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Forensic archaeology in Lithuania: the Tuskulënai mass grave

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The aim of the paper is to present results of exhumation, examination and identification of remains of individuals executed in KGB headquarters in Vilnius in 1944–47. **Materials and methods**. During 1994 and 1995, 706 skeletons were exhumed by archaeologists and anthropologists, and 18 more skeletons were found in 2003. Each skeleton was analysed according to routine forensic protocols. Parallelly, research in KGB archives, analysis of letters of relatives and other documentary data was conducted and two data sets compared. **Results**. In total, 720 males and 4 females, age range from 19 to 66 years, were found. During cross-matching of individual data from KGB files and skull/portrait superimposition, 45 individuals were identified. Details of execution and the way of handling of bodies were reconstructed. 97 percent of skulls had perimortal lesions were usually single or multiple bullet wounds, as well as stabbed and cut/strike wounds and lesions caused by blunt force. **Discussion**. Details of the deposition of bodies were also elucidated. Individuals executed in late autumn/winter/early spring of 1944/45, 1945/46 and 1946/47 were inhumed in former garage (later demolished), as the ground there was less frozen and easier to dig during the cold season. The construction of inhumation pits and their regular position prove the planned manner of executions. Individuals executed in the summer of 1945 were inhumed outside (a separate row of 8 pits, bodies covered with corrosive disinfecting chemicals). **Conclusion**: a close collaboration of professionals from legal institutions, forensic medicine and archaeology in all stages of mass grave investigation is essential in victim identification process.

Key words: forensic anthropology, mass graves, KGB victims, Lithuania

INTRODUCTION

During recent years, a relatively new discipline of forensic anthropology, defined as the application of the science of physical anthropology to legal process, is gaining importance (1). In the case of exhumation, however, before anthropological analysis the human remains must be retrieved from the site, and this requires application of archaeological techniques modified to meet the requirements of the crime scene investigation and further processing – forensic archaeology (2). Cases of exhumations and forensic investigations of recent mass graves – for example, in Kosovo (3) or Iraq (4) – are related not only to legal procedures, but to humanitarian needs as well. Forensic anthropology in Lithuania has a tradition starting from early sixties (5), with experience gained from earlier exhumations of the mass graves of the Holocaust, examination of a series of historical persons (6) and numerous forensic-osteological and paleoanthropological works. Exhumation, subsequent analysis and identification of individuals buried in the mass grave under study was a challenge and serious examination of this experience and skills.

First series of executions of enemies or persons considered to be such took place in KGB headquarters in Vilnius from the summer of 1944 till spring of 1947, when mortal punishment by Stalin's decree was replaced by a 25-year sentence in Gulag. The details of executions, the locations of burial sites were a secret under Soviet regime. In the year 1994 evidence of these facts became available for the officials of the Republic of Lithuania. The Decree No 216 of the President of the Republic from 25.01.1994 was issued and according to it a working group consisting of archaeologists, anthropologists and forensic medicine professionals was formed. The initial goal was to exhume and identify two prominent persons of Catholic church and anti-Soviet resistance. In June 1994, exhumation and identification work was started. The working group was assisted by sol-

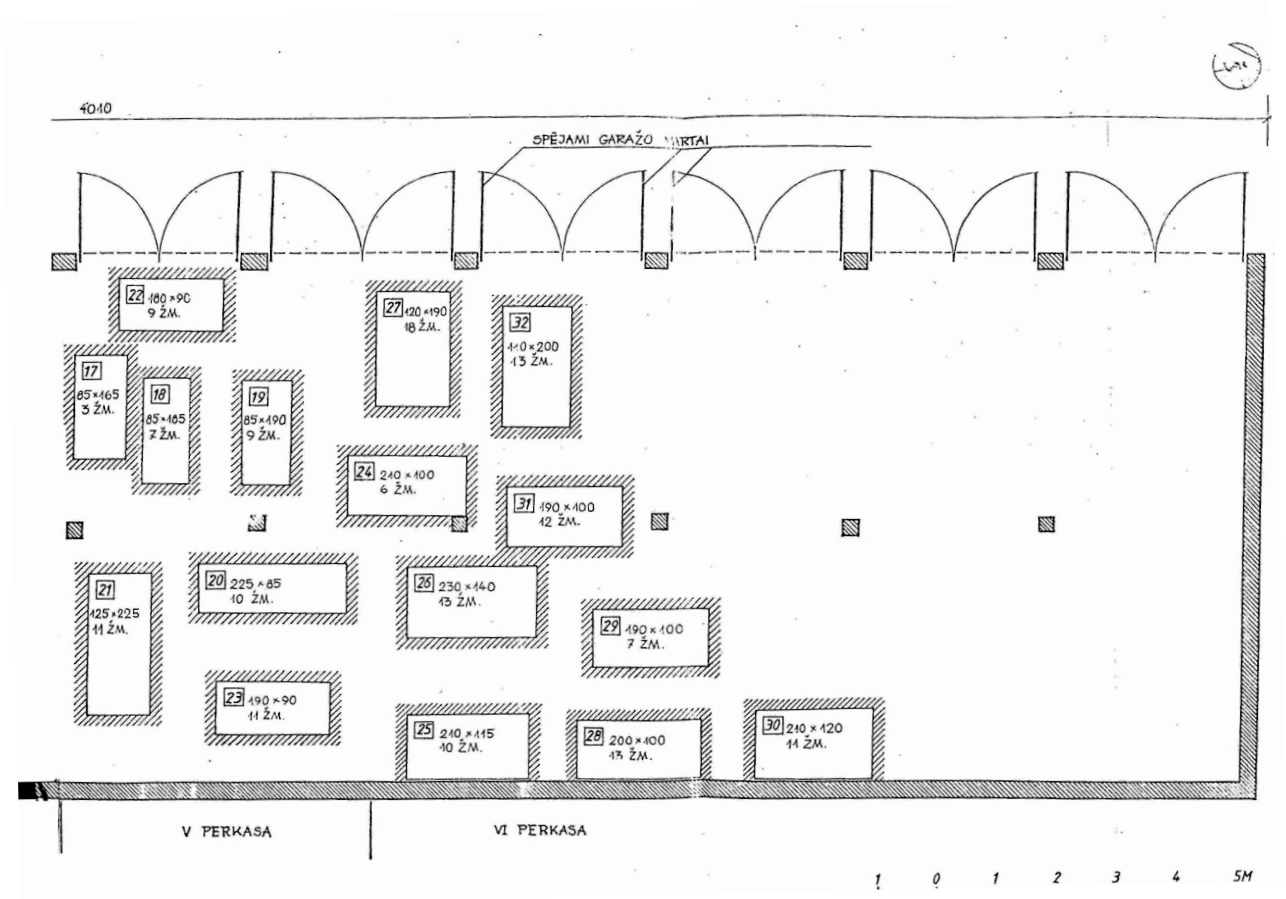

Fig. 1. Shematic drawing of the northern part of the former garage indicating pit numbers and numbers of skeletons in pits

diers of regular army. During the field seasons of 1994 and 1995, 706 skeletons were exhumed by archaeologists and anthropologists. During the memorial construction works in the summer of 2003, 18 more skeletons were exhumed.

The aim of this paper is to present and discuss the process and results of exhumation, analysis and individual identification of victims.

MATERIALS AND METHODS

Each skeleton was exhumed individually by professionally trained archaeologists and anthropologists, given a registration number and after initial examination and field form completion was shipped to a forensic anthropology laboratory. In the laboratory, every skeleton was analysed according to routine protocols collecting *post mortem* evidence – sex, age, stature (7–11), individual traits (such as healed traumas, traces of diseases and treatment, dental status), perimortal lesions. Parallelly, collection of *ante mortem* evidence took place – research in KGB archives, analysis of letters of relatives and other documentary data were conducted and later two data sets (*ante mortem* and *post mortem* evidence) were compared, as the initial data survey allowed to suspect that individuals executed at the same date (as a rule, at night in a special chamber the KGB prison) could be taken for inhumation simultaneously.

RESULTS

During archaeological excavation, 45 pits containing 1 to 154 skeletons were found. Thirty-two pits were found under disturbed stone pavement, later identified as a garage (Fig. 1). Eight pits were outside the garage and formed a separate row; five more small pits were found later at the northern end of the garage, approximately at the sites of the former doors where trees subsequently were planted. The position of skeletons clearly indicated a disorderly and simultaneous inhumation of bodies (Fig. 2). Artefacts associated with the bodies were very few unspecific personal items (*e.g.*, remains of buttons, shoes, some details of clothes, medallions, pencils, spectacles, etc.).

A routine forensic anthropological analysis showed that in total, 720 males and 4 females were found, age range from 19 to 66 years.

The overwhelming majority of skulls of the skeletons – 97% – had perimortal lesions. In 492 cases, lesions were caused by one bullet, in 110 by two, in 31 by three, in 13 four, in 4 five, in 1 six bullets. The calibre of bullets varied from 5.6 to 9.0

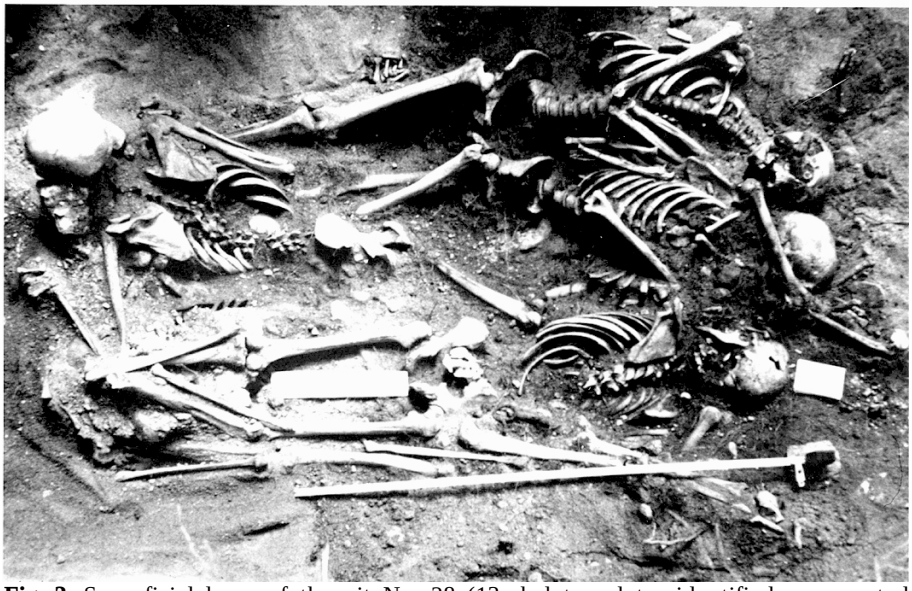

Fig. 2. Superficial layer of the pit No. 28 (13 skeletons later identified as executed on February 7, 1947)

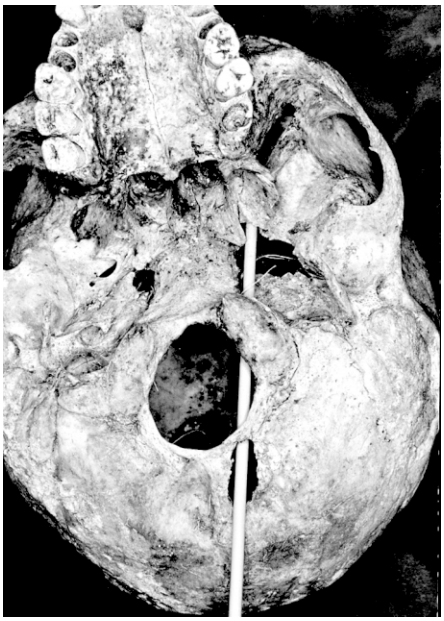

Fig. 3. Pointer showing the channel of bullet entering left side of occipital bone (skeleton No. 1/3 of the year 2003, male 30–35 years, unidentified)

Fig. 4. Impacted deformed lead bullet on outer surface of left bone (skeleton No. 4/2 of the year 2003, male *ca.* 20 years, unidentified)

mm, corresponding with indications of evidences. In the majority of cases, shots were performed into the occipital area (more often to the left side) (Fig. 3). It is clear that the executor was shooting from behind. Multiple shots and cases of bullets impacted in the skull vault (Fig. 4) prove the use of control shots when the body was lying on the concrete floor of the execution camera.

Other kinds of skull lesions were also documented: made by a blunt instrument – 118 cases, stabbed – 106 cases, cut or strike – 4 cases. The majority of stabbed wounds were performed with four-edged instruments (pick? ice-axe?) (Fig. 5). In 6 cases, quadrangular 3 × 3 cm entrance and 0.5 × 0.5 cm exit holes in skulls were found, proving that the blow with a bayonet was performed on a laying victim.

Some victims had traces of odontological treatment (filled teeth, dental prostheses) (Fig. 6).

KGB files contained information about age, sex, approximate stature. Often descriptions of faces and other individual traits were given in files, but this information was inaccurate and not informative (with exception of such categories as “very tall” or “very short” stature) for further identification. Some mentions of pathologies (*e.g.*, amputation, deformation of vertebral column, severe joint pathology), however, were rather useful and served as clues for further identification. The most important information from files was the photographs of victims. Some additional photos were received from relatives. The next step in the process of identification was selection of individuals for further identification. The principal method was video skull/portrait superimposition. The condition for a positive identification was complete matching of all photographs of one person with the anatomical points of the skull. Examples of positive matching are presented in Figs. 7 and 8. In this way, by cross-matching of individual data from KGB files and video superimposition results, 45 individuals were identified.

DISCUSSION

During the identification process, the working hypothesis that bodies of one execution were transported simultaneously and people executed during one night could lie in one pit was proved. During the cross-matching of data from reports of execu-

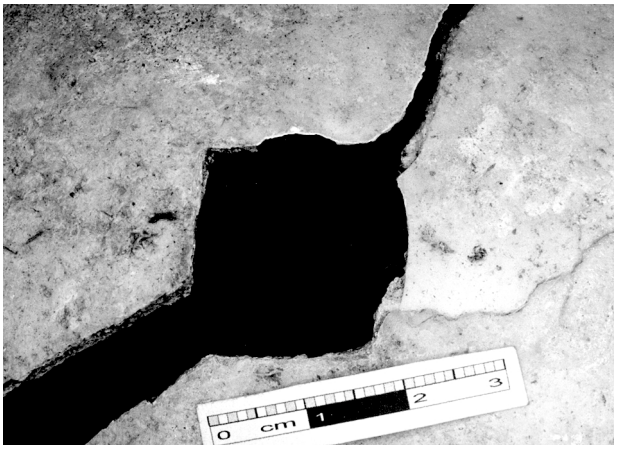

Fig. 5. Quadriangular stabbed wound on the right parietal bone (skeleton No. 1/2 from the year 2003, male *ca.* 30 years, unidentified)

Fig. 6. Plastic dental prosthesis of upper jaw (skeleton No. 129, male *ca*. 45 years, executed between January 29 and March 02, 1945)

Fig. 7. Positive results of superimposition of skull No. 561 with photograph of N. M., 50 years (executed on March 26, 1947)

Fig. 8. Positive results of superimposition of skull No. 553 with photograph of E. V., 28 years (executed on February 7, 1947)

tions (the number of executed persons), ante-mortem evidence and the number of bodies in separate pits some important details of deposition of bodies were elucidated. It was established that individuals executed in late autumn/winter/early spring of 1944/45, 1945/46 and 1946/47 were inhumed in a former garage (later demolished), as the ground there was less frozen and easier to dig. The location of this garage was indicated by the preserved stone pavement (floor) and parts of foundation. Among the KGB files a letter was found complaining about inhumation difficulties in winter. Construction of inhumation pits (some of them up to 4 meters deep, with wooden support constructions, laying of bodies in several layers each covered with tar paper) and their regular position prove the planned manner of executions. Individuals executed in the summer of 1945 were inhumed outside: in summer 1995 a separate row of 8 pits was opened. It is notable that bodies in these pits were covered with corrosive disinfecting chemicals. Regretfully, victims of the summer of 1946 were not found. Details of execution and the way of handling the bodies could be reconstructed as well, and they do correspond with other evidences.

The skeletons after examination are deposited in a specially built memorial columbarium and placed in separate numbered caskets. The columbarium was officially opened in November 2004. As the potential number of identifiable individuals is higher, further identifications can be performed upon official request.

CONCLUSIONS

Cooperation of archaeologists, anthropologists and forensic experts allowed to identify 45 individuals executed in KGB headquarters in 1944–1947. Experience obtained during such work can be useful in other investigations of mass graves. It is evident that a close collaboration of professionals from various fields in all stages of mass grave investigation is essential in the victim identification process.

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TEISMO ARCHEOLOGIJA: TUSKULËNØ MASINË KAPAVIETË

Santrauka

Straipsnyje pateikiami KGB bûstinëje Vilniuje 1944–1947 m. nuþudytø asmenø ekshumacijos, tyrimo ir identifikacijos rezultatai. 1994 ir 1995 metais bendradarbiaujant archeologams ir antropologams buvo ekshumuoti 706 skeletai, o 2003 m. rasti dar 18-os asmenø palaikai. Kiekvienas skeletas buvo iðtirtas pagal áprastiná teismo medicinos protokolà. Tuo pat metu buvo tiriami KGB archyvai, analizuojami giminiø laiðkai bei kiti duomenys. Tokiu bûdu buvo sudarytos ir vëliau lyginamos dvi duomenø bazës. Ið viso kapavietëje rasta 720 vyrø ir 4 moterø palaikai, kuriø amþius – nuo 19 iki 66 metø. Palyginus individualius skeletø duomenis su duomenimis ið KGB bylø bei atlikus kaukoliø/fotoportretø videosugretinimà, identifikuoti 45 asmenys. Rekonstruotos egzekucijø bei elgesio su palaikais detalës. 97% kaukoliø turëjo perimortaliniø suþalojimø – daþniausiai vienos ar keliø kulkø, taip pat durtiniø ir pjautiniø/kirstiniø bei bukais daiktais padarytø suþalojimø. Iðaiðkintos kûnø uþkasimo aplinkybës. Asmenys, nuþudyti 1944–1945, 1945–1946 ir 1946–1947 metø vëlyvà rudená, þiemà bei ankstyvà pavasará, buvo uþkasami buvusiame garaþe (vëliau nugriautame), nes ten þemë ðaltuoju metø laiku maþiau áðalusi. 1945 m. vasarà nuþudytieji buvo uþkasami lauke (atskira 8 duobiø eilë, kûnai buvo apipilti dezinfekuojanèiais chemikalais). Laidojimo duobiø árengimas ir tvarkinga seka patvirtina planingas egzekucijas. Daroma iðvada, kad glaudus teisësaugos ástaigø, teismo medicinos ir archeologijos specialistø bendradarbiavimas masiniø kapavieèiø tyrimo metu yra bûtina sëkmingo aukø identifikavimo sàlyga.