

Why is Archaeology Inalienable in Learning about the Traces of the Great War in Kozienice Forest and Restoring the Memory of the Forgotten History of a Century ago?¹

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The article presents the preliminary results of historical and archaeological research on the relics of the Great War in the Kozienice Forest. The aim of the article is to demonstrate the need to use archaeological methods in restoring the memory of the events of 1914 and 1915. The use of these methods to study the battlefield and its hinterland provides new information and allows for the analysis of battlefield elements. Preliminary spatial analyses of the war cemetery in Wysokie Koło showed that its boundaries had changed, and the graves had been destroyed during the renovation in the years 2004–2006.

KEY-WORDS: Warsaw-Dęblin operation, Kozienice Forest, archaeology of the Great War, Dęblin Fortress

INTRODUCTION

The Kozienice Forest is in central Poland on the Kozienice Plain, between Radom and the Vistula River. In the autumn of 1914, one of the largest battles of the Great War was fought here (Nielipowicz 2015: 11). In the first stage (from 10 to 21 October 1914), the Army of the Russian Empire and the German and Austro-Hungarian Armies

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fought heavy battles for the Dęblin Fortress. In the Russian nomenclature, these battles are called the Warsaw-Dęblin operation, and in the German nomenclature the Battle of Ivangorod or the Battle of the Vistula. In contemporary studies, the following terms are used: the First Battle of Dęblin, the Second Battle of Dęblin and the Battle of the Koziernice Bridgehead (see Rypulak 2014). The German army attacked the defensive positions of the Russian army to take control of the Dęblin Fortress. An attempt to take control of the Dęblin fortress ended in failure for the German troops. Another attempt to break through the Vistula was made by the German army in the summer of 1915. Several days of fighting were successful, the Russian army evacuated from the Fortress. During the retreat, Russian troops destroyed the defensive infrastructure. Until 1918, the area was occupied by the Austro-Hungarian army (Bystrzycki 1976: 201–202).

The military operations of 1914–1915 left material remnants in the landscape of the Koziernice Forest. Extensive sections of trenches, artillery emplacements, warehouses, dugouts, and other elements of military infrastructure were built (Schwarz 1922: 70; Bystrzycki 1976: 183; Trzaskowski 2014: 21). After the fighting, there were also traces of destruction and the resting places of fallen soldiers. The bodies of the fallen were buried in dug war graves and in cemeteries near the battlefield. Together with the relics of human activity, national uprisings, and World War II, they form a kind of palimpsest that can only be deciphered using archaeological methods. Thanks to the combination of archaeological methods, advanced spatial research, and analysis of historical sources, it is possible to critically analyse the material culture. This fact is confirmed by previous research on the Great War on the Gallipoli Peninsula in Turkey, or on the Rawka and Bzura rivers in Poland (Birkett-Rees 2012; Zalewska 2016) and many other sites. The aim of the article is to show the need to use archaeological methods in the study of traces of the Great War in the Koziernice Forest (Fig. 1).

Analysing the material remains of the Great War, several components of the historical landscape of the battlefield can be distinguished: I. The battle area; II. The battlefield; III. Resting places of the fallen soldiers. Using these categories, the arguments in favour of the validity of using archaeological methods to study the traces of the Great War in the Koziernice Forest area are presented below.

RESEARCH METHODS

During the first stage of the research, archival materials (military diaries, plans, orders, diaries, cemeteries) were analysed. Based on the results achieved, areas for non-invasive

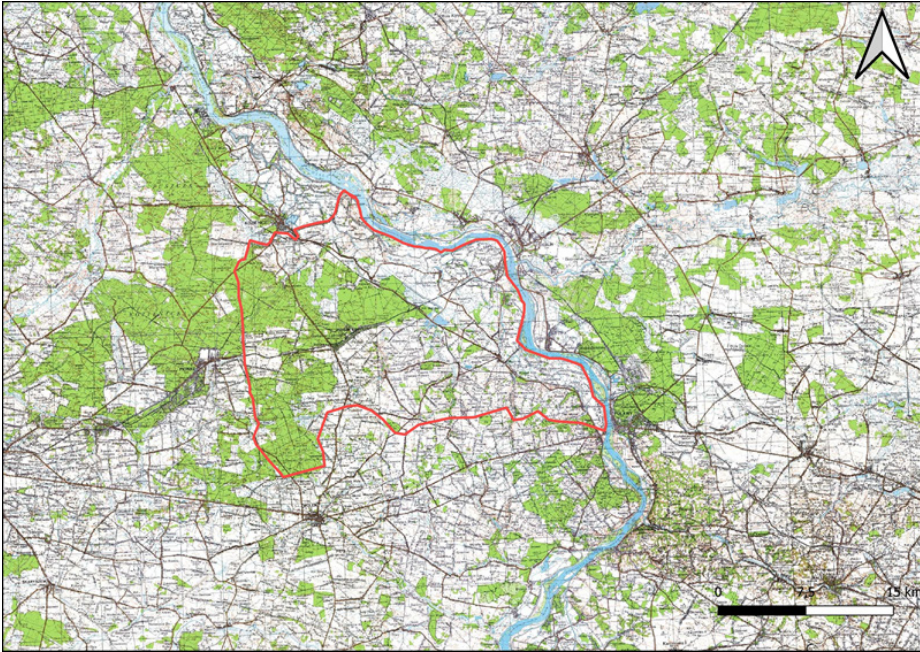


Fig. 1. Study area. Graphic elaborated: A. Bachanek.

archaeological research were designated. This stage of the research consisted of the use of two basic remote sensing methods: the analysis of aerial photographs (including archival ones) and the analysis of a digital terrain model, based on data from the Central Office of Geodesy and Cartography. The aerial photographs were taken between 1959 and 2012 and their analysis consisted of computer editing of the photographs, i.e., changing the colours (colour channels, saturation, contrast, brightness, gamma) to capture elements that the human eye does not easily perceive. Then, the photos were georeferenced in the QGIS georeferencing module, using characteristic terrain points. The georeferencing base comprises the topographic maps and orthophotomaps made available as part of the WMS and WMTS services on the geoportal.gov.pl website. To study hard-to-reach areas covered with dense vegetation, ALS data was used in the form of a point cloud converted into raster files (NTM). The main purpose of using ALS data was to obtain information enabling the recognition of the spatial form of field fortifications and cemeteries. The remote sensing analysis also uses historical and contemporary cartographic data functioning in public domains such as Mapster, Google Maps, Geoportal, as well as archival maps of Polish and Central Europe available on the portal <http://igrek.amzp.pl/>.

The next stage was to conduct field verification of the areas selected as a result of the above-described activities, to:

- conduct reconnaissance, determination of the condition and registration of relics with their own terrain forms, such as field fortifications,
- enable identification of cemeteries and previously unlocated resting places of soldiers of the Great War,
- allow verification of data obtained because of remote sensing analyses.

I. The battle area

The battlefield area in the Kozienice Forest covers an area of about 50,000 km², during the years 1914–1915, the belligerents heavily fortified the forest. Both natural and anthropogenic factors were considered in determining the heading. During the battles fought in 1914, the terrain and the Vistula River played a crucial role. An analysis of historical sources and studies on the existing literature, such as the records of the Imperial and Royal District Headquarters in Kozienice, State Archives in Kielce, and Documentation of the Army of the Russian Empire, provides a description of Russian defensive positions. At a distance of 7 km from the Vistula River and 4 km from the ring of permanent forts, the crew of the Dęblin Fortress built a line of trenches. The fortifications consisted of a single line of trenches with gun emplacements. They were protected by lines of wire entanglements, with additional entanglements placed in sensitive places (Schwarz 1922: 69; Bystrzycki 1976: 182; Trzaskowski 2014: 21). They were situated in an undeveloped area, mainly on farmland. To facilitate the transport of troops and supplies to the front, paved roads were built to connect field fortifications with permanent fortifications. An innovative element was, through construction of a special system of ponds and dams, the use of the Vistula River to flood the area of the so-called no-man's land, to prevent the enemy from attacking effectively (Schwarz 1922: 72).

Current knowledge about the Russian line of defense is based on the accounts of combatants and cartographic materials. These data do not accurately reflect the combat situation at that time² (Glaise-Horstenau 1932). It is known that units of the German and Austro-Hungarian armies dug in at about 3 km from the Russian positions. According to accounts, the Germans built a heavily fortified area from the village of Gniewoszków to Mozolice, Kozienice district (Schwarz 1922: 62). Shelters were built in the rear, surrounded by barbed wire entanglements made of wood and wire (Schwarz 1922: 63). According to the account of the commander of the

2 *Opisaniye boyevykh deystviy kreposti Ivangorod v techeniye avgusta, sentyabrya i oktyabrya 1914-go goda*, p. 383, <https://gwar.mil.ru> (access: 28 IV 2022); *Opisaniye boyevykh deystviy pod Ivangorodom (s 8-go iyulya po 22-ye iyulya 1915 goda*, p. 222, <https://gwar.mil.ru> (access: 28 IV 2022).

15th Reserve Infantry Brigade, General Hans von Below, they ran through the area of the current war cemetery in Bąkowiec (Rypulak 2014: 41). The location of these fortifications is confirmed by the account of Jan Karsznia,³ a participant in the battles in Słowiki. The author described the location of the Austrian positions on a hill in the village of Słowiki. The way these fortifications were organized and built shows that the Germans expected long-lasting fighting.

The offensive of the German 9th Army and the Austro-Hungarian and 1st Army on the Dęblin Fortress was unsuccessful. The defence system of the Dęblin Fortress was expanded, which was to ensure that the crossings over the Vistula River were maintained in the next battle. To achieve this, the entire battlefield was cleaned up, levelling all fortifications built by the attackers. Their land was the site of three groups of fortifications: Gniewoszków, Bąkowiec, and Mozolice. They constituted the main line of Russian defence (Bystrzycki 1976: 197). When the Germans approached the Fortress in 1915, the defensive system consisted of four lines. The heaviest fighting occurred within the Gniewoszków group. During the July 1915 assault, the German army occupied the entire front from Gniewoszków to Mozolice.⁴

Contemporary relics of field fortifications and the destruction wrought by the fighting sides stretch for miles. Some limited insight into the war landscape on a cartographic level is, of course, provided by German and Russian sketches made during the War. However, an analysis of archival materials that can be used in the process of interpreting the contemporary landscape of the Kozienice Forest leads one to conclude that they are characterised by a significant lack of accuracy. Here, the conclusion arises that the existing knowledge relating to military activities in this area is severely limited by the nature of these sources. Hence, the need to make inferences using archaeological data. The analyses carried out so far show that the dynamics of the fighting in the area are reflected in the surviving relics. We can observe that from one line of trenches, the attack was conducted both in the eastern direction (towards the Fortress) and in the western direction (towards the enemy). This can be ascertained from the analysis of the numerical terrain model and field verifications (see Figs 2 and 3). Not all the main features of the original battle landscape are currently visible in the field. An important reason that has affected the legibility of the relics of the field fortifications in the present day is the long-term reclamation of these areas, especially in the foreground of the Fortress, because of which even the permanent forts, although under conservation protection, are undergoing intensive transformation (Figs 2 and 3).

3 The report was written and made available by Stefan Siek: <https://izbasieciechow.pl/galeria-2/filmy/stefan-siek-filmy/cmentarze-z-i-wojny-swiatowej/> (access: 28 IV 2022).

4 *Opisaniye boyevykh deystviy pod Ivangorodom s 8-go iyulya po 22-ye iyulya 1915 goda*, p. 222, <https://gwar.mil.ru/> (access: 28 IV 2022).

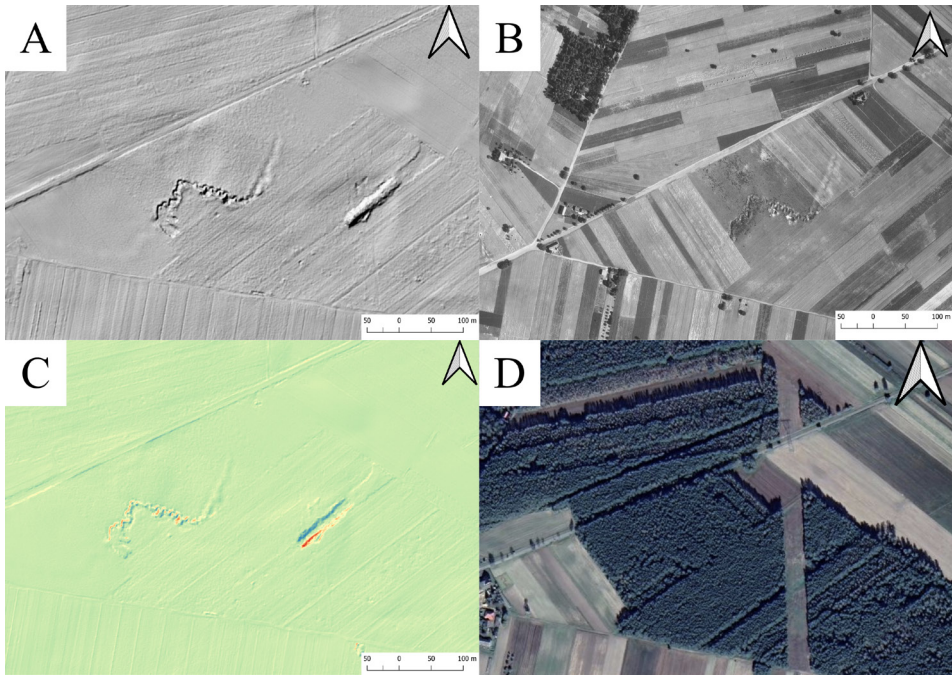


Fig. 2. Field fortifications around the village of Sarnów (A, C): Digital Terrain Model showing the current state of the fortifications; (B) Aerial photograph taken in 1959 showing fortifications located on farmland; (D) Contemporary satellite imagery indicates that the area where the relics of the trenches are located is overgrown with forest. Source: Head Office of Geodesy and Cartography, Google Earth. Graphic elaborated: A. Bachanek.

II. *The battlefield*

The battlefield is not only kilometer-long lines of trenches and “death zones”, but also the rear of the front. This issue will be discussed based on a selected example from the vicinity of the village of Gniewosów. A photograph taken in 1914 clearly shows a military camp consisting of several tents/barracks (see Fig. 4). This photograph does not contain any landmarks that would suggest a more precise location of the site. The issue of identifying encampments in the open space, which was intensively used after the War, is more difficult because we have only cursory information about battlefield features. They are very rarely discussed in themselves, although there are exceptions (cf., Zalewska *et al.*, 2021).

Researching the hinterland of the battlefield depends on several factors, such as the terrain in which they were built, the type of building material, and the use of the terrain after the end of the fighting. Clear relics of the camps in the form of rows



Fig. 3. Relics of field fortifications around the village of Sarnów. Field verification, Autumn 2021. Photo: A. Bachanek.

of dugouts are visible in the forests, e.g., near Gniewosów. The use of archaeological methods of field prospection and remote sensing made it possible to find a group of dugouts around the villages of Bąkowiec and Słowiki-Nowe. The German and Austro-Hungarian armies dug in this area in 1914, and Russian fortifications were constructed here a year later. The exact date of construction of these elements therefore requires further research. Based on the maps, direction, and location of the features described here, it can be concluded that they were built by the Russian army during the Second Battle of Dęblin or in 1915. The change in state of knowledge about these features is helped by archaeological methods, which allow for the acquisition of new data for interpretation, to determine the nature of the remains.

III. Resting places of fallen soldiers

The war cemeteries are the most significant relics of the conflict in the Koziencice Forest. According to historical estimates, 100,000 soldiers participated in the fighting. The



Fig. 4. Photo of a military camp near Gniewoszów from 1914. Private collection of the author.

number of dead is not known. Archival documents illustrate the extent of the losses suffered by both warring sides.⁵ It is not known how many soldiers were buried in the existing cemeteries. In the Kozienice Forest, there are many undiscovered cemeteries and war graves.

Case study: Resting place of fallen soldiers – Cemetery in Wysokie Koło, Kozienice district.

The cemetery is in the village of Wysokie Koło, Gniewoszów commune, Kozienice County, by provincial road No. 738. Unfortunately, the exact date of burial of the

⁵ *Akta der Kriegergraber – Abteilung beim k.u.k. Kreiskommandes*, Register of Cemeteries, Graves, and Fallen Soldiers from the World War, Kielce Provincial Office I, ref. 21/100/0/13.10/15183, State Archive in Kielce; *Akta des k. u. k. Militargeneralgouvernements in Polen – Kriegergraber – Abteilungen des k.u.k. Kreiskommandos*. Cases of maintenance and arrangement of war cemeteries from the World War period, Provincial Office in Kielce I, ref. 21/100/0/13.10/15219, State Archive in Kielce; Records of the Office for the Care of Military Graves. D.O.G. in Kielce – records of graves, cemeteries and fallen soldiers from the World War; Kielce Provincial Office I, ref. 21/100/0/13.10/15184, State Archive in Kielce; Consolidations of war cemeteries and scattered graves; Kielce Provincial Office I, ref. 21/100/0/14/17477, State Archives in Kielce.

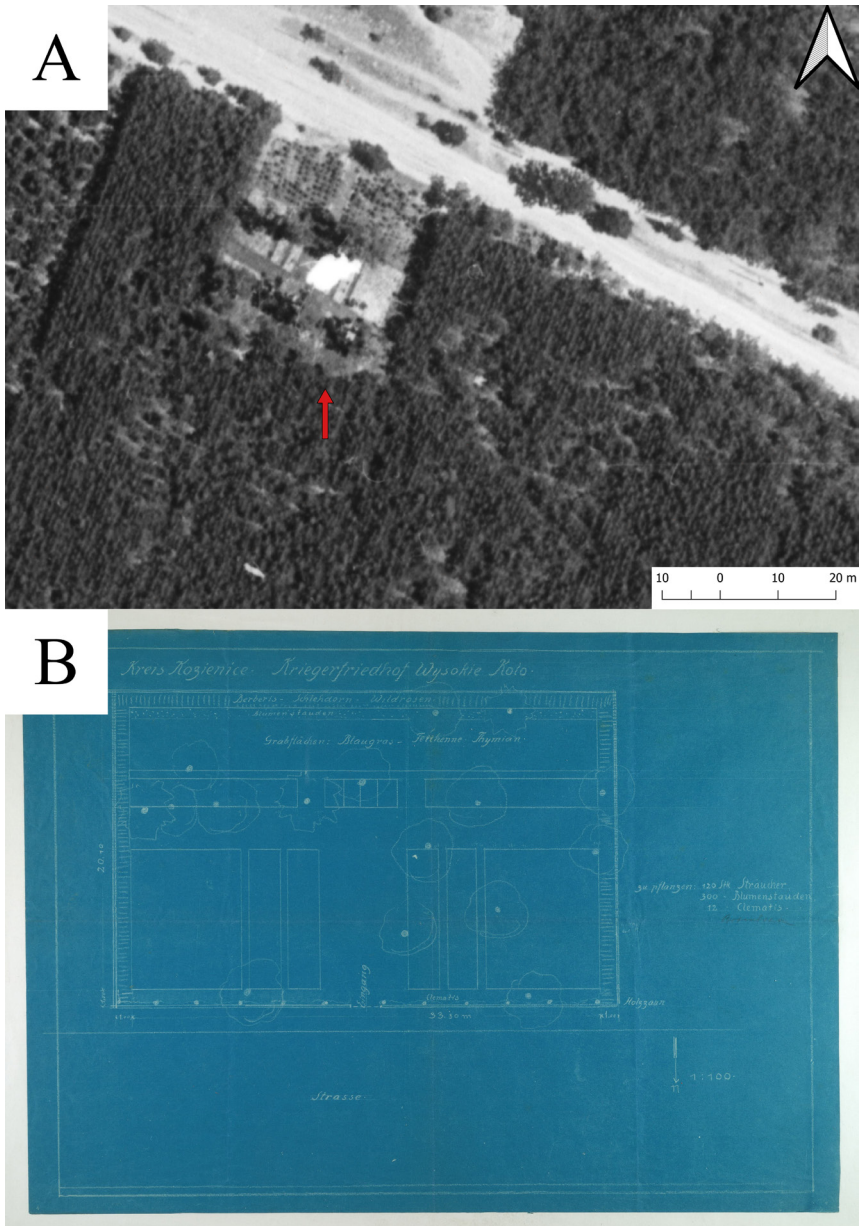


Fig. 5. War cemetery in Wysokie Koło, Koziencie district. (A) Aerial photo taken in 1959, source: Central Office of Geodesy and Cartography; (B) Archival plan of the cemetery in Wysokie Koło from 1917, source: Central Archives of Historical Records in Warsaw, *Militärgouvernement in Lublin*, ref. 1168

soldiers is unknown. The earliest documents concerning this cemetery date back to 1917,⁶ when the Austro-Hungarian funeral services organized war cemeteries in this area (Fig. 5). Analysing the course of battles in this area, it may be concluded that soldiers killed in the battles for the Dęblin Fortress in October 1914 were buried here. Correspondence between the German Embassy and the Voivodeship Office in Kielce⁷ from April 1939 confirms that Adolf Dickeut was buried in grave no. 20. People who died in the next stage of the battle for the Fortress in 1915 were also buried here (Fig. 5).

The cemetery occupied a small area, about 21 m × 34 m, according to the original plan (see Fig. 5). There were ten burial fields, which were planted with perennials, blue grass, sedum, and thyme. The main alley leading north-south led to the cemetery. It branched off just behind the first group of graves in an east-west direction in front of the next group of mass graves, forming the letter “T”. Trees were planted between the graves. A hedge of barberry, blackthorn and rose hip marked the boundaries of the cemetery. Information on the actual number of soldiers buried is contradictory. A list of war cemeteries from 1938 indicates that 70 soldiers of Germany, 78 of the Austro-Hungarian Army, and 239 of the Russian Army were buried in mass graves here.⁸ The correspondence regarding the commemoration of this cemetery indicates that 359 soldiers were buried there in collective graves and 28 in single graves. Due to its location on private property, the cemetery was scheduled for relocation.⁹

During World War II, soldiers from the Wehrmacht were buried in this cemetery. After the War, the cemetery was forgotten and turned into forest, according to the architect's intentions. In 1969, there were still wooden crosses in the cemetery with partially preserved details of soldiers. Based on *Preussische Verlustliste* No. 81 of 20.11.1914, PVL No. 299 of 12.08.1915 and PVL No. 331 of 18.09.1915 the data of the German soldiers buried in this cemetery was verified:

Ltn. [Obln.] Viktor Hartmann, L.I.R. 46, † 23.7.1915 (decorated with Eisernes Kreuz)
 Wehrm. Stanislaus Kaczmierzak, L.I.R. 19, 5th company, † July/August 1915
 Uffz. Dietrich Warnken, G.R.R. 2/5, † ?? .10.1914

6 Plan *Kriegerfriedhof Wysokie Kolo*, The Central Archives of Historical Records in Warsaw (MGGL, ref. number 1168).

7 Records of cemeteries and war graves in the Koziencice district; Kielce Provincial Office I, ref. 21/100/0/13.10/15202, State Archives in Kielce.

8 Files of the Office for the Care of Military Graves. D.O.G. in Kielce – records of graves, cemeteries and fallen soldiers from the World War; Kielce Provincial Office I, ref. 21/100/0/13.10/15184, State Archive in Kielce.

9 A photocopy of the correspondence of the Ministry of Internal Affairs with the Provincial Office in Kielce from 1939 is in the library in Gniewoszów. The original documentation in the State Archive in Kielce has not yet been found.

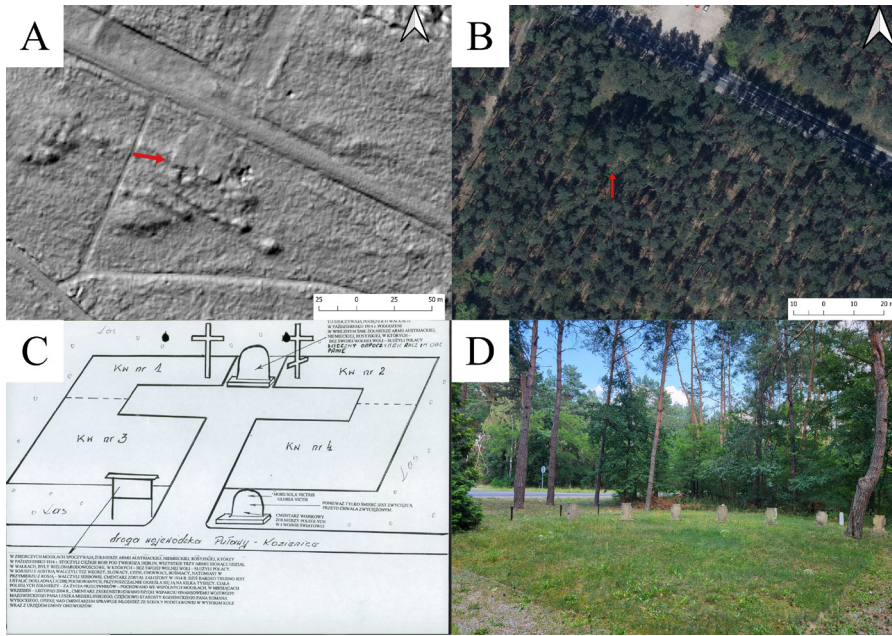


Fig. 6. Cemetery in Wysokie Koło, Koźnice district. (A) Digital Terrain Model; (B) Contemporary aerial photograph, source: Head Office of Geodesy and Cartography; (C) Plan of the cemetery included in the Register Card of the National Memorial Site; (D) The current space of the cemetery, north-eastern part. Photo: A. Bachanek.

In the thick grass lay the rotten elements of crosses. The location of the crosses is not provided, which makes it impossible to identify the graves. There is also no information about the renovation of this cemetery in the period from 1939–2004. In the years 2004–2006, the Gniewoszków Commune Office and the Austrian Black Cross renovated the cemetery. The work involved clearing the bushes and levelling the cemetery area, which destroyed its original appearance. Four quarters were designated to symbolize war graves (see Fig. 6). The radical transformation of the area is confirmed by a comparison of aerial photographs taken in 1959, which shows the same arrangement of graves as on the plan from 1917. The photograph taken after 2006 shows a thoroughly different layout of the cemetery, identical to the plan made for the renovation. On the current plan of the cemetery, we can observe four separate plots with mass graves (Fig. 6). The quarters are separated by a T-shaped alley. In the central part of the cemetery, there is a stone with information about the fallen soldiers. On either side of the stone there are two large marble crosses, Latin and Orthodox.

Another argument for the necessity of archaeological research in this cemetery is the results of surface surveys. During field verifications conducted by the author in 2020–2022, it turned out that the vegetation described on the cemetery plan from 1917 is located outside its current boundaries.

The example of this place highlights the problem of how war cemeteries are reconstructed and commemorated. Although these actions are often motivated by good intentions, they may end up with the destruction of the cemetery. The result is a radical change in space because of clearing of the area, changes in boundaries and the creation of artificial graves. The factors described above raise doubts whether the remaining war cemeteries located in the Kozienice Forest can also be located within their original, actual borders. Does the arrangement of graves in the cemeteries (often very illegible) correspond to the original features of a given cemetery? Often (e.g., Gródek, Bąkowiec, Brzeźnica) it is only with the help of archaeological methods that we can obtain answers to the above-mentioned questions. This is necessary to reverse the process that led to the destruction of the cemetery in the process of commemorating it.

The number of cemeteries and graves established in this area in the years 1914–1918 is not known. Two main reasons are responsible for this. Firstly, the fact that the funeral services operating in the area did not know all the resting places after the end of the fighting, so we do not find any information about them in the documents. During hostilities, fallen soldiers were buried near the battlefield in field cemeteries (Oettingen 1988: 15–36). In 1916, the Austro-Hungarian Board of War Graves was established. The burial places of fallen soldiers were inventoried, and new cemeteries were established. The documentation was sent to the office in Kielce and then to Lublin. In 1918, the files were compiled and sent back to the archives in Vienna (Gaul 1997: 66–67). After World War I, the records of the General Government Office were moved to Lublin. In 1925, they were transferred to the Military Archives in Warsaw. Based on the Polish-Austrian archival agreement of 1932, the missing files were handed over to the Polish side. In the autumn of 1939, German troops confiscated the records of the partitioning powers. In 1950, the documentation was transferred to Polish, and then to the Central Archives of Historical Records in Warsaw. Polish archival materials from the interwar period do not facilitate the study of this issue either. They are inaccurate and scattered, so it is sometimes impossible to analyse them accurately. Therefore, we do not know which of the cemeteries were exhumed and to what extent. Secondly, the state of preservation of war graves and cemeteries has been significantly influenced by the attitude of the population towards the resting places of those killed in World War I. For many decades, they were considered strangers and left unattended. This situation was also influenced

by the outbreak of World War II and the time of occupation. The Germans forced the inhabitants to take care of these cemeteries. This is not an isolated situation on a national scale (cf., Zalewska and Cyngot 2020).

The analysis of documents, cartographic and archaeological data in the Kozienice district shows how much archaeology in the Kozienice Forest can contribute to this issue.¹⁰ Today, the increasing expansion of human settlement into forested areas in this region means that buildings often encroach on unknown cemeteries. As a result, they are destroyed. In such cases, only archaeology provides methods and tools to counteract such situations, by finding, investigating, documenting, and protecting such sites from further destruction.

CONCLUSIONS

The relics of the Great War are an indispensable element of the landscape of the Kozienice Forest. They are witnesses to events that have changed the strategic plans of the warring parties, which has affected the situation on all fronts. The rapidly developing archaeology of the present day (cf., Zalewska 2016) provides tools and theoretical foundations for the study of these features. The task of researchers dealing with this topic should be to broaden the knowledge of both the art of war and the state of preservation of the material remnants of war. This is not an easy task, as the extensive archival documentation shows significant deficiencies. This is where archaeology comes in, as it provides insight into the processes that took place at these sites over the course of over one hundred years. Analysing the source data for specific relics continues to raise more questions than answers, and this creates a need for further research.

The most problematic issue is the protection of battlefields. The considerable extent of the area with trenches, dugouts, etc., causes numerous problems in terms of adequate protection (cf., Zalewska 2018). The research methods provided by modern science allow us to precisely document these objects. This allows the enrichment of knowledge of the contemporary depositaries of the material legacy of the Great War and providing answers to persistent questions, some of which I have outlined above. This requires both systematic identification and documentation

¹⁰ List of war cemeteries in the pre-war Kielce district, State Archives in Kielce, Voivodeship Office in Kielce, ref. 17474; Collection of Kazimierz Mróz's documents, State Archives in Radom, ref. 58/1209/0; Documentation concerning the exhumation and commemoration of war cemeteries in the Kielce Provincial/State Archives in Kielce, Voivodeship Office in Kielce I, ref. 15218; Monument Care Programme in Kozienice County for 2017–2020.

of the traces of the Great War. It is also necessary to valorize them, i.e., to determine which relics are worth preserving for future generations. It is also beneficial to ask follow-up questions. Archaeology has tools at its disposal that allow both the accurate documentation of these relics and indicates those of special scientific and social value that should be protected from destruction. By analysing archival spatial data with the use of tools such as GIS, we can precisely reconstruct the past and locate features in the contemporary landscape.

REFERENCES

- Birkett-Rees, J. 2012. Geospatial science and the archaeology of the First World War: context for conflict. *Geospatial Science Research* 2.
- Bystrzycki, A. 1976. Twierdza Dęblin (1837–1915). *Rocznik Mazowiecki* 6: 171–204.
- Gaul, J. 1997. Registratura w austriackiej kancelarii wojskowej w XIX i początkach XX w. *Krakowski Rocznik Archiwalny* III: 66–73.
- Glaise-Horstenau, E. 1932. *Österreich-Ungarns letzter Krieg 1914–1918*. Wien.
- Nielipowicz, S. 2015. *Krwawy październik 1914*. Oświęcim.
- Oettingen, U. 1988. *Cmentarze I wojny światowej w województwie kieleckim*. Warszawa–Kraków.
- Rypulak, A. 2014. *Wielka Wojna 1914 roku pod Dęblinem*. Dęblin.
- Schwartz, A. V. 1922. *Oborona Ivangoroda v 1914–1915 g.: iz vospominaniy komendanta kreposti Ivangoroda*. Moskwa.
- Trzaskowski, J. 2014. Fortyfikacje polowe na ziemi kozienickiej powstałe podczas Wielkiej Wojny 1914–1915. *Ziemia Kozienicka* 29: 19–31.
- Zalewska, A. I. 2016. Archeologie współczesnych konfliktów zbrojnych jako praktykowanie prospołecznej archeologii. Przykład wartości epistemologicznej i aksjologicznej. In A. I. Zalewska (ed.), *Archeologia współczesności*, 125–140. Warszawa.
- Zalewska, A. I. 2018. Ewidentne relikt wojen XX wieku w ewidencji zabytków. Oddziaływanie wyników badań z zakresu archeologii współczesności w przestrzeniach konserwatorskiej i publicznej. *Kurier Konserwatorski* 15: 83–94.
- Zalewska, A. I. and Cyngot, D. 2020. Wpływ wojennych wydarzeń dziejowych (res gestae) i relacji o nich (historia rerum gestarum) na kondycję materialnych pozostałości po tych wydarzeniach. Studium przypadku na temat dziedzictwa konfliktów zbrojnych jako wyzwania poznawczego, społecznego. *Folia Praehistorica Posnaniensia* 25: 409–441.
- Zalewska, A. I., Czarnecki, J. and Bachanek, A. 2021. Relikty infrastruktury zapleczewej zbadane w ramach planowych, proaktywnych badań archeologicznych na terenie gminy Nieborów w latach 2014–2018. In A. I. Zalewska (ed.), *Archeologia frontu wschodniego Wielkiej Wojny jako wyzwanie*, 125–140. Warszawa–Lublin.