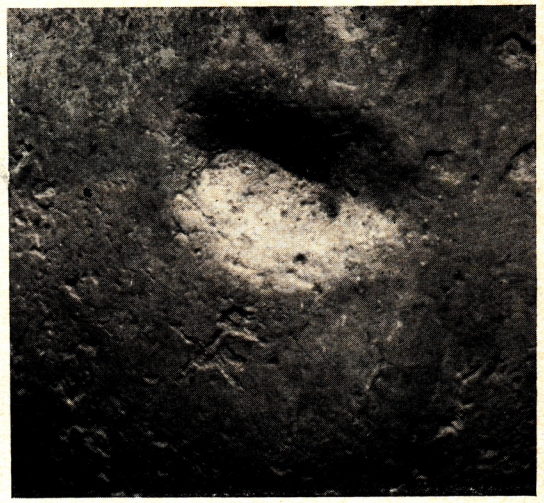

FIG. 129: *Inventory number 88/8. Woman, 17—25 years. Frontal bone injury between two frontal bosses.*

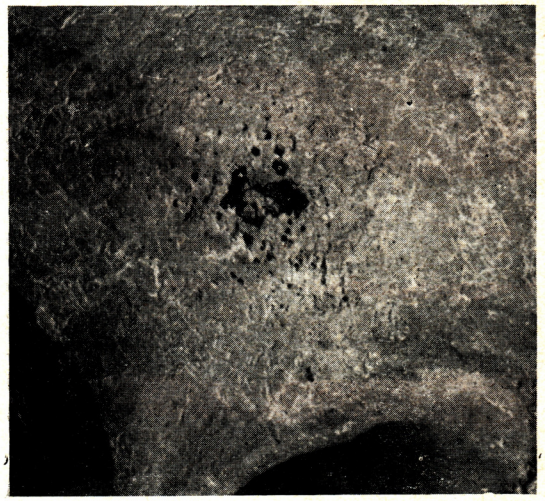

FIG. 130: *Inventory number 257/23. Man, 25—35 years. Numerous small openings in the pathologically changed bone in frontal boss region.*

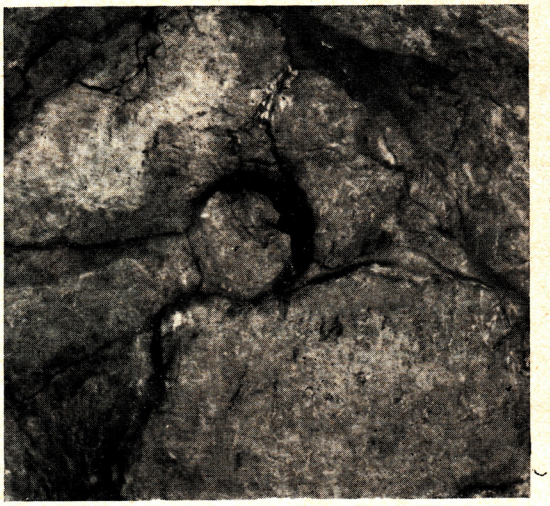

FIG. 131: *Inventory number 267/39. Man, older than 55 years. Traces of the trephanation on the left parietal bone (pterion region).*

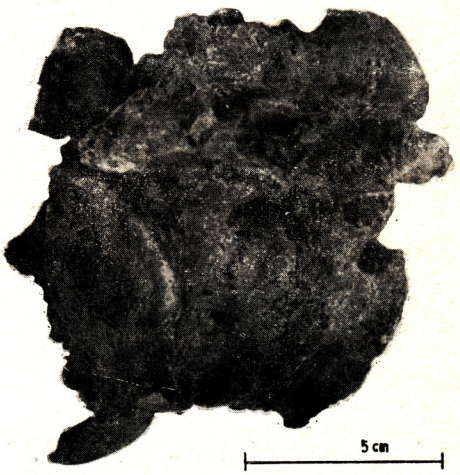

FIG. 132: *Inventory number 88/3. Man 55—65 years. Union of the two lumbar vertebra Strong exostoses in their processus and bodies.*

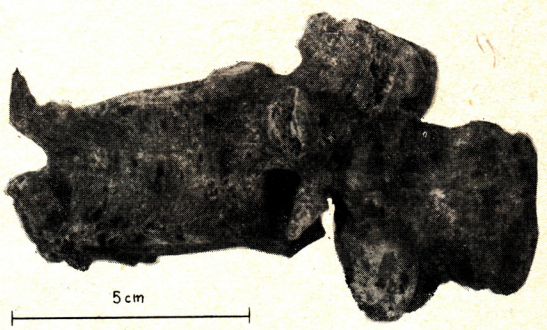

FIG. 133: *Inventory number 88/3. Man, 55—65 years. Rim exostoses in the lumbar vertebral body and processus.*

FIG. 140:
Inventory number 289/2.
Woman, 25—35 years.
Left and right radius of different dimensions.

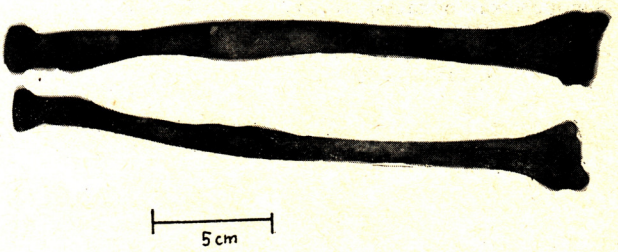

FIG. 141 (a, b, c):
Inventory number 289/19.
Man, 40—50 years.
Fracture of the arm bone head, followed by deforming arthrosis.

FIG. 142:
Inventory number 289/19.
Man, 40—50 years.
Bone exostosis of the left ulnar olecranon.

FIG. 143:
Inventory number 289/21.
Man, 55—65 years.
Bone exostosis of the right ulnar olecranon.

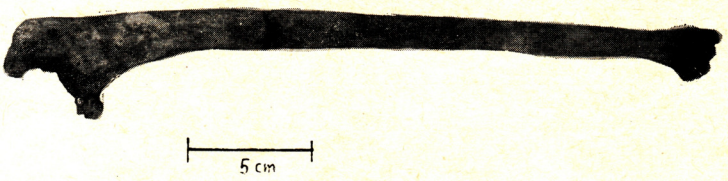

FIG. 144:
Inventory number 289/23.
Man, 50—65 years.
Sabre-shaped changes of the the right tibia shaft.

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