

# **Typological, Synchronic and Diachronic Analogies from the Medieval Period in Săbăoani locality, Neamț county, Romania**

**Robert Simalcsik\***

**Abstract:** The underlying material for the present study is represented by the human skeletons from two necropolises located in the area of Săbăoani commune (Neamț county) and which are significantly important for the history of this community. Another feature we favored in the present study is the anthropological type that gathers all individuals of a population which represents a certain association of characters.

Within Săbăoani community, chronologically (diachronically) speaking we can notice the perennization of the Mediteranoid medieval anthropological fund. Dinaroid elements have registered a continuous increase along with the Nordoid elements and consequently reached a top position among nowadays population, we also notice the appearance of Mongoloid elements in the medieval period. Several generations should succeed in the case of some dominant elements of the typological fund. The blend of typological features and their percentages have broadly modified along with the individual/ population migration from one place to another.

**Keywords:** anthropological, typological analysis, Mediteranoid, Nordoid, Proto-Europoid, Dinaroid, Mongoloid

## **The Material and Method of the Typological Analysis**

### **1. The Material**

The underlying material for the present study is represented by the human skeletons from two necropolises located in the area of Săbăoani commune (Neamț county) and which are significantly important for the history of this community. Along with the osteological human material, the archaeological researches done in the course of several decades have brought to light a highly rich and compelling archaeological material which supported

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\* Doctor of Medicine (MD), scientific researcher 3<sup>rd</sup> degree, "Olga Necrasov" Centre for Anthropological Research, Romanian Academy – Iași branch; [robbyboy2mail@gmail.com](mailto:robbyboy2mail@gmail.com)

the completion of the chronological and cultural timespan of the necropolises.

The former necropolis from Săbăoani, chronologically dated in the 4th century A.D. has been the research subject of 10 systematic digging expeditions between 1966 and 2003, by 24 sections<sup>1</sup>. The archaeological diggings were coordinated by Vasile Ursachi, archaeologist at the History Museum of Roman (Neamț county). The latter necropolis from Săbăoani, chronologically dated in the Middle Age between mid 14th and up to 16th century, was studied between 1989 and 2000<sup>2</sup>. The archaeological diggings were conducted by Domnița Hordilă, archaeologist at the History Museum of Roman (Neamț county).

In the 4th-century biritual necropolis from Săbăoani were discovered 102 graves, of which 88 were buried and 14 cremated<sup>3</sup>. The anthropological analysis was done on a number of 57 buried skeletons (16 male, 19 female and 22 of undetermined gender) which were either complete or incomplete and served as the material supplied for processing and study.

In the medieval necropolis from Săbăoani (14th-17th centuries) were discovered a total of 1455 burial places<sup>4</sup>, of which 937 skeletons served as material for analysis: 399 skeletons from Săbăoani-Berindești necropolis (158 male, 130 female and 111 of undetermined gender) and 538 skeletons from Săbăoani necropolis (247 male, 160 female and 131 of undetermined gender).

The identification of the skeleton series for each of the two medieval neighboring necropolises (Săbăoani-Berindești and Săbăoani) was done based on the markings from the packages where the skeletons were brought. From a paleoanthropological, typological and paleopathological view, the two skeleton series were regarded as part of the same necropolis as they were actually using the same cemetery, formed the same population but with slightly different areas of inhabitation since Berindești village disappeared in late 16th century. The necropolises were chronologically placed in the same period and belonging to the same area, Săbăoani locality. Due to the disappearance of Berindești medieval village, the population of this locality moved largely to Săbăoani. Therefore, we shall name it the medieval necropolis from Săbăoani locality (14th-17th centuries).

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<sup>1</sup> V. Ursachi, *Săbăoani. Monografie arheologică*, volumele I-II, Casa Editorială Demiurg, Iași, 2010, p. 23-34

<sup>2</sup> D. Hordilă, *Câteva considerații de ordin arheologic privind populația catolică din zona Romanului în secolele XIV-XIX*, in *Buletin Istoric*, 1, 2000, p. 59-82)

<sup>3</sup> V. Ursachi, *op. cit.*, p. 23-34

<sup>4</sup> D. Hordilă, *op. cit.*, p. 59-82

## 2. The Typological Analysis

Another feature we favored in the present study is the anthropological type that gathers all individuals of a population which represents a certain association of characters. Any population containing that many elements in different proportions<sup>5</sup>. Although nowadays there is a clear tendency to replace the method of typological researches, we see it as undoubtedly worthy of qualities which cannot allow its suspension from the anthropological research. Throughout the time the typological method has supplied the key features of subdividing the human population based on a rich documentary material. Even now, when some authors feel inclined to replace the individual as a study unit with the population, the typological method is the only one which can provide the necessary tools for studying the structure of the population. Again, despite the general tendency of going around or denying the issue of anthropological types, another segment of specialists carries on classifying and defining them on the grounds that the differences between populations are a real fact which can be seen all over the world. We need to specify that in the case of any population, including a prehistoric one, we cannot speak of a single anthropological type regardless of their habitat<sup>6</sup>. The blend between different anthropological types took place not merely in the contact zones of the population spread area, but also, up to degree, in the depths of the areas which lead to their trespassing and overlapping. Thus, the areas of human anthropological types, as far as the superior paleolithic, lost their isolation, broke off and underwent mixtures<sup>7</sup>. The best known and most commonly accepted system of typological classification in Europe is the one offered by Eickstedt comprising three large racial branches and 36 subbranches, among which there are also included paleo races that generated the current races and still persist nowadays in conditions of isolation<sup>8</sup>. In 1951 Cheboxarov came up with a classification based on the same principles yet preserving merely the race terms for groups of ancient origin with particular features obtained as a result of adjusting to different environments. In the case of the later-formed groups when adaptation had lost its vital meaning, the author suggests the title of

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<sup>5</sup> J. Hiernaux, *Problems of race definition*, Expert Meeting on the Biological Aspects of Race, United Nations Educational Scientific and Cultural Organization, Moscow, 1964; J. C. King, *The Biology of race*, University of California Press, Berkeley, Los Angeles, London, 1981

<sup>6</sup> R. Biasutti, *Le Razze e I Popoli della Terra*, vol. I-IV, Unione Tipografico, Editrice Torinese, Torino, 1959

<sup>7</sup> V. V. Bunak et al., *Antropologiya, kratkii kurs*, Moskva, 1941; R. Biasutti, *op. cit.*

<sup>8</sup> E. F. von Eickstedt, *Rassenkunde und Rassengeschichte der Menschheit*, VIII, Stuttgart, Ferdinand Erik Verlag, 1934; C. Stevens Coon, *The Races of Europe*, New York, The MacMillan Company, 1954)

“anthropological types”. His system comprises three primary races, secondary races and more groups of anthropological types<sup>9</sup>.

In the case of the present study the determination of the anthropological type has been done only when the skeleton preservation state and the presence of the characteristic features allowed it (to make the specific observations). The anthropological type has been appreciated based on the classifications made by von Eickstedt (1934) and Vallois (1944, 1953, 1960, 1965), and completed by special taxonomic aspects as defined by other authors, such as Bunak et al. (1941), Roginschii (1948), Coon (1939), Comas (1960), Baker (1974) and Boev (1972). The anthropometric, conformation and somatoscopic features have been taken into consideration, as well as the medium height value and the robustness degree of each skeleton. A population analysis for each of the two necropolises has been done depending on the individual characterization of each skeleton from the series studied (from the 4th century A.D. and from the 14-17th century period).

## I. Types of Populations in Sântana de Mureș

The anthropological data regarding the population that lived on the territory of our country in the 4th century A.D. should be interpreted with respect to the historical data about the existing Dacian tribes within the outer and intra-Carpathian territory conquered by Romans as well as the tribes that used to live in the outer Carpathian territory outside the Dacian-Roman, in other words, the land of free Dacians who also appear as other ethnonym, such as “Carpi” and “Costoboci”<sup>10</sup>.

Related to the matters presented above, we shall try to present some anthropological arguments concerning the existence of the population on the territory of our country after the retreat of the Roman administration in late 3rd century A.D., when a series of novel cultural elements (characteristic of Sântana de Mureș culture) emerged.

The osteological materials from the necropolises belonging to Sântana de Mureș culture in our country, to which we shall make references, are as it follows: Sântana de Mureș (Mureș county), Independența (Călărași county), Oinacu (Ilfov county), Erbiceni (Iași county), Pietriș, Valea Seacă, Bogdănești (Vaslui county), Barcea (Galați county), Miorcani, Hănești, Mihălășeni (Botoșani county). We would like to remind that the osteological

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<sup>9</sup> P. Boev, *Die Rassentypen der Balkanhalbinsel und der Ostagaischen Inselwelt und deren Bedeutung für die Herkunft ihrer Bevölkerung*, Verlag der Bulgarischen Akademie der Wissenschaften, Sofia, 1972

<sup>10</sup> C. G. Giurescu, D. C. Giurescu, *Istoria Românilor: Din cele mai vechi timpuri până la întemeierea statelor românești*, Editura Științifică, București, 1974

material studied in the 4th century Săbăoani necropolis comes from burial places only.

The main typological features of the population from the above-mentioned necropolises are briefly presented next.

In Sântana de Mureș necropolis (Mureș county) the population is typologically characterized by the predominance of the Nordoid and Mediteranoid features. Two cases with some Mongoloid features were also reported.

In the biritual necropolis of Independența (Călărași county) the population is largely formed by Europoids, but there are two skeletons which present some Mongoloid features as well. The Nordoid and Proto-Europoid elements are prevailing in the case of male, complemented by some Mediteranoid elements, while, for female, the dominant ones are Mediteranoid, accompanied by Nordoid, Proto-Europoid and Alpinoid elements.

In Oinacu necropolis (Giurgiu county) the main features are Proto-Europoid and Nordoid with some Mediteranoid elements (especially female).

The necropolises from Erbiceni (Iași county) and Pietriș (Vaslui county) are characterized by Proto-Europoid and Nordoid-Alpinoid elements with little Mediteranoid influences.

In the necropolis from Hănești (Botoșani county) there is a dominance of the Mediteranoid features with little Proto-Europoid, Nordoid and Alpinoid influences.

Barcea necropolis (Galați county) there is mentioned a preponderance of Proto-Europoid and Mediteranoid elements ascribed to the native fund. In addition to it, but in a smaller proportion, there are also Nordoid and Alpinoid elements which makes room for the hypothesis sustaining their belonging to the Sarmatic or North-German populations.

The necropolis from Bogdănești (Vaslui county) distinguishes itself by three types: Mediteranoid (the main one for both genders), followed by the Nordoid and Proto-Europoid in smaller percentages. As structural elements we should point out the presence of some Dinarid elements and a few pale Alpinoid and East-Europoid influences.

In the necropolis from Valea Seacă (Vaslui county) there are two well-defined typological components, namely, the Mediteranoid and the Nordoid ones. The former is better expressed among female, while the latter is predominant among male.

Miorcani necropolis (Botoșani county) has a main Mediteranoid fund and a softened Proto-Europoid one, sometimes with brahicephalization elements. The Nordoid features are rarely met, while the East-Europoid and Alpinoid ones are isolated.

The necropolis from Mihălășeni (Botoșani county) contains Mediteranoid features, followed by Nordoid and Proto-Europoid, while the

Alpinoid and Ostic ones are poorly represented. A small percentage of Mongoloid elements was also registered here.

We should mention the fact that the typological data found by Romanian anthropologists in the resorts from North-Moldavia are very much alike to those from the necropolises found in Basarabia, from Mălăești and Budești<sup>11</sup>. Thus, in all these series are met predominant Mediteranoid features to the detriment of the Nordoid ones. On the other hand, the series from middle Dnieper with skeletons from Cernjachov, Maslov and Dedovščina resorts, show many similarities with those from Independența series, where the Nordoid elements are prevailing, especially for male.

We can also notice that on the territory of our country, more precisely in the North-East area of Sântana de Mureș culture (Cernjachov), the Mediteranoid anthropological type is dominant. In the Southern regions the Nordoid elements are more numerous than in the Northern ones which we believe it natural since the Gothic breakthrough to the South-East of Europe had as final target the borders of the Roman Empire as any other migratory population had it allured by the brightness and riches of the world south of Danube. More we should not forget that the headquarters of the Gothic kings, the Court and the main fighter groups that constituted the Gothic army were stationed North of Danube, not far from its North bank and so border conflicts and invasions into the Roman empire were frequent<sup>12</sup>.

To better illustrate the frequency of the typological characters in some necropolises from the North-East outer Carpathian area (belonging to the Sântana de Mureș culture), we have registered in table 1 the percentage typological data for Săbăoani series in comparison with other series from Moldavia.

In the skeleton series from Săbăoani necropolis (4th century A.D.), from the total number of points given, according to the typological diagnosis (6 for each skeleton), 91 belong to the Mediteranoid type (48,9%), 31 — Nordoid type (16,7%), 27 — Proto-Europoids (14,5%), 21 — Dinaroids (11,3%), 8 — Alpinoids (4,3%) and 8 points — East-Europoids (4,3%). The Mongoloid elements do not raise any points. These data provide, from an anthropological point of view, a synthesis on the variability of the population from Săbăoani in the 4th century A.D. and chiefly outline the native elements that brought their contribution to this structure.

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<sup>11</sup> M. S. Velicanova, *Paleoantropologiceschii material iz moghilnicoverneahovscoi culturi Moldavii*, Antropologiceskii Sbornic, III, 1961, p. 26-52

<sup>12</sup> D. Gh. Teodor, *Regiunile est-carpaticice ale Daciei în secolele IV-IX e.n.*, in *Symposia Thracologica*, 7, 1989, p. 198-200

Type	gender	Săbăoani	Mihălășeni (Botezatu, 2001)	Miorcani (Miu, Botezatu, 1991)	Bârlad, Valea Seacă (Botezatu et al., 1983)	Bogdănești (Botezatu et al., 1987)
		%	%	%	%	%
Mediterraneanoid	M	<b>47,22</b>	43,80	49,50	34,52	36,11
	F	<b>50,58</b>	47,40	46,17	45,83	41,90
Nordoid	M	<b>17,80</b>	14,83	17,22	30,24	26,18
	F	<b>15,60</b>	15,88	13,72	18,33	19,76
Proto-Europoid	M	<b>15,87</b>	16,96	15,00	16,90	17,14
	F	<b>13,13</b>	14,63	15,56	15,83	12,14
Dinaroid	M	<b>13,83</b>	18,75	21,11	13,14	11,11
	F	<b>8,77</b>	11,43	15,68	8,33	16,60
Alpinoid	M	<b>2,18</b>	2,02	-	-	5,55
	F	<b>6,42</b>	7,67	3,92	9,17	4,76
Esteuropoid	M	<b>5,11</b>	3,57	4,17	5,92	-
	F	<b>3,49</b>	3,01	3,92	0,63	4,76
Mongoloid	M	-	0,34	-	-	-
	F	-	-	-	1,66	-

Table 1. The frequency of the anthropological types (%) on gender in several necropolises from the 4th century A.D. belonging to Sântana de Mureș culture from Moldova

As previously mentioned, the paleoanthropological data concerning the population from the Transylvanian necropolis from Sântana de Mureș (Mureș county) indicate the presence of some Goths who came from East of the Oriental Carpathians and raised on their journey Carpathian-Dacian populations from Moldavia as well. The hypothesis drafted by the authors of the study is quite plausible if we are to take into account the archaeologists' opinions (Gh. Diaconu and Gh. Marinescu), who find cremated burial places in Șopteriu necropolis (Bistrița-Năsăud county) with a Carpi inventory dated between 295-297 A.D. showing that in late 3rd century A.D. groups of Carpi entered through North, West of the Carpathians. Their spiritual and material culture met the Dacian-Roman culture (in a symbiosis stage at that time) and influenced each other which lead to some particular features of this necropolis. Thus, in the necropolis from Sântana de Mureș (Mureș county) the dominant anthropological types are Nordoid and Mediterranean in similar proportions, while in the necropolis from Săbăoani (4th century A.D.) prevails the Mediterranean type, followed not so closely by the Nordoid one.

The two skeleton series from Independența (Călărași county) and Oinacu (Giurgiu county), located in the South-east part of the country in the Danube Plateau present similarities in terms of biometric and typological aspects, and they are represented by a population with dominant Proto-Europoid and Nordoid fund complemented by Mediterranean elements mostly visible in female. This shows us a mixture of native and Gothic population<sup>13</sup>, which does not come as a surprise since the Gothic breakthrough to the

<sup>13</sup> M. Cristescu et al., *Contribuții la cunoașterea structurii antropologice a populației din cultura Sântana de Mureș-Cerneahov (Independența)*, in *Arheologia Moldovei*, VI, 1969, p. 149-166

South-East of Europe targeted the borders of the Roman Empire as any other posterior migratory population did attract by the culture and wellness of the world from the South of Danube<sup>14</sup>. The series from Săbăoani necropolis (the 4th century A.D.) is different from Independența and Oinacu series by a low percentage of Nordoid and Proto-Europoid elements in favor of the Mediteranoid features. The group of the two series from Bogdănești and Valea Seacă (Vaslui county), placed on the lower course of Siret river are fairly alike from a biometric point of view, especially in the case of the female series. From a typological point of view there is the same resemblance of characters which materializes into a co-dominant fund built from a Proto-Europoid, Mediteranoid and Nordoid melting pot (where the last one are lower in intensity than Southern necropolises), complemented by the brahicranial varieties of Dinaroid and Alpinoid nuances. In the case of these populations of a profound native character (Mediteranoid and Proto-Aeuropoid) the Nordoid elements can be merely attributed to the migratory populations that came from the North (Goths and Vandals) which were assimilated by the natives, while the brahicranial Dinaroid- Alpinoid variant can be related to a local typological variety or some Sarmatic influences. In comparison with these two series, the necropolis from Săbăoani (4th century A. D.) is different by a smaller percentage of the Nordoid and Proto-Europoid types.

Most of the skeletons studied and belonging to Sântana de Mureș culture, come from the medium course area (Săbăoani) and upper course area (Miorcani and Mihălășeni) of Siret and Prut rivers, a region rich in necropolises from the 4th century A.D.

Considering that Miorcani<sup>15</sup> necropolises from Botoșani county provide a statistically representative osteological material and taking into account their geographical vicinity to the necropolis from Săbăoani, we have carried out a more advanced comparative analysis with these. From an anthropometric view, the skeleton series from 4th century A.D. Săbăoani, by its dimensional and conformation values, is more similar to the skeleton series from Miorcani necropolises. To specify the anthropological structure of the population who lived in this area between the 4th and 6th century we used dimensional and conformation data for the skeleton series from Miorcani and Mihălășeni necropolises.

If we should refer to the neurocranium, the cranial index is on average mezocranial for all three series. In the case of Săbăoani (76,85 u.i.) and Mihălășeni (76,79 u.i.) populations, the medium values of the cranial index are basically equal and slightly (elevated) than in the case of Miorcani

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<sup>14</sup> D. Gh. Teodor, *op. cit.*, p. 198-200

<sup>15</sup> G. Miu, D. Botezatu, *Considerații asupra caracteristicilor paleodemografice la unele populații care au trăit pe teritoriul patriei noastre în sec. III-IV D. Chr.*, in *Studii și Cercetări de Antropologie*, 28, 1991, p. 13-18



population (76,05 u.i.). The brahicranial forms and those strongly brahicranial have a slightly higher percentage at Săbăoani (roughly 28% for male and 25% for female) and Mihălășeni (roughly 21% for male and 30% for female) as compared to the series from Miorcani (16% and 11%).

The upper facial index provides medium values which, in the case of all three populations, fits into the mezenic category as the values are basically equal for the male series from Miorcani and Mihălășeni (52,42 u.i. and 52,47 u.i.), but smaller than in the case of Săbăoani series (57,14 u.i.). There is a slight difference in the feminine series as the medium value of this index for Săbăoani is 50,00 u.i. (the upper limit of the mezenic category), while for Miorcani and Mihălășeni the upper facial index shows somewhat higher values (54,45 u.i. and 52,55 u.i.), also paced in the mezenic category.

Regarding the aspect of the orbit shape the feminine series (78,5 u.i. at Miorcani, 81,4 u.i. at Mihălășeni and 82,8 u.i. at Săbăoani) vary more than the masculine ones (81,6 u.i. at Miorcani, 80,9 u.i. at Mihălășeni and 81,1 u.i. at Săbăoani), yet the medium values belong to the same category — mesoconch which has the maximum of frequencies for all 3 series.

The difference reflected in the medium values of the feminine series is determined by a higher frequency of hysiconch met at Mihălășeni and Săbăoani (31,39% and 30%).

As to the nasal index, we notice slight differences for all three populations as it follows: incipient camerrhine at Miorcani (51,93 u.i.) and accentuated mesorrhine at Mihălășeni (49,57 u.i.) and Săbăoani (50,45 u.i., but at the upper limit of this category). This interpopulation variation is given by the masculine series whose individual variability shows a higher frequency of leptorrhine forms at Mihălășeni and Săbăoani (roughly 30%) than Miorcani (roughly 14%), while, on this subject, the feminine series have a rather even behavior (50,3 u.i. at Mihălășeni, 51,4 u.i. at Săbăoani, 50,6 u.i. at Miorcani).

Concerning the height, the homogeneity of the masculine series is mirrored by the medium values of supermedial type (168,04 cm at Săbăoani, 167,8 cm at Miorcani and 168,1 cm at Mihălășeni). In the case of the feminine series the medium values of height are slightly different as it follows: Miorcani height (160,0 cm) is higher on average by 0,7 centimeters than Săbăoani (159,3 cm) and by 1,2 centimeters than Mihălășeni (158,8 cm), yet all three fit into the supermedial category.

Regarding the typological structure of the three populations from the North Moldavia (omitting the sample difference), there is a common anthropological fund expressed by the predominant Mediteranoid and Proto-Europoid elements which alongside the Nordoid and Dinaroid elements are quite frequently met, especially for male. What sets these populations apart is the presence of the brahicranial and even hyperbrahicranial features, often met at the populations from Săbăoani and Mihălășeni rather than that from

Miorcani and which may constitute a criterion for identifying some Alpinoid or Dinaroid elements.

The typological characteristics of the series studied up to now in our country and especially those from Moldavia belonging to the culture known as Sântana de Mureș, show a regional variability generally present in the large Europoid group. The mongoloid features are rarely met (Sântana de Mureș — 2 cases, Independența — 2 cases, Pietriș — 2 cases, Valea Seacă — 1 case, Mihălășeni — 1 case) and usually vaguely expressed in association with the dominant elements. The Mongoloid elements are missing in the 4th century A.D. necropolis from Săbăoani.

What is worth underlining is that in the case of a typological polymorphism, the Mediteranoid and Proto-Europoid elements (slightly tempered and gracilized) constitute the prevailing fund of the populations of this culture which could be attributed to the vernacular fund. This ascription can be done if we take into account that from neolithic and up to now the Mediteranoid forms have constituted the basic fund of most populations who lived in these places<sup>16</sup>. We cannot rule out the possibility that one or other of the Mediteranoid gracilized individuals from the series studied can present allogene elements brought by Sarmatic population as the Mediteranoid features have been identified in some Sarmatic series yet of low frequency. Along with these components there are some Nordoid elements which are either blended with other elements (Mediteranoid or Proto-Europoid) or in their classical form of a progressive intensity starting with the Northern areas of the country and going down to the South, notably stronger in men than in female.

Lastly, the Nordoid forms cannot be exclusively attributed to some populations of German origin who migrated from the Scandinavian Peninsula or generally to the European North (Goths, Vandals), they can also represent one of the typological components of the vernacular population. More, the brahocranial forms (Alpinoid and Dinaroid) raise the issue of their ethnic affiliation. Considering that some authors<sup>17</sup> characterize the Sarmatic populations as brahocranial, it is assumed that these forms could be the result of influences brought by some Sarmatic tribes who were assimilated by the local population. Naturally, the issue is still open for debate waiting for an answer which could come from more advanced and complex anthropological findings and researches (morpho-biological, demographical, historical and social, cultural etc) done on as many as possible number necropolises similar

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<sup>16</sup> O. Necrasov, *Le processus de brachycéphalisation dans les populations de Roumanie à partir du Néolithique et jusqu'à nos jours*, Sonderdruck aus „Bevölkerungsbiologie“, Gustav Fischer Verlag Stuttgart, 1974, p. 512-524; Necrasov et al., *Cercetări paleoantropologice privitoare la populațiile de pe teritoriul României*, in *Arheologia Moldovei*, XIII, 1990, p. 173-223

<sup>17</sup> *Ibidem*

to Sântana de Mureș (Cernjachov), as well as Mihălășeni, Miorcani and Săbăoani.

Further, a DNA analysis could bring valuable information in cross reference with all the data previously studied and mentioned here, unfortunately the high costs of such analysis pose a serious impediment at the moment.

## **II. The Medieval Populations**

From a typological perspective, the medieval population were different from one geographical region to another. These differences could be more pronounced or softened in accordance with the distance between populations and the geographical, religious or cultural barriers. In the following we shall typologically outline the medieval population from Săbăoani within the large medieval population who lived on the territory of Moldavia at the time. Also, we shall compare it to some populations anthropologically analyzed throughout the time.

Largely, the medieval population from Săbăoani distinguishes itself (from a typological point of view) by the predominance of the Mediteranoid features (51,57%), followed by Dinaroid (17,28%) and Nordoid (13,44%).

To appeal to a comparative typological study we shall refer briefly to some data regarding the typological characterization of some skeleton series from late-medieval necropolises found on the territory of our country. Therefore, the main typological features of the medieval population are as it follows below.

In the necropolis from Piatra Neamț — *Bâtca Doamnei* in Neamț county (12-13th century) the typological fund is a mixing of Mediteranoid, Nordoid and East-Europoid, where the predominant elements are Mediteranoid.

In the necropolis from Doina in Neamț county (13-14th century), the Mediteranoid, Nordoid, Dinaroid and Proto-Europoid appear softened in various combinations. There are also some mongoloid features.

In the necropolis from Trifești in Iași county (13-14th century) there are mixtures of Mediteranoid elements (the dominant ones) with Alpinoid and Dinaroid elements and, also, mixtures between Alpinoid and Dinaroid elements.

The necropolises from Hudum in Botoșani county (13-15th century) reveals a blend of Proto-Mediteranoid-Dinaroid-Nordoid features. The Mediteranoid and Proto-Europoid elements are the dominant ones, followed by the Nordoid, Dinaroid and East-European elements.

In the necropolis from *Lozova-La hotar cu Vornicenii (Bordering Vornicenii)* in the Republic of Moldavia (14-15th century) prevail the Mediteranoid elements along with the Nordoid (males), Dinaroid, Alpinoid and East-Europoid ones.

The necropolis from Siret town in Suceava county (14-16th century) distinguishes itself by a predominance of Dinaroid and Nordoid elements in the case of male, while the female have chiefly Mediteranoid and Nordoid features.

The necropolis from Gherăești in Neamț county (16th century) shows a Dinaroid-Nordoid fund with East-Europoid (Ostic) influences.

In the necropolis from Traian in Neamț county (16th century) there is a blend of Dinaroid, Alpinoid and Nordoid elements. There are some mongoloid traces too.

In the necropolis from Răchiteni in Iași county (16th century) there are predominantly Dinaroid elements alongside with native brahcranial and gracilized Mediteranoid and Proto-Europoid elements. Accompanying these mixtures there are some East-Europoid and Nordoid elements as well.

In the necropolis from Vânători in Galați county (16th century) there is a distinctly typological complex of Mediteranoid-Dinaroid-Alpinoid type.

The necropolis from Siret in Suceava county (14-17th century) is characterized by a Nordoid-Mediteranoid mixture along with Dinaroid elements. There are some Proto-Europoid elements (men especially) and Alpinoid (female).

In the necropolis from Ștefănești in Botoșani county (16-17th century) there is a predominance of Dinaroid-Nordoid mixture in the case of male, while for female there is a Dinaroid-Mediteranoid blend.

The necropolis from the current Palas Iași emporium, the former princely court of Moldavia principality (17th century) located in Iași city (Iași county) is characterized by Dinaroid-Mediteranoid-Alpinoid complex, where the Nordoid and East-Europoid elements are secondary.

The necropolis from Bârlad in Vaslui county (12-18th century) shows gracilized Mediteranoid, Nordoid and Proto-Europoid elements next to more poorly represented Dinaroid, Nordoid and East-Europoid elements.

In the necropolis of St. Nicholas Ciurchi church located in Iași metropolis (16-18th century) there are predominant Mediteranoid-Dinaroid elements with some Nordoid, Alpinoid and East-Europoid influences.

In the necropolis of Banu church from Iași metropolis (16-19th century) there are Europoid-Dinaroid elements, complemented by Mediteranoid and Alpinoid ones.

In the necropolises from Valea Bistriței in Bicaz area located in Neamț county (17-19th century) dominate the features of the Europoid group but influenced by mongoloid elements. From the above mentioned we can notice that in 9 of the total 16 necropolises the Mediteranoid elements are

predominant (female especially): Piatra Neamț — *Bâțca Doamnei*, Doina, Trifești, Hudum, Lozova-*La hotar cu Vornicenii*, Vânători, Bârlad, Ciurchi-*lași*, Siret. Also, these elements appear in both sexes combined with Dinaroid and Nordoid features. In several medieval necropolises the dominant type is Dinaroid (Siret — men only, Gherăești, Traian, Răchiteni, Palas, Bârlad, Banu, Ștefănești). In one necropolis the typological dominant is Nordoid (Siret).

Quite interesting is the fact that the authors of the anthropological study done on the bony remains from Traian necropolis located in Neamț county (16th century) do not signal the presence of the Mediteranoid type but reveal some blended types which form the following mixture: Dinaroid-Alpinoid-Nordoid with some Mongoloid elements<sup>18</sup>.

### III. The Diachronic Typological Evolution

From a typological point of view and considering the data regarding the 2 necropolises that make the object of the present study (the necropolis from the 4th century A.D. located in Săbăoani and the medieval necropolis from the 14-17th century found in the same locality, Săbăoani) as well as the data from the scientific literature concerning the typology of the contemporary population living in Săbăoani locality<sup>19</sup>, we can surprise the similarities and differences in the chronological evolution of the population typology which succeeded on the territory of Săbăoani throughout the time.

The skeleton series from the necropolis dated 4th century A.D. from Săbăoani (as mentioned in subchapter 5.1.3.) has a Mediteranoid predominance (48,9%), followed by Nordoid elements (16,7%), Proto-Europoid elements (14,5%) and Dinaroid ones (11,3%). The Alpinoid and East-Europoid elements have equal percentages (4,3%), while the Mongoloid elements are missing.

In the medieval skeleton series from the 14-17th century located in Săbăoani (as it results in subchapter 5.2.3.) the dominant features are Mediteranoid (51,57%), followed by Dinaroid (17,28%), then by Nordoid (13,44%) and Proto-Europoid (5,62%). The rarest typological elements are East-Europoid (4,79%), Alpinoid (4,5%) and Mongoloid (2,8%).

According to the scientific work signed by Botezatu et al. (*Variabilitatea...*, p. 23-28), it appears that based on the anthropological

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<sup>18</sup> O. Necrasov, M. Cristescu, *Contribution à l'étude anthropologique de la population moldave du XVI-eme siècle – Traian*, in *Annales Scientifiques de l'Université „Alexandru Ioan Cuza” Iassy*, III, 1-2, 1957, p. 84-104

<sup>19</sup> D. Botezatu et al., *Variabilitatea caracterelor antropologice cefalo-faciale ale populației din satele Săbăoani și Gherăești (jud. Neamț)*, in *Studii și cercetări de antropologie*, 32, 1995, p. 23-28

analyses done on the contemporary population (the measures, height and the cephalo-facial build were taken into account as well as other elements merely evident on living subjects such as pigmentation and aspects of somatoscopic build), the current typological fund in the population from Săbăoani is represented by a complex of typological features: Dinaroid-Nordoid-Mediterranean (Botezatu et al., 1995 p. 23-28).

## Conclusions

Within Săbăoani community, chronologically (diachronically) speaking we can notice the perennialization of the Mediterranean medieval anthropological fund. The Mediterranean elements register a slight growth in the medieval period and a regression of incidence in the case of the contemporary population. We highlight the fact that the Dinaroid elements have registered a continuous increase along with the Nordoid elements and consequently reached a top position among nowadays population. Meanwhile, the percentage of Proto-europoid elements has been decreasing as they are not even met in the contemporary population. The Alpinoid and East-Europoid elements have remained present up to now in Săbăoani, but in low percentages. We also notice the appearance of Mongoloid elements in the medieval period (2,8%); we assume they are strongly connected to the Mongol invasions known in the Europe between 10th and 14th century as tartars<sup>20</sup>. Although low in numbers, the Mongoloid elements are found nowadays population as well but rather insignificantly (0,7%)<sup>21</sup>.

Along with the spiritual, material and cultural evolution, circulation possibility of the population has grown and, under the circumstances, the change of typologies within different population has known a more accelerated rhythm and consequently the blend of typological features and their percentages have broadly modified along with the individual/ population migration from one place to another. Naturally, several generations should succeed in the case of some dominant elements of the typological fund. Nevertheless, the chance of modification is higher due to the demographic expansion and increased mobility of the populations nowadays.

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<sup>20</sup> V. Spinei, *Marile migrații din estul și sud-estul Europei în secolele IX-XIII*, Institutul European, Iași, 1999

<sup>21</sup> D. Botezatu et al., *Variabilitatea...*, p. 23-28

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