

# Archaeology of Conflicts II

Pavel Drnovský – Petr Hejhal – Ladislav Rytíř (eds.)





# Archaeology of Conflicts II

edited by  
Pavel Drnovský – Petr Hejhal – Ladislav Rytíř

Published by Pavel Mervart Publishing,  
P. O. Box 5, 549 41 Červený Kostelec,  
2023  
Translation Jana Kličová, Urszula Baron and authors  
Printed H.R.G., spol. s r. o.  
[www.pavelmervart.cz](http://www.pavelmervart.cz)

Reviewed:  
PhDr. Jan John, Ph.D.  
doc. Mgr. Petr Květina, Ph.D.

© Univerzita Hradec Králové, 2023

© Pavel Drnovský, Petr Hejhal, Ladislav Rytíř, 2023

© Jacek Adamiec, Judyta Bąk, Arpád Balogh, Jozef Bátora, Yann Béliez, Radek Bláha, Ondřej Čmelák,  
Dominik Drozd, Mirosław Furmanek, Paweł Kalisz, Radim Kapavík, Jaromír Kovárník, Monika Lis,  
Radosław Liwoch, Lech Marek, Václav Matoušek, Jana Mazáčková, Weronika Mazur, Jan Musil,  
Martin Neumann, Tomáš Pancíř, Jan Petřík, Naďa Profantová, Milan Procházka, Andrej Púčať,  
David Rakušan, Peter Tajkov, Jakub Těsnohlídek, Aneta Gołębiowska-Tobiasz, Jasper Willem Daniël Tuinstra,  
Daniela Vaněčková, Miloš Vávra, Jan Vladař, Martin Vojtas, Katarzyna Zdeb, Jiří Zubalík, Petr Žaža,  
Magdalena Žurek, 2023

© Pavel Mervart, 2023

**ISBN 978-80-7465-596-8**

# Content

|                                                                                                                                                             |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Editorial .....                                                                                                                                             | 9   |
| <b>Velim – Skalka and the Middle Bronze Age. Archaeological excavations in 1984–2014</b>                                                                    |     |
| <i>Miloš Vávra – Yann Béliez – David Rakušan</i> .....                                                                                                      | 11  |
| <b>The archaeological evidence of conquest of an Early Medieval fortified site / residence on the example of the Kal stronghold (Pecka), Jičín District</b> |     |
| <i>Nada Profantová</i> .....                                                                                                                                | 23  |
| <b>Medieval Mace Heads and Flail Striking Heads from the Old Collections of the Archaeological Museum in Cracow</b>                                         |     |
| <i>Radosław Liwoch</i> .....                                                                                                                                | 41  |
| <b>Downfall of the Rokštejn castle in 1467</b>                                                                                                              |     |
| <i>Jana Mazáčková – Petr Žaža – Andrej Púčať – Daniela Vaněčková</i> .....                                                                                  | 55  |
| <b>Locating the battle of Byczyna (1588). First archaeological survey</b>                                                                                   |     |
| <i>Lech Marek – Mirosław Furmanek</i> .....                                                                                                                 | 75  |
| <b>Enclosed in time and space Excavating an encampment from the Dutch War of Independence (1568–1648) in Spijk, the Netherlands</b>                         |     |
| <i>Jasper Willem Daniël Tuinstra</i> .....                                                                                                                  | 87  |
| <b>What the lion is keeping quiet about: The battle of Vel'ké Vozokany (1652) from the perspective of the KOCO analysis</b>                                 |     |
| <i>Dominik Drozd – Martin Neumann – Jozef Bátora</i> .....                                                                                                  | 95  |
| <b>Transformation of Modern Period Fortifications into Sanitary Frontier Network</b>                                                                        |     |
| <i>Milan Procházka</i> .....                                                                                                                                | 109 |
| <b>Krakow Fortress. Fort 47. Łysa Góra – state of preservation, prospects and threats</b>                                                                   |     |
| <i>Aneta Gołębiowska-Tobiasz – Paweł Kalisz</i> .....                                                                                                       | 121 |
| <b>Archaeological research in the area of former bastion VIII and cavalier XXXIII at Gayer's Barracks in Hradec Králové</b>                                 |     |
| <i>Radek Bláha</i> .....                                                                                                                                    | 141 |
| <b>The Battle of Znojmo/Znaim 1809. A redoubt and two types of mass graves of fallen soldiers</b>                                                           |     |
| <i>Jaromír Kovárník</i> .....                                                                                                                               | 161 |
| <b>Archaeological survey of trenchline from First world war over Sukov (NE Slovakia)</b>                                                                    |     |
| <i>Radim Kapavík – Martin Vojtas – Jan Petřík – Jakub Těsnohlídek – Jiří Zubalík – Ondřej Čmelák – Peter Tajkov – Arpád Balogh</i> .....                    | 185 |
| <b>The Napoleonic Battle of Rogoźnica – geophysical and archaeological research</b>                                                                         |     |
| <i>Katarzyna Zdeb – Jacek Adamiec – Judyta Bąk</i> .....                                                                                                    | 195 |
| <b>Geophysical and archaeological research of soldiers' burials from the Second World War</b>                                                               |     |
| <i>Katarzyna Zdeb – Jacek Adamiec – Weronika Mazur – Monika Lis</i> .....                                                                                   | 203 |



|                                                                                                                                                          |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Burials from Boreczno – an episode of the January Offensive in the past East Prussia</b>                                                              |     |
| <i>Magdalena Žurek</i> .....                                                                                                                             | 213 |
| <b>Aviation Archaeology in South Bohemia. Rescue excavation at Airport Planá České Budějovice</b>                                                        |     |
| <i>Tomáš Pancíř</i> .....                                                                                                                                | 225 |
| <b>Archaeology of the Air War 1939–45. Documentation<br/>of Messerschmitt Me 262 crashes in Bohemia</b>                                                  |     |
| <i>Jan Vladař</i> .....                                                                                                                                  | 245 |
| <b>Current state and perspectives of conflict archaeology in the area of the Iron Mountains<br/>(Chrudim District, Pardubice Region, Czech Republic)</b> |     |
| <i>Jan Musil</i> .....                                                                                                                                   | 267 |

# Geophysical and archaeological research of soldiers' burials from the Second World War

Katarzyna Zdeb – Jacek Adamiec – Weronika Mazur – Monika Lis

**Abstract:** *This article presents a description of geophysical and archaeological work in the area of conflict archaeology. As a result of archival works and interviews with so-called witnesses to history, they are conducted within the scope of a project run by the Military University of Land Forces.*

*GPR research helped narrow down the area to the former Evangelical cemetery. The location of the burials was confirmed by archival photos showing the graves and the area's landscape. As a result of geophysical work, sites were selected based on an analysis of detected GPR anomalies. As a consequence, archaeological excavations were initiated that resulted in the discovery of mass graves from World War II.*

**Keywords:** conflict archeology – GPR – geophysics – archeology

## Introduction

This article presents a description of archaeological and geophysical work in the area of conflict archeology, with the common objective of finding the burial place of soldiers from the Border Protection Corps. As a result of archival works and interviews with so-called witnesses to history, conducted within the scope of a project run by the Military University of Land Forces, field work was planned and performed in a selected area, i.e. in the forests around the villages of Michałów and Urszulin. Further work aimed to clarify the location of a potential grave. GPR research helped narrow down the area to the former Evangelical cemetery. The location of the burials was confirmed by archival photos showing the graves and the landscape of the area with a characteristic cross. As a result of geophysical work, sites were selected based on an analysis of detected GPR anomalies. As a consequence, archaeological excavations were initiated that resulted in the discovery of mass graves from World War II.

## The search for soldiers from the Border Protection Corps

The Border Protection Corps is a military formation established in August 1924 to protect the eastern borders of the Second Polish Republic. This organisation was intended to stop bands of armed men attacking the eastern border area, and it was also a form of response to the manning of the borders by a Russian military formation. The border guard corps was part of the battalion army, reporting to the minister of internal affairs. On 12 September 1924, the organisational structure of the Border Protection Corps (BPC) was defined by the General Staff based on a military model – i.e., a command was set up together with its staff, special services and a border protection brigade along with the smallest organisational units of companies and guards. The basic tactical unit was the border protection battalion and a cavalry squadron. The corps was headed by Brigadier General Henryk Minkiewicz.



In 1933, the organisational structure of the Border Protection Corps was amended to include, inter alia, cavalry among its ranks. Four years later (in 1937), the border protection system was changed from cordons to patrol and intelligence. In 1939, BPC protection extended not only to the eastern, but also to the north-eastern border of the Second Polish Republic. However, during the September campaign, the Border Protection Corps was dispersed and incorporated into the army and operational groups fighting on the eastern border. However, on 1 October, the BPC units were dispersed during the Battle of Wytyczno. The BPC group of General Wilhelm Orlik-Rückemann and the Red Army took part in the fighting. The 'Sarny', 'Rokitno' and 'Polesie' battalions fought in the battle. It was then that the group was dissolved, and smaller units began to fight underground. The soldiers taken prisoner were shot.

According to oral reports and stories known among the inhabitants of the villages around the Wytyczno area, the BPC soldiers were buried in a mass grave, and were then exhumed and transferred – probably in the forest belt between the villages of Urszulin and Michałowice (in other testimonies, witnesses mentioned that the soldiers were buried directly in the forests, without any prior exhumation of makeshift graves).

Searching and precisely locating the site of the secondary burial of the Border Protection Corps soldiers was the aim of the team's work within the project entitled *The forgotten graves of the heroes of the Border Protection Corps on the eastern border of the Polish state*, whose main actor was the General Tadeusza Kościuszko Military University of Land Forces, while the geophysical and archaeological field work was carried out by GPR24.com.pl Jacek Adamiec.

On the basis of the found archival materials, including old documents and photos, field work was initiated to collect the most accurate information possible from witnesses of those events or from people who might have had contact with witnesses. On the basis of the information gathered, some sites were initially selected for further verification.

Due to the nature of the search – the fragility and uncertainty as to the exact location of the burial site, which is, in effect, a large, forested area – the decision was made to conduct field prospecting and geophysical surveys via GPR. Then, archaeological work was to set to start in selected places. If the burial places of the BPC soldiers were located, the remains would be exhumed and transferred to the cemetery for commemoration.

## Geophysical study in search of burial places

Research in the field of forensic archeology became popular in the 1980s, when work began on locating and investigating the mass graves of genocide and war crime victims. Archaeological experience turned out to be extremely relevant due to the need to conduct surface prospecting as well as excavation research. As a result of these projects, graves were discovered, exhumed and documented (Godzień 2017). Forensic archeology is closely related to prosecution and court proceedings, and forensics methods are applied. Furthermore, forensic archeology research consists in finding, disclosing and securing evidence, which is then used in an attempt to reconstruct events (Trzciński 2013). Geophysical work is used in forensics in order to uncover where human bodies or remains may have been hidden, as well as to search for concealed objects, e.g. weapons. However, in the case of archaeological and architectural works, geophysical surveys using GPR are carried out in order to locate objects at archaeological sites, select the location of crypts in churches or burial sites. An important advantage of geophysical work for forensics, archeology, as well as conservation and architecture, is the possibility it offers to conduct non-destructive research that does not interfere with the structure of the research site.

## GPR surveys in search of graves

Due to the nature of the objects sought – mass graves or individual burials – measures were taken to conduct research using the Ground Penetrating Radar (GPR) method. GPR works by calculating the electromagnetic delay of the pulse emitted by the transmitting antenna. These pulses are reflected from the surface of various media, and when they return, they are registered by the receiving antenna. The materials that constitute certain environments are distinguished according to the difference in the dielectric constant on both sides, and the size of the reflection of the electromagnetic wave depends on this contrast. This method helps to discover voids or various objects at sites that are often highly diverse (e.g. soil or a water reservoir), as well as locate the remains of old burials (Karczewski 2007; Misiewicz 2006).

It should be highlighted that GPR surveys can be carried out in very different places. First of all, GPR antennas work in difficult weather conditions and at low or high temperatures. Work can be carried out in various places – from open spaces to forest areas, as well as in water bodies, including when they are frozen.

Also, the geological diversity of the substrate does not hinder planned work, although it does affect the frequency of the antennas. When selected properly, a good antenna can detect anomalies in loam, loess and rock deposits (e.g. granite). However, one should bear in mind the factors that obstruct this method, such as collections of pipes, a thick layer of building rubble or other 'littering' of the studied site, which can be found in places with a long chronology of settlement (e.g., city centres). Nevertheless, by appropriately selecting the antenna and the depth of the planned measurement, as well as taking into account information about the surveyed area, one may eliminate most interferences, and here the operator's experience also plays a key role.

The use of GPR facilitates a preliminary analysis of results obtained in the field. Interpretation of GPR anomalies during the search for mass graves and individual burials can narrow down the research in the event of no anomalies at the site or perhaps an indication of specific points for verification. Therefore, GPR is used in archaeological work and searches in the field of forensic archeology and science (Trzciński 2013).

Based on the information gathered, a GPR study was set to be performed by GPR24.com.pl Jacek Adamiec, within the boundaries of plots 136/1 and 503, located in Michałów and Urszulín, in the Lubelskie voivodeship (Adamiec and Zdeb 2020b). Three sites were selected for GPR research areas no. 1–3 within the limits of the above-mentioned surveying plots. The areas were measured by an RTK GPS (*Real Time Kinematic*) device – i.e., technology of precise measurement using satellite navigation with GPS phase correction. One reference station was used, which means that the measurements were carried out with the use of a mobile receiver, and the coordinates of the measured points were obtained through the signal received by the GPS antenna and the signal of the reference station (Bakula and Przestrzelski 2013).

Taking into account the type of terrain under investigation, a decision was taken to use a VIY3-300i with a 300 MHz screen antenna from Transient Technologies. Sampling for the planned work was set at 500 with a time window of 166 ns. The antenna used can detect objects on a macro scale up to a 7 m prospection depth (Misiewicz 2006; Adamiec and Zdeb 2020b).

Area no. 1 was planned within the boundaries of plot no. 503 – the area selected for the study was 17 m wide and 20 m long. Within the rectangle (polygon) oriented along the north-south axis, a starting line was established for the profiles from the north side. The antenna's routes ran from north to south at 0.5 m intervals. Such a densely laid mesh helped obtain 34 GPR profiles, which is justified by the purpose of the research – obtaining information about the location of a potential mass grave.

Area no. 2, located on plot no. 136/1, was designed in the vicinity of area no. 1 – on its south-eastern border. When designing this area, the orientation of army training area no. 1 was mapped together



Fig. 1 The effect of GPR works within 1 training ground: a) GPR imaging; b) the results of the excavation plotted on the USAR team imaging; c) 5 graves discovered during archaeological excavations (photo K. Zdeb)

with the direction of the antenna paths. 15 profiles were set up at 0.5 m intervals, which made it possible to obtain a test area measuring 7.5 m by 13 m.

The last area (no. 3) was also designed in the eastern part of plot no. 503. The training ground is oriented similarly to the previous two, but in this case the profiles were planned in two directions (N–S and S–N). The research was carried out within an area measuring 20.5 m by 23 m with intervals between the antenna runs every 0.5 m. In this way, 41 GPR profiles were recorded. The georadar surveys planned and carried out in this way allowed for a thorough and complete examination of the selected area.

During the field work, anomalies were discovered, some of which, after preliminary analysis, were considered to be anthropogenic (fig. 1).

## Electrofusion tomography in search of mass graves

During the geophysical work, an attempt was also made to find the graves of soldiers by using the electrofusion tomography method (electrofusion imaging, ERT). This technique is used, for example, during geological reconnaissance of building substrate, for monitoring the environment and mass movement hazard zones, as well as for the detection of anthropogenic objects and archaeological research. It can help gather data on the electrical resistance of the test site via 2D and 3D imaging, where anomalies (i.e., changes in resistance) of natural or anthropogenic origin may disturb the site. In the case of work carried out in the field of archeology and forensic archeology, this method makes it possible to identify the geological structure of an area along with objects lying there (e.g., mass graves) (cf. Pasierb 2012: 205–208).

Research was performed using the electrofusion tomography method in the area no. 1 previously selected by GPR. 56 electrodes were placed at a distance of 0.25 cm from each other. This made it possible to obtain a profile with a length of 13.8 m – the first electrode was located at 0.0 m and the last one at 13.8 m of the entire profile (fig. 2). The use of the Gamma Wenner protocol allowed for obtaining 487 reference points during the research.

As a result of these studies, a geological profile was obtained, where anomalies with an outline and visible changes in the actual resistance of the site were observed. The ERT method helped obtain information about the geological structure of the area no. 1. It also made it possible to present the resistance distribution of the studied formations and to determine their thickness (fig. 2).

On profile ERT were located three anomalies between 4 and 6 meters, 8–10 m and 11.5 to 13 m from the beginning of the profile. The anomalies were identified by electrofusion tomography, which were interpreted as mass graves at a depth of 50 to 120 cm. It should be emphasised that the electrofusion tomography method gives good results in searching for underground anthropogenic objects whenever the object in question is in a homogeneous environment.



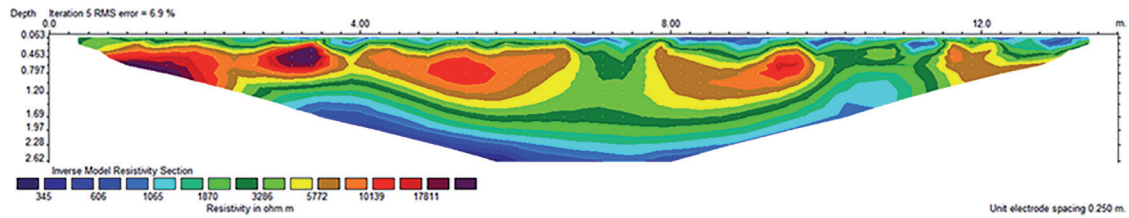


Fig. 2 Result of research with the use of electrofusion tomography (developed by J. Adamiec)

## Archaeological excavation in search of mass graves

In order to verify the GPR results, archaeological research was planned. During the first stage, some borehole surveys were conducted with the consent of the Provincial Conservator of Monuments from Lublin (the Delegation in Chełm) – decision no. IA.II.5161.66.1.2019.

The boreholes were made within the boundaries of area no. 1 – in places selected on the basis of previous GPR surveys. Three boreholes were drilled in selected places. During the archaeological work, fine bone material was obtained from each of the holes. In borehole no. 1, medium-thick cranial vault fragments with visible sutures and a fragment of an alveolar ridge from a right jaw along with dental arch were found. From borehole no. 2, a fragment of a right ischial bone from the area of the acetabulum and the ischial tuberosity was extracted, as well as small parts of a pelvis. From borehole no. 3, a left

zygomatic bone was obtained with the frontal process and marginal tubercle along with small skull fragments. The bones were then handed over to Łukasz Maurycy Stanaszek PhD, head of the Anthropology Laboratory of the State Archaeological Museum in Warsaw. After conducting analyses, a conclusion could be drawn that these were human remains from an adult or adults. The bones extracted from the borehole 3 were defined as bone material of an adult male (cf. Adamiec and Zdeb 2020c).

After the results were obtained, further archaeological work was planned. An application was submitted for a new permit to conduct archaeological research, which was then carried out in accordance with decision no. IA.II.5161.33.1.2020 of the Provincial Conservator of Monuments. Archaeological research began with a field prospection, during which some gentle elevations of a few centimetres were observed at the sites of previously conducted geophysical works. In places where GPR anomalies were detected, later confirmed at the drilling stage, sites were selected for excavation work.

First of all, a site was selected in front of the Evangelical tombstones and the wooden cross. There, the first archaeological excavation was marked out. The second area of archaeological work was established parallel to the first excavation. Archaeological work began with removing the humus layer and uncovering the contours of the graves. This made it possible to mark out smaller excavations for five of the eight individual graves that were exposed after cleaning the surface of both excavations.

During the exploration of backfill layers, some individual human bones were found in three of them but were not in any anatomical scheme. The bones were investigated and documented before further excavation work began. The backfill was explored until the coffin lids or their remains were exposed at a depth of 0.7 to 0.9 m below the modern ground level (archaeological research was carried out in accordance with the decision no. IA.II.5161.33.1.2020 of the Provincial Conservator of Monuments). Some of the coffin lids were badly damaged due to the weight of the ground and the ground upon which they had been laid. Further archaeological work consisted in meticulous cleaning and visualisation of the coffins found in order to make photographic documentation and, if possible, also establish the chronology of the buried individuals (fig. 3).

Cleaning the surface of lids and partially covered coffins in five of the graves led to the observation that the first three contained coffins that resembled boxes measuring approximately 30 x 40 x 100 cm. The rectangular boxes had been hammered shut with nails from smaller boards. On the other hand, the chests located in the graves in the second excavation were similar in shape to modern coffins, i.e. the part containing the deceased's legs was narrower than the flared part at the head. The coffins in graves no. 4 and 7 were far more delicate in structure than those exposed in graves 1–3.

The coffin lids only survived in a few cases, although those from the graves exposed in excavation 1 were in a much better state. In the first grave, two coffins with almost intact lids and no. 6 with a partially collapsed one were uncovered. However, in the second grave, only one coffin had an almost entirely preserved bottom – coffin no. 1. However, in the third grave, four coffins with well-preserved lids (nos 2, 5, 6 and 7) and one with a partially sunken lid (no. 3) were uncovered. Also in the third grave, the most damaged item was exposed, which was probably spoiled when it was placed in the grave. On the other hand, in the remaining two graves, only three items with preserved lids were uncovered (no. 1 in grave 1 and nos 1 and 2 in grave 7).

The human remains discovered during the archaeological work were preserved in good condition. Only some of them – those found in the backfill layer – manifested signs of mechanical damage that occurred as a result of their placement in this layer. On the other hand, the bone remains, despite the damaged coffin lids, were in good condition mainly in graves 1–3, whereas the bones in graves 4 and 7 were in a far worse state of preservation due to the much drier substrate. It should be emphasised that, with few exceptions, the coffins contained more than one individual. In the coffins of the first three graves they had been arranged in various ways, while in graves 4 and 7 the skulls alternated with the long bones of the legs.





Fig. 3 Three exposed graves (photo K. Zdeb)



## Items discovered during archaeological research

During the cleaning of the coffins, individual items – fragments of uniforms and military equipment, as well as some individual personal effects – were found. Due to the inability to perform a full exhumation, it was possible to document the objects visible in the coffins and to take single photos of the objects in order to document them.

Fragments of uniforms were preserved on single bones in some coffins (no. 5 and 8) with sunken lids only in the vicinity of graves no. 1 and 4. The preserved fragments were dark green or green-grey. Some have survived with buttons or as single pieces of fabric. Apart from fabrics, some single uniform buttons were found. Several single buttons were found, whose obverse was convex and decorated with small dots. From 1935 to 1945, these buttons were inserted into the coats and jackets of the Wehrmacht, Waffen SS and German police uniforms. Also discovered were some underwear buttons with four eyelets, without any identifying marks. Of the remaining elements of the uniform, some fragments of leather belts and a buckle were also uncovered. One leather element was probably sewn between other layers of leather; perhaps it was a piece that held the two ends of the belt together, or was a place where an additional piece of military equipment could be attached. Archaeological research revealed fragments of leather strips, only partially visible due to the need to complete the exploration. One of the straps was found to feature a buckle made of aluminium. The obverse bears the inscription 'Gott mit uns' arranged in a strip closed at the bottom with oak leaves. In the center there is an eagle above a swastika. The background of the buckle is decorated with tiny dots. Most likely, this was the buckle of a Wehrmacht non-commissioned officer. In the excavations, some shoes were partially exposed, which were assigned to two categories, i.e. officer or soldier boots (fig. 4). The soles of the found footwear were mostly studded, with metal toes, and reinforced with wrought-iron heel plates. Some boots with high uppers ranging from 35 to 41 cm were also found – officer boots or Marschstiefels, made of blackened leather, and with reinforced soles (Saiz 2016).

Among the military equipment, a damaged metal cover for a gas mask was found along with a metal container in which fog glasses or spare lenses were inserted (Saiz 2016). In coffin no. 7 from the first grave, the handle of a small knife was found. A Mauser bayonet, probably S84/98, was found behind the coffins in the seventh grave. Among the other items, a plastic comb was also found in coffin no. 1 from the first grave.

Furthermore, among the personal effects an artificial tooth bearing the number '19' (lying in coffin no. 3 from the first grave) was found along with a jaw from coffin 8 from the fourth tomb, featuring eight teeth capped with metal alloys.



Fig. 4 Shoes exposed during the cleaning of the surface of the graves (photo by K. Zdeb)

Despite the initial doubts that arose in connection with finding the graves and initiating archaeological work, a comparative analysis of the military equipment with items discovered during other exhumations led to the conclusion that these were not buried Polish soldiers, although the chronology was correct – the burials were dated to the Second World War. Comparison of military footwear and uniforms, including the buttons, worn by soldiers of the Border Protection Corps (Wielecki 2016) and fragments of uniforms and shoes that were found during the exhumation works carried out in Pohost in Belarus (Siemiński 2018), did not confirm that these were Polish soldiers who had been reburied.

Summing up, the analysis of the items found in the coffins with a damaged lid led to the conclusion that the soldiers of the Border Protection Corps were not buried there. In the case of exposed complete coffins, an exhumation is necessary to determine which army they belonged to. The issue of the remaining graves – i.e., numbers 5, 6 and 8 – also remains unresolved (Adamiec and Zdeb 2020).

## Summary

Around Urszulin and Michałów, geophysical research was initially carried out, followed by archaeological work in order to verify the information collected from the testimonies of witnesses and archival documents about the final resting place of the soldiers of the Border Protection Corps. Fieldwork was carried out within the scope of the *Forgotten Graves of the Heroes of the Border Protection Corps* project on the eastern border of the Polish state, led by the Military University of Land Forces.

As a result of the conducted archaeological excavations in a second place, also indicated by a witness, a secondary burial site was found involving several dozen individuals in wooden boxes (exhumation coffins). Eight mass graves were uncovered and documented, five of which were then examined. Analysis of elements of uniforms and military equipment uncovered there indicated that the buried soldiers were from the Second World War, and belonged to the German army. These Wehrmacht soldiers were most likely part of an infantry unit that was defeated and then buried. Then, in the 1950s, they were exhumed and moved to the former Evangelical cemetery in Michałów. In the case of the complete coffins that were uncovered, an exhumation is necessary to determine which army they belonged to. Also the issue of the remaining graves – i.e., numbers 5, 6 and 8 remain unresolved (Adamiec and Zdeb 2020).

Geophysical work narrowed down the study area and the selection of archaeological excavations. Archaeological research, on the other hand, made it possible to uncover and document the burials from the Second World War. It should be highlighted that both the geophysical and archaeological work turned out to provide important supplementary material for archiving and documentation. At the same time, they provide verification tools for the main purpose of the project, as well as a basis for amending its assumptions.

## Bibliography

- ADAMIEC, J. – ZDEB, K. 2020a: Metody geofizyczne w procesie poszukiwania ukrytych zwłok. Nowa Kodyfikacja Prawa Karnego LVI, 191–200.
- ADAMIEC, J. – ZDEB, K. 2020b: Badania georadarowe wykonane w ramach projektu „Zapomniane mogiły bohaterów Korpusu Ochrony Pogranicza na wschodniej rubieży państwa polskiego”. In: J. Ledzianowski – J. Małysiak eds. Projekt badawczy „Wytoczno” 2019–2020. Wspomnienia walk Korpusu Ochrony Pogranicza z sowieckim agresorem, Zielona Góra.
- ADAMIEC, J. – ZDEB, K. 2020c: Badania archeologiczne przeprowadzone w celu zweryfikowania domniemanych miejsc wtórnego pochówku żołnierzy Korpusu Ochrony Pogranicza. In: J. Ledzianowski – J. Małysiak eds.



- Projekt badawczy „Wytyczno” 2019–2020. Wspomnienia walk Korpusu Ochrony Pogranicza z sowieckim agresorem, Zielona Góra.
- BAKUŁA, M. – PRZESTRZELSKI, P. 2013: Technologia wiarygodnego pozycjonowania RTK GPS/GLONASS. *Przegląd Geodezyjny* 7, 3–9.
- GODZIEN, A. 2017: Archeologia sądowa. Zarys problematyki. Rzeszów.
- KARCZEWSKI, J. 2007: Zarys metody georadarowej. Kraków.
- MISIEWICZ, K. 2006: Geofizyka archeologiczna. Warszawa.
- PASIERB, B. 2012: Metoda tomografii elektrooporowej w rozpoznaniu geologicznym podłoża i obiektów antropogenicznych. *Czasopismo Techniczne* 109 (2–Ś), 201–209.
- SAIZ, A. 2016: Deutsche soldaten. Mundury, wyposażenie i osobiste przedmioty żołnierza niemieckiego 1939–1945. Czerwonak.
- SIEMIŃSKI, D. 2018: Poszukiwania i ekshumacja żołnierzy KOP przy strażnicy w Pohoście (Białoruś). Komunikat z prac Biura Poszukiwań i Identyfikacji Instytutu Pamięci Narodowej. In: A. Ochała – M. Ruczyński – P. Skubisza eds., *U polskich stali granic. W 90. Rocznice utworzenia Korpusu Ochrony Pogranicza*, Szczecin.
- TRZCIŃSKI, M. 2013: Archeologia sądowa w teorii i praktyce. Warszawa.
- WIELECKI, H. 2016: *Polski Mundur Wojskowy 1918–1939*. Warszawa.

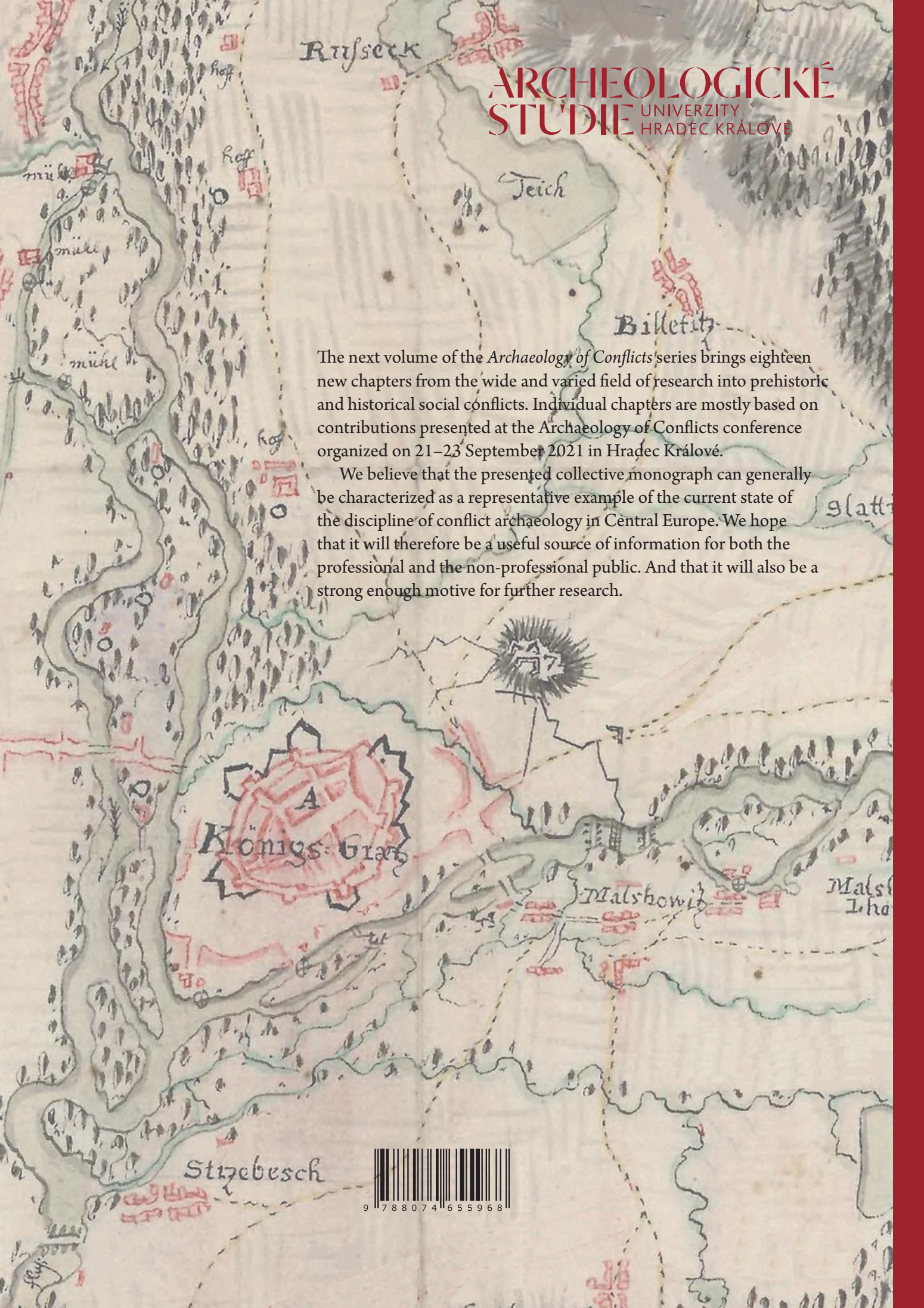
Jacek Adamiec  
GPR24.com.pl

Monika Lis  
Institute of Archeology  
Cardinal Stefan Wyszyński University of Warsaw

Weronika Mazur  
Institute of Archeology  
Cardinal Stefan Wyszyński University of Warsaw

Katarzyna Zdeb  
Institute of Archeology  
Cardinal Stefan Wyszyński University of Warsaw  
k.h.zdeb@gmail.com



A historical map of the Hradec Králové region, showing the city of Hradec Králové (Königs-Gratz) in the center, surrounded by a river and various settlements. The map is drawn in a hand-drawn style with red and black ink. The city is labeled 'Königs-Gratz' and 'A'. Other labels include 'Russek', 'Teich', 'Biletitz', 'Stizebesch', 'Malschowitz', and 'Malsch I. h'. The map also shows various roads, rivers, and small settlements.

# ARCHEOLOGICKÉ STUDIE

UNIVERSITY  
HRADEC KRÁLOVÉ

The next volume of the *Archaeology of Conflicts* series brings eighteen new chapters from the wide and varied field of research into prehistoric and historical social conflicts. Individual chapters are mostly based on contributions presented at the Archaeology of Conflicts conference organized on 21–23 September 2021 in Hradec Králové.

We believe that the presented collective monograph can generally be characterized as a representative example of the current state of the discipline of conflict archaeology in Central Europe. We hope that it will therefore be a useful source of information for both the professional and the non-professional public. And that it will also be a strong enough motive for further research.



9 788074 655968