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## MONGOLOID INDIVIDUALS FROM THE MIGRATION PERIOD (5th CENTURY A.D.) AT THE DEVÍN CASTLE (BRATISLAVA, SLOVAKIA)

**ABSTRACT:** *A double grave from the 5th century A.D. was recovered during an archaeological research at the Devín castle. The grave contained damaged skeletal remains of two young people whose skulls manifest, both morphologically and metrically, evident Mongoloid features. As for the paleopathological conditions, maxillary hypodontia of the right canine has been found in one individual, while crowding of mandibular canines has been observed in both individuals.*

**KEY WORDS:** *The Migration Period – Double grave – Mongoloids – Hypodontia – Dental crowding – Slovakia.*

### INTRODUCTION

The research on Devín Castle, carried out in the 1975 archaeological season and headed by Dr. Veronika Plachá from the Municipal Museum, was aimed, besides other questions, at dating the dyke running on the northern side of the present-day castle area. Therefore, the research concentrated on the eastern side of the castle – section 6, where the test-trench 1 was delimited on intact ground, with the dimensions of 600 × 800 cm. In the depth of 120 to 250 cm, a stone destruction has been found. Its surroundings and its parts were filled with brown clay, animal bones, fragments of La Tène and Roman pottery. In the depth of 250 cm, an oval strip of quite large stones has been discovered (so to say an outline) with a grave inside it (Plachá and Hlavicová 1976). The grave pit contained

two individuals (*Figure 1*). The grave, sunk in sand, was situated in the north-west – south-east direction. The inventory relating to the individual No. 1 consisted of a jug and a fragment of buckle. Near the No. 2 individual, two small knives, a tongue, a bronze buckle, two iron buckles and five flint stones have been found.

The earth around the head of individual No. 1 was mixed with ashes on an area limited with a 2 cm wide band of burnt earth (Plachá and Hlavicová 1976). According to the archaeological inventory and the find situation, the double grave belongs to the Migration Period and has been dated to the 5th century A. D. The skeletons found in the double grave had post-mortem damaged skulls (the shape of the fracture edges indicating that this is a consequence of the pression of earth layers), and the postcranial

skeletons were damaged mainly in the epiphyseal parts due to the corrosion impact of the earth. The skeletons were in anatomical association.

#### METHOD

The anthropological material has been studied by usual morphoscopic and morphometric methods (Martin, Saller 1957; Knussmann 1988). Metrical features are numbered according to Knussmann's textbook (1988); wherever other features are used, the author is indicated. The sex has been evaluated according to Acsádi and Nemeskéri (1970), using degrees of sexualization (DS) ranging from -2 (hyperfeminine features) to +2 (hypermasculine features).

The age at death has been established from dental age according to Ubelaker (Ferembach et al. 1979) and skeletal age (Acsádi, Nemeskéri 1970; Knussmann 1988). On the basis of some evidence indicating that the individuals might have been of non-European origin, the face flatness index (FFI) has been studied as an important indicator of Mongoloid features (Debets 1961a, 1961b; Thurzo, Korbačková 1983; Korbačková 1983), as well as other indices and angles suitable for diagnosing populational appurtenance: the frontal index of facial flatness (Woo, Morant 1934), the simotic index (Woo, Morant 1934), the index of nasal bridge prominence

(Strouhal 1974), the zygomaxillar index (Strouhal 1974), the zygomaxillar angle (76a), the nasal index (I 48), the maxilloalveolar index (I 54), the mandibular ramus index (I 63), the nasomalar angle (77), the biauriculoparietal index (Strouhal, Stloukal 1973). Besides this, three indices used by Gill (in Bass 1987) for differentiating Amerindians from Europoids, have been analysed: the maxillofrontal, zygoorbital and alpha indices.

Then, some odontomorphological characteristics (the size of upper molars deduced from the middle crown module, the shovel-shaping of upper incisors, the crown enamel extension, the occurrence of Carabelli's cusp and protostylid) typical for Mongoloids (Zubov 1968) have been analysed, and the possible occurrence of cranioscopic and craniometric Negroid features (Strouhal, Stloukal 1973; Strouhal 1974; Stloukal, Vyhnanek 1976; Rösing 1977) has been followed, too.

The mean stature has been established in accordance to methods by Manouvrier, Pearson, Trotter and Gleser, Breitingner (cf. Knussmann 1988), Telkkä (cf. Fetter 1967), Bach (1965) and Olivier et al. (1978).

#### MATERIAL

The material is deposited in the anthropological department of the Natural History Museum (Slovak



FIGURE 1. *Devín castle, double grave from the Migration Period (right — individual Devín 1, left — individual Devín 2).*

National Museum) in Bratislava and has catalogue numbers A 6913 and A 6914.

**Individual Devín 1**  
(Figures 1 - 6, 12; Tables 1 - 5)

**State of preservation:** Of the skull, the splanchnocranium with the mandible and the occipital part have been preserved, while of the postcranial skeleton there exist the following parts: 7 cervical and 8 thoracic vertebrae, the whole sternum, fragments of ribs, damaged to fragmentary clavicles and scapulae, damaged humeri, damaged forearm bones, fragments of the hand bones, fragments of the pelvis, damaged femora, whole patellae and tibiae, damaged fibulae, incomplete sets of foot bones.

**Morphological characteristics:** The structure and muscular relief of the skull are medium, the sides of the skull divergent, traces of glabella (- 1), medium superciliary arches (0), intermediate supraorbital margin (0), small frontal prominences (0), vaulted forehead, parietal foramina are missing, small retro-marginal process (- 1), remains of frontal suture between the orbits. The orbits are slightly angulated



FIGURE 2. *Devín 1* — skull in frontal, lateral and oblique views.

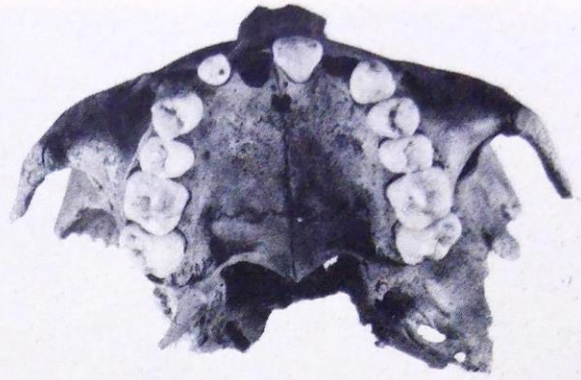


FIGURE 3. *Devín 1* — maxillary dental arcade (note the anodontia of RC<sup>1</sup> and the rotation of RP<sup>1</sup>).



FIGURE 4. *Mandible of Devín 1* — vertical and fronto-inferior views (note the crowding of anterior teeth).

(+ 1), the face profilation is flat. Biconcave nasal bones, nasal profile concave in the middle, small nasal prominence, symmetrical piriform aperture, praenasal sulcus, shallow fossae caninae. Traces of palatine torus, asymmetrical transverse palatine suture.

The mandible is medium to robust, not damaged. The chin is prominent in lateral view, narrow and parabolic in basal view. Simple mental foramina between P<sub>1</sub> - P<sub>2</sub>, protuberant mental spine, inverted gonial angles, mental eminence in form of a reversed T (+ 1), robust, strong body of the mandible (+ 1),

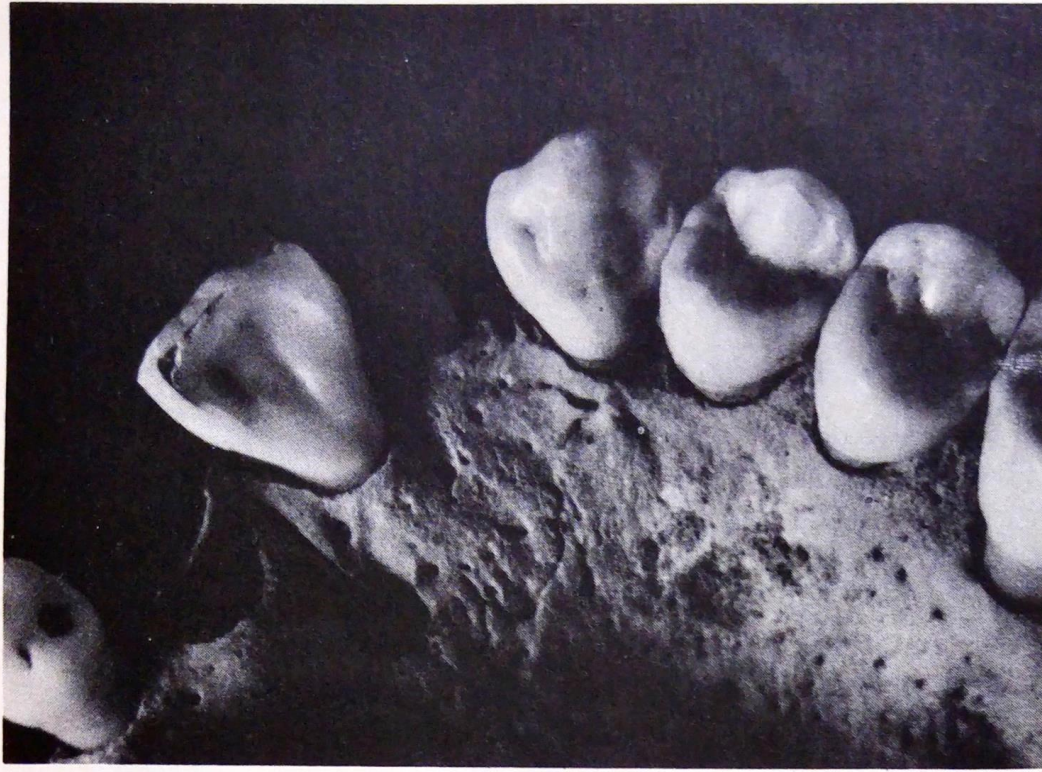
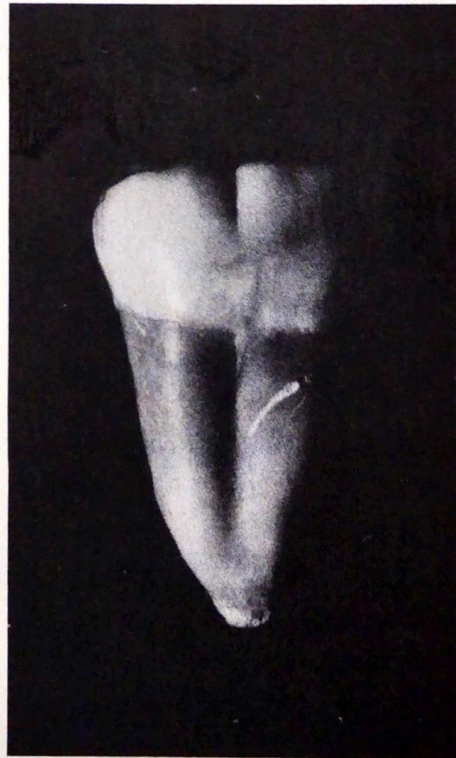
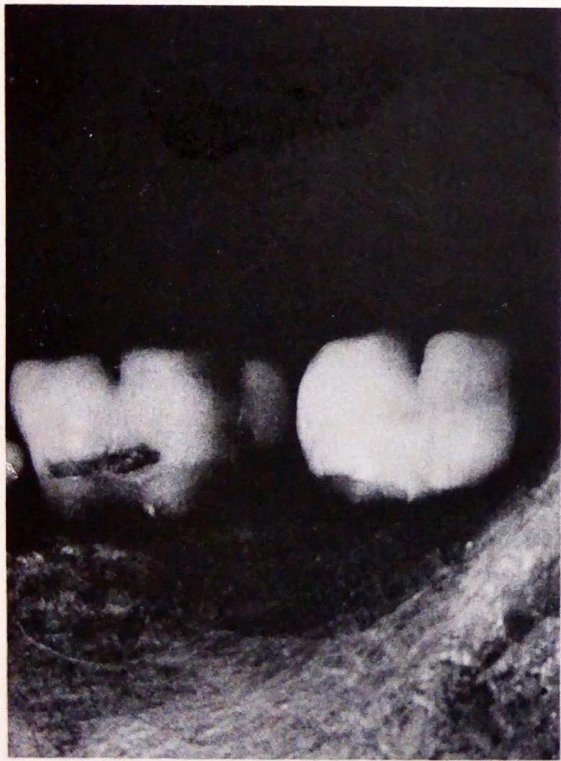


FIGURE 5. *Devín 1. Top — shovel-shaped LI<sup>1</sup>, bottom — crown enamel extension in lower left molars.*



slight eminence of the gonial angles (-1), medium mandibular condyle (0), wide and low mandibular notch. The dental arcade of the maxilla is semi-circular, that of the mandible is parabolic. Incisors have partially worn enamel and denuded dentine at places, canines are without abrasion, molars have worn cusps. Dental caries on both sides on M<sup>1</sup>, M<sup>3</sup> are erupting. Anodontia of the right upper canine (*Figure 3*). Slight crowding of the mandibular canines, psalidontic bite.

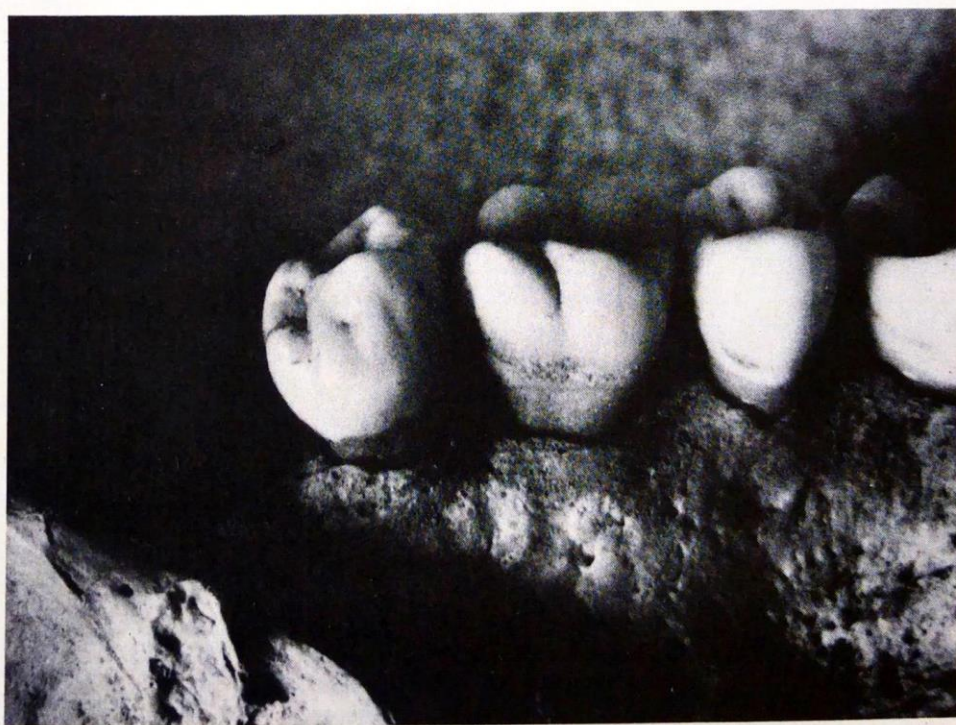
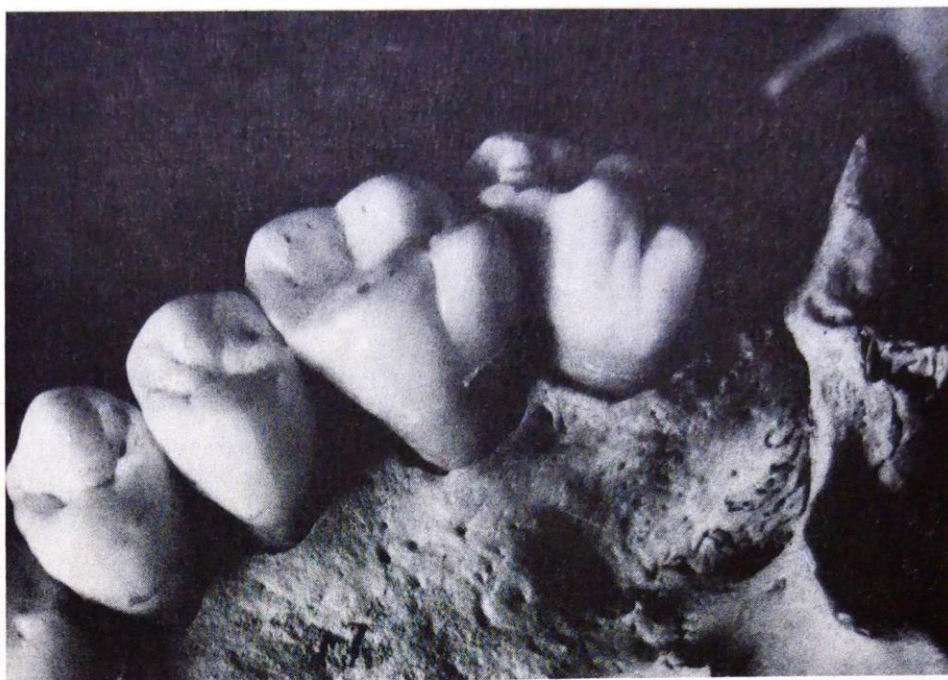
Small and rather gracile vertebrae and ribs, medium sized and medium wide, separated manubrium sterni, medium long and medium wide corpus sterni.

Gracile, medium curved clavicles with medium muscular relief, medium long and medium wide scapulae, gracile humeri with weak muscular relief and unfused epiphyses, gracile forearm bones with weak muscular relief.

Gracile femora with weak muscular relief, unfused epiphyses and slight linea aspera, patellae of the same size, gracile tibiae with weak to medium muscular relief, weak retroversion of the proximal part and unfused epiphyses, cross-section of the middle of the diaphysis according to Hrdlička — III; gracile fibulae with weak muscular relief.

Metrical evaluation is summarized in *Tables 1 — 4*. According to dimensions and indices the skull can

FIGURE 6. *Devín 1. Top — Carabelli's cusp (1st grade) in RM<sup>1</sup>. bottom — Carabelli's cusp (2nd grade) in LM<sup>2</sup>.*



be described as acrocrane and metriometopic, the face is leptoprosop (high), the upper part of the face is leptene (high), orbits are hypsiconch (high), the nose on the limits of leptorrhiny (narrow) and mesorrhiny (medium), the maxilla is brachyuranic (wide) and the palate is brachystaphyline (wide).

The face flatness index (FFI) is very high (124.5?) — it should be considered, however, that the value has only been estimated in parts; in any case, according to Debec (1961b) it evidences the absence of Europoid elements. Also Thurzo's and Korbačková's scale (1983) indicates that this is a Mongoloid.

The central module of upper molars with the value of 10.5 evidences macrodonty typical for equatorial populations and Mongoloids (Zubov 1968).

Shovel-shaping of the 2nd degree is found on both the left and right first upper incisors and on the left canine. Crown enamel extension is evident on all first molars, then on the right M<sup>2</sup> and in a very pronounced form on the left M<sub>2</sub>. Carabelli's cusp of the 1st degree has been observed on both M<sup>1</sup>'s and of the 2nd degree on both M<sup>2</sup>'s.

Only some of the dimensions could be obtained of the damaged postcranial skeleton (Table 4). The analysis has shown both femora to be pilastric, the right femur being hyperplatymeric; both tibiae are eurycnemic.

Conclusion: Based on dental age, open sphenoccipital synchondrosis and not synostosed epiphyses of some long bones, the age at death of the buried

TABLE 1. Craniometric characters of Devín individuals.

Character (Knussmann 1988)	Devín 1	Devín 2
1. g - op	-	160?
1c. m - op	-	164?
1d. n - op	-	162?
3. g - l	170	165?
5. n - ba	-	87?
7. ba - o	-	37
8. eu - eu	133?	124?
9. ft - ft	91	85?
10. co - co	112	112
11. au - au	-	125
12. ast - ast	-	102
13. ms - ms	-	107
16. Foramen magnum breadth	31	30
17. ba - b	-	130?
20. po - b	136	121?
23. g.op.g	-	485?
24. po.b.po	-	291?
25. n.o	-	361?
26. n.b	119	111?
27. b.l	125	-
28. l.o	-	110
29. n - b	107	102?
30. b - l	108?	119?
31. l - o	-	93
38. Cranial capacity Welcker I.	-	1120?
Lee Pearson (Bayern)	-	1212.4?
Olivier et al.	-	1036.9?
mean	-	1122.8?
40. ba - pr	-	89?
43. fmt - fmt	99	93?
43 (1). fmo - fmo	95	89?
44. ek - ek	96	93?
45. zy - zy	116	-
46. zm - zm	97	97
47. n - gn	107	118
48. n - pr	66	66
50. mf - mf	20	20?
51. mf - ek	38	37?
52. Orbital height	32	31
54. Nasal breadth	23	25
55. n - ns	49	49
57. SC (Simotic chord)	5	9
60. pr - alv	49	48
61. Maxillo - alveolar breadth	67	67
62. ol - sta	38	45
63. enm - enm	40	40
65. kdl - kdl	122	116?
66. go - go	87	87
67. Bimental breadth	47	44
69. id - gn	28	33
70. Ascending ramus height	52	61
71. Asc. ram. minim. breadth	37	38
75 (1). Nasal prominence angle	18°?	8°?
77. Naso - malar angle	152°?	150°?
79. Mandibular gonial angle	114°	126°
80. Max. dent. arcade length	39	44
80a. Man. dent. arcade length	42	47
80 (1). Max. dent. arcade breadth	68	67
Man. dent. arcade breadth	68	68
80 (2). LP <sup>1</sup> - LM <sup>3</sup> dental length	-	44
80 (3). LM <sup>1</sup> - LM <sup>3</sup> dental length	-	30

TABLE 2. Cranial indices of Devín individuals.

Character (Knussmann 1988)	Devín 1	Devín 2
I 1	8 : 1	-
I 2	17 : 1	77.5 (mesocrane)
I 3	17 : 8	81.3? (hypsicrane)
I 4	20 : 1	104.8? (acrocrane)
I 5	20 : 8	75.6? (hypsicrane)
I 9	17 : 23	102.3? (acrocrane)
I 11	11 : 24	97.6? (acrocrane)
I 12	9 : 10	26.8?
I 13	9 : 8	43.0?
I 14	12 : 8	81.3
I 16	27 : 26	75.9?
I 17	28 : 26	68.4? (metriomet.)
I 19	26 : 25	68.5? (metriomet.)
I 21	28 : 25	82.3?
I 22	29 : 26	-
I 24	30 : 27	105.0
I 25	31 : 28	-
I 29	31 : 12	99.1
I 33	16 : 7	-
I 37	(1+8+17); 3	30.7?
I 38	47 : 45	30.5?
I 39	48 : 45	89.9
I 40	66 : 45	91.9?
I 41	46 : 45	86.4?
I 42	52 : 51	-
I 42 (1)	51 : 45	84.2 (mesokonch)
I 42 (2)	52 : 48	83.8 (mesokonch)
I 46	50 : 44	32.8
I 48	54 : 55	48.5
I 51 (1)	54 : 45	20.8
I 54	61 : 60	46.9 (leptorrhine)
I 55	61 : 45	51.0 (chamaerrhine)
I 56	60 : 40	20.7
I 58	63 : 62	136.1 (brachyuran.)
I 60	40 : 5	139.6 (brachyuran.)
I 63	71 : 70	56.9
I 64	66 : 65	-
I 67	80 (1): 80	49.4
I 68	80 (2): 5	105.3 (brachyst.)
I 69	40 : 1	90.0 (brachyst.)
I 71	45 : 8	102.3 (mesognath)
I 72	9 : 43	71.2
I 73a	9 : 45	71.3
		174.3
		163.9
		51.1 (megadont)
		55.6
		87.2?
		95.8
		91.4
		78.4

TABLE 3. Characteristics important for estimation of racial origin of Devín individuals (eu — Europoid, mo — Mongoloid, ne — Negroid).

Characteristic (Author's evaluation)	Devín 1	Devín 2
Dental length LP <sup>1</sup> — LM <sup>2</sup>	36	35
Dacryal chord (DC)	19	21
Dacryal subtense (DS)	5	12
Dacryal index (DS:DC) (Schwidetzky 1965)	26.3 mo	54.8? eu
Simotic chord (SC)	5	8
Simotic subtense (SS)	2	4
Simotic index (SS:SC) (Schwidetzky 1965)	40.0 mo	47.1 eu
Zygomaxillar angle (Schwidetzky 1965)	146° mo	143° mo
Zygomaxillar anterior breadth	97	94
Frontal index of facial flatness (Strouhal 1974)	14.2 mo	15.7 mo
Biauriculoparietal index (Strouhal, Stloukal 1973)	—	100.8 ne
Index of nasal bridge prominence (Strouhal 1974)	30.8 ne	45.0 eu
Zygomaxillar index (Strouhal 1974)	17.0 mo?	17.6 mo?
Maxillofrontal index (Gill 1984)	27.9 mo	35.0 mo
Zygoorbital index (Gill 1984)	28.6 mo	37.2 mo
Alfa index (Gill 1984)	72.7 eu	74.0 eu
Facial flatness index (Debets 1961b)	124.0? mo	108.9? mo
Shovel-shape of incisors (Zubov 1968)	+ mo	+ mo
Crown enamel extension (Zubov 1968)	+ mo	+ mo
Size of maxillary molars (Zubov 1968)	10.5 mo	10.3 eu
Mandibular gonial angle (Andrik 1977)	114° ne	126° mo
Naso-malar angle (Schwidetzky 1965)	152°? mo	150°? mo
Mandibular ramus index (Strouhal 1974)	71.2 ne	62.3 ne
Nasal index (Rösing 1977)	46.9 eu	51.0 ne
Total of racial characters: mo	12	9
eu	1	5
ne	3	3

TABLE 4. Osteometric characters of Devín individuals.

Character/Index		Devín 1		Devín 2	
		R	L	R	L
Humerus					
1	Maximum length	—	—	322	—
2	Whole length	—	—	316	—
5	Maximum shaft diameter	20	19	24	22
6	Minimum shaft diameter	16	16	19	—
7	Minimum shaft circumference	60	59	65	62
8	Humeral head circumference	—	127?	141	—
6:5	Diaphyseal index	82.1	84.2	81.0	—
7:1	Robusticity index	—	—	20.1	—
Radius					
3	Minimum shaft circumference	38	37	42	41
4	Transverse shaft diameter	14	14	16	16
5	Sagittal shaft diameter	10	10	12	11
5:4	Shaft diameter index	71.4	74.1	76.0	68.8
Ulna					
3	Minimum shaft circumference	—	—	37	38
11	Sagittal shaft diameter	11	10	13	12
12	Transverse shaft diameter	—	14	16	15
11:12	Shaft diameter index	—	71.4	81.3	83.3
Femur					
6	Sagittal shaft diameter	24	24	31	—
7	Transverse shaft diameter	22?	22	27	—
8	Mid-shaft circumference	74	72	90	—
9	Prox. transv. shaft diam.	29	27	36	—
10	Prox. sagitt. shaft diam.	21	21	26	—
6:7	Pilastric index	111.6?	106.8	115.0	—
10:9	Platymeric index	74.1	77.8	69.9	—
Tibia					
1	Whole length	341.0?	—	—	—
1a	Maximum length	351.0?	—	—	—
1b	Physiological length	346.0?	—	—	—
3	Prox. epiphys. breadth	63.?	72	—	—
6	Distal epiphys. breadth	41	—	—	—
8	Sagitt. mid-shaft diam.	27	26	32	—
8a	Sagitt. nutr. for. diam.	30	30	35	—
9	Transv. mid-shaft diam.	20	19	22	—
9a	Transv. nutr. for. diam.	22	21	23	—
10b	Minim. shaft circumference	69	68	76	—
9:8	Shaft diameter index	72.7	71.7	67.2	—
9a:8a	Index enemicus	76.3	71.2	65.7	—
10b:1	Length-thickness index	20.2?	—	—	—
Fibula					
2	Maxim. mid-shaft diam.	13	13	—	—
3	Minim. mid-shaft diam.	12	12	—	—
4a	Minim. shaft circumference	32	31	—	—
3:2	Shaft diameter index	88.5	92.3	—	—

individual has been estimated to be 13 – 15 years of life (at the turn between the age categories *infans II* and *juvenis*). The value of  $DS = +0.64$  (however, this is a non-adult individual whose sexual-diagnostic characteristics might not have been fully developed yet – in adult age, the value of  $DS$  could have been higher), the rather robust mandible and the body height (estimated on the basis of the length of the tibia to be of 162.3 cm – as the average of several methods) indicate the male sex of the individual. No posttraumatic changes have been found on the skeleton; the anomalies to be noted are anodontia of the right upper canine and slight crowding of the mandibular canines.

#### Individual Devín 2

(Figures 7 – 12; Tables 1 – 5)

State of preservation: The preserved part of the skull consists of the splanchnocranium with the mandible and the rear part of the neurocranium; the postcranial skeleton is represented by the following



FIGURE 7. *Devín 2* — skull in frontal, lateral and oblique views.

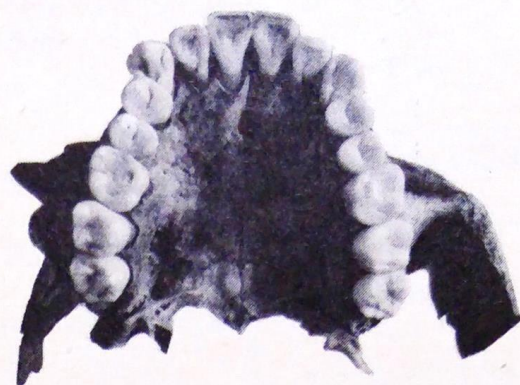


FIGURE 8. *Devín 2* — maxillary dental arcade (note the shovel-shaped incisors and canines).

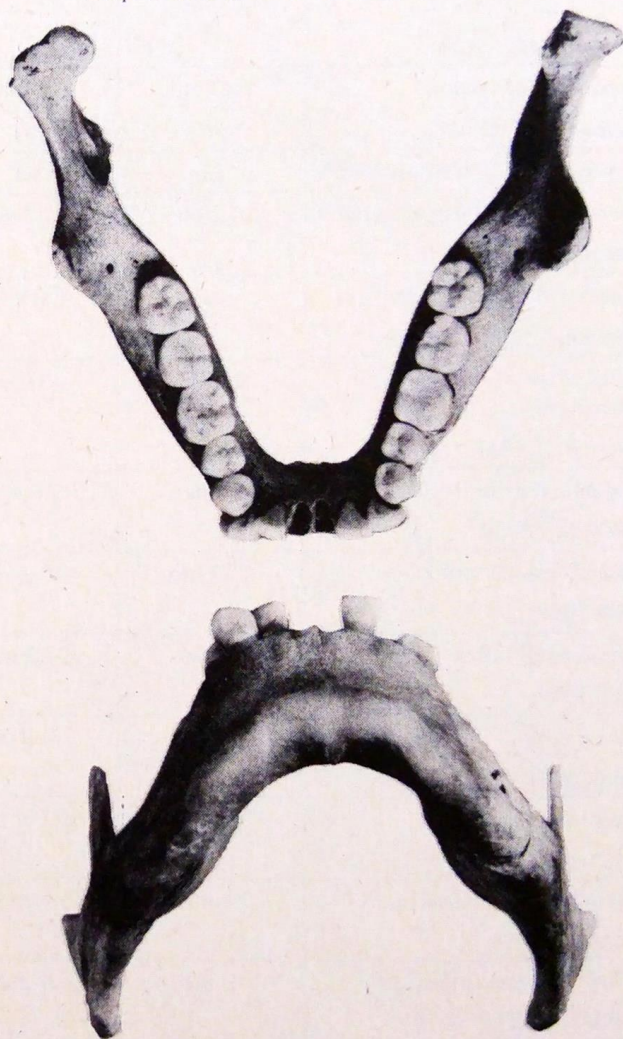


FIGURE 9. *Mandible of Devín 2* — vertical and fronto-inferior views.

preserved parts: damaged vertebral column, the whole sternum, fragments of ribs, defective scapulae, damaged humeri and forearm bones, fragments of the pelvis, damaged right femur and right tibia.

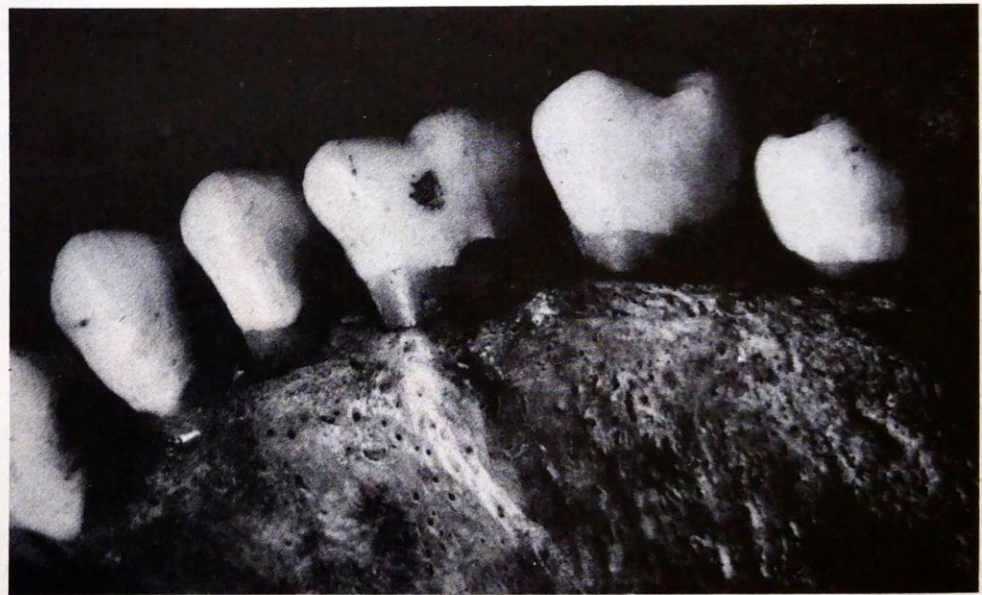
Morphological characteristics: Medium robust skull with medium muscular relief, medium glabella (0), traces of superciliary arches (-1), intermediate supraorbital margin (0), small frontal prominences (0), receding frontal squama, small parietal prominences (0), strongly prognathic jaws. The metopic suture is obliterated, there are two sutural bones on the right side of the lambdoid suture near lambda, one *os interfonticulorum asteriacum* on the left side.



FIGURE 10. *Devín 2* — detail of shovel-shaped maxillary incisors and canines.



FIGURE 11. *Devín 2* — crown enamel extension in upper left molars.



The occiput is vaulted, there are traces of the external occipital protuberance (-1), the nuchal lines are slightly arched (-1), the foramen magnum is ovoid, small mastoid processes (-1), medium robust zygomatic arches (0), large retromarginal process (+1), the orbits are slightly angulated (+1), medium face relief. Nasal bones are biconcave, their profile being concave in the middle, medium nasal prominence, praenasal sulcus, shallow canine fossae, traces of palatine torus, asymmetrical transverse palatine suture. Robust mandible with medium to strong muscular relief, strongly prominent, blunt and narrow chin. In vertical view, both the mental protuberance and the alveolar plane are visible. On the right side, there is a simple mental foramen between  $P_1$  and  $P_2$ , on the left a large mental foramen below  $P_2$ . The mental spine is spiky, mandibular angles are inverted. The jaws with parabolic dental arcades, the bite is strongly stegodont. Incisors have worn cusps and dentine is visible at places, canines and premolars have worn cusps as well, molars have partly worn

enamel and dentine is visible at places. All the maxillary incisors and canines are shovel-shaped (2nd degree of shovel-shaping), crown enamel extension on all maxillary molars, on both  $M_1$ 's and on the left  $M_2$ ; dystopy of canines in both jaws; the roots of  $M_3$  are open, the spheno-occipital synchondrosis is open. The mental prominence has a bilateral protuberance (+2), the body of the mandible is robust in the place of  $M_2$  (+1), marked eminences (+1) in the gonial angles, medium-sized mandibular condyle (0).

Small vertebrae; medium large, medium wide and isolated manubrium sterni, medium long and wide corpus sterni; the xiphoid process is forked on the distal side and fused. Medium robust ribs and scapulae. Medium robust humeri with unfused epiphyses and without septal aperture, medium robust radii with medium muscular relief and partly fused epiphyses, on the ulnae partly fused proximal and unfused distal epiphyses.

The fragments of the pelvis show features typical for a male: a rather closed angle of the greater sciatic



FIGURE 12. Profile radiographs of Devín 1 (left) and Devín 2 (right).

notch, the “arc composé” in the form of a continuously linked arch, the auricular surface forms a sharper angle without strangulation, the lower edge of the ischiopubic ramus sharply angles into the phallic crest. Medium robust right femur with a robust, bilateral linea aspera (+2) and unfused distal epiphysis (the proximal one has not been preserved); medium robust right tibia with an important retroversion of the unfused proximal epiphysis.

Metrical evaluation has been summarized in Tables 1, 2, 3 and 4. The skull is mesocrane, hypsicrane (high), acrocrane (wide), metriometop, the orbits are mesokonch (medium high), the nose is chamaerrhine (on the limit meso-chamae) (wide), the maxilla is brachyuranic, the palate is brachystaphyline (wide), the foramen magnum is small. Although the exact degree of prognathism could not be measured, the skull is obviously prognathe to hyperprognathe, by this feature approaching Negroids; the jaw prognathism in Mongoloids is usually less pronounced. The face flatness index (FFI) is very high (108.9?), molars are mesodontic. The single preserved right femur is pilastric and hyperplatymeric. The preserved right tibia is mesocnemic.

Conclusion: Although the degree of sexualization (DS = +0.39) calculated from the small amount of available features is indifferent, the extremely

robust mandible, male features on the fragments of the pelvis, as well as the extremely high linea aspera on the femur indicate that the individual is a male. The degree of union of the epiphyses of long bones, as well as the degree of teeth growth and eruption point to the age of 19 years. The body height calculated as an average of several methods on the basis of the humerus length is of about 166 cm, i.e. the individual was of medium stature. No pathological changes have been recorded on the skeleton; one of the anomalies is the evident dystopia of all the canines.

#### DISCUSSION AND CONCLUSIONS

The morphometrical characteristics of both individuals indicate that their skeletons manifest some features not typical for individuals of Europoid origin. In the early Middle Ages Central Europe might have witnessed an inflow of mainly Mongoloid individuals, coming in four invasion waves — the Hun wave (4th century A. D.), the Avar one (6th century A. D.), the Old-Hungarian one (turn of the 9th and 10th centuries A.D.) and the Tartarian one (12th century A. D.) (Vlček 1954).

This assumption has also been supported by the so far discovered finds of Mongoloid individuals of

TABLE 5. Comparison of Mongoloid individuals from different Migration Period sites in Slovakia according to indices and cranial capacity (D = Devín, S = Stráže, B = Bešeňov, L = Levice, A = Abrahám).

Character		Individuals								
		D1	D2	S1	S2	B5	B6	B7	L5/50	A
I 1	-kran	—	<b>m</b>	hb	ub	d	b	—	<b>m</b>	b
I 2	-kran	—	<b>h</b>	<b>h</b>	—	ch	or	—	<b>h</b>	<b>h</b>
I 3	-kran	—	a	met	—	t	—	—	met	met
I13	-metop	<b>met</b>	<b>met</b>	s	e	e	e	—	<b>met</b>	<b>met</b>
I38	-prosop	<b>l</b>	—	—	—	<b>l</b>	—	<b>l</b>	<b>l</b>	m
I39	-en	<b>l</b>	—	m	—	m	—	<b>l</b>	<b>l</b>	m
I42	-konch	<b>m</b>	<b>m</b>	h	—	h	h	<b>m</b>	h	h
I48	-rrhin	<b>l</b>	<b>ch</b>	<b>l</b>	—	<b>ch</b>	—	m	<b>ch</b>	m
I54	-uran	<b>b</b>	<b>b</b>	d	—	d	—	d	d	<b>b</b>
I58	-staphyl.	<b>b</b>	<b>b</b>	<b>b</b>	—	m	—	<b>b</b>	<b>l</b>	—
I60	-gnath	—	<b>m</b>	or	—	or	—	—	<b>m</b>	—
38.	-kephal	—	o	ar	—	ar	eu	—	eu	—

Legend: a = akro, ar = aristen, b = brachy, d = dolicho, e = eury, eu = euen, h = hypsi, hb = hyperbrachy, ch = chamae, l = lepto, m = meso, me = mega, met = metrio, o = oligo, or = ortho, s = steno, t = tapeino, ub = ultrabrachy; **bold** types: concordance with a Devín individual

the Migration Period in Slovakia — i.e. the three individuals from the Stráže site (village of Krakovany) near Piešťany (Malý 1936, Vlček 1957a), three individuals from Bešeňov near Šurany (Vlček 1957a), one individual from Levice (Vlček 1957a), one individual from Abrahám (Stloukal, Hanáková, Kolník 1974). Other individuals from the cemeteries mentioned above, as well as individuals from other Migration Period sites — Kapušany, Prša (Vlček 1957a), Šarovce (Vlček 1957b), Bratislava-Vajnory (Thurzo 1981), Báhoň-Kaplná (Thurzo 1989), are of Europoid origin.

The skeletal remains of both studied individuals are characterized by the following Mongoloid features: a flat, rather wide and little prominent nose, a flat face in general (as documented by the high FFI values — based on FFI they might be considered as “pure” Mongoloids without any Europoid features — and by the values of other nose and face indices), shovel-shaped incisors, macrodontia, crown enamel extension.

When comparing metrical characteristics of the studied individuals with those of other prehistoric and early medieval skeletal material, there appears an affinity with the following local populations:

By their high FFI values the Devín individuals are close to the Transbaikal group (Debets 1961b) and Mongoloids of the territory of the former USSR (Debets 1961a); based on the frontal, simotic, rhinal and premaxillar indices they resemble Inuits (Woo, Morant 1934). If data by Schwidetzky (1965) are applied to the Devín individuals, their nasomalar and zygomaxillar angles make them belong to the Mongoloid group, while the values of dacryal and simotic indices correspond to those of the Europoid range.

The maxillofrontal and zygoorbital indices of the Devín individuals correspond to Mongoloids, the index alpha, however, has a value typical for Europoids.

A striking feature in both Devín skulls are their prognathe to hyperprognathe jaws, which is generally considered as a feature typical for Negroid populations. Nevertheless, the occurrence of this feature is not sufficient for assessing that the Devín individuals are Negroids or Mongoloids with Negroid features, although the occurrence of an individual with several Negroid features has even been assessed in the 9th century A. D. Slavonic population of Mikulčice (Strouhal, Stloukal 1973). Owing to the fact that jaws prognathy has been occasionally documented also in Mongoloid individuals, e.g. in the Mongoloid skeletons of the 7th — 8th centuries A. D. in Želovce (Stloukal, Hanáková 1974), or in Avar skeletons discovered in the Hungarian site of Üllö (Lipták 1955), the occurrence of prognathism in the Devín individuals may be considered as merely extreme case of morphological variability of the Mongoloid population.

On the other side, the simultaneous occurrence of evident jaws prognathism in two individuals buried together in one grave may be taken as a kind of evidence on the family relationship of the two buried people. Already the existence of the double grave indicates that there must have been some closer relationship between the people buried there, although there might have been other than familial links; an analogical case is the double grave of the same period from Báhoň-Kaplná (Thurzo 1989). However, several common features may be taken as indicative of family relationship of the Devín individuals: the general morphology of the mandible, the inversion of the mandibular angles, the shape of dental arcades, the crowding of canines, the praenasal sulcus, the asymmetrical course of the transverse palatine suture, traces of palatine torus, shallow canine fossae, the shape of the zygomaxillar tubercle and lesser palatine

foramina, some similar or equal dimensions of the splanchnocranium.

It may therefore be concluded that the double grave in the castle of Devín was that of two individuals of Mongoloid origin, while several identical or similar morphometrical characteristics of theirs allow to assess their closer family relationship (with regard to the age of the buried individuals they might have been brothers or cousins). The occurrence of Mongoloid individuals in the Migration Period near Devín may be related to the Danubian and Amber Trade Routes, used in the 5th century A.D. by several tribes as temporary settlement (the Goths, Heruls, Huns, Longobards). Together with the mentioned tribes, migrating through the mid-Danubian Basin after the territory had been abandoned by Roman troops, also the first representatives of Slavonic tribes begun to make their way to the territory of Slovakia (Plachá, Hlavicová, Keller 1990).

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#### REFERENCES

- ACSÁDI GY., NEMESKÉRI J., 1970: *History of Human Life Span and Mortality*. Akadémiai Kiadó, Budapest, 346 pp.
- BACH H., 1965: Zur Berechnung der Körperhöhe aus den langen Gliedmassenknochen weiblicher Skelette. *Anthrop. Anz.*, 20: 12 – 21.
- BASS W. M., 1987: *Human Osteology. A Laboratory and Field Manual*. III. Ed. Missouri Archeological Society, Special Publication No. 2, pp. 88 – 92.
- DEBETS G. F., 1961a: O nekotorykh napravleniyakh izmenenii v stroenii cheloveka sovremennogo vida. *Sov. Etnogr.*, 2: 9 – 23.
- DEBETS G. F., 1961b: O pu'nyach zaseleniya severnoi polosy Ruskoy Ravniny i Vostotchnoy Pribaltiky. *Sov. Etnogr.*, 6: 51 – 69.
- FEREMBACH D., SCHWIDETZKY I., STLOUKAL M., 1979: Empfehlungen für die Alters- und Geschlechtsdiagnose am Skelett. *Homo*, 30 (2): 1 – 32.
- FETTER V. (Ed.), 1967: *Anthropologie*. Academia, Praha, 704 pp.
- KNUSSMANN R. (Ed.), 1988: *Anthropologie*. 1. Teil. Wissenschaftstheorie, Geschichte, morphologische Methoden. Gustav Fischer Verlag, Stuttgart – New York, 742 pp.
- KORBAČKOVÁ A., 1983: *Súvislosť medzi horizontálnym profilom tváre a mongoloidnými znakmi zubov včasnohistorických kostrových populácií z územia Československa*. Záverečná výskumová správa z rokov 1982 – 1983, Dokumentačné oddelenie PM SNM Bratislava, 93 pp.
- LIPTÁK P., 1955: Recherches anthropologiques sur les ossements Avars des environs d'Üllö: *Acta archaeol. Acad. Sci. hung.*, 6: 231 – 316.
- MALÝ J., 1936: Lebky z II. hrobu ve Strážích. *Obz. praehist.*, 9: 27 – 30.
- MARTIN R., SALLER K., 1957: *Lehrbuch der Anthropologie in systematischer Darstellung. Band I.*, Gustav Fischer Verlag, Stuttgart, 661 pp.
- OLIVIER G., AARON C., FULLY G., TISSIER G., 1978: New Estimations of Stature and Cranial Capacity in Modern Man. *J. Hum. Evol.*, 7 (6): 513 – 518.
- PLACHÁ V., HLAVICOVÁ J., 1976: *Predbežná nálezová správa za archeologickú sezónu 1975*. Dokumentačné oddelenie MM Bratislava, p. 71 – 77.
- PLACHÁ V., HLAVICOVÁ J., KELLER, 1990: *Slovanský Devín*. Obzor, Bratislava, 144 pp.
- RÖSING F. W., 1977: Die europoid-negrider Rassengrenze im alten Reich Ägyptens nach morphologischen und serologischen Merkmalen. *Glas. antropol. Društva Jugosl.*, 14: 109 – 113.
- SCHWIDETZKY I., 1965: Zur Frage mongolider Beimischung bei den Altslawen. *Anthrop. Anz.*, 29: 228 – 233.
- STLOUKAL M., HANÁKOVÁ H., 1974: Antropologický výzkum pohřebiště ze 7. – 8. století v Želovcích. *Slov. Archeol.*, 22 (1): 129 – 188.
- STLOUKAL M., HANÁKOVÁ H., KOLNÍK T., 1974: Pohřebiště z doby stěhování národů v Abrahámu. *Čas. Národ. Muz., Odd. přírodověd.*, 141 (3/4): 141 – 152.
- STLOUKAL M., VYHNÁNEK L., 1976: *Slované z velkomoravských Mikulčic*. Academia, Praha, 83 pp.
- STROUHAL E., STLOUKAL M., 1973: Ein Schädel mit negroiden Merkmalen aus dem altslawischen Burgwall Mikulčice in Mähren. *Anthropologie (Brno)*, 21 (1 – 2): 57 – 65.
- STROUHAL E., 1974: Využití metod horizontální profilace obličejového skeletu u nubijských souborů. Společnost Národního muzea v Praze, *Antropol. Archiv*, 4: 165 – 178.
- THURZO M., 1981: Ein Skeletfund aus der Völkerwanderungszeit in Bratislava – Vajnory. *Anthropologie (Brno)*, 19 (2): 135 – 142.
- THURZO M., 1989: Skeletal Remains from the Migration Period (5th cent. A. D.) Unearthed in a Double-Grave at Báhoň-Kaplná, District Bratislava-vidiek (Czechoslovakia). *Zbor. Slov. nár. Múz., Prír. Vedy*, 35: 149 – 166.
- THURZO M., KORBAČKOVÁ A., 1983: Some Europoid and Mongoloid Features in Skeletal Remains from the Avarian-Slavonic Cemetery (7th – 8th cent. A. D.) at Šebastovce, District Košice (Czechoslovakia). *Acta Res. natur. Mus. nat. slov.*, 29: 187 – 220.
- VLČEK E., 1954: Mongolové a Mongoloidi na jižním Slovensku. *Archeol. Rozhl.*, 6: 80 – 84.
- VLČEK E., 1957a: Anthropologický materiál z období stěhování národů na Slovensku. *Slov. Archeol.*, 5 (2): 402 – 434.
- VLČEK E., 1957b: Uměle deformovaná lebka ze Šarovců na Slovensku. *Štud. Zvesti (Janšákov sborník)*, Nitra, 2: 93 – 96.
- WOO T. Z., MORANT G. M., 1934: A Biometric Study of the "Flatness" of the Facial Skeleton in Man. *Biometrika*, 26: 196 – 250.
- ZUBOV A. A., 1968: *Odontologiya. Metodika antropologických issledovanií*. Izdatel'stvo "Nauka", Moskva, 198 pp.

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