

Three Publications about Archaeology of a Segment of the First World War's Forgotten Eastern Front: Zalewska, A. I. (ed.), *Archeologiczne Przywracanie Pamięci o Wielkiej Wojnie w rejonie Rawki i Bzury (1914–1915)*, Warszawa 2019: IAE PAN, 420 pp., illustrations, ISBN 978-83-66463-01-1; Zalewska, A.I., Czarnecki, J. and Kierszys, G., *Krajobraz Wielkiej Wojny: Front nad Rawką i Bzurą (1914–15) w świetle teledetekcji archeologicznej i źródeł historycznych*, Warszawa 2019: IAE PAN, 147 pp., illustrations, ISBN 978-83-66463-01-1; Zalewska, A. I. (ed.), *Archeologia Frontu Wschodniego Wielkiej Wojny i dziedzictwo konfliktów zbrojnych jako wyzwanie poznawcze, społeczne i konserwatorskie*, Lublin 2021: UCMS, c. 420 pp.,¹ illustrations, ISBN 978-83-947370-2-3.

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While the horrors of the trench warfare on the Western Front in Belgium and France are part of the European cultural memory, to some degree the much more extensive and mobile Eastern Front of the 1914–1918 conflict has become the forgotten front (*Die vergessene Front*). Although for just over eleven months in 1914/15, the central part of a major front, some 1000 km long on which three million people died ran through the middle of what is now Poland, for a number of reasons the memory of this has there been all but erased from memory and from the cultural landscape.

The reviewed three volumes are the result of a project that has attempted to address the poor state of historical memory of the momentous events and human drama that took place a century earlier on the segment of the front, 55 km west of Warsaw. Here, from mid-December 1914, the Russian Imperial army tried to hold back the eastward advance of the German troops on defences built along the Bzura and Rawka rivers. For the next seven months, the fighting here took the form of the same type of prolonged static trench warfare more familiar on the Western Front (the only place in the eastern sphere of war that this happened). The German army made every effort (including mining and several major gas attacks), to advance on Warsaw but failed to

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¹ The publication of this volume has been delayed, this review has been based on the proofs where the final pagination had not been determined.

break through. It was only after the Great Retreat of the Russian army in the summer of 1915 that these defences were overrun and Warsaw fell.

A few weeks later, the front had advanced 340 km further eastwards into Russian territory. In the former Bzura and Rawka conflict zone, now under German administration, the local inhabitants soon started to come back and the slow work of reconstruction and repair of war damage could begin. The whole area was covered in deep trenches and craters, while unexploded ordinance and damaged equipment littered the region of the former front line. Some villages had to be rebuilt, others were abandoned. Cemeteries and unburied remains of those lost in action were also a feature of the new landscape.

It was this landscape that was studied by the 2014–2018 APP research project (“Archeologiczne Przywracanie Pamięci o Wielkiej Wojnie”, further APP project [Archaeological Restoration of the Memory of the Great War]), directed by Dr Anna I. Zalewska, which aimed to examine the “material remains of life and death in the trenches on the Eastern Front and the state of transformation of the post-battle landscape in the Rawka and Bzura region (1914–2014)”. These aims were achieved by multi-disciplinary research using a range of source material, including contemporary written sources (diaries, old documents), iconographic material (old photos, aerial photography, contemporary field maps) and above all the results of modern teledetection (LiDAR survey, aerial photography) and targeted excavation.

The area studied was some 400 km², through which passes a 19 km section of trench systems belonging to this section of the front – roughly between Sochaczew and Skierniewice. The project examined both the German and Russian front lines, with the no-man’s land between them, and also part of the line of the infrastructure and rear defences of both sides. The reports look in detail at five nodal areas (I–V) of the section of front where the landscape changes caused by military action were most radical. The southernmost (Joachimów-Mogiły, near the motorway service station of that name) lies in a forested region (Bolimów Forest landscape park) and contains one of the best preserved complexes of fortifications of 1914–1915 in this part of Europe. The second (the vicinity of Wola Szydłowska) lies to the north of the modern A2 motorway that now bisects the research area, and like the other four is mostly now agricultural land. Just to the north of that is the third nodal region in the region of the village of Humin and “Hill 95”. Area IV lies near the hamlet Borzymów, and the fifth lies at a greater distance near the Bzura river in the region of Zakrzów.

The project had three underlying aims. The first was to restore the memory of the eastern front of World War I in the region of the Bzura and Rawka 100 years ago and bring it back into public awareness, but also to allow the re-examination of our views on the characteristics, significance and consequences of this military action. The second aim was to expand knowledge on the life and death of the soldiers in the trenches, and the third aim was through drawing attention to the material traces,

stimulate reflection on human conflict in general. The fruits of the Project have been a number of articles by the principle authors in various publications and the three monographic publications reviewed here.² Although the latter form a trilogy, each volume addresses a separate aspect of the results of the project.

The first volume sets out the context, aims, scope and methodology of the APP project, some of its results, placing them in a wider setting. It contains 26 papers by various authors arranged in four blocks. It commences with several chapters built around the documentary sources placing the battlefield landscape of the Bzura and Rawka region into a wider context. A historical introduction outlines how earlier events had led to the formation of a static line of trench warfare in the area of these rivers. Here is summarised the various military actions that took place in specific regions of the front (including the six nodal areas) in the winter of 1914 and first part of 1915. This is followed by several papers on the aspects of the fighting itself and life on the front line. The first is an extremely interesting presentation using a well-researched substantial body of archival sources to show the life of the soldiers of the German and Russian armies in the Battle of Rawka and Bzura “from mobilisation to the list of losses” by local amateur historian and militaria collector Stanisław Kaliński (pp. 43–80). In fact, the numbers of deaths are totally unknown, as is the answer to another question that concerns the authors, how many Poles were fighting (and died) in the two opposing Imperial armies.

Stanisław Kaliński is also the author of the subsequent text (pp. 81–97) using archival material and detail from the military handbooks of the day (which the APP investigations showed were not always followed) and the archaeological evidence to discuss the use of mining underneath the opposing trenches in order to plant explosive charges. Unfortunately, traces visible on the surface betray a part of the trench layout that may be counted on to have been suddenly abandoned after the explosion with everything that was in it, and it was found in one case (“Crater 226”, p. 83), that recent artefact hunters with metal detectors had already illegally emptied the area of most finds. The third paper (Anna I. Zalewska, pp. 99–112) considers the horrific aftermath of the use on this section of the front of chemical weapons of mass destruction by the German army. In January 1915, the German army experimented with gas shells and this was later followed (31 May 1915, 12 June and 6/7 July 1915) by chlorine attacks. In the first of these, 240 tonnes of gas were used (more than 100 tonnes greater than used a month earlier at Ypres, Belgium).

² For references to the main ones: <https://umcs-pl.academia.edu/AnnaZalewska>; <https://www.researchgate.net/profile/Anna-Zalewska-6>; see also Zalewska, A. I. and Kiarszys, G. 2021. The forgotten Eastern Front: Dealing with the social and archaeological legacies of the Battle of the Rawka and Bzura Rivers (1914–1915), central Poland. *Antiquity*, 1–19. doi: <https://doi.org/10.15184/aqy.2021.134> and refs.

The final paper in the first section (pp. 117–33 by Szymon Domagała) discusses the landscape changes in the Rawka and Bzura regions that constitute both a commemoration and forgetting of the relics of the Great War. The paper discusses how the pre-existing landscape was first obliterated by the military activity, and presents the evidence for the fortifications, hinterland and communication lines of the front. The total length of fortifications within the research area is at least 688 km, and there were over 54,814 individual features (dugouts, and bunkers, shell craters, artillery posts, and the ruins of abandoned buildings) documented. The text also discusses (pp. 127–132) the manner in which this landscape was altered to bring it back into use. Apart from the trenches, dugouts and bunkers, shell and mining craters, that were to later hinder the land being taken back into agriculture, there had been a considerable amount of losses to the forest (for construction and firewood). The text briefly covers the question of the rebuilding of ruined structures, backfilling the holes left by War to return land to use for agriculture, and where this was too difficult due to the surface relief, reforesting these areas, leading to their continued preservation.

The volume's second part presents the use of landscape archaeology in the process of returning the memory of the battlefield here. Dorota Cyngot discuss the natural environment and then (pp. 143–154) archaeological fieldwork in this area previous to the APP project. Although pre-existing archaeological records (across an area of 1255 km²) document 5107 findspots, only 293 are post-medieval, of which 27 relate to the modern period. Shockingly, despite the whole area being covered in relics of the fighting, before the APP project, there was an official record of only three related to WWI – two of these (reported in the third volume) were found in fieldwork preceding the construction of the A2 motorway that were among the handful of sites of this period excavated in the whole country.

The core of this section are a series of papers on the use of teledetection and other non-invasive techniques of survey in the identification and analysis of relics of World War I in the research area. These tend to concentrate on the methods and limitations and comparability of different versions of these techniques in specific landscape conditions seen across this landscape of conflict and serve as an introduction to the results that are presented in the second volume. Grzegorz Kiarszys (pp. 155–170) discusses the application of airborne laser scanning and Digital Terrain Modelling (further DTM) in the project and presents examples mainly from the southern region in the forest at Joachimów-Mogiły as well as on individual sites with earthworks (such as military cemeteries). He also writes with Włodzimierz Rączkowski (pp. 171–180) on the use of contemporary aerial photography in the project. Although several flights were undertaken over an area about 18 x 19 km, only relatively poor traces were found over most of the area. Piotr Wroniecki (pp. 197–212) examines the use of geophysical surveys as a non-invasive technique for revealing details of sites selected as a result of teledetection (and presents examples from a cemetery in

wooded terrain, part of a trench system and the region of an army camp behind the defences).

Jacek Czarnecki (pp. 181–196) in a paper that combines the themes of teledetection and archival research, provides an in-depth discussion of a group of surviving 106 archival oblique reconnaissance photos now in the Bundesarchiv Freiburg that provided a massive amount of helpful information. The author identifies the *Feldflieger Abteilung* that took the photos, the army unit they were taken for and their dates (between 7th May and 23rd June 1915). He tentatively links the earliest of them with reconnaissance before the gas attacks that the Germans were hoping would open the way to Warsaw.

The third part of the first volume discusses life in the trenches on the Rawka and Bzura in 1914–1915 and its material traces. It starts off by looking at the uniforms and typical equipment of a soldier in the army of the Russian Empire (Jarosław Rostkowski, pp. 215–238). A parallel paper (Stanisław Kaliński, pp. 239–260) examines the uniforms and typical equipment of a German infantry soldier. Both articles discuss how uniforms of the WWI period relate to what had gone before, and how they underwent change in the course of the conflict and compares the excavated fragments with documented material. The different approaches of both chapters are interesting, reflecting the sources of the authors' expertise; the first is a military re-enactor and presents each item of equipment individually, while the latter mainly concentrates on whole uniforms on the basis of preserved photos, documents and literature.

The third paper in this section by Krzysztof Karasiewicz and Jakub Wrzosek (pp. 261–275) takes a look at the rifle ammunition of both Russian and German armies found in the investigations. Nearly 12,000 finds of this type were collected and analysed in a number of ways. The authors stress that even such non-descript material, commonly-found (and collected by artefact hunters), contains archaeological information. From the factory marks and dates stamped on them, interesting conclusions are drawn about the manner of supply of both armies on this front, also the different types and groups of this material could be related to events on the front, such as the concentration of large numbers recovered on the site of Russian trenches overrun by the Germans on January 31st 1915. Unused ammunition found associated with human remains lying unburied in no-man's land could be used to determine to which army the soldier had belonged. Damian Bednarczyk (pp. 277–286) analyses the 33 Russian and German bayonets recovered during the investigations. Similar conclusions could be drawn from them, even broken fragments. There were examples of ersatz weapons, created to fill a shortfall in supply, another feature of interest is how some of them were modified by their users to suit their personal needs and make them more multi-functional as a tool. Grzegorz Śnieżko (pp. 287–298) deals with a much more personal aspect of life in the trenches as revealed by the devotional articles recovered by the investigations. Of these crosses, crucifixes, medallions and plaquettes, 16 could

be related to the Eastern Church, and four the western one. Two of the latter came from the Russian lines, which the authors linked to Poles serving in both armies.

The final paper considers the information content of the correspondence of men serving on this section of front (“‘We’re going to the trenches tonight’, German field post [Feldpost] in the Battle of Rawka and Bzura”, S. Kaliński, pp. 299–314). It presents examples mostly from the author’s own collection. Although there is little here that adds to what we know about the flow of events from other historical sources, these messages reflect the mindset of the soldiers and their day-to-day concerns (interestingly, military censors seem not to have been interested in editing these accounts).

A number of sites (APP 1–27) were distinguished within the research area and a major part of the 2014–2018 project involved the excavation of some of them. Five of them (in Joachimów-Mogiły, Wola Szydłowiecka, Borzymówka and Kozłów Biskupi) were on remains of the battlefield and field fortifications of the first line. Three (Nieborów Forest and Jasionna) were elements of the hinterland of the battlefield. A separate category of sites were the forgotten resting places of fallen soldiers (three areas of the Joachimów-Mogiły cemetery, including two mass graves, Kozłów Biskupi, a forgotten forest cemetery, now damaged by ploughing and two previously-exhumed war cemeteries at Wola Szydłowiecka). In this volume, however, there is no detailed presentation of the methodology, stratigraphy, contexts and features of these invasive interventions, though several plans are used for illustrative purposes (Fig. 20 on p. 94, Fig. 1 on p. 326). The objects recovered from them are described in some detail (a reflection of the “return to things”?). The lack of a section on these excavations giving these objects the status of an archaeological source (that is a context, beyond the typology and relation to written and iconographic sources which they merely illustrate) is however a puzzling feature of a volume reporting the results of a project involving the application of archaeological methodology to the study of the remains of the First World War.

The first volume’s fourth section discussing the material remains of death on the battlefield (pp. 315–408) is one of the most poignant in the collection. Three of them (pp. 343–354) discuss the anthropological examination of the unburied remains of the fallen that were left on the battlefield to be recovered a century later by the excavations. Despite the fragmentation and corrosion of the bones in the soil, data on health, illnesses and trauma were gathered. It was noted that a number of the bones from no-man’s land were burnt, reflecting the attempts of soldiers in the trenches to use flame throwers to rid themselves of the stench of the decomposing corpses lying there irretrievable in the firing line. A small scale isotopic and genetic characterisation of a sample of this material indicated a possibility to identify where in the huge German and Russian empires the men fighting in the trenches had come from (there is a second osteological report on the remains of fallen soldiers discovered in the excavations in other areas of the complex in the third volume). Attention is paid to the ethical

issues involved in studying human remains and the finds lying with them. Remains from formal burial sites were only examined in situ, an underlying assumption of the research was not to disturb human remains as far as possible. At the end of the first volume (pp. 409–420) there is a discussion of the reburial of the human remains that were collected for study during the project in a new “burial mound” erected within the existing war cemetery of Joachimów-Mogily.

The other four papers in this section discuss the issue of the military cemeteries. Although these should be the most permanent element of the post-battle landscape, as detailed by A. I. Zalewska and D. Cyngot (pp. 317–324) a major problem is their disappearance. Already by the end of the 1960s, many of them had vanished both from memory and view (p. 319). Although, theoretically, protected by law on at least two counts, they were comparatively neglected by the conservation authorities (only 6 were on lists of conservation zones even in 2014). In the 1990s, a few local private individuals began to interest themselves in these sites and start to find and compile information on them, and sometimes undertake work to tidy some of them.

During the fighting, many of the fallen in and around the research area had originally been buried where they died, but as the front moved east and the area came under German occupation, a number of military cemeteries was established to which bodies lying in scattered graves on the battlefields were removed. They were usually fenced or walled off, with permanent grave markers, and sometimes a more substantial focal monument. After the area came under Polish administration, archival material, both local and in Germany indicates that already in the 1920s (pp. 320–321) for a number of reasons locals could have a rather hostile attitude towards these cemeteries and the human remains found in their fields outside them. Małgorzata Karczewska (pp. 355–386) looks at the documentary evidence for these military cemeteries on the basis of examination of the correspondence 1923–1939 in the German Ministry of Foreign Affairs and the *Völkbund Deutsche Kriegsgräberfürsorge* concerning Germans who took an interest in the graves of the fallen that were on Polish soil and the families often wanted to be able to visit the graves of their loved ones. It seems that throughout the whole of the period before 1939, there were very poor relations between the government of the new Polish state and the German authorities over the matter of access to and treatment of First World War graves.

What is notable is that in this same period (or subsequently), it seems that there is little evidence that the Bolshevik government of Soviet Russia was at all interested in the fate of these cemeteries, even though (or perhaps because) they contained the bodies of the Russian Imperial army (p. 357). The authors of this volume did not locate any documentation relating to this topic.

By 1924, the German authorities were already concerned about the state of the many scattered cemeteries in rural districts. Many of them lacked proper fences or gates, some had lost their grave markers, they were overgrown by weeds, there were

several cases of profanation of cemeteries (pp. 357–358). Starting from 1925, a number of the cemeteries were closed and the remains moved so that the land that military authorities had appropriated during the War returned to previous owners. Exhumation was often done badly and hurriedly (or nominally) with very little documentation, and without keeping the German authorities informed. This often meant that the new place of rest of the remains of individual soldiers could not be traced (p. 358).

As a result of a series of complaints from German families visiting the graves about the state of many of the War cemeteries in Poland, the growing diplomatic problem was dealt with by closing some cemeteries, exhuming the remains and moving them in close cooperation with (and partly funded by) the German authorities to a fewer number of larger cemeteries that would be easier to look after. This began in 1934 and a number of the new cemeteries were designed and laid out in modernistic style designed by German architects (pp. 361–370). The bodies of the German fallen were transferred there, while the remains of the “non-German dead” remained in the original resting place (p. 369). Again, this work was poorly-documented³ and the only way that in individual cases anything will be known about what was done on the original sites and what they still can contain will come from archaeological investigations.

Two subsequent papers (both by A. I. Zalewska and G. Kiarszys, pp. 387–402 and 403–408) discuss the process of localisation of the documented and undocumented sites. The state of preservation of this resource is such that the details can only be recovered by combining the results of several techniques (pp. 388–390), archival research, cartographic sources, analysis of archival and contemporary aerial photos and teledetection, such as DTM. The result is an attempt to present a complete list and map of the known sites, though it is clear that further research may well produce evidence for more. The APP project established that there had been 103 such sites in the study region, but a number of them have now completely disappeared (33% of the known ones), and also another 41% that had been exhumed in the 1920s and the remains moved to another cemetery to allow the land to be used in another way (most frequently returned to agriculture). Those that were in the forest most frequently tended to be forgotten, and although some have the surface relief preserved, others are damaged by deep ploughing for forestry. Still others are being damaged by grave robbing by artefact hunters with metal detectors looking for collectables (pp. 398, 404).

The second volume reviewed here is a joint work by three authors (Anna I. Zalewska, Jacek Czarnecki and Grzegorz Kiarszys) and its focus is the battle landscape created by the front on the Rawka and Bzura in 1914–1915 in the light of archaeological remote sensing and historical sources. It seems that the intention was that it should function

³ Likewise, there is a lack of information in this volume on what was done on these sites during the 1939–1945 Nazi occupation of Poland.

as a stand-alone resource and thus to some extent, some of the material presented here overlaps with the first volume.

This project treats the studied battle landscape as a combination of natural and anthropogenic elements, linked to the hydrography and existing communications network of the region. Despite being static in one sense, the battle landscape was not a stable situation but (pp. 15–17) underwent a number of changes in the period of functioning, the archaeological evidence of the line of the front proved it to have been far more dynamic in its development than the documentary evidence had suggested (p. 155). An important conclusion is that it turns out that the preserved contemporary military maps that historians have used to analyse the processes happening here were all inaccurate, the traces of the fortifications on the ground were often completely different from the lines drawn by observers and strategists during the fighting.

The second and third parts introduce the methods of remote sensing used in researching this landscape (pp. 29–49), and especially (pp. 53–61) the use of the surviving aerial cover from May and June 1915 that proved to be very important in realising the aims of the project. There is a richly-illustrated presentation (pp. 35–49) of a typology of the anthropogenic features observable in the contemporary aerial photos and also DTM conducted for the project. This is followed by a discussion of the spatial organization of the front line, the nature of field defences in both open as well as forested areas (particularly a feature of the southern part of the study area) and the protection of communication lines between different elements of the system. The various types of earthworks involved in the fortification line are discussed in relation to their function; particular attention is paid to infantry firing stations and their physical traces. This is followed by a presentation of a somewhat neglected category, the military campsites both on the front line and behind it. These turn out to be quite complex and substantial sites in their own right, and a number of them are still astonishingly well-preserved.

The fourth part of the volume (pp. 65–125) is the most important and outlines what is known about the archaeology of the five nodal sections of the front (see above), and goes through the historical evidence for each of them and then presents what is known from remote sensing about the relict landscapes of the fortifications and the types of remains met there. They are best preserved in the first of them (Joachimów-Mogiły, pp. 65–79). Here a lot of the earthworks were not levelled after the War and remain covered in forest. While there is evidence for heavy fighting in the vicinity of Wola Szydłowska (Area II, pp. 79–91), this area was not covered by the surviving contemporary German aerial photographs and more recent agriculture and forestry work has totally obliterated surface traces of the fortifications, therefore – despite the importance of the area in the history of this front – there is still a gap in all the maps at this point (pp. 79–81). There is considerable information from Humin (Area III, pp. 82–93) from the 1915 aerial photos, but due to levelling of the terrain by agriculture

less from DTM; the same applies to Borzymówka (IV, pp. 93–113) and the fifth region (Zakrzew, pp. 113–125).

The book's final section sums up what has been learnt about the landscape of the region, both the military earthworks and their infrastructure, but also the many cemeteries and how the material traces reflect various aspects of the short and long-term effects of the War on the participants of the events (both soldiers and the local inhabitants).

The third volume reviewed here has a different publisher from the other two (and in formal terms a different name: "Archeologia Frontu Wschodniego Wielkiej Wojny..." [Archaeology of the Eastern Front of the Great War] (further AFW) and attempts to connect the results of the APP project to wider issues. The 18 chapters by separate authors are arranged in three broad sections that deal with the heritage of the Great War respectively as a cognitive issue, a social issue and a conservation issue.

The first part contains some reports on the excavations undertaken within the project and the (over 20,000) finds from them. The opportunity is taken to publish the results of rescue excavations preceding the construction of the A2 motorway. Piotr Świątkiewicz reports work done in 2005–2007 at Bolimów site 7, while Dorota Cyngot and Dariusz Wyczółkowski summarise that of 2008 on Miedniewice site 3. This is followed by summaries by A. Zalewska of excavations undertaken on a small mass grave of soldiers (APP 14) at Joachimów-Mogiły and an exhumed cemetery (AP 24) at Wola Szydłowiecka. In the next chapter she summarises in a similar way results of invasive investigations of parts of the German infrastructure behind the lines (sites APP 7 and 8, APP 25 in Nieborów).

Sites like these produce enormous quantities of fragments of artefacts of many types, and any report on such investigations can only aim to present this information synthetically. The section begins with a discussion of the systematisation of the finds left behind on the investigated sites by the activities in 1914–1915, they are primarily treated with reference to the function they performed in the primary process (that is life in the trenches on the Eastern Front). The excavated material is divided into eight categories: I – fragments of rifles or their ammunition and cold weapons such as bayonets etc.; II – fragments of artillery weapons or their ammunition and grenades; III – fragments of military uniforms and equipment; IV – personal items of the soldiers; V – elements of field fortifications (e.g., barbed wire) and tools; VI – elements related to infrastructure and daily life; VII – other finds related to the depositional process in 1914–1915; VIII – finds from outside the chronological horizon of WWI encountered during investigations (see also vol. I, pp. 21–23).

Two papers consider the human aspect of life in the trenches of the Great War and in particular how the two armies were supplied with provisions and raw materials. Dorota Cyngot amalgamates data from the documentary sources and material remains to examine different items and raw materials obtained by various means from local

inhabitants by soldiers of both sides. Angelika Bachanek discusses the archaeological finds related to feeding the soldiers. Associated with these topics are reports on finds of glass (Kamil Baturo), pottery (Magdalena Bis), and animal remains (Joanna Piątkowska-Małecka), as well as personal items and uniform elements of leather (Jarosław Rostkowski).

Of course a large amount of the excavated material relates to the fighting; the rifle ammunition and bayonets were discussed in volume I, here Krzysztof Karasiewicz reports on remains of artillery ammunition, hand grenades and rifle grenades (finds category II) as both a cognitive and conservation challenge. Jacek Czarnecki writes about the neglected subject of elements of material remains of field fortifications such as barbed wire and caltrops (finds category V). Quite apart from the horrific effects of these items on men encountering them in battle, he raises the issue of taking the former existence of wire barriers into account when detailing areas of battlefields for preservation.

The volume's second section considers the social (public archaeology) aspect of the preservation and use of the material remains of the First World War, both the cemeteries as well as the landscape features related to conflict (in particular the use of chemical weapons here). It focuses on the specific nature, values and social potential of this painful heritage. The various means in which closer familiarity with and interest in this dark heritage can be used obviously includes as destinations for cultural tourism and as a warning. Anna I. Zalewska and Jacek Czarnecki discuss the creation of a historical trail, how it could function with GPS locations to highlight material traces of the Eastern Front of the Great War in the landscape of the study region, as well as the resting places of fallen soldiers. They postulate that this should concentrate not only on cultivating the memory of those who fought and fell on this part of the front in 1914–1915, but also of the losses of life, property and livelihood of the local population displaced by this broad zone of intense and long-term military activity, a factor that tends to be forgotten by military historians.

The final section of the third volume concentrates on the conservation challenges ahead in preserving the previously somewhat neglected material remains of the First World War. Work must continue on the recognition and documentation of the surviving remains by documentary work, fieldwork and continued remote sensing. While the demarcation, preservation and maintenance of the many military cemeteries is one problem, a crucial issue is the preservation (both preventive and active), display and commemoration of the various traces in the landscape of field fortifications and associated features. This is an especially difficult problem as many of them have already been erased, except where preserved in forest or other areas of vacant land, some of the areas of which it is argued should be preserved as reserves (for example in areas protected as part of the Bolimów Landscape Park). Another burning issue is how to prevent the illegal destruction of the archaeological record of these sites by souvenir

hunters with metal detectors ripping into archaeological contexts and patterned assemblages, often just below the surface, and selectively stealing collectable items.

One of the last chapters of the volume discusses a case that is symptomatic of the problems of preservation. The chapter details the protest of the excavators of a recent planning decision. Despite this project having taken place and the recent publication of the results, planners of a major development (a new airport) just to the east of the research area (arbitrarily?) drew the line of an access road to it right through not only a complex area of the front line but also across or very close to the site of several known military cemeteries. The protest seems (at the time of writing) to have achieved the re-routing of this planned new road through an archaeologically less sensitive area.

In the Polish context, this project and its reports are innovative on at least three counts. Although all sites of this period are automatically protected by Polish law as archaeological sites, this project is (inexplicably) one of the first in the country to examine and publish the archaeological remains of the First World War material on such a scale. A second feature of note is that this volume is the fruit of a fully-fledged holistic landscape archaeology project. Landscape archaeology (as opposed to settlement archaeology) is a comparatively recent discipline in Poland. Thirdly, the underlying ethos of this project that of public archaeology with the aim of using this “dark heritage” in a conscious outreach effort to raise consciousness and awareness, and encouraging public enlightenment and encouraging seeing and thinking about, and acting in, the world in different ways.

In terms of the public and relationships with the material remains of the past, the volume highlights three major groups. The first consists of people who are oblivious to (or even hostile towards) the values of the historical landscape and the relics it contains (the farmers that wanted to reclaim land, developers, people uninterested in the historical environment – as well as those who never had the opportunity to learn about and appreciate it), the second are history enthusiasts and involved activists that that want to preserve it for general benefit, the third are artefact hunters who want to exploit productive sites to obtain collectable relics for their own benefit.

That these relationships are never clear cut and simple is illustrated by one interesting feature of these volumes, which is the key role played by a collaboration between the archaeologists and local amateur enthusiasts, responsible collectors and re-enactors. But what is also made clear is that if irresponsible and illegal artefact hunting of these sites is not curbed in the immediate future, severe destruction of the archaeological record will result. Much has gone already. This especially affects that part of it that is sheltered in the forest where clandestine seekers are at less risk of being discovered *in flagrante*, but where the remains are preserved just under the fallen leaves.

Throughout the volumes, and one of their strong points, a major theme is the very human aspect of this conflict, as brought out many times through contact with the physical objects, that spanned the temporal void and bring us into contact with

a living past. On the western front much of the fighting was between forces of nation states, here the soldiers conscripted to the imperial armies facing each other were of multiple ethnicities, Poles were fighting in both armies on soil that in formal terms would only become Polish (again) several years later. This is an aspect the authors touch upon several times.

All three volumes are in Polish, but have summaries and conclusions as parallel texts in Polish and English. In the first two volumes, these however are regrettably brief, and although the illustrations and tables are key carriers of information with a few exceptions, their captions are only in Polish. This undoubtedly will hinder their use by foreign researchers. More to the point, bearing in mind the nature of the two warring parties that left behind these remains, it is especially disappointing that there are no summaries in German or Russian.

In the case of volume two, in order to examine some of the figures in more detail, the book should open flat – an activity the fragile binding does not allow. As recompense, the figures on different loose pages can be compared more easily. Even so, it is sometimes difficult to relate the various fragments of the discussed landscape with each other. Also, even though a lot of the information is presented on full-page colour illustrations, they are sometimes drawn in such a way and such as scale as to be barely legible, many contain too many types of information, some of the lettering on the maps is less than 2 mm tall and disappears into the raster of the printing method (e.g., on pages I: 19 and II: 414). In a number of cases, not all of the features marked on the maps are identified in the accompanying key. In order that the information gathered by this project is preserved, it is to be hoped that in future funding may be found to create something in the nature of a site atlas where the whole documented landscape can be seen and studied spread out, or possibly also in some searchable and zoomable digital form.

Those quibbles aside, these volumes are an important contribution to the growing number of archaeological studies of the First World War, for the first time synthesizing research undertaken in Poland. They add an impressive amount of new information about almost-forgotten aspects of this conflict. Through their multidisciplinary and multifaceted approach, the APP/AFW projects not only demonstrate how archaeology makes a unique contribution to our understanding of the human past, but also highlight issues of memory, heritage and commemoration in their public, social and cognitive aspects. The resultant publications mark a significant step towards collaboration among researchers and practitioners from various fields and lay firm foundations for the further development of an archaeology of twentieth century conflict in central Europe.