

Results from Anthropological Study on the Skeletal Remains from a Medieval Necropolis Beside the Town of Sevlievo (XIth - XIIIth century AD)

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By classical anthropological method the bone remains of 36 individuals found in archaeological excavations in the "Kaleto" district by the town of Sevlievo dating back to XIth-XIIIth c. AD have been studied. The anthropological diagnosis defines the skulls as ones belonging to the Europoid racial stem brachycranial racial types: Dinaric and Mediterraneo-Dinaric with a prevalence of the gracile forms. By the well-established method at the Laboratory of plastic anthropological reconstruction three - dimensional reconstruction's of three skulls of the found in the necropolis ones have been carried out. They visualize the most wide-spread people from that epoch.

Key words: anthropology, paleoanthropology, plastic anthropological reconstruction.

During the period from 1979 to 1982 the archaeologist Simeon Simeonov carrying out excavations in the "Kaleto" region by the town of Sevlievo, has also dug a Medieval necropolis dating back to the XIth - XIIIth century AD. The bone remains of 36 individuals have been handed to us for anthropological studies. The determination of sex and age showed that 7 persons are children in the first infant age (from 0 till 7 years of age), 2 of them in the second infant age (8 — 14 years of age), 2 are adolescents and the adults are 25 persons. 13 out of these are females and 12 — males. Infant death rate is 25.6 % — in the normal frame for this index during the Middle Ages. The long bones of the limbs are massive with a well-expressed relief, better outlined in the males. The calculated height is 177.6 sm (from 167.7 to 188.0 cm) for the men, and 168.9 cm (from 157.6 to 178.2 cm) for the women. The stature is recorded as tall above the medium height which is a proof that the people buried in the necropolis were ones of good build, physically strong and with well-developed musculature [6,4]. In some of the vertebrae bone osteophytes are found on the bodies of the vertebrae and on the surfaces of the joints. Tooth decay and teeth loss due to pathological conditions are of great frequency and in an individual a total loss of the teeth is recorded [5].

Following the restoration a total of 12 skulls were fit for a more thorough investigation. Using a classical anthropological method and a subsequent mathematico-sta-

tistical processing of the data an anthropological characterization of the buried in the necropolis was completed [6,1,4]. The male skulls are most often ovoid in their view from above. The occipital part is convex with a strong relief. *Processus mastoidei* are moderately developed and are of a medium relief. In the occipital aspect the cranial vault is most often rounded. According to the indices calculated the skull are brachycrany, orthocrany, tapeinocrany (hypsicrany and tapeinocrany with an ear height). The foreheads are slightly slanted, low and broad and according to the index — metriometopy.



Fig. 1. Skull from burial No 42 of the medieval necropolis by Sevlievo, woman, adult. Frontal, left lateral, occipital and vertical aspects. Open metopic suture



Fig. 2. Plastic anthropological reconstruction of the head after the skull from burial No 42 of the medieval necropolis by Sevliev

The supraorbital arches are moderately developed, while the glabella is strongly developed. According to the indices the skulls are leptoprosops and mesens. The orbits are high, of a square shape, closed and horizontally placed one against the other. By the index they are hypsiconchs. The zygomatical bones are moderately protruding. *Fossa canina* are deep. The nasal bones are straight, narrow and asymmetrical. The openings of the nose are pear-like with a lower end — most often — *fossa prenasalis*, the front nasal spikes are of medium size and are horizontally located. The noses are mesorrhiny by the index. The mandibles are massive, of a strong relief with moderately convex and of a triangular form chins. The teeth are in a psalidont bite. The palatal — alveolar part is according to the indices brachistaphilin brachyurany. According to the general and nasal profile angle of the alveolar part — prognatic.

The skulls of the female individuals are of a pentagonal outline in the vertical aspect. The occipital part is convex with a moderate relief. The *processus mastoidei* are moderately developed. In the occipital aspect the skulls are rounded. In the indices predominate the brachicran, hypsicran and the metriocran (orthocran and tapeinocran with an ear height). The foreheads are straight and narrow and according to the index — stenometops. The supraorbital arches and glabella are underdeveloped. The faces are of an oval — square shape and mesens according to the upper — face index. The orbits are high, rounded, open and slanting placed one against the other. By the index — they are hypsiconchs. The zygomatical bones are poorly developed and slightly convex. *Fossa canina* are of medium depth. The nasal bones are narrow, asymmetrical, and more often slightly concave. The nasal apertures are of a pear — like shape with a lower end — anthropina and the frontal nasal spike is of medium size and horizontally located. According to the index the noses are mesorrhiny. The mandibles are moderately massive of an average relief and display

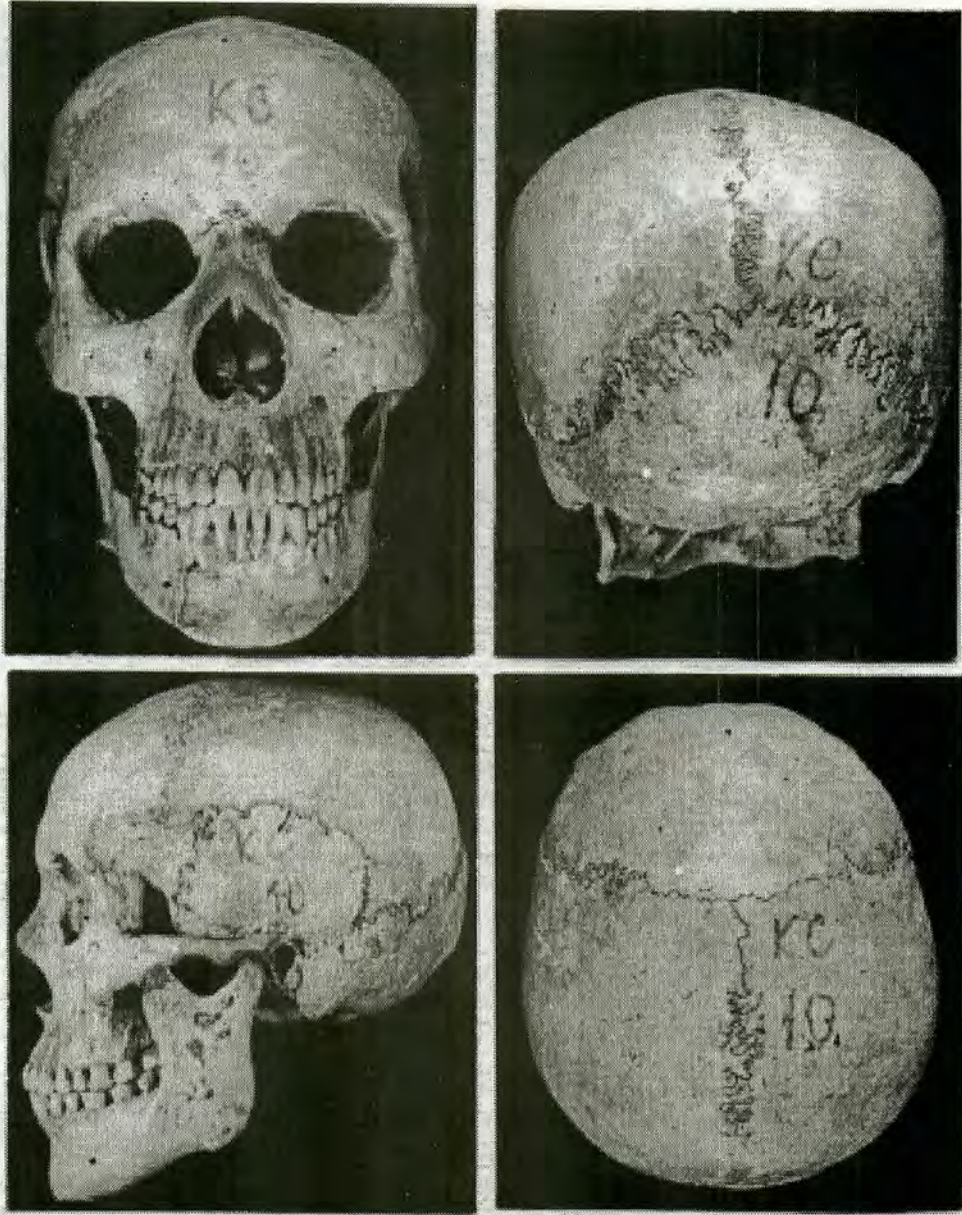


Fig. 3. Skull from burial No 10 of the medieval necropolis by Sevlievo, man, adult. Frontal, occipital, left lateral, and vertical aspects

chins that are slightly convex and of a triangular shape. The teeth are in a psalydont bite. The skulls are brachistaphillinus brachyurany. According to the general and nasal profile angle the faces are mesognatic and according to the one of the alveolar part they are orthognatic.

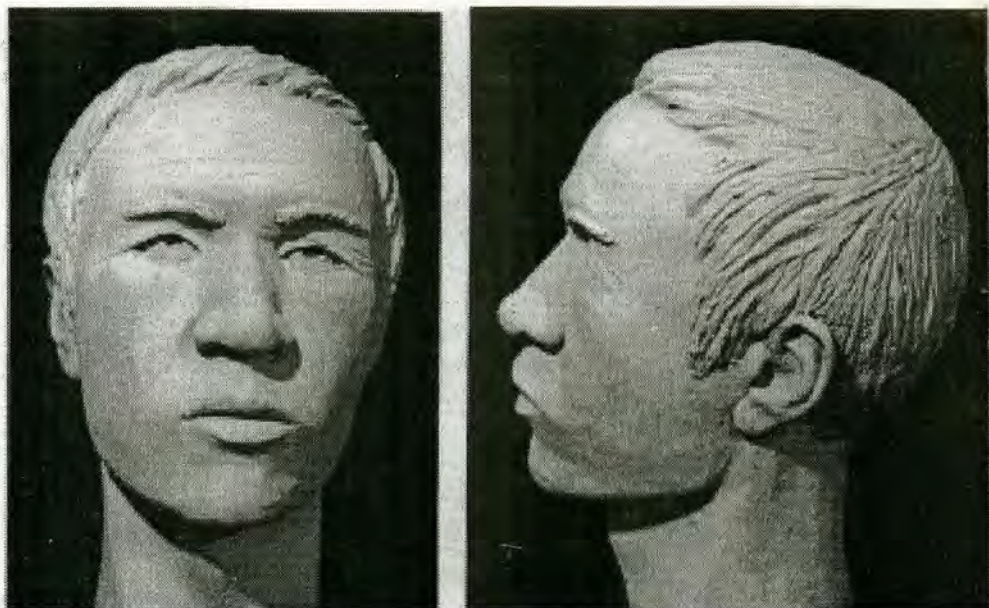


Fig. 4. Plastic anthropological reconstruction of the head after the skull from burial Nr, 10 of the medieval necropolis by Sevlievo

The anthropologic diagnosis defines the skulls as belonging to the great Europoid racial stem and more exactly to the group of the brachycranial racial types: Dinaric and Mediterraneo — Dinaric with a prevalence of the gracile forms. They are typical of the Bulgarian population and are among the most widespread ones.

Three of the skulls found in the necropolis were reconstructed in the Laboratory of plastic anthropological reconstruction after the well — established method [2,3].

The reconstruction after the skull from burial Nr. 42 (Fig. 1) displays the face of a young woman (Fig. 2) with a broad, slightly slanting forehead, an elongated, slightly protruding nose, moderately developed zygomatic bones and a massive lower face part. The eye lid slits are wide open and horizontally located. The lips are thick. The chin is massive.

The reconstruction of the skull from burial No 10 (Fig. 3) visualizes a man's face (Fig. 4) with a broad and high, moderately slanting forehead, a nose slightly protruding with a wavy back and wide wings, poorly developed zygomatic bones and a high lower face part.

The eyelid slits are moderately open with a well-discernible fold of the upper lid.

The lips are in a pro-heilic positions, the lower one being thicker. The chin is moderately developed.

The reconstruction (Fig. 6) made of the child's skull from burial Nr. 18 (Fig. 5) shows a boy's face of an infant in the first infant age (6-7 years). The face is with a low lower facial part. The eyelid slits are wide open and as a whole the characteristics of the face are childish.

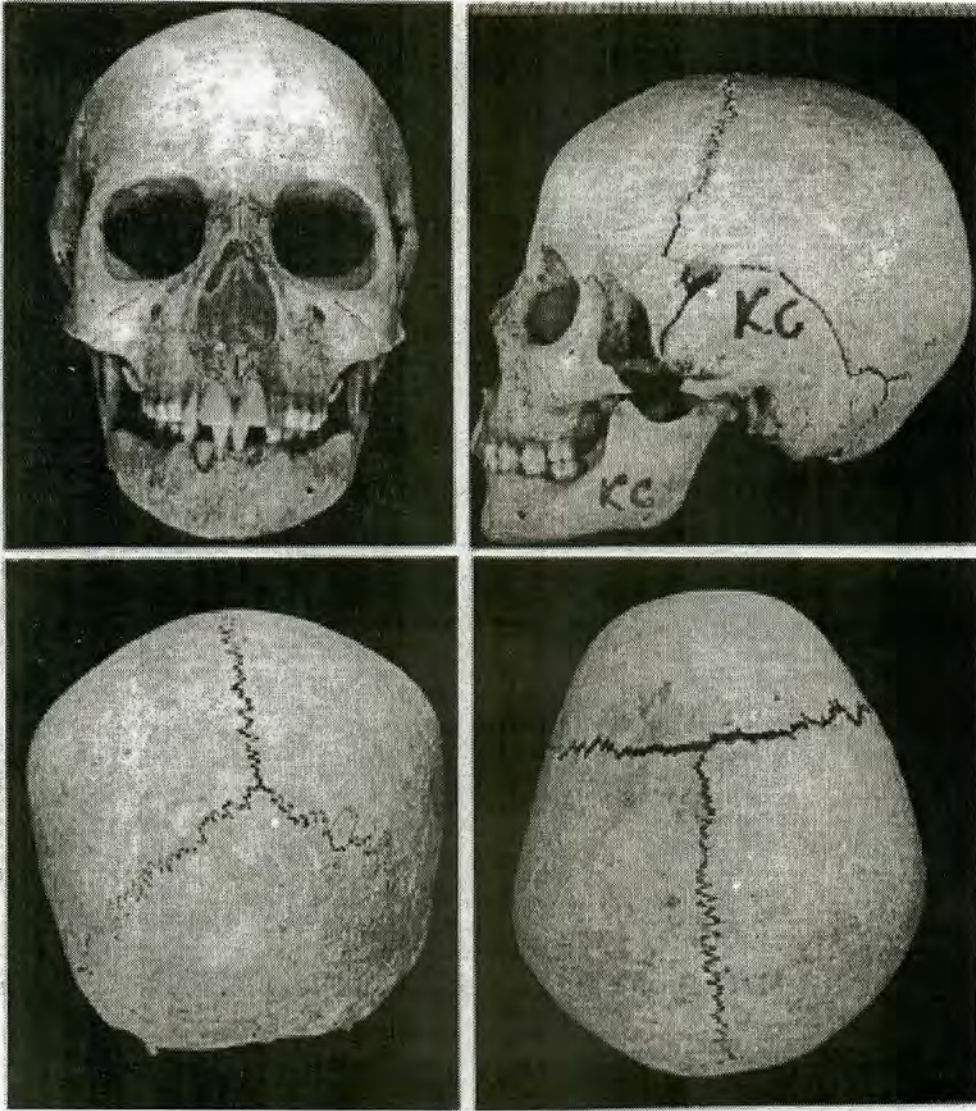


Fig. 5. Skull from burial No 18 of the medieval necropolis by Sevlievo, child, infant. Frontal, left lateral, occipital and vertical aspects

T a b l e 1. Mean values of the absolute sizes of skulls from the medieval necropolis beside the town of Sevlievo

No	No by Martin	Size	Men (n=6)		Women (n=6)	
			M	category	M	category
1	1	Length	183.7	medium	181.2	big
2	5	Length of the cranial base	102.7	medium	99.3	big
3	8	Width	149.3	big	148.0	very big
4	9	Smallest width of the forehead	101.3	big	96.2	big
5	12	Occipital width	116.7	very big	111.0	big
6	17	Height from basion	133.0	medium	137.7	very big
7	20	Height from porion	111.0	small	110.8	medium
8	23	Horizontal circumference through glabella	530.0	big	522.0	very big
9	40	Length of the face base	95.5	small	89.7	small
10	45	Zygomatic width	134.0	medium	133.0	very big
11	47	Facial height	123.0	big	113.3	medium
12	48	Upper face height	72.0	medium	69.0	big
13	50	Interorbital width	24.0		22.7	
14	51	Orbital width	37.0	very small	40.3	medium
15	52	Orbital height	36.0	big	35.8	big
16	54	Nasal width	27.0	big	26.4	big
17	55	Nasal height	53.5	big	52.6	big
18	60	Length of the alveolar arch	56.5	big	48.3	small
19	61	Width of the alveolar arch	66.0	big	60.5	medium
20	62	Palate length	49.7	big	44.3	medium
21	63	Palate width	41.3	medium	39.5	big
22	66	Angle width of the mandible	107.0	big	98.8	big
23	68	Projection length of the mandible	82.0	big	85.0	very big
24	70	Height of the ramus mandibulae	64.5	big	51.3	small
25	71a	Smallest width of the ramus mandibulae	32.38	medium	29.3	small
26	72	Face angle	82.0°	medium	84.6°	big
27	73	Midface angle	81.5°	small	80.0°	very small
28	74	Alveolar angle	77.5°	big	85.2°	very big
29	79	Mandibular angle	126.0°	big	134.0°	big

T a b l e 2. Mean values of the indices of the skulls from the medieval necropolis beside the town of Sevlievo

No	Sizes by Martin	No by Martin	Index	Men (n=6)		Women (n=6)	
				M	rubric	M	rubric
1	8:1	1	Cranial	81.3	brachycran	81.5	brachycran
2	9:8	13	Transversal fronto-parietal	68.0	metriometop	65.8	stenometop
3	17:1	2	Height-length from basion	72.5	orthocran	76.0	hypsicran
4	17:8	3	Breadth-height from basion	89.1	tapeinocran	93.1	metriocran
5	20:1	4	Height-length from porion	65.4	hypsicran	61.2	orthocran
6	20:8	5	Breadth-height from porion	74.6	tapeinocran	75.9	tapeinocran
7	40:5	7	Cranio-facial	94.5	orthognath	90.4	orthognath
8	45:8		Cranio-zygomatocal	83.7			
9	47:45	38	Facial	92.5	leptoprosop		
10	48:45	39	Upper facial	54.5	mesen	51.1	mesen
11	52:51	42	Orbital	94.6	hypsicran	91.0	hypsicran
12	54:55	48	Nasal	50.4	mesorrhin	50.4	mesorrhin
13	61:60	54	Upper alveolar arch	116.9	brachyuran	126.9	brachyuran
14	63:62	58	Palatal	86.4	brachystaphylin	87.4	brachystaphylin
15	66:45	41	Zygomatocal-mandibulaaaaa	74.6			

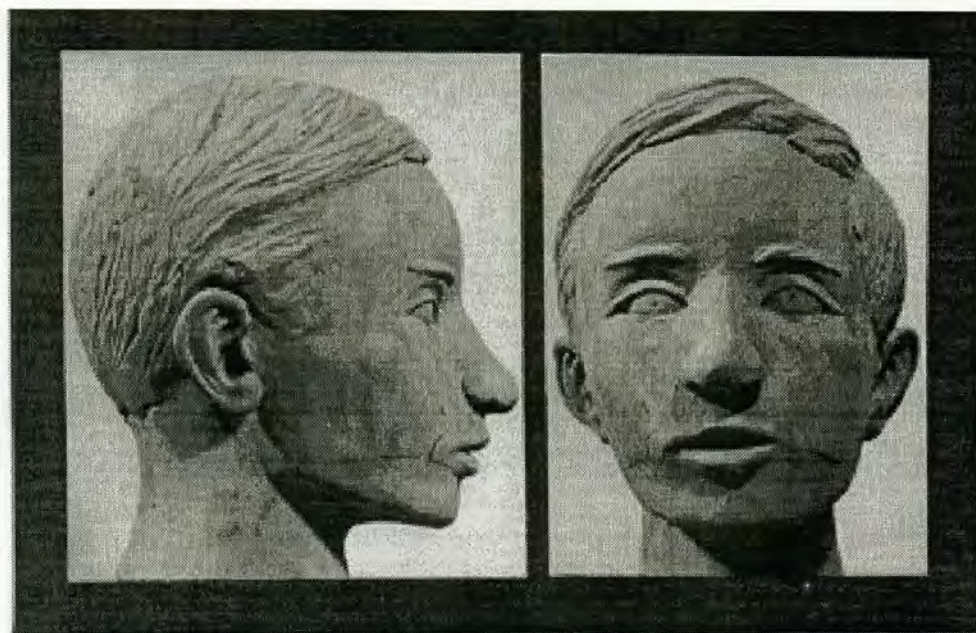


Fig. 6. Plastic anthropological reconstruction of the head after the skull from burial No 18 of the medieval necropolis by Sevlievo

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