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STUDIES IN ANCIENT ART AND CIVILIZATION Vol. 11

DE ANTIQUORUM ARTIBUS ET CIVILISATIONE STUDIA VARIA Pars XI

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## **PONTIKA 2006 • ПОНТИКА 2006**

Najnowsze badania greckich kolonii północnych wybrzeży  
Morza Czarnego

Materiały międzynarodowej konferencji, Kraków, 18 marca 2006

pod redakcją  
Ewdoksii Papuci-Władyki

Uniwersytet Jagielloński  
Kraków 2008

STUDIES IN ANCIENT ART AND CIVILIZATION Vol. 11

DE ANTIQUORUM ARTIBUS ET CIVILISATIONE STUDIA VARIA Pars XI

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## **PONTIKA 2006 • ПОНТИКА 2006**

Recent Research in Northern Black Sea Coast Greek Colonies  
Новейшие исследования греческих колоний Северного  
Причерноморья

Proceedings of the International Conference, Kraków, 18<sup>th</sup> March, 2006

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Kraków 2008

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## PREFACE

March 2006 was an exceptionally good month in Kraków for Polish-Ukrainian cultural and scientific cooperation. On March 17, a photographic exhibition entitled *In Search of Treasures. Polish-Ukrainian Research at Koshary near Odessa* was opened at the National Museum in Kraków. This was followed by an international conference held on the next day at the Institute of Archaeology of the Jagiellonian University: ПОНТИКА — PONTICA — ПОНТИКА.<sup>1</sup>

Both events were the effect of cooperation between the Institute of Archaeology of the Jagiellonian University and the Archaeological Museum of the National Academy of Sciences of the Ukraine in Odessa, a cooperation which started several years ago, in 1998. The joint archaeological Koshary Project was launched then and, more importantly, closer ties were established between the two institutions.

Some time ago, Jarosław Bodzek (a member of the Koshary Project, staff member not only of the Institute of Archaeology at the Jagiellonian University but also of the National Museum in Kraków, where he heads the Numismatic Room) and Krystyna Moczulska (then in charge of the Ancient Art Gallery at the Czartoryski Museum in Kraków) came up with the idea to organize an exhibition of antiquities from Odessa in our city. Our joint suggestion to have a photographic presentation of the excavations and an academic conference to go with it was a natural follow-up. The Odessa exhibition,<sup>2</sup> was organized as part

<sup>1</sup> E. Papuci-Władyka, M. Kania, *Nadczarnomorska konferencja*, „Alma Mater”, No. 81, 2006, 59-60.

<sup>2</sup> Cf. J. Bodzek, M. Woźniak, *Skarby znad Morza Czarnego*, „Alma Mater”, No. 81, 2006, 61-62; *Skarby znad Morza Czarnego. Złoto, rzeźba, ceramika z Muzeum Archeologicznego w Odessie / Treasures from the Black Sea. Gold, Sculpture, Pottery from the Archaeological Museum in Odessa* (Katalog wystawy w Muzeum Narodowym w Krakowie, marzec-czerwiec 2006 / Catalogue of the Exhibition at the National Museum in Kraków, March-June 2006), J. Bodzek (ed.), Kraków 2006.

of the Kraków Museum's ODESSA-KRAKÓW project. It was listed as one of the numerous cultural events designed to promote the Ukraine in Poland as part of the year-long program called "Year of the Ukraine in Poland" in 2005, which ran over from the preceding year into 2006. The official opening ceremony of the Odessa exhibition and the photo presentation took place on March 17 in the Main Building of the Kraków National Museum.<sup>3</sup>

Complementing the two exhibitions in the scientific sphere was a conference concerning the newest research in the Black Sea littoral. It took place on March 18 at the Institute of Archaeology of the Jagiellonian University in Gołębia Street and it proved to be an excellent forum for exchanging ideas and presenting the results of work by several expeditions excavating in the region from Tyras in the Ukraine in the west to Tanais in Russia and the Georgian Pichvnari in the east. The conference was attended by the late Vladimir P. Vanchugov, Director of the Archaeological Museum in Odessa. It was hosted jointly by Jan Chochorowski, Director of the Jagiellonian University's Institute of Archaeology, and Ewdoksia Papuci-Władyka, head of the Classical Archaeology Department at the Institute and co-director, with Evgeniia F. Redina, of the Koshary Project. Special guest Vassos Karageorghis, Director of the Anastasios G. Leventis Foundation (Nicosia, Cyprus), presented the achievements of the Foundation in the promotion, conservation and organization of exhibitions of monuments of Cypriot and Greek culture throughout the world, the Odessa Museum included.

The PONTIKA conference brought important conclusions which are presented in these proceedings. The conference also demonstrated the role that Kraków can play as a meeting place between the East and West of Europe. Many promising contacts were made at the conference between representatives of various academic institutions and museums. By the same token, the one-day meeting organized by the Department of Classical Archaeology at the Jagiellonian proved to be an important event for researchers focusing on ancient cultures on the Black Sea.

The exhibition and conference would hardly have been the success it was without the contribution of the staff, doctoral candidates and students of the Faculty of History and the Institute of Archaeology of the Jagiellonian University: Wojciech Machowski, Marta Kania, Grzegorz Łaczek, Aleksandra Kowal, Maciej Czech, Katarzyna Mirczak, Sylwia Stelmach and Anna Drzymuchowska, as well

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<sup>3</sup> Open until June 4, 2006; cf. Also E. Dziwisz, *Złoto, groby i uczeni*, „KRAKÓW”, czerwiec 2006, 74-75.



as Sławomir Chwałek, a graduate of our Institute. Jarosław Bodzek and Mateusz Woźniak of the Archaeological Institute and the National Museum operated as a natural connection between our two institutions.

*Ewdoksia Papuci-Władyka*  
Jagiellonian University, Kraków



## ABBREVIATIONS • СПИСОК СОКРАЩЕНИЙ

- „ACIMB” — „Annuarul Comisiunii monumentelor istorice: secția din Basarabia”  
„CNA” — “Cronica numismatică și arheologică”  
IOSPE<sup>2</sup> — B. Latyshev, Inscriptiones antiquae orae septentrionalis Ponti Euxini,  
Ed. 2, Petropolis 1885-1916  
„KSIA AN SSSR” — „Kratkie soobshchenia Instituta Arkheologii AN SSSR”  
(see „КСИА АН УССР”)  
„MSROA” — „Materiały i Sprawozdania Rzeszowskiego Ośrodka Archeologicznego”  
„MIA” — „Materialy i issledovania po arkheologii SSSR” (see „МИА”)  
„NE” — “Numismatika i Epigrafika” (see “НЭ”)  
„RGF” — „Römisch — Germanische Forschungen”  
„VDI” — „Vestnik Drevnei Istorii” (see „ВДИ”)
- „АО” — „Археологические Открытия”  
„АП УРСР” — „Археологічні пам’ятки УРСР”  
„ВДИ” — „Вестник Древней Истории” (см. „ВДИ”)  
„ЗООИД” — „Записки Одесского общества истории и древностей”  
„КСИА АН УССР” — „Краткие сообщения Института археологии АН УССР”  
(см. „KSIA AN SSSR”)  
„МИА” — „Материалы и исследования по археологии СССР” (см. „МИА”)  
“МАСП” — „Материалы по археологии Северного Причерноморья”  
„НЭ” — “Нумизматика и эпиграфика” (см. „NE”)  
ПГКСВП — Проблемы греческой колонизации Северного и Восточного  
Причерноморья, Тбилиси  
„СА” — „Советская археология”  
СЗП-КЗДК — Северо-Западное Причерноморье — контактная зона древних культур, Киев



## PONTIKA 2006 • ПОНТИКА 2006

Recent Research in Northern Black Sea Coast Greek Colonies  
Новейшие исследования греческих колоний Северного Причерноморья  
(Proceedings of the International Conference, Kraków, 18<sup>th</sup> March 2006)  
Kraków 2008



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Andrzej Kosydarski, Elżbieta Niedźwiecka**

Kraków, Poland

### **Results of 1998-2004 anthropological studies at an ancient burial site at Koshary (the Ukraine)**

[Pls. 7-10]

Anthropological studies were conducted by the authors – researchers from the Department of Anthropology of the Jagiellonian University – in the area of the Koshary, Ukraine, necropolis in the years 1999,<sup>1</sup> 2000, 2001, 2003, and 2004. The authors were invited to participate in field work by two cooperating institutions: the NANU Archaeological Museum in Odessa and the Institute of Archaeology of the Jagiellonian University in Cracow.<sup>2</sup> The Archaeological Museum in Odessa gave the authors permission to work out and publish the results of anthropological investigations.

The present project studied 157 skeletons dating from the 6-4th century B.C. whose state of preservation varied but was mainly poor.

All the burials under analysis included skeletons. This in contrast to some earlier studies where a few crematory<sup>3</sup> graves were found.

The most frequently found types of burials are niche graves composed of an entrance and a lateral niche where a body was placed, and the entrance was blocked with big slabs and stones. Another type of graves is represented by large chamber tombs (so-called catacombs) with a deep entrance shaft and a big grave chamber cut in the ground. A third type includes shallow cavity graves, generally gravely damaged by erosion or

<sup>1</sup> In 1999, skeletons were examined that had been extracted in previous years, mainly in 1998.

<sup>2</sup> The authors wish to thank Dr. Vladimir P. Vanchugov, Director of the Archaeological Museum in Odessa, and Dr. Evgenia Fiedorovna Redina, as well as the Polish investigators: Prof. Ewdoksia Papuci-Władyka and Prof. Jan Chochorowski, who invited them to field collaboration, while the Odessa Museum facilitated the authors' participation in field studies.

<sup>3</sup> Oral information from Dr. Evgenia Fiedorovna Redina.

farming. They all represented the poorest kind of burial (Chochorowski et al., 1999, 2000, 2001; Redina et al., 1999, 2001; Papuci-Władyka et al., 2003, 2004).

As has been mentioned above, the state of preservation of the skeletons varied due to the following reasons:

- natural destruction of skeletons, especially those buried in shallow graves,
- numerous robbery diggings, both in historical times and in our age,
- destruction (crushing) of skeletons (“catacombs” and niche graves) upon sudden collapse of grave vault.

During field and laboratory investigations, both cranial and facial skeletons were described and measured in detail, and basic measurements of bones of the postcranial skeleton (extremity bones) were taken to permit evaluation of live body height.

Due to the damage (weathering) and brittleness of bones, measurements were made – whenever possible – before, during or immediately after discovery, still on the burial site. Age at the moment of death and sex of adult individuals were determined on the basis of anatomical traits according to Martin’s method (Malinowski, Bożilow, 1997). If needed, anatomical-anthropological observation was contrasted with archaeological sex indicators. Such a procedure permitted the authors to divide individuals of the early juvenile age *Juvenis* in respect of sex (Pl. 7:1).

The burial site, which appeared related to the Greek culture, showed traces of Greco-Scythian contacts, indications including grave furnishings. Therefore, a future research issue to be explored by the authors, apart from the classic anthropological and anatomical description and the biological condition (pathology, demography) of the population, will be the question whether bone remnants permit distinguishing skulls belonging to Greek colonists (i.e., the anthropological Mediterranean type, possibly Armenoid) and to the Scythian population (most probably the Nordic type), or possibly to a mixed type. Of equal importance will be an attempt to capture possible influences of other anthropological formations.

These ambitious plans seem difficult to implement, since, of the 256 graves discovered in the Koshary necropolis, the archaeologists were able to handle remnants of 157 skeletons in a varied state of preservation. In fact, the number of graves in which at least fragments of skeletons had been preserved was lower, as there were graves in which 2 persons had been buried. Most frequently, such double graves contained children or an adult and a child.

The majority of skeletons were poorly or even very poorly preserved. No measurements or morphological observations could be carried out on many of them, nor could their age at the moment of death be accurately assessed (hence the “adult” age category in Pl. 7:1), nor could the sex of the dead individuals be determined (cf. in Pl. 7:1 “sex unspecified”). Naturally, grave furnishings were not always present and even when found, they did not necessarily offer clues about an individual’s sex.

Therefore, despite the fact that 256 graves were discovered, of which 157 contained preserved skeletons or their fragments, the series under study is not necessarily representative.

### I. Demographic remarks

Among more than one hundred skeletons, 67.5% are those of adult individuals starting with the age category *Juvenis/Adultus*. When persons dead at the *Juvenis* age are included in the adult category, the percentage of those who survived adolescence amounts to 72%, according to the original data (Pl. 7:2). However, only a few of them provided a basis for detailed anatomic-anthropological description and anthropological measurements.

It is noteworthy that the number of skeletons of adult individuals recognised as male skeletons (N=41) is lower than the number of female skeletons (N=55). However, it seems premature to talk about a distorted sex ratio. The in situ knowledge of the burial site and individual graves permits the authors to assume that the distorted proportion of the sexes is secondary, a consequence of frequent robbery diggings in men’s graves, which usually contained rich ornaments.

According to the original material (Pl. 8:1), children’s death rate<sup>4</sup> only slightly below 30% indicates an average-to-poor biological condition of the population. As has been accounted for in successive analyses, the fact to face is that the number of dead children was actually larger.

If the age of death is considered separately for men and women (Pl. 7:1), a higher percentage can be seen of deaths of females than of males in the age categories *Juvenis*, *Juvenis/Adultus*, *Adultus* (females: 58.2%, males: 47.9%). When the age category *Adultus/Maturus* (regarded as a life period of final procreativity) is included, a comparison of the age of death in a theoretical reproductive period shows the following sex-dependent mortality ratios: females 80.0%, males 55.5%.

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<sup>4</sup> In Pl. 8:1 there are data showing the distribution of deaths adjusted for children according to Henneberg’s theoretical assumptions (Henneberg, 1977).

It is also noteworthy that the male death rate, starting with the age category *Maturus*, is larger than in the female group (women 10.9%, men 31.8%). This phenomenon probably reflects a large number of female deaths in the reproductive period.

Among skeletons of the general 'adult' category, with known sex and at an age defined as that of death, the percentage of male and female deaths was similar. All individuals deceased at a 'mature' age whose age at death could not be more precisely determined constituted 17.0% of all those deceased at an age above the *Juvenis* age category. It should be noted that in a majority of cases the authors included a 'not old' notice in the description, which should be understood as skeletons without senile changes, hence belonging to neither the *Senilis* age category nor, although this is highly likely, even to the *Maturus/Senilis* age group.

The number of bodies at the *Senilis* age is extremely small, even surprisingly so, compared with other burial sites. The very low number of individuals who reached old age seems even more baffling as the preserved skeletons or their fragments do not show any morbid symptoms. Only cranial injuries (two skulls with arrow heads stuck in them) could be observed. The short lifespan in women may probably be a consequence of perinatal deaths, while in men it might be due to the hardship and dangers of warrior's or sailor's life. Based on an analysis of the death age of all individuals, when 18 'adults' had been included in the estimation in proportion to all age categories starting with *Adultus*, a death rate was compiled (Pl. 8:1).

In the diagram, the following parameters were included:

$D_x$  – number of bodies in age category  $x$ ;

$d_x$  – proportion of bodies in age category  $x$ ;

$l_x$  – proportion of individuals reaching age  $x$ ;

$q_x$  – probability of death at age  $x$ ;

$L_x$  – number of years reached by individuals at age  $x$ ;

$T_x$  – number of years to be reached by all individuals at age  $x$ ;

$e_x^o$  – life expectancy for individuals at age  $x$ .

In Fig. 4, Henneberg's adjustment for children was taken into account (Henneberg, 1977). The data included in the diagram (adjusted for children) show that the number of buried individuals exceeded 210, which does not agree with the number of grave cavities found, i.e., 256. It should thus be assumed that the missing ones were adults' graves, which is in line with field observations. Many a time, supposed grave cavities were found to be empty of skeleton remnants. Cavity dimensions clearly indicated a large, mature body size.



In Pl. 8:1, the do-14 index of 29.30% after correction (Pl. 8:2) permitted the authors to suppose that the number of individuals who did not reach the age of 14 was 48.08%, i.e., almost a half of the population.

Plates 8:1-2 show a very low value of life expectancy for persons aged 20 ( $e^{\circ}_{20}$ ), hardly reaching 13 years. Such a small value of the  $e^{\circ}_{20}$  index points to a very poor biological condition of the population. This phenomenon is hard to understand and account for. On the other hand, indisputable facts are a very small proportion of individuals at old age, a large number of infantile deaths, and short life expectancy ( $e^{\circ}_0 = 19$  years; Pl. 8:2).

No comparative data for the Black Sea Basin at that period have been available so far. It may, however, be of interest that much earlier (2000-1600 B.C.) in Lerna, the  $e^{\circ}_{20}$  index equalled 15.8 years (Angel 1969). At the same location, from which colonists may have come, the  $R_{pot}$  index (a potential reproduction index) equalled 0.66, while for Koshary it was only 0.55. The  $J_{bo}$  index (biological condition index) was similar at those two locations and equalled 0.30 for Lerna and 0.28 for Koshary (Pl. 8:2).

For a similar chronological period, but a completely different cultural area from Polish territory, the biological condition parameters were higher than those for Koshary. The latter remark only states the fact but does not provide a basis for a comparative analysis (Machnikowie, Kaczanowski 1987; Kaczanowski, Niedźwiecka, 1992).

## II. Head and face proportions. Body height. Typological remarks

The present study investigated only those skeletons for which at least one head or face index could be calculated and live body height could be estimated.

In both sexes (Pl. 9:1-2), the body height was markedly differentiated, and in the male group it exceeded the average. In females, two skeletons showed a live height defined as average. In males, body height variability scale was very small; in the female group, one skeleton revealed a considerably smaller body height (grave No. 173: body height = 146.5 cm). In the male group, lower body height (162 cm) was found for a skeleton (not in the case of a low-height individual, though) from grave no. 246. The cranial and facial skeleton indices are markedly differentiated in comparison with the body height index.

In the male group (Pl. 9:1), the main head index for the general structure of skulls in a majority of cases describes them as long or extremely long; only in two cases (graves Nos. 38 and 79) do index values define them as average-headed.

In the female group (Pl. 9:2), the variability scale is still larger, as it ranges from *hyperdolichocephalus* (grave No. 74) to *hyperbrachycephalus* (grave No. 244; cephalic

index = 87.7). Between these two extreme values of skull proportions, there are intermediate ones: *dolichocephalus* or *mesocephalus*. Facial indices: the complete upper and nasal indices in both sexes characterize the skulls under examination as narrow-headed (*stenocephalus*) with narrow noses. It is noteworthy that the face and nose of a skull from grave No. 34, whose indices characterise the face as being medium-to-wide, diverge from the prevailing image presented above.

In both sexes, the value of the orbital cavity index usually corresponds to that of definitely low or distinctly high orbital cavities, whereas intermediate forms of the orbital cavity are rare.

Due to the vast variability scale of all the index values, acceptance of their median values seems to be unfounded.

Taking into account the estimated live body height, individual index values, as well as the knowledge of morphological traits (based on personal observation) permitted the authors to conclude that the anthropological elements are represented by the Mediterranean element – the male series (graves Nos. 54, 57, 100, 107) and the female series (graves Nos. 58, 74, 123, 157, 205, 210, 221), as well as by the Nordic element – the male series (graves Nos. 35, 38, 79, 246) and the female series (graves Nos. 196, 222).

The values of the main head index and orbital cavities in the female group (graves Nos. 173, 244) point to components of the Armenoid element.

The fact that on the basis of cranial indices individual skeletons are attributed to the Mediterranean, Nordic, or Armenoid elements does not fully agree with their body height. It should be stressed that even if the cranial and facial skull indices correspond with the principles of the Nordic race (female grave No. 222), or the Armenoid race (female grave No. 244); in both these cases a small body height partly disagrees with this assumption. It should be borne in mind that body height is a highly ecosensitive trait; besides, low height may be a consequence of developmental disturbances and cannot be uncritically accepted as a racial trait.

Before the research concludes and enough material is obtained, no final conclusion can be reached; however, one fact already seems unquestionable: the variability scale of skull index traits referring to both male and female series, accepted for the Koshary necropolis, clearly points to the presence of two basic anthropological forms. One shows characteristics of Mediterranean Basin inhabitants (the Mediterranean type), while the other indicates the Nordic type (perhaps Scythian). And last but not least, it seems remarkable that female skulls (graves Nos. 173 and 244) have been classified as the Arme-

noid type. Both these above-mentioned skulls have very high orbital cavities and short heads. Similar index values have been found for a male skull (grave No. 79).

With regard to some indices, the presence of forms showing intermediate morphology (between the Mediterranean and the Nordic types) cannot be regarded as proof of the biological merging of two anthropological formations; it should rather be accepted that each of those groups may show great variability. Hence the issue at stake is not necessarily the presence of intermediate forms, but rather intra-group variability which makes the direction of distribution of the variables under analysis create the impression that intermediate forms are likely to exist.

## References

**Acsadi G. J., Nemeskeri**

1970 History of human life span and mortality, Akademiai Kiado, Budapest.

**Angel J. L.**

1969 The Bases of Paleodemography, „American Journal of Physical Anthropology” 30, 3, 427-437.

**Chochorowski J., Papuci-Władyka E., Redina E.F.**

1999 Polish-Ukrainian Archaeological Research of Ancient Settlement and Necropolis in Koshary, Odessa district. Preliminary Report, „Studies in Ancient Art and Civilization” 9, 55-63.

2000 Polsko-ukraińskie badania wykopaliskowe zespołu stanowisk z okresu antycznego w miejscowości Koşary koło Odessy, „MSROA” XXI, 185-202.

2001 Polsko-ukraińskie badania wykopaliskowe zespołu stanowisk z okresu antycznego w miejscowości Koşary koło Odessy, [in:] Z archeologii Ukrainy i Jury Ojcowskiej, J. Lech i J. Partyka (eds.), Ojców, 495-514.

**Papuci-Władyka E., Chochorowski J., Redina E.F.**

2003 Zespół stanowisk antycznych (osiedle i nekropola) w Koszarach koło Odessy po trzech latach badań, streszczenie referatu wygłoszonego na posiedzeniu naukowym Komisji Archeologicznej O/PAN

w Krakowie 27 lutego 2001 r., „Sprawozdania z Posiedzeń Komisji Naukowych PAN” XLV/1, styczeń-czerwiec 2001, Kraków, 1-4.

**Papuci-Władyka E., Chochorowski J., Redina E.F., with contribution by: Bodzek J., Machowski W., Nosova L.V., Kokorzhitskaia T.N.**

2004 Koshary – grecka osada nad Morzem Czarnym w świetle pięcioletnich badań polsko-ukraińskiej ekspedycji (1998-2002), „PORTOLANA. Studia Mediterranea” 1, Kraków, 47-64.

**Henneberg M.**

1975 Notes on the reproduction possibility of human prehistorical populations, „Przegląd Antropologiczny” 41, 1, 75-89.

1977 Proportion of dying children in paleodemographical studies, „Przegląd Antropologiczny” 43, 105-114.

**Henneberg M., Piontek J.**

1975 Biological state index of human groups, „Przegląd Antropologiczny” 41, 2, 191-201.

**Kaczanowski K., Niedźwiecka E.**

1992 Analiza demograficzna populacji kultury łużyckiej z Kietrza. Cmentarzysko ciałopalne, [in:] Kaczanowski K., Kurnatowski K., Malinowski A., Piontek J., Zaludnienie ziem polskich między XII w. p.n.e. a IV w. n.e. – materiały źródłowe, próba oceny, Warszawa.

**Machnikowie A. J., Kaczanowski K.**

1987 Osada i cmentarzysko z wczesnego okresu epoki brązu na „Górze Klin” w Iwanowicach, Wrocław.

**Malinowski A., Bożilow W.**

1997 Podstawy Antropometrii. Metody, techniki normy, Warszawa–Łódź.

**Wiśniewska E., Szybowicz B.**

1989 Badania nad strukturą populacji grupy Tarnobrzeskiej, [in:] Grupa Tarnobrzeska Kultury Łużyckiej (Muzeum Okręgowe w Rzeszowie), Rzeszów, 503-525.

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**Антропологические исследования на античном некрополе  
у с. Кошары в 1998-2004 гг.**

**Резюме**

Исследования по антропологии Кошарского некрополя проводились по результатам раскопок 1998-2004 гг. Серия антропологического материала из Кошарского некрополя представлена 157 скелетами или чаще всего их фрагментами, зафиксированными в 256 погребениях. Серия включает все возрастные группы, как погребения взрослых, так и детей. Жители Кошар жили недолго (Табл. 7:1-2), смертность детей была высокая (Табл. 8:2). Количество лиц доживающих до пожилого возраста составляло очень маленький процент. Полноценная краниологическая выборка небольшая. На ее основании можно сделать следующие выводы: в антропологическом типе людей, погребенных на античном некрополе Кошары, выделяются три антропологических элемента: средиземноморский (греческие колонисты?), нордический, сближающий их с населением скифского мира степей Причерноморья, и небольшой, но выразительный - арменоидальный. Присутствие этой последней группы следует наверно также связывать с греческими колонистами.

