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A BRIEF OUTLINE OF THE ANTHROPOLOGICAL RESEARCH OF THE BRONZE AGE IN BOHEMIA

Great attention is paid to the anthropology of the Bronze Age from the very beginning of the anthropological research in Bohemia. Numerous materials have been gathered from the periods of the Únětice, Knovíz — the other cultures lack well preserved anthropological finds. The period of the Lusatian culture abounds in human remains, but they come from cremation burials.

Only a small part of the earlier finds has been preserved in the museums and thus we depend mainly on written records. We shall limit ourselves to the metric evaluation of the skulls, which is without doubt most important. We shall skip also the height of the stature since the researchers used various methods giving varying results. The descriptive criteria are always influenced by subjective factors and the problem of typological classification has not been solved definitively. The comparison of metric data from old and new studies also faces some problems. The researchers in the past did not use internationally standardized anthropological measuring methods, they measured the skulls according to Hölder or Török. Archaeological dating is also quite a problem — it has undergone substantial changes in the course of the years. I feel very indebted to dr. I. Hásek who was kind enough to revise on my request the old publications on anthropological finds from the Bronze Age, dating them more accurately.

The oldest publications on anthropological materials from the Únětice period come from J. Matiegka (1892) and F. Kučera (1895, 1896/97). They deal mostly with isolated finds, later comprised by the complex work of A. Stocký, quoted below. Hellich's work "The Skulls of the Con-

tracted Skeletons" contains the data on almost 60 skulls, but after the new archaeological determination only 13 male and 4 female skulls of exact dating have remained (Hellich 1898/99). The author divided the finds according to the regions of their origin (the Kolín, Slaný, Prague, Žatec and Chrudim regions) distinguishing skulls of 4 types: 1. high hyperdolichocranic, 2. high dolicho-mesocranic, 3. high hyperbrachycranic and finally 4. low hyperdolichocranic. Most frequent are the first two types, the second especially in the surroundings of Kolín and Poděbrady.

From the older papers let us mention even A. Stocký's "The People of the Únětice Culture" (1931). This paper did very well in the archaeological revision, only some of the datings appeared to be controversial. The work contains data on 84 skulls, some of them had been measured by F. Kučera and J. Matiegka, and further 20 skulls from the Teplice Museum, measured and published by Reche were added to them; Hellich's material is not comprised in this complex work. Stocký divided his material into the early and late Únětice period, concluding that Bohemia in these periods was not inhabited by a uniform race. The collection contains ultradolichocranic and also brachycranic types of skulls. He divided the studied material into three groups: The 1st group is formed by ultradolicho-to-dolichocranic, hypsicranic, ortocranic, acrocranic, mesene, leptorrhine and mesoconch skulls. The 2nd group is formed by dolichocranic, orto- and acrocranic, eurymetopic, mesene, chamaerrhine and chamaeconch skulls. Group 3 is formed by skulls ranging from meso-to-brachycranic types.

The Mean Values of the Absolute Cranial Dimensions in the Únětice Period

Author	Dimension	No. 1	8	17	45	47	48
Hellich 1898/99	∅	185,3	135,9	138,6	122,6	113,8	65,9
	n	13	13	7	7	3	7
Stocký 1931	∅	191,3	134,5	142,0	130,1	113,8	67,1
	n	42	40	23	13	8	17
Vlček 1956	∅	180,0	147,0	139,0	125,0	—	71,0
	n	1	1	1	1	—	1
Chochol 1964	∅	192,3	136,4	145,4	132,7	119,1	70,9
	n	32	33	20	24	19	25
Chochol 1974	∅	188,2	132,5	141,0	123,5	112,5	66,6
	n	5	4	3	4	5	5
Hanáková 1974	∅	187,5	133,0	139,0	126,0?	110,0	66,0?
	n	2	2	2	1	1	1
Hanáková, Stloukal, Blajerová	∅	193,9	135,6	141,9	130,7	113,5	67,3
	n	14	14	9	10	8	12

Women

Author	Dimension	No. 1	8	17	45	47	48
Hellich 1898/99	∅	178,0	130,2	132,7	123,5	109,0	64,5
	n	4	4	3	2	1	2
Stocký 1931	∅	180,6	133,4	134,2	122,3	110,0	62,5
	n	9	8	5	4	2	4
Chochol 1964	∅	179,7	132,4	137,0	123,7	114,7	64,8
	n	12	11	9	9	4	7
Chochol 1974	∅	185,7	127,5	134,0	113,0	—	57,0
	n	3	7	1	1	—	1
Hanáková 1974	∅	191,0	124,0	142,7	120,0?	120,0?	71,0
	n	2	1	2	1	1	1
Hanáková, Stloukal, Blajerová	∅	178,3	134,5	141,3	126,5	118,0	68,0
	n	4	4	4	2	1	2

In the recent times the newly found Únětician remains from Bohemia were tackled in a complex way by J. Chochol (1964). He divided the anthropological finds into three phases, calling them the early, classical and latest phase and concluded that there were only slight differences between them, with the long — to very long, narrow and high, dolichocranic, hypsi- or ortocranic, acrocranic and eurymetopic skulls prevailing. The males have mesoprosopic faces, mesoconch orbits and mesorrhine noses. In females prevail the leptoprosopic faces, mesoconch orbits and chamaerrhine noses. The three phases of the Únětice culture show slight differences in the facial indices. The author concludes that the males of the Únětice culture are in general mesodolichomorphic and the females leptodolichomorphic. Chochol's most recent paper from 1974 deals with a few skeletal finds belonging to the Litoměřice people of the Únětice culture and their characteristics rank them with the finds tackled in the first study. The isolated find of the Únětice skull from Předměřice, studied by E. Vlček, is conspicuously brachycranic. Other — relatively fragmentary — skeletal finds from Tursko, Rvenice and Postoloprty (H. Hanáková 1959,

1962), as well as the Únětician mass grave in Blato (H. Hanáková 1974) fit into the dolicho-to-mesocranic framework of the other finds from the period of the Únětice culture. The extensive material from Velké Žernoseky was processed by M. Blajerová (1971); this population again is dolichocranic with a tendency to hyperdolichocrany. The Únětice finds of the Bílina and Teplice museums processed and prepared for publishing by H. Hanáková a M. Stloukal contain again male skulls with prevalingly dolichocranic and mesoprosopic faces and female skulls with leptoprosopic faces.

Summarizing all the published data on the people of the Únětice culture in Bohemia, comprising 103 male and 29 female skulls, we can conclude that the Únětician population was prevalingly dolichocranic; brachycranic skulls appeared only sporadically (5.9 per cent of males and 7.7 per cent of females). The facial indices of the males are within the limits of the mesoprosopic and mesene values, and those of the females are mostly leptoprosopic and mesene. The orbits and noses are mostly of medium shapes, i.e. mesoconch and mesorrhine, those of the females are rather chamae-

Author		Index No.								I front. mand.
		I 1	I 2	I 3	I 13	I 38	I 39	I 42	I 48	
Hellich 1898/99	∅	73,2	64,4	99,8	71,6	89,8	53,9	73,2	50,0	—
	n	13	7	7	12	3	6	8	7	—
Stocký 1931	∅	70,9	75,3	104,7	71,4	85,7	52,0	78,2	50,7	—
	n	42	23	23	37	5	13	18	12	—
Vlček 1956	∅	81,6	77,2	94,6	67,1	—	56,8	84,2	50,0	—
	n	1	1	1	1	—	1	1	1	—
Chochol 1964	∅	71,0	75,4	105,1	71,7	89,6	63,0	77,7	48,9	103,6
	n	32	19	19	29	17	22	25	23	17
Chochol 1974	∅	70,3	74,7	104,2	71,9	85,6	50,4	72,1	52,1	98,1
	n	4	3	3	3	3	4	5	5	3
Hanáková 1974	∅	70,9	74,1	104,6	70,9	—	—	75,6	47,0	101,9
	n	2	2	2	2	—	—	1	3	2
Hanáková, Stloukal Blajerová	∅	70,5	74,7	104,8	72,6	86,9	51,6	78,6	51,3	102,0
	n	13	8	9	12	8	11	11	13	6

Women

Author		Index No.								I front. mand.
		I 1	I 2	I 3	I 13	I 38	I 39	I 42	I 48	
Hellich 1898/99	∅	73,1	74,1	100,2	72,1	88,6	52,2	78,3	52,6	—
	n	4	3	3	4	1	2	2	2	—
Stocký 1931	∅	73,9	72,8	97,7	71,6	88,9	54,1	83,3	47,1	—
	n	8	4	4	7	2	4	4	4	—
Chochol 1964	∅	74,0	76,2	104,0	72,1	93,1	52,5	77,1	55,4	97,6
	n	11	9	9	9	4	7	8	7	3
Chochol 1974	∅	70,2	74,9	104,7	69,5	—	50,4	78,4	54,5	—
	n	2	1	1	1	—	—	1	1	—
Hanáková 1974	∅	66,7	74,7	114,9	68,5	—	—	77,3	47,3	102,2
	n	1	2	1	1	—	—	1	1	1
Hanáková, Stloukal, Blajerová	∅	75,2	77,1	106,1	78,4	91,5	53,8	85,0	48,0	—
	n	3	3	4	3	1	2	2	2	—

rhine. The Únětice population can be generally regarded as a homogenous leptodolichomorphic group with isolated occurrence of brachymorphic shapes; the females are conspicuously more leptodolichomorphic, while the male population has prevalingly mesodolichomorphic skull shapes.

The other numerous group of the Bronze Age comes from the Knovíz period. We can learn very little about the anthropology of the skeletal remains of this group from the older literature. Matiegka's earliest work from 1893 extensively deals with the problem of anthropophagy, but little attention is paid to the basic anthropological characteristic of the skulls. The pits at Knovíz location contained only fragments of bones, and thus only in a few cases was it possible to determine the sex and age of the individuals. There was only a single skull that could be evaluated, the skull of a child. Isolated finds are described also by B. Jelínek (1890, 1894) from Prague (na Slupeč) and from Přední Ovenec. B. Hellich's work on the contracted skeletons (1898/1899) comprises several finds pertaining — according to the newest revision — to the Knovíz period.

Recently the problems of the Knovíz culture in Bohemia were tackled in two works of J. Cho-

chol. In his first work (1971) he analyses in detail 49 finds, 31 of them belonging to adults; these skeletal materials come from graves exclusively. Chochol's work (1974) on the skeletal materials of the Knovíz culture in northwestern Bohemia comprises only 7 measurable male skulls and 2 female skulls. A very modest assemblage of 6 skeletons from various regions of Bohemia is described by H. Hanáková (1974) and the last work dealing with the period of the Knovíz culture has been prepared for print by H. Hanáková and M. Stloukal.

The above-mentioned publications contain data suitable for complex evaluation about 29 measurable or partially measurable male skulls and 16 female skulls of the Knovíz group. The skulls of both the men and women are in absolute dimensions long narrow and high, in men medium high. The facial dimensions are more variable; the men have mostly medium wide and medium high faces, the upper face is generally low, the faces of females are mostly wide and medium wide, and are generally higher. As far as cranial indices are concerned the situation is like this: all the studied female skulls are dolichocranic, in men we find also mesocranic skulls; brachycrany

Author		Dimension No.					
		1	8	17	45	47	48
Bř. Jelínek 1890	∅	194,0	142,0	146,0	130,0	122,0	—
	n	1	1	1	1	1	—
Bř. Jelínek 1894	∅	173,0	137,0	142,0	133,0	105,0	—
	n	1	1	1	1	1	—
Hellich 1898/99	∅	182,2	130,8	134,8	122,0	107,3	65,0
	n	6	6	6	6	3	6
Hanáková 1974	∅	187,3	137,7	142,5	132,7	120,5	67,2
	n	3	3	2	3	2	3
Chochol 1971	∅	183,0	142,8	139,1	130,1	114,5	68,3
	n	14	14	10	7	6	7
Chochol 1974	∅	189,1	139,9	141,4	132,5	123,0	72,5
	n	7	7	5	4	3	4
Hanáková, Stloukal	∅	187,5	145,0	142,7	132,5	122,0	75,0
	n	4	2	3	2	1	2

Women

Author		Dimension No.					
		1	8	17	45	47	48
Hellich 1898/99	∅	188,1	129,3	140,5	125,5	115,5	66,5
	n	4	3	3	3	2	3
Hanáková 1974	∅	181,3	130,5	138,0	121,3	115,0	66,0
	n	3	3	3	3	2	1
Chochol 1971	∅	184,0	136,0	132,0	126,0?	106,0	63,0
	n	4	4	1	1	1	1
Chochol 1974	∅	184,0	132,0	132,0	126,0	106,0	63,0
	n	1	1	1	1	1	1
Hanáková, Stloukal	∅	178,0	131,0	137,2	120,0	106,0	64,0
	n	5	4	5	5	4	5

did not appear at all. The facial indices of men show meso- to leptoprosopic values, while in women they could be described as lepto- to mesoprosopic, since narrow faces prevail. The orbits and noses vary, but both in men and women the average values of these indices cumulate to the medium categories.

It follows from our results that the studied Knovíz materials represent mesodolichomorphic types and the differences between male and female skulls are quite negligible, though in males the braincase shows a tendency to mesocrany, and women are characterized by clear-cut dolichoecrany. The faces of both men and women are meso- and leptoprosopic.

CONCLUSION

The assemblage of Únětician skeletal remains in the territory of Bohemia comprises 103 male and 29 female skulls; dolichocranic skulls prevail, brachycranic ones appeared only isolatedly (5.9 per cent in men and 7.7 per cent in women). With a view to the facial part of the skull the male part of the population can be regarded as mesodolicho-

morphic and that of the females leptodolichomorphic. The Únětice population can be regarded as a homogenous group of people with isolated cases of brachymorphic individuals.

The skeletal material from the Knovíz period comprises a total of 29 male and 16 female skulls. All the studied female skulls are dolichocranic, among the males there were also mesocranic skulls; the assemblage does not contain a single brachycranic skull. The faces are meso- and leptoprosopic, the entire population can be regarded as leptodolichomorphic. On the basis of the studied skeletal remains we can say that there are no substantial differences in the anthropological structure of the Únětice and Knovíz cultures, but the Knovíz culture seems to be more homogenous and clearly dolichomorphic, with the total absence of brachycranic types.

SUMMARY

A number of data have been published on the anthropology of the Bronze Age in Bohemia, but more numerous materials are at our disposal only from the Únětice and Knovíz periods. It was our

Author		Index No.								
		I 1	I 2	I 3	I 13	I 38	I 39	I 42	I 48.	I front. mand.
Bř. Jelínek 1890	∅	73,2	75,2	102,8	—	93,8	—	83,5	50,0	—
	n	1	1	—	—	1	—	1	1	—
Bř. Jelínek 1894	∅	79,2	82,1	103,6	—	78,9	—	77,5	51,0	—
	n	1	1	1	—	1	—	1	1	—
Hellich 1898/99	∅	71,9	74,0	103,3	69,3	87,9	53,3	75,7	48,1	—
	n	6	6	6	6	3	6	6	5	—
Hanáková 1974	∅	73,5	76,2	102,9	73,6	89,9	50,6	77,6	50,0	101,9
	n	3	2	2	3	2	3	3	3	2
Chochol 1971	∅	78,1	76,0	97,8	68,1	88,0	53,1	78,7	49,0	103,3
	n	14	10	10	14	6	6	9	7	7
Chochol 1974	∅	73,9	75,0	101,1	69,3	93,7	54,8	77,5	46,4	95,9
	n	7	5	5	7	3	4	5	4	1
Hanáková, Stloukal	∅	75,7	75,3	98,9	68,0	92,4	56,6	86,8	41,4	102,0
	n	2	3	2	2	1	2	2	2	1

Women

Author		Index No.								
		I 1	I 2	I 13	I 38	I 39	I 39	I 42	I 48	I front. mand.
Hellich 1898/99	∅	70,2	76,2	108,7	66,8	91,8	53,0	82,1	53,6	—
	n	3	3	3	3	2	3	3	3	—
Hanáková 1974	∅	71,9	76,1	105,9	71,5	97,1	58,9	86,8	42,2	102,2
	n	3	3	3	2	2	1	1	2	1
Chochol 1971	∅	73,9	71,7	100,0	70,8	84,1?	50,0?	84,2	46,8	94,6
	n	4	1	1	2	1	1	1	1	2
Chochol 1974	∅	71,7	71,7	100,0	68,2	84,1	50,0	84,2	46,8	105,5
	n	1	1	1	1	1	1	1	1	1
Hanáková, Stloukal	∅	73,6	77,1	103,8	69,7	87,6	53,6	76,3	50,6	110,6
	n	4	5	4	4	4	5	4	4	3

task to compare the hitherto known materials and to characterize these populations. We have limited the comparison to the metric evaluation of the skulls, which we regard as the most important and most reliable values.

The oldest work on the Únětician skulls is in fact Hellich's paper "The Skulls of the Contracted Skeletons" (1898, 99), in which the author divides the materials found in Bohemia into several regions, distinguishing four types in the skulls. Most of his materials belong to two of these types, to the high hyperdolichocranic and high dolicho-mesocranic type. In "The People of the Únětician Culture" by A. Stocký (1931) the studied material is divided into three groups: the first group comprises the ultradolicho- to dolichocranic skulls, the second consists of the dolichocranic and the third of the mesobrachycranic types of skulls. The newly found Únětice materials in Bohemia have been dealt with in a complex way by J. Chochol (1964); he divides the Únětice finds into the early, classical and latest phases and he found only slight differences between the individual phases. Other works deal with smaller groups of finds from this cultural period (M. Blajerová, 1971, H. Hanáková

1959, 1974, J. Chochol 1974, E. Vlček 1956); here belongs also the complex study of the Únětice finds of the Bílina and Teplice museums prepared for print by H. Hanáková and M. Stloukal. We can conclude on the basis of an assemblage of 103 male and 29 female skulls that the studied skulls are mostly dolichocranic, brachycranic skulls appeared only isolatedly (5.9 per cent in men and 7.7 per cent in women). The male population of the Únětice culture in Bohemia is formed by mesodolichomorphic types, while the females belong to the leptodolichomorphic type. The Únětice population can be generally regarded as a group of homogeneous dolichocranic people with an occasional occurrence of brachymorphic types.

There are very few literary records on the anthropology of skeletal remains of the Knovíz culture (J. Matiegka 1893, Bř. Jelínek 1890, 1894, B. Hellich 1898, 99). From the recent works we can mention the paper of Chochol (1971, 1974). Hanáková (1974) and the paper prepared for print by Hanáková and Stloukal. For a complex anthropological evaluation of the Knovíz culture we have at our disposal 29 measurable male skulls and 16 female skulls. All the

studied female skulls are dolichocranic, in the group of males there were mesocranic types of skulls and there was a complete absence of brachycrany. The facial indices show meso- to leptoprosopic values. The studied Knovíz material contains leptodolichomorphic skull types.

On the basis of studying the skeletal materials we can conclude that there are no substantial differences between the Únětice and Knovíz cultures, but the Knovíz group appears as more homogenous, clearly dolichomorphic, with a total absence of brachycranic types.

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