

# The Variability of the Cephalic Index and Anthropological Types of the Noua Culture

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The Noua Culture is part of a greater cultural complex, called Noua-Sabatinovka-Coslogeni. Its range reached to the north the Stanislav County of the Peri-Carpathian Ukraine, to the south the limit of the forest steppe zone, to the east the region of the Upper and Middle Dnieper river and to the west the eastern part of the Apuseni Mountains. The emergence of such a complex was one of the evidences regarding the phenomenon that started during the Middle and ended in the Late Bronze Age, that consisted of a cultural synthesis and uniformization in the Carpathian-Danube's area and north of the Black Sea territories<sup>1</sup>. It determined an ethnic-cultural change of the Proto-Thracian civilizations, making possible the formation of a greater ethnic group, during the Iron Age, namely the Thracians<sup>2</sup>.

In such a context, the Noua Culture played a significant role, not only by its connections with the related cultures of Sabatinovka and Coslogeni, but also by its own development and anthropological structure. However, even if the matter is still under debate among archaeologists, we should mention that, in Romania, there are three main theories, regarding the origin of that culture. The first one considers that it had a basic autochthonous stock, coming from the Monteoru Culture<sup>3</sup>. Another one, states the existence of two opposite population movements, one coming from the east, another one from the west<sup>4</sup>. The third hypothesis points out the presence of an eastern, allogeneous influence, exerted by the penetration of some communities from the north-pontic steppe<sup>5</sup>. The intensity of that process had gradually decreased, the access of those tribes towards Central Europe being stopped. Yet, in the Republic of Moldova, the allogeneous elements displaced the local ones. For the territories of the Ukraine, which were inhabited by the Noua tribes, it was presumed that they arrived there by a movement from south, passing over the Carpathians<sup>6</sup>. Evidently, the population stock, and its intra- and interethnic relations have initiated the up mentioned phenomena.

As concerns the funeral rite, more often inhumation was practised, whereas cremation was more seldom found. Usually, the necropolises were flat, but there existed tumular ones, as well (e.g. Cașolț, in Romania)<sup>7</sup>. Also, there was the custom of spreading ochre over the dead. The corpses were interred in a crouched position, set on a side. In the Cașolț necropolis, the only tumular cemetery in Romania, there existed inhumation burials, some of them being in stone cists and cremation ones, with the remnants put into urns. Evidently, the cremation burials found at Cașolț do not represent a singular case<sup>8</sup>.

In comparison with the total number of Noua cemeteries in Romania, out of which, just in Transylvania, had been excavated 53, the anthropological analyses are in a less significant number. Yet, they point out a distinct repartition of the anthropological features, for each region. As it is known, during the Neolithic period, the main population stock of Romania belonged mostly to the mediterraneoids, the other types being less represented. In the transitional period to the Bronze Age, appeared some detectable local changes. For the extra-Carpathian regions, they were determined by the penetration of the tumular ochre burials bearers. These phenomena were reflected, as we will see further, in the anthropological features of the Bronze Age communities.

In Moldavia (province in eastern Romania), the necropolises belonging to the Noua Culture, could provide a better image of the anthropological structure of those tribes.

The most important cemetery was found at Trușești, and its special significance is given not only by the great number of analyzed individuals (127 skeletons), but also by its role in the archaeological context of the region. It's been already mentioned that the protonordoids prevailed, in mixture with protoeuropoids, while the mediterraneoid elements were scarce. There, it could be established that the series homogeneously consisted of high stature individuals, especially when males were considered<sup>9</sup>. Taking into account all the characteristics of that skeleton series, the community was assigned to an enclave population of the steppe tribes<sup>10</sup>. This fact might have not been unusual, as in the region existed discoveries of the up mentioned communities.

The skeleton series from Brăești (Botoșani County), that comprised 14 individuals (4 *infans I*, 3 *infans II*, 7 male individuals, out of which 1 adult and 6 matures)<sup>11</sup> by the characters of the neurocranium, showed that the up mentioned populations had a very dolichocefalic skull, in comparison with others, like Trușești, Doina (of the Noua Culture) and Cioinagi-Bălințești (of the Monteoru Culture). We have to mention here that the whole series belonged exclusively to the dolichocefalic category. By its homogeneity, as concerns the stature, it could be distinguished from the others, because all subjects were tall.

Generally, the necropolis at Brăești, when considered its features, had better similarities with Trușești but, unlike the latter, where the protonordoid individuals prevailed, the protoeuropoids were in greater number, with slight mediterraneoid traces. It is also remarkable that, in the Brăești series there was a skeleton (Gr.9) which, besides the characters of a classic nordoid, had some dinaroid elements too. Also, there is another one (Gr.4), which is closer to the Srubnaia populations, by its euriene face and camaeochonc orbits<sup>12</sup>. Under such circumstances, it can be inferred that, in this case from Romania, like in others, the older autochthonous population stock underwent an allogeneous influence<sup>13</sup>.

The skeletons unearthed at Doina, pointed out the existence of the mediterranoïd component, with some nordoid elements. That skeleton series comprised 17 individuals, out of which 16 could be included into a certain age category, being 6 children (3 *infans I* and 3 *infans II*), 3 adolescents, 3 adults (20-30 years), 4 matures (30-60 years). As a general characteristic, it was obvious that they were gracile, with a medium or supermedium stature (just in one case being high). The skull was hypercolidocefalic, or more seldom mezocefalic, while the brachycefalics were missing. The face was either leptene or hyperleptene, with hypsichonc or chamaechonc orbits and a leptorhinian or chamaerhinian nose. The population at Doina was considered to have belonged to the local communities. Accounting for this fact was the evident difference which existed in comparison with the Srubnaia-Hvalinsk tribes<sup>14</sup>. As a matter of fact, the Doina skeleton series has some analogies with the necropolis at Cioinagi-Bălintești, belonging to the Monteoru Culture, which, by its specific anthropological features, was considered to represent a transition from Monteoru to the Noua Culture<sup>15</sup>.

From the Probotă series (Iași County), the 3 analyzed skeletons are closer to Trușești, due to their stronger nordoid characters<sup>16</sup>.

In the small series at Ciritei (Piatra Neamț, Neamț County) and Lețcani (Iași County), it was also established the prevalence of the mediterranoïd stock, with some nordoid and Crô-Magnon-oid elements<sup>17</sup>.

At Trestiana, the mixture of populations was evidently stronger because, out of the 3 analysed skeletons, 2 belonged to the nordoid type, with some protoeuropoid elements, and the third to the alpin type, with mediterranoïd influences<sup>18</sup>.

Another find of the Noua Culture was the one at Cotârgaci (comm. Roma, Botoșani County). The burial, T.2 (Gr.1) was located in a tumulus, together with some others, belonging to the steppe communities. The skull of the individual was dolicocephalic (71,35), acrocephalic (90,51) and hypsicephalic (64,58). By the features of the skeleton it could be inferred that it had the male sex, its assessed age was over 50 years, while its stature was supermedium. Considering all these, as typology it was a gracilized protoeuropoid<sup>19</sup>.

In Transylvania, by the discovery of the necropolis in Cluj-Napoca, at the spot from Str. Banatului (Cluj County), it was studied a series of 26 skeletons. Out of them, 13 allowed to be taken anthropological measurements. Five were determined to be brachycranians, meaning that such a cephalic category detained 38% in the whole series<sup>20</sup>. Thus, it could be well emphasized the trend towards brachycefalisation, even if the average cefalic index was mezocefalic. The individuals were mediterranoïds, with some alpine elements<sup>21</sup>.

As a general conclusion for Romania, it could be mentioned the prevalence of the meso-dolicocephalic skulls in Moldova. As typology, mostly represented are the protoeuropoids, protonordoids, nordoids and mediterranoïd types, mixtured in various degrees. For Transylvania, the situation was different, due to the existence

in greater number of brachycephalics. This fact had been pointed out by some of the anthropologically analyzed series, like the one at Cluj<sup>22</sup>, Alba Iulia<sup>23</sup> or Morești<sup>24</sup>. This is why, the anthropologists tried to find an explanation of this phenomenon. The Wietenberg Culture bearers, that came in contact with the Noua communities don't have a defined anthropological structure, because they practised the cremation rite. It was then presumed to have existed a mixture of population at the contact zone with the Otomani Culture bearers, where the brachycephalic elements were more numerous<sup>25</sup>. In that province, existed just mediterraneoids and alpiners, while the other anthropological types were missing.

In the Republic of Moldova, it was anthropologically analyzed the necropolis at Bedragii Vechi (Pruth County), that comprised 54 skeletons. Just the skulls of 10 male and 13 female individuals could be studied, due to their precarious preservation state. They were dolichocephalics, with a medium robustness, and had been assigned to the attenuated protoeuropoid type<sup>26</sup>. That series were remarkably different from the one at Vihvatinț, belonging to the Cucuteni-Tripolje Culture, from the transitional period from the Neolithic period to the Bronze Age. In the last mentioned series, the mediterraneoid features were well defined, fact which was missing in the necropolis at Bedragii Vechi. There were found similarities with the necropolis of Calfa, belonging to an earlier phase of the Srubnaia Culture, that preceded Bedragii Vechi.

In the Peri-Carpathian Ukraine, it was discovered another necropolis of the Noua Culture, at Ostroveț (Stanislav County). The osteological material was in a rather poor condition, allowing just 4 male and 1 female skulls to be studied. Thus, the reconstruction of the characters which were specific to the population of Ostroveț could be done only by this series, in which male prevailed, the same like in the necropolis at Brăești from Romania. The skulls were all dolichocephalic, heavily built and with a well emphasized muscle relief. The face was broad, with short orbits and medium-sized nose. It is important to mention here the height of the Ostroveț skulls, which is specific to the Komarowo populations. In fact, one of the burials (no. 78) has ritual resemblances with the up mentioned culture<sup>27</sup>. Of course this could be a result or interrelations with the bearers of that culture. Anyway, the series had many affinities with Bedragii Vechi and Trușești<sup>28</sup>.

Out of all information presented here, it could be better outlined the anthropological structure of the tribes who were the bearers of the Noua Culture, during the Late Bronze Age.

Firstly, the protoeuropoid elements decreased their number from east to west. In the Republic of Moldova, it seems that the autochthonous (namely the Cucuteni-Tripolje Culture bearers, found in the necropolis at Vihvatinț)) were either displaced, or assimilated by the new comers, because any of their specific traits could be anthropologically identified in the cemetery of Bedragii Vechi. Given that in that site protoeuropoids had been exclusively discovered, the possibility of a population move-

ment coming from the west was excluded, because the strong core of such an anthropological type was located north of the Black Sea. At the same time, it seems that the intruders who penetrated the territory of Romania could determine a kind of counterflow. This might be an explanation for the existence of some individuals with a narrow face in the Belozërka Culture, in the necropolis at Sirokoe.

For the regions situated west of the Pruth river, a more significant contribution of the local population was noticed, consisting mainly of mediterraneans. Yet, even in such a synthesis, there was a remarkable difference between the Noua Culture bearers and the series of Sărata Monteoru, belonging to the Monteoru Culture. This was assigned exclusively to the autochthonous population. At the same time, there were certain similarities with the bearers of the tumular ochre burials and differences with regard to the skeleton series of the Srubno-Hvalinsk Culture, even if such elements were sporadically found on Romania's territory.

In Transylvania, there were also identified individuals from the local population stock, but the situation was different from the one in Moldova. The protoeuropoids were completely missing, being substituted by brachycephalic individuals. Those individuals could probably come from the Otomani culture<sup>29</sup>.

For the Ukraine, the features of the Ostrovet necropolis had resemblances with Bedragii Vechi and Truşeşti. We consider that the Noua Culture bearers couldn't have come from the south, by passing over the Carpathians. As we have already seen, in Transylvania there were no protoeuropoids. They could more easily come along the mountains. In those regions, like in Romania, there was a strong interrelation between the local communities and the new comers.

As a conclusion concerning the whole range of the Noua Culture, we could say that the cephalic index of its bearers varied from one region to another (see Table no. 1), increasing from the territory of Republic of Moldova up to Transylvania, in Romania. Besides, the protoeuropoids who were most frequently found north of the Black Sea, were gradually less represented in the other regions. Thus, the region occupied by the Noua culture tribes was a zone of permanent contact and cultural synthesis, between two or more different kinds of populations, fact which was outlined by the anthropological structure of its tribes.

Due to the cremation rite, which was mainly practised in Hallstatt, it is hard to have an exact estimation concerning the further development of the Noua tribes, especially on Romania's territory.

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## NOTES

1. E. Sava, *Epoca bronzului - perioada mijlocie și târzie (sec. XVII-XII î.e.n.)*, Thraco-Dacica, XV, 1-2, 1994, p. 144-154; S. Morintz, *Contribuții arheologice la istoria tracilor timpurii. I. Epoca bronzului în spațiul carpato-balcanic*, București, 1978, p. 152.
2. M. Petrescu-Dîmbovița, *Contribution des recherches archéologiques à l'étude des commencements de l'ethnogenèse des Thraces dans l'espace carpato-ponto-danubien*, in Studi di paleontologia in onore di Salvatore M. Puglisi, Roma, 1985.
3. Idem, *Contribuții la problema sfârșitului epocii bronzului și începutul epocii fierului în Moldova*, SCIV, IV, 1953, 3-4, p. 478-481.
4. A. C. Florescu, *Contribuții la formarea culturii Noua*, Arheologia Moldovei, II-III, 1964, p. 202; Marilena Florescu, A. Florescu, *Unele observații cu privire la geneza culturii Noua în zonele de curbură ale Carpaților Răsăriteni*, Arheologia Moldovei, XIII, 1990, p. 50, n. 3.
5. E. Sava, *op. cit.*, p. 142; idem, *Contribution au problème de la genèse de l'ensemble des cultures Noua, Sabatinovka et Coslogeni*, Symposia Thracologica 9, București, 1992, p. 107-109.
6. E. Balaguri, *Mogilnik kul'turi Noua na Stanislavscini*, Arheologija, XIII, 1961, p. 145-154.
7. A. C. Florescu, *Repertoriul culturii Noua-Coslogeni din România, Așezări și necropole*, CCDJ, IX, 1991, p. 44.
8. I. Andrițoiu, *Civilizația tracilor din sud-vestul Transilvaniei în epoca bronzului*, Bibliotheca Thracologica II, București, 1992, p. 64.
9. Olga Necrasov, Maria Cristescu, *Studiul antropologic al scheletelor de la Trușești aparținând culturii Noua*, SCA, 6, 1968, 1, p. 3-17; M. Petrescu-Dîmbovița, Marilena Florescu, A. C. Florescu, *Trușești. Monografie arheologică*, in press, p. 679-684.
10. Maria Cristescu, Serafima Sandu-Antoniou, Rachel Klüger, *Studiul antropologic al scheletelor de la Cioinagi-Bălintești*, SCA, 2, 1965, 1, p. 39.
11. Georgeta Miu, *Caracteristicile antropologice ale scheletelor descoperite la Brăești (jud. Botoșani), aparținând culturii Noua*, SCA, 29, 1992, p. 18, table no. 1.
12. Georgeta Miu, *op. cit.*, p. 21-22.
13. Georgeta Miu, *op. cit.*, p. 22.
14. Maria Cristescu, Serafima Antoniu, *Contribuție la cunoașterea structurii antropologice aparținând culturii Noua din Moldova*, AȘUI, VIII, 2, 1962, p. 194, 198, 199, pl. I-V.
15. Maria Cristescu, Serafima Sandu-Antoniou, Rachel Klüger, *op. cit.*, p. 29-42; M. S. Velikanova, *Paleoantropologija Prutsko-Dnestrovskogo mezhdurečija*, Moskva, 1975, p. 48.
16. Maria Cristescu, Serafima Antoniu, *Contribuție la cunoașterea structurii antropologice a populației aparținând culturii Noua din Moldova*, AȘUI, VIII, 2, 1962, p. 198.
17. Maria Cristescu, *Contribuție la studiul antropologic al unor schelete de la sfârșitul epocii bronzului (Cultura Noua și începutul epocii fierului din Moldova)*, Arheologia Moldovei, I, 1961, p. 130-135.

18. Olga Necrasov, Serafima Antoniu, *Contribuții la studiul antropologic al populațiilor vechi care au trăit în zona orașului Bîrlad*, AMM, 1, 1979, p. 25-30.
19. Michaela Perianu, *Privire antropologică asupra unor tumuli din epoca bronzului de la Cotîrgaci (comuna Roma, județul Botoșani)*, Hierasus, VII-VIII, Botoșani, 1989, p. 148-149.
20. Maria Cristescu, *op. cit.*, p. 142.
21. I. G. Russu, M. Șerban, N. Motioc, T. Farkaș, *Date antropometrice asupra populației vechi (epoca târzie a bronzului), din regiunea Cluj*, in *Morfologia normală și patologică*, 1, 1958, p. 51-58.
22. I. G. Rusu, M. Șerban, N. Motioc, T. Farkaș, *op. cit.*, p. 57-58.
23. Olga Necrasov, Maria Cristescu, *Structure anthropologique des tribus néo-énéolithiques et de l'âge du Bronze de la Roumanie*, Fundamenta. Monographien zur Urgeschichte, edit. Hermann Schwabedissen, series B, vol. 3, Böhlau Verlag, Köln, Wien, 1973, p. 146; O. Necrasov, *Structure anthropologique des populations anciennes et récentes de la R.S.Roumanie*, Rassengeschichte der Menschheit, edit. I. Schwidetzky, R. Oldenbourg Verlag München, Wien, 1979, p. 60.
24. I. G. Russu, M. Șerban, N. Motioc, T. Farkaș, *op. cit.*, p. 51; M. Cristescu, *op. cit.*, p. 142.
25. Olga Necrasov, I. G. Russu, Maria Cristescu, *Date noi asupra structurii antropologice a triburilor culturii Otomani (vîrsta bronzului)*, SCA, 3, 1966, 1, p. 11-16 and table no. 4; Maria Cristescu, *op. cit.*, p. 142.
26. M. S. Velikanova, *op. cit.*, p. 79-82.
27. E. A. Balaguri, *op. cit.*, p. 154.
28. T. S. Konduktorova, *Antropologičeskaja Ijudej kultury Noua s territorii Ukrainy*, Voprosy Antropologii, 65, 1980, p. 116-122.
29. Maria Cristescu, *op. cit.*, p. 142.

Table no. 1

The variation of the average dimensions and indices for the skeletons in the Noua cemeteries

Nr. Martin	Dimensions	Ukraine Ostroveț	Republic Moldova Bedragii Vechi	România Trușești <sup>1</sup>	România Brăești	România Probota	România Doina	România Cluj-Napoca	România Cioinagi-Balintești	România Sărata-Monteoru	Rep. Moldova Calfa	Rep. Moldova Vihvatii
1	lg-op	193,2	192,3	193,80	198,20	182,5	196,40	181,66	186,40	187,8	190,7	183,4
8	eu-eu	141,8	134,6	139,58	132,50	136,0	135,60	141,41	137,60	139,3	139,3	132,6
9	ft-ft	104,2	96,7	101,02	99,00	95,5	100,00	103,0	95,33	95,2	-	92,8
17	ba-b	147,5	140,5	139,61	-	-	-	125,0	141,00	139,8	142,2	135,5
20	po-b	-	-	114,73	119,43	-	119,60	107,0	116,20	115,3	-	-
8:1	cef.ind	73,6	70,1	71,78	67,07	74,9	69,03	78,01	73,84	74,3	73,2	72,3
17:1	ind	76,3	-	72,28	78,92	-	-	70,79	77,04	75,2	-	-
17:8	ind	104,0	-	99,95	114,18	-	-	92,24	106,06	100,5	-	-
45	zy-zy	139,0	135,7	134,88	142,7	126,5	127,00	-	132,00	129,9	136,8	127,8
48	n-pr	71,3	72,6	74,31	75,00	72,0	73,00	-	70,00	68,9	75,0	69,0
48:45	facial index	51,2	54,3	54,95	52,81	56,92	58,93	-	53,63	53,8	55,2	52,1
54	al-al	25,7	26,7	26,17	24,00	25,0	25,67	-	23,75	23,9	25,1	26,2
55	n-ns	-	52,4	51,88	50,00	-	56,00	-	50,50	52,4	54,2	52,0
54:55	nasal index	-	51,0	47,71	48,00	-	45,46	-	46,99	46,0	46,3	50,2
51	mf-ek	-	42,4	42,17	44,00	-	38,67	-	39,50	41,4	42,8	43,1
52	orbit height	33,0	31,7	34,00	32,00	31,5	33,67	-	32,25	33,6	31,6	31,9
52:51	orbitaly index	-	74,7	81,47	72,72	-	87,59	-	81,64	81,5	73,6	74,0

<sup>1</sup> The data of that series are those referring just to 103 skeletons, as published by Georgeta Miu, *Caracteristicile antropologice descoperite la Brăești (județul Botoșani), aparținând culturii Noua*, SCA, 29, 1992, p. 20, table no. 3. For the others, up to 127, the data are in press.