EAC Occasional Paper No. 19

New Challenges

Archaeological Heritage Management and the Archaeology of the 18th to 20th centuries





Edited by Alex Hale and Thomas Kersting

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Proceedings of the International Conference Bonn, Germany, 22–25 March 2023

Edited by Alex Hale and Thomas Kersting

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New Challenges Archaeological Heritage Management and the Archaeology of the 18th to 20th centuries

Edited by Alex Hale¹ and Thomas Kersting²

- ¹ Historic Environment Scotland and Brandenburgisches Landesamt für Denkmalpflege und Archäologisches Landemuseum
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Front cover image: Remains of a German artillery base hidden in a street in Koksijde-Groenendijk (photo by © Raph De Bandt)

Back cover image: Restaurant cellar destroyed by bombs in Dresden (photo by © Cornelia Rupp, Landesamt für Denkmalpflege Sachsen)

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EAC Annual Meeting, Bonn, 22-25 March 2023

Host

LVR-State Service for Archaeological Heritage on behalf of the Association of State Archaeologists in the Federal Republic of Germany

Venue

LVR-LandesMuseum Bonn Colmantstr. 14-16 53115 Bonn



EAC Working Group and Board meetings will take place on Wednesday 22 March 2023: venue details will be supplied to participants directly.

Programme

	Thursday, March 23rd
09:30 to 11:30 11:30 to 12:00	GENERAL ASSEMBLY COFFEE BREAK
	24th EAC Heritage Symposium
	New Challenges: Archaeological Heritage Management
	and the Archaeology of the 18th to 20th centuries
12:00 to 12:30	Welcoming addresses
	Ina Hanemann (Ministry for Regional Identity, Local Government, Building and Digitalization of North Rhine-Westphalia)
	Dr. Corinna Franz (LVR-Culture and Cultural Landscape Preservation)
	Prof. Dr. Michael Rind (Association of State Archaeologists in the Federal
	Republic of Germany)
	Dr. Ann Degraeve (Europae Archaeologiae Consilium)
12:30 to 13:00	Olivier, Laurent (France) Archaeology of the Contemporary Past and Cultural
	Heritage in the Anthropocenic Age
13:00 to 14:00	LUNCH BREAK



Objects recovered during the investigation of a forced labour camp near Königswinter. (C. Keller, LVR-State Service for Archaeological Heritage)



Protection, management and tensions

Chair: Leonard de Wit (Netherlands)

14:00 to 14:20	Almansa-Sánchez, Jaime (Spain) Managing contemporary archaeology in the Mediterranean: challenges observed from #pubarchMED
14:20 to 14:40	Seppänen, Liisa (Finland) Meaning, management, and challenges of modern archaeology – discussion from the Finnish perspective
14:40 to 15:00	Laszlovszky, József (Hungary) The Tyranny of Historical Periodization, or New Challenges for the Archaeology of the 18th to 20th Century in Hungary
15:00 to 15:20	Oniszczuk, Agnieszka / Wrzosek, Jakub (Poland) Finding the wrong people – challenges of contemporary archaeology in Poland
15:20 to 15:40	Gill, Alexander (Sweden) The protection of ancient monuments from the 19th and 20th centuries in Swedish legislation
15:40 to 16:00	QUESTIONS / DISCUSSION
16:00 to 16:30	COFFEE BREAK
	Challenges, choices and ceramics
	Chair: Barney Sloane (United Kingdom)
16:30 to 16:50	Stiebel, Guy (Israel) "Down the Rabbit Hole" – Challenges in the
	Archaeology of 18th–20th Centuries in the Holy Land
16:50 to 17:10	Anttiroiko, Niko (Finland) What should we do with these? – Challenges related to (semi-) automatically detected sites and features
17:10 to 17:30	Steigberger, Eva (Austria) Another case of making choices: alpine terrain, large-scale sites and mass finds of the 20th century
17:30 to 17:50	Keller, Christoph (Germany) Between craft and industry -
	ceramic production between the late 18th and early 20th century in archaeological research
17:50 to 18:10	QUESTIONS / DISCUSSION
18:30 to 19:15	OPTIONAL: GUIDED TOURS EXHIBITIONS LVR-LANDESMUSEUM
19:30 to 23:30	EVENING RECEPTION



Demolished bunker of the so-called Westwall in a flooded gravel pit near Hückelhoven. (W. Wegener, LVR-State Service for Archaeological Heritage)



Friday, March 24th

The Holocaust, conflict and changing approaches

Chair: Thomas Kersting (Germany)

09:00 to 09:20	Carr, Gilly (United Kingdom) Should we adopt a pragmatic approach to
	Holocaust Heritage in the 21st century?
09: 20 to 09: 40	Carpentier, Vincent (France) Ten years after: and French Second World War Archaeology was born
09:40 to 10:00	Hausmair, Barbara (Austria) From campscape to landscape:
07.40 to 10.00	a comprehensive approach towards remnants of Nazi violence, war industry, and post-war landscapes
10:00 to 10:20	De Decker, Sam / Gheyle, Wouter (Belgium) Policy instruments, challenges
	and recent research on conflict archaeology, WWI and WWII in Flanders
10:20 to 10:40	Petrauskas, Gediminas / Muradian, Lijana / Kurilienė, Augustina (Lithuania)
	Archaeology of Modern Conflict and Heritage Legislation in Lithuania during
	Thirty Years of Restored Independence
10:40 to 11:00	QUESTIONS / DISCUSSION
11:00 to 11:30	COFFEE BREAK
	Developing interdisciplinary practices
	Chair: Claudia Theune (Austria)
11:30 to 11:50	Baales, Michael / Weidner, Marcus / Zeiler, Manuel (Germany) Interdisciplinary
	Research on crimes against humanity committed during the final phase of the
	Second World War in the Arnsberg Forest, South Westphalia
11:50 to 12:10	Aubry, Théo / Brangé, Juliette / Landolt, Michaël (France) Prisoner objects
	between 1939 and 1946 in France: a comparative study and typology essay
12:10 to 12:30	Konik, Jacek (Poland) Underground City – Archaeology of the Warsaw Ghetto in
	its academic, memorial and social context
12:30 to 12:50	Vařeka, Pavel (Czech Republic) Preservation and heritage protection of
	archaeological remains of camps from the period of Nazi occupation and
	Stalinist era in West Bohemia
12:50 to 13:10	Halle, Uta / Hähn, Cathrin (Germany) Archaeological excavations of a former
	cemetery of soviet prisoners of war and its public perception
13:10 to 13:30	QUESTIONS / DISCUSSION



13:30 to 14:30

LUNCH BREAK

Stacks of Meissen tableware stored in a bomb-damaged cellar of a restaurant and gentlemen's club in Dresden. (C. Rupp, Archaeological Heritage Office of Saxony)



Significance, values and emerging themes

Chair: Jürgen Kunow (Germany)

14:30 to 14:50	Malliaris, Michael (Germany) Categories beyond - Approach to value and
	relevance of Archaeological Heritage in Westphalia
14:50 to 15:10	Dennehy, Emer (Ireland) Different Schemes Same City? How Luas Cross City
	works are informing the design and implementation of the MetroLink and Luas
	Finglas Cultural Heritage Strategies
15:10 to 15:30	Pramatarov, Kaloyan (Bulgaria) Museum Management and Archaeology of the
	Ottoman Period (15. – 19. c.)
15:30 to 15:50	Prust, Anja (Germany) The archaeological legacy of the lignite boom in Lusatia
15:50 to 16:15	QUESTIONS / DISCUSSION
16:15 to 16:45	COFFEE BREAK
16:45 to 17:00	Hale, Alex (United Kingdom) Too much stuff: is archaeology becoming buried
	or do we thrive amongst discarded material culture and digital detritus?
17:00 to 17:15	Degraeve, Ann (EAC-President) Closing remarks

Saturday, March 25th 2023

Excursion "ArchaeoRegion Nordeifel"

Start at LVR-LandesMuseum Bonn
Late Iron Age Enclosure in Euskirchen-Kreuzweingarten
(Petra Tutlies)
UNESCO World Heritage Site Roman Lime Kiln in Bad Münstereifel-Iversheim
(Lisa Berger & Steve Bödecker)
LUNCH BREAK at Hauserbachmühle in Mechernich-Dreimühlen
Palaeolithic Cave Site "Kartstein" at Mechernich-Dreimühlen
(Michael Baales)
Roman vicus, road, fortress and temple at the "Archaeological Landscape Park"
in Nettersheim (Ulrike Müssemeier & Claudia Koppmann)
"Refreshment" at Cloister Nettersheim
Arrival at LVR-LandesMuseum Bonn

,Cradle of the Ruhr Industry" St. Antony Ironworks in Oberhausen. (W.Sengstock, LVR-State Service for Archaeological Heritage)













New challenges:

archaeological heritage management and the archaeology of the 18th to 20th centuries

A foreword from the Alex Hale and Thomas Kersting

The archaeology of the 300 years from 1700 to 1999 has been previously termed "modernity" or "contemporary archaeology" and given other disciplinary-specific names. However, these terms can have specific connotations and associated issues. Eventually, the EAC 2023 scientific committee settled on "the archaeology of the 18th to 20th centuries" to focus on the chronological aspects of this period. Here, we deal with sites, features, and finds from the period after the beginning of industrialisation, obtained through excavation and documentation, using techniques and methods applied in all archaeological disciplines. In terms of the naming of this period, beyond the geological term "Anthropocene", which also brings with it its own complexities, Contemporary Archaeology may well be suitable if we accept Rodney Harrison and John Schofield's definition and explanation (Harrison & Schofield 2010) and expand the temporal range. But we should also acknowledge the complexities in engaging with this period and recognise that there are many ways to approach archaeologies of the near present and recent past.

The topic and the comparatively "young" period are not completely new for archaeological monument preservation, even they are is only explicitly considered in relatively few monument protection laws. In many places across Europe, it has long been common practice to protect, preserve, and research monuments of the recent past – simply because they are there. This is both a challenge and an opportunity for archaeological heritage management and one that was considered in a number of papers at the 2023 EAC symposium.

In this period of condensed and parallel traditions, archaeological findings must be analysed for their specific informative value and significance alongside other material sources on an equal footing with pictorial and written evidence, as well as audio-visual sources and oral traditions. Due to the great range of available sources, archaeological heritage management must ask itself almost daily: To what extent should objects and monuments from the 18th to the 20th centuries be examined or even preserved? A careful and well-founded selection based on an interdisciplinary perspective has a special significance here and must be part of the public discussion in order to recognise, engage, and consider community participation in cultural heritage management praxis.

While archaeology is trying to integrate new approaches academically, terminologically, and methodologically, archaeological heritage management with its pragmatic approach has been facing the new task for years by making decisions within the framework of the respective legal possibilities and, in doing so, has gone

through several learning phases (Kersting 2022a, b). These decisions, which lead either to the preservation of the "modern" structures in the ground (primary protection) or their excavation and documentation (secondary protection), require, in each case, new strategies of monument justification, negotiation, and mediation in view of new historical contents. This, in turn, enables newly adapted strategies and techniques of documentation and salvage, storage, and conservation in view of the scope of the newly recognised heritage landscapes, sites and assemblages, and the large quantities of finds. In addition, the finds partly consist of new materials not present in prehistoric and medieval archaeology. The emerging range of materials and their ongoing mutable materiality presents further complexities when studying, protecting, and interpreting the evidence from this period.

Institutions entrusted with the collection and permanent care of archaeological finds are also faced with selection decisions, as these are characterised in the recent era by an extreme increase in the diversity of materials. In addition, industrial production has joined handicrafts in the manufacture of objects. Extensive specialist knowledge is therefore necessary to understand or interpret these new objects. Therefore, the development of the collection, curation, retention, and deaccessioning strategies for archaeological objects from the last 300 years is imperative.

The results of archaeology in and of the contemporary can shed light on individual events and fates, as well as overarching or overall social developments. Many research projects touch on topics that affect contemporary society and interest many people, so archaeological interpretations carry great weight in public perception. This is both an exciting and somewhat daunting aspect of archaeology today.

Archaeology of the 18th to 20th centuries has an important role in documenting sites of memory from a period dominated by war and terror, also known as conflict archaeology (Theune 2018). Often, these are sites that were the scenes of crimes against humanity and, thus, in addition to a strong emotional component, they comprise evidence and are crime scenes. As a result, archaeological heritage preservation gains weight because it is accompanied by a special interest from the public and can develop opportunities to participate in political education – preferably in the form of exhibitions (Exclusion 2020; Modern Times 2023) and also in learning environments such as within school curricula and community learning approaches (Hale *et al* 2017).

This is especially true for monuments of industrial and urban history, war relics, or objects from the era of colonialism, where research is at the centre of societal discourse. Particularly in the case of the latter, it is also always a question of dealing with the testimonies of these events in an ethically justifiable way. The material remains of war and terror lead to the limits of archaeology and beyond: they become evidence, crime scenes, anchors for commemoration and political education.

For the EAC Heritage Symposium, we welcomed presentations that demonstrated a clear connection to the practice and theory of archaeological heritage management. In doing so, we wanted to explore some basic questions:

- Which archaeological sources of the recent era do we record and preserve? And conversely, which ones do we ignore?
- Why should we do this? So what is the conservation or monument value, and finally, the value for society of archaeological sources of recent times?
- Which of these sources should we document at all, and if so, with which archaeological methods?

In order to address these over-arching questions, the scientific committee settled on the following themes:

- Archaeological witnesses of industrial and urban development,
- War(s) and terror as a task of archaeology,
- Mass production and new materials as a challenge for archaeology.

The aim was to represent as broad a range of heritage practices as possible – with as many examples from all over Europe. The symposium program was designed to reflect the temporal depth and the thematic range in a balanced way. However, it was clear that conflict archaeology would be significantly represented in the programme and subsequent papers. This evidence of the material presence of atrocities across Europe over the past three centuries can provide both archaeologists and the wider public with an understanding of the terrors that were perpetuated. The evidence comes in a range of scales, which enables us to engage with individual human beings and the industrialisation of mass terror. Because the papers range in their diversity across Europe, we can begin to see trends, research questions, and potential solutions

Figure 1. Opening speech at the 24th EAC meeting in Bonn (photo by Thomas Kersting)



appearing. A number of examples and potential routes for future work are proposed by Alex Hale in his final remarks paper.

After some welcoming addresses (Figure 1) from Ina Hanemann (Ministry for Regional Identity, Local Government, Building and Digitalization of North Rhine-Westphalia), Dr Corinna Franz (LVR-Culture and Cultural Landscape Preservation), and Prof Dr Michael Rind (Association of State Archaeologists in the Federal Republic of Germany), EAC-president Dr Ann Degraeve (Europae Archaeologiae Consilium) opened the conference.

First, Laurent Olivier (France) gave an excellent and inspiring overview of the "Archaeology of the Contemporary Past and Cultural Heritage in the Anthropocenic Age". This paper really set the tone for the whole symposium as it questioned archaeology's role when it comes to our recent past.

In order to give the whole thing structure, we divided the submitted presentations into **five thematic panels** according to context, and each session was chaired by a renowned practitioner, who gave short introductions.

Panel 1, entitled *Protection, management and tensions,* was chaired by Leonard de Wit (former EAC president, Netherlands). In five Contributions from Spain, Finland, Hungary, Poland, and Sweden, Jaime Almansa-Sánchez, Liisa Seppänen, József Laszlovszky, (both not in this volume), Agnieszka Oniszczuk and Jakub Wrzosek as well as Alexander Gill dealt with general management issues, legislation and the specific challenges of archaeological monument preservation in their countries.

Panel 2, entitled *Challenges, choices, and ceramics*, was chaired by Barney Sloane (English Heritage, United Kingdom). Four Contributions from Israel, Finland, Austria and Germany presented an overview of the archaeology of the 18th–20th centuries in the Holy Land (Guy Stiebel, not in this volume), and the challenges of the masseffects, be it of industrial mass-production (Eva Steigberger and Christoph Keller) or the masses of findspots generated by automatic detection (Niko Anttiroiko).

Panel 3, entitled *The Holocaust, conflict and changing approaches*, chaired by Thomas Kersting (Brandenburg Heritage Authorities, Germany) presented five contributions. They showed varying approaches to the topic from France (Vincent Carpentier), Austria (Barbara Hausmair), Belgium (Wouter Gheyle and Sam DeDecker) and Lithuania (Gediminas Petrauskas, Lijana Muradian and Augustina Kurilienė). Here, the recording of the remnants of war and terror in the landscape, their archaeological methods and practices, and their mediation with the public have already made enormous progress in recent decades. From England (Gilly Carr) comes the long overdue proposal to adopt a more pragmatic approach to Holocaust Heritage in the 21st century, as meanwhile many original places are destroyed or otherwise used. In the publication, we take the opportunity to present an additional contribution about dealing with remnants of war and terror in Germany / Brandenburg (Thomas Kersting).

Panel 4, entitled *Developing interdisciplinary practices*, chaired by Claudia Theune (Vienna University, Austria), included three specific case studies from Germany and

Poland, discussing the archaeological traces of two end-of-war-crimes (Michael Baales, Marcus Weidner and Manuel Zeiler), the excavation of a huge Soviet prisoners-of-war cemetery (Uta Halle and Cathrin Hähn), the complexities that can occur when working within communities in a publicly visible project, and the archaeological survey in the devastated area of the Warsaw Ghetto (Jacek Konik). Two evaluative studies on a broad material basis came from France and the Czech Republic. Juliette Brangé presented a comparative typological study on prisoner objects in France between 1939 and 1946 (with her absent colleagues Michaël Landolt and Theo Aubry; unfortunately not in this volume). Finally, Pavel Vařeka gave an overview of the protection of archaeological remains of camps from the Nazi and Stalinist era in West Bohemia.

Finally, **Panel 5**, entitled **Significance**, values and emerging themes, chaired by Jürgen Kunow (former head of archaeological heritage in the Rhineland and Association of State Archaeologists in Germany), brought together four contributions from Germany, Ireland, and Bulgaria, which in various respects go beyond the boundaries of archaeology. Michael Malliaris drew attention to additional levels of meaning that are opened up by archaeology. Emer Dennehy showed the influence of archaeological monument preservation strategies on urban and transport planning. Kaloyan Pramatarov used the museum management in Sofia to describe the political exploitation of archaeology in different systems. The panel concluded with an outlook – what comes after industrial archaeology? – by Anja Prust, who presented the current results of a cultural-historical inventory project in lignite successor landscapes.

To close this foreword, we would like to thank our colleagues on the scientific board, Erich Claßen, Regina Smolnik, Rebecca Jones, and Jenny Butterworth, and to all participants who came to Bonn in 2023 to make it a very lively symposium (Figure 2); to



Figure 2. Participants of the 24th EAC meeting in Bonn (photo by Thomas Kersting)

the symposium organisers and museum staff who hosted us at the LVR Landes Museum, Bonn. Thanks to the excursion organisers and the guides who shared their passion for their heritage and places along the route through the North Eifel Region. Finally, thanks to all contributors and publishers who have worked hard and submitted their papers within a tight timescale for the EAC 2023 symposium publications.

A personal remark at the end: when we were reading the papers, we wondered how to make sure that the authors' "voices" could be heard in each paper. Different people write English in different ways, using a range of translations. Adjusting them all by proofreading to a specific way of writing, the texts lose the identities of the authors from all the countries who participated. Just a thought: maybe this would be a different way to publish, but it would retain the authors' styles, something that archaeology in the contemporary should aim to achieve. Thanks to Katalin Sebők and Erzsébet Jerem from Archaeolingua, Budapest, who made this possible!

The important thing for us is that many regions of Europe are represented, and this is something that should be heard and noticed in the texts, too. We believe these days it is important to keep visible the diversity in Europe of not only heritage landscapes, sites, events and artefacts but also languages.

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Contemporary archaeologies and cultural heritage in the Anthropocene Age

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Keywords: transformation, material memory, Anthropocene

One of the most striking transformations of the archaeological practice in the last twenty-five years has been the development of a new chronological field of archaeology: it was first coined "archaeologies of the contemporary past" (Buchli & Lucas 2001). It has gradually become obvious that these contemporary remains were not just disturbances but also fully archaeological in themselves. For most European countries, what we may call the "contemporary turn of archaeology" is quite recent: it has developed only in the last ten years. Therefore, this new archaeology of the contemporary past is still fragile and, we must say, quite unaccomplished.

As Europeans, we enjoy a terrible privilege: world wars tend to be fought on the ground of our countries. The last two world wars have created a huge amount of destruction, especially on above-ground features, such as medieval and post-medieval buildings – cities and infrastructures being particularly targeted. But these conflicts have also created an amazing number of archaeological sites and features. From an archaeological point of view, this is a paradoxical privilege. For most of the other countries outside Europe, these world conflicts have been indeed remote wars fought abroad and overseas.

The specificity of contemporary archaeology is that we are dealing with living memories – the memories of the witnesses. This peculiar situation is creating tensions within archaeological practice that do not occur so strongly in the more traditional fields of our discipline. Therefore, the archaeology of the contemporary past is not really about the history of the contemporary period; it is much more about its materiality than its temporality (Lucas & Olivier 2022).

But the archaeology of the contemporary past is also growing within a new situation compared to what was only fifty years ago. Under the pressure of development projects, archaeologists have now to excavate the remains of all archaeological periods, from prehistory to the present, over huge surfaces and even archaeological landscapes. This transformation has been produced by over-urbanization since the post-war period, strongly accelerating in the last twenty-five years. This process has been called the Great Acceleration of the Anthropocene (Steffen *et al* 2011).

The spread of urbanization is creating an enormous amount of data and materials from all archaeological periods. This mass is growing constantly – making this accumulation uncontrollable. But when dealing with sites and remains of the contemporary past, the situation becomes even much more difficult to handle. The amount of remains of all kinds is becoming gigantic, addressing complex storage and conservation problems. The size of the sites themselves is immense, making them practically undiggable. The pressure of the Great Acceleration of the Anthropocene is, therefore, pushing archaeology to its limits, the real risk being that archaeology may be transformed into an activity that contributes more to the destruction of the archaeological heritage than its preservation and transmission.

The Anthropocene is a gradual and cumulative process, bringing together a mixture of anthropic and natural agencies (Edgeworth *et al* 2015). In this way, it is a deeply archaeological process. So, not only have times changed, but also the understanding of the transformations we face in the long run. In other words, *history is becoming disqualified by the dynamics of the Anthropocene*. The Great Acceleration of the Anthropocene is not only damaging the planet's natural environment but also devouring the entire inhabited landscape – what the geographer Augustin Berque calls the *Ecumene* (Berque 2000). In physically attacking the *Ecumene*, the Anthropocene is erasing its material memory. The spread of the Anthropocene is, therefore, challenging not only the practice of archaeology but also the way we may think of the world around us and our relationship with the past.

If archaeology is the study of the materiality of the past, then it is much more concerned with the present than anything else: the human impact on the material world is much more dramatic and long-lasting today than it has ever been before our time. As the discipline of *material memory*, the role of archaeology is to work against the destruction of collective memory. We are indeed the agents of the Anthropocene when accompanying the urbanization projects destroying the Ecumene and the material memory it contains. So, we have to place the past not *aside* from the present but *inside* the present as a living memory that we have to protect. Therefore, archaeology equals resistance in its heart, or it means nothing. Archaeology is not necessarily written by victors.

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Protection, management and tensions



Exemplary finds from the excavations at the former Gęsia Street in Warsaw, part of the Jewish ghetto during WWII (© J. Wrzosek, 2023)

Managing contemporary archaeology in the Mediterranean: challenges observed from #pubarchMED

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Keywords: management, contemporary archaeology, public archaeology, challenges, future

The #pubarchMED project (Public Archaeology in the Mediterranean context) aimed to better understand the different approaches to archaeological heritage management and its impact on people across the Mediterranean (Almansa-Sánchez 2020). The project addressed this issue from different perspectives, one of them being the structured interview of over one hundred and fifty archaeology professionals from different backgrounds, as well as other informal conversations. As part of the interview, one topic covered was contemporary archaeology.

Overall, legislation across the region has clear temporal and/or material limits to consider something as archaeological (e.g., a hundred years or a specific moment or type of heritage in the 20th century). Consequently, interventions should accommodate these grounds. However, preventive archaeology and academic practice have faced a much broader reality that has challenged our normative framework for years. In short, we face the oxymoron of a type of heritage widely defined by its methodology in a very restrictive legal context that is usually linked to politics or tradition, opening the ground to some structural challenges:

1) The challenge of managing vast amounts of archaeological heritage from over a million years of human presence in the Mediterranean and the perceived value of contemporary archaeology, especially as we are closer to the present. Archaeological heritage management faces a structural problem: the lack of resources. There are not enough staff and a budget to properly deal with the enormous quantity of archaeological sites and materials documented and recovered from prehistoric and early historic periods (to start thinking about everything else). In the dawn of preventive archaeology, the profession was able to start documenting the unimaginable. We talk about tens of thousands of archaeological sites, hundreds of them very relevant in historical and monumental terms, opening the door to other challenges (like tourism or urban development). For a discipline that still focuses mainly on prehistoric and classical heritage (especially in the Mediterranean), the concept of value, even within the



Figure 1. Excavation of a 1960s film set in the north of Madrid (Spain) within the Fake Archaeology project (photo by the author)

profession, is blurry. Many colleagues will not acknowledge the need to document and even preserve certain contemporary features, while most will overall prefer to focus on the more remote past. As with other disciplinary developments, contemporary archaeologists still have a long way to go in enacting comprehensive practices and regulations for the more recent heritage.

2) The challenge of addressing difficult pasts directly linked to the present and vividly incorporated in contemporary political discourses. Although human history is full of conflict and difficult heritage, and the political uses of archaeology go well into the early Palaeolithic, contemporary archaeology has a special link with the configuration of current nation-states and many open conflicts. This represents a huge challenge for managing archaeological heritage, mainly when a good amount of the contemporary archaeology practised today focuses on recent conflicts. On the negative side, we need to pay attention to supporting these conflicts through heritage, with active policies and practices that either hide or hinder certain moments or spaces (and highlight others). While preventive archaeology usually allows the documentation of most remains, the mostly political decision about them can (and does) lead to the support of specific discourses that can be problematic for peace (and many other social values). Classical nationalism is a clear example in this sense, but other issues like religion or populism have a great impact, too. On the positive side, the potential of contemporary



Figure 2. Art with a message in a World War II shelter in Patras (Greece) (photo by the author)

archaeological heritage to address all these socially conflictive issues is great. There are already many examples in which archaeology is helping to make visible and tackle social injustice and harmful discourses. This more activist side of our discipline is not to be forgotten. But contemporary archaeology allows connecting with new spaces and materialities that can help to improve social engagement when properly managed.

3) The challenge of dealing with conservation in a structure aimed at physically preserving everything when mass production and development are still present (and how this affects the ontology of archaeological heritage management itself). One of the goals of the interviews was to find out the priorities of archaeological heritage management, especially when trying to see the role of public archaeology in daily practice. The majority (almost the totality) of professionals related to public administration stated "conservation". When the administration in charge of archaeological heritage management is already overwhelmed with prehistoric and classical heritage, dealing with medieval and postmedieval archaeology becomes a tough challenge. Up to the 19th century, practice is standard nowadays, basically affected by urban development after the great loss of the mid-20th century (by massive bombings and new developments). It overlaps in most Mediterranean countries with built heritage regulations that do not always include archaeology but barely represent a problem beyond abandonment. However, the 20th century is more complex, and both built and buried heritage are sometimes in limbo. Applying the same regulations implies



Figure 3. The Pyramid in Tirana's city centre (Albania) has been threatened over the years after several changes of use (photo by the author)

the conservation of everything recovered, including a very different materiality that itself represents a challenge for museum curators. At the same time, the reasons not to apply the same regulations question the whole model. Not everything is industrial serial production, and this is something we already find in Roman times.

In short, contemporary archaeology offers the best opportunity to rethink archaeological heritage management. The challenges it triggers affect the very fabric of archaeology, and beyond the problems it presents, it also offers many opportunities to improve archaeological practice and its relation to the public. Overcoming the structural problems of archaeological heritage management is difficult, and contemporary archaeology is not going to ease them, but it can help address some common challenges that can surely improve the overall situation.

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Finding the wrong people – challenges of contemporary archaeology in Poland

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Keywords: archaeological heritage management, contemporary archaeology, archaeology of the recent past, battlefield archaeology, archaeological heritage law

The recent past has been the subject of interest in Polish archaeology only since recently. The first research undertaken in 1967 was incidental and did not change the general view of archaeologists focused on periods spanning from the prehistory to the Middle Ages, and gradually also the 17th and 18th centuries.

Later, archaeologists turned to the recent past to give justice to victims of Nazi and Soviet totalitarianism. In the 1980s, relics of the Nazi extermination camp in Kulmhof/Chełmno on the Ner were excavated, and in the 1990s, archaeologists took part in localising and exhumations of Polish POW killed by the NKVD (People's Commissariat for Internal Affairs of the Soviet Union) and buried in secret mass graves in the Katyn Forest near Smolensk, Mednoye near Tver and Kharkiv (Zalewska 2017, 57–58).

The situation changed with the emergence of development-led archaeology in Poland. Excavations in urban areas, as well as preceding the construction of motorways and other infrastructure projects, revealed, on an unprecedented scale, relics dating back to 1800–1945. Those were the remains of armed conflicts but also abandoned villages, manors, cemeteries, and farmsteads. Initially, the insufficient historical knowledge made archaeological research particularly difficult. Nowadays, after a few decades, this pioneer era is coming to an end, and there are archaeologists focusing mainly on the contemporary period, e.g., the archaeology of armed conflicts in the broadest sense of the term or narrowly specialised forensic archaeology.

Nevertheless, the challenges of contemporary archaeology still exist. They are related to key heritage management issues and significant (also financial) consequences of administrative decisions regarding the archaeological heritage of the 18th–20th centuries. The lack of time boundaries in binding legal definitions of a monument and



Figure 1. Exemplary finds from the excavations at the former Gęsia Street in Warsaw, part of the Jewish ghetto during WWII (© J. Wrzosek, 2023)

an archaeological monument is seemingly perfect because all the relatively new relics are, in theory, as protected as the older ones, regardless of their state of preservation. The decision on the heritage status of archaeological relics is just the first of numerous choices. The next ones include the spatial extent of the protected area and the manner of preservation, or – to the contrary – allowing destructive research. In the latter case, researchers and state heritage service are faced with repeatable bulk finds coming from mass production, which are impossible to deal with without proper selection strategies (Figure 1) or large objects that are extremely difficult to curate (Figure 2).

In Poland, whose history is marked by wars and conflicts, archaeological research of sites from the 19th and 20th centuries sometimes opens the old wounds and internal conflicts. And because the recent past belongs to society more than any other period, it is more prone to be biased and shaped according to current needs. Results of archaeological research in Kałuszyn (mass grave of fallen soldiers, commemorated since 1910 as Polish insurgents from 1863–1864; Jankowski *et al* 2018) and Ossów (relics from the Battle of Warsaw from 1920; Wrzosek 2016), both located near Warsaw, have stirred the interested public, respectively, on national and local levels. They clashed with the stakeholders' ideas on the past and the proper commemoration of the iconic moments in Polish history. The alleged insurgents turned out to be French, Polish, and



Figure 2. Wreck of a 19th-century steamboat located in the shallows of the Bug River, near the village of Bojany, ca. 85 km east of Warsaw (© SNAP Oddział w Warszawie, 2014)

Russian soldiers who fell in 1813 during the Napoleonic wars. And the commemoration in Ossów regarded Bolshevik soldiers.

The closer to the present, the more sensitive the research. The role of archaeology is also different. Reconstructing the events from WWII onwards is rather used as a method of gathering data complementing prosecutorial proceedings or other investigations. Since 1999, the majority of these works in Poland have been carried out by the Institute of National Remembrance. One of its many tasks is to search for unidentified burial sites of the soldiers struggling for independence and victims of totalitarian oppression from 8 November 1917 to 31 July 1990 (the end date marks the dissolution of the secret services).

A team of historians, archaeologists, forensic experts, and geneticists have conducted research and exhumations in many places in Poland and abroad (www.ipn.gov.pl). Their fieldwork and subsequent analyses meet the criteria of both scientific research and the preparation of forensic reports (Szwagrzyk 2017, 102). Even throughout the Institute, however, these procedures are not consistent. Archaeological research is at times replaced with exhumation, resulting in a significant loss of knowledge of the peri- and post-mortem fate of the deceased. Similar reservations refer to research projects taken up by various grassroots initiatives, developing parallel to the official, state-sanctioned programme of the Institute (Szwagrzyk 2017, 105).

To go beyond the outlining of the current setting, the paper gives general solutions to delimit protected archaeological sites and suggests procedures of find selection, recommended by the National Institute of Cultural Heritage and consistent with the existing legal framework. The requirement to declare as heritage and methodologically research contemporary archaeological relics has been sanctioned by the General Monuments Preservation Officer (Standardy 2020a; 2020b; Wytyczne 2018a; 2018b). It is also required by the General Directorate for National Roads and Motorways, the investor financing motorway archaeology.

Archaeologists investigating relics of the recent past are also faced with new scientific challenges. New types of features and objects require the use of varied resources and opening for cooperation with new disciplines. The paper concludes with two case studies to demonstrate good practice in this regard. The first one is the development-led research of the crash site of a German Messerschmitt 110 fighter, which, as the study revealed, was shot down on 3 September 1939 (Karasiewicz *et al* 2021). Another is a non-intrusive archaeological research project on nuclear warhead storage facilities from the Cold War, carried out by G. Kiarszys from the University of Szczecin in western Poland (Kiarszys 2019).

Instead of the summary, the common features of both projects, shared with many others focusing on the recent past, are then discussed. They show that in Poland, the archaeology of the 19th and 20th centuries is a sub-discipline still in the making, and systemic solutions are yet to come.

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The protection of archaeological monuments from the 19th and 20th centuries in Sweden

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Keywords: National Heritage Board, heritage legislation, Historic Environment Act, Särna Skans, Arado Ar-196-3, log driving, Borgvik

When the Historic Environment Act was amended in 2014, it became possible to protect selected archaeological monuments from the 19th and 20th centuries. This paper presents some issues connected to the protection of younger monuments that emerged with the amendment. A robust set of regulations for safeguarding younger monuments was created. However, the new regulations have turned out to be quite difficult to apply.

The protection of archaeological monuments

Presently, the Swedish National Heritage Board and 21 regional county administrative boards share a joint responsibility for heritage management. The regional boards are themselves government authorities with their own archaeologists who oversee just about everything associated with the daily business of safeguarding valuable archaeological sites in their counties. The National Heritage Board's role is, among other things, to support archaeologists at the county administrative boards in a variety of ways.

In 2014, when the Historic Environment Act was amended, new regulations were introduced stating that ancient monuments must be older than 1850 to receive protection. At the same time, other paragraphs were introduced, giving archaeologists at the county boards the power to protect selected monuments younger than 1850 by declaring them as safeguarded ancient monuments. A key factor for a declaration is that the county board needs to claim that the selected monument has a significant cultural or historical value. Therefore, making a case for protection usually involves producing a written report arguing the monument's importance.

Since 2014, several monuments that reflect various activities in the recent past have been awarded protection. The list includes monuments of different kinds of military activities and industrialisation.

Figure 1. Military installations at Särna Skans.
(© Hans Antonson/Norconsult)



Särna Skans in the county of Dalarna is a mostly untouched military fortification close to Sweden's western border. It was built during the Second World War as protection from an invasion from occupied Norway (Figure 1). The facility is the largest of its kind in the country and was declared an ancient monument in 2022 (Björklund 2022).

The seaplane *Arado Ar-196-3* was captured during the Second World War and accidentally wrecked in the sea in 1947 during a military exercise off the coast of the southern county of Blekinge (McWilliams 2018). It was awarded protection as an ancient remain by the county board in 2018.

Sweden has vast forests, and wood is an important industrial product. The timber transportation from the country's inner lands to the coast by log driving was carried out at an industrial scale from the mid-16th century until 1997, when the last logging route was closed. There are physical remains of log driving in nearly every river in the country. In 2021, the counties of Norrbotten and Västerbotten in northern Sweden jointly chose to protect a great number of constructions in the Laisälven River, built specifically to facilitate the transportation of timber (Figure 2). Among the protected structures are stone arms built in areas with rapid water to help guide logs down the river (Törnlund 2007).



Figure 2. Constructions in Laisälven built for log driving (© Jan Norrman)

An example of another kind of industrial relic that has been safeguarded is the ironworks at Borgvik in the county of Värmland. The industrial production of iron was once, and still is, a fundamental part of Sweden's economy. In its heyday, the production site at Borgvik was the most important plant in the county.

Problems applying the new regulations

Only 22 declarations have been processed since it became possible for the counties to protect selected ancient remains younger than 1850. It is clearly a problem that the opportunity to protect younger ancient remains has not been used very often.

Why the possibility to protect younger monuments has not been applied at a higher rate has been studied in a thesis published by the University of Gothenburg (Björklund 2022). Samuel Björklund sent a questionnaire to archaeologists at every county board, asking why the changes to the law have not had a significant impact. The answers he received are perhaps not surprising but nonetheless important, as they provide an insight into the types of issues that have surfaced when the county boards have tried to implement the new regulations.

It seems notions of "difficult heritage" or ideas, i.e. that there could be past events or periods in history that Swedish society would prefer to forget, is not an issue. Instead, problems connected to protecting younger monuments seem to be purely mundane.

Björklund concludes that one of the most important reasons for not protecting a greater number of monuments is the considerable workload for archaeologists at the county boards. Another problem is simply that protecting younger monuments is not a priority. The resources necessary to argue that a selected monument has an important cultural or historical significance are discouraging. A final reason Björklund identified is a lack of knowledge at the county boards about handling cases of awarding younger monuments a protected status.

In conclusion, a lesson learned from the Swedish example regarding the protection of younger monuments is that it is not always enough to have legislation in place. You also need to create a situation where it is possible to apply the rules.

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Challenges, choices and ceramics



Excavated 19th-century earthenware kiln of the Maubach pottery workshop in Frechen (photo by © Andreas Vieten, AAV)

What should we do with these? – Challenges related to (semi-)automatically detected sites and features

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Keywords: machine learning, deep learning, LiDAR, cultural heritage management

Recent advances in deep learning techniques and improved availability of high-resolution aerial laser scanning (ALS) datasets have brought semi-automatic detection of archaeological features within reach of increasing number of research groups and institutions (see, e.g., Anttiroiko et al 2023, Snitker et al 2022, Bonhage et al 2021, Davis et al 2021, Suh et al 2021, Trier et al 2021, Verschoof-van der Vaart & Lambers 2019). Such techniques make it possible to detect and extract information on very large numbers of archaeologically relevant features over potentially vast areas in a highly efficient manner, but they also have some characteristic limitations. In general, deep learning techniques are well suited for detecting archaeological features that are numerous and have easily distinguishable characteristics visible in the relevant remote sensing datasets, but less so with features that do not meet these criteria. Adopting semi-automated feature detection is likely to significantly impact the amount and quality of data available to cultural heritage management institutions. While this can rightly be described as a boon, it may also present various heritage management-related challenges.

This paper seeks to discuss some of such challenges based on initial responses to the experiences and results from the LIDARK project (see Anttiroiko *et al* 2023). The workflow developed in the LIDARK project is based on a deep learning model to detect archaeologically relevant features from ALS data. The ALS dataset provided by the National Land Survey of Finland has an average point density of 5 points per square metre and a current coverage of approximately 165,000 square kilometres. Most of the work was focused on archaeological features that are highly common and relatively easy to identify in ALS data, such as tar kilns, charcoal kilns, and pitfall trap systems. More than 30,000 archaeological features were detected during the project, most belonging to previously unknown archaeological sites. To put this number into perspective, there are currently about 61,000 archaeological sites in the Finnish Heritage Agency's database.

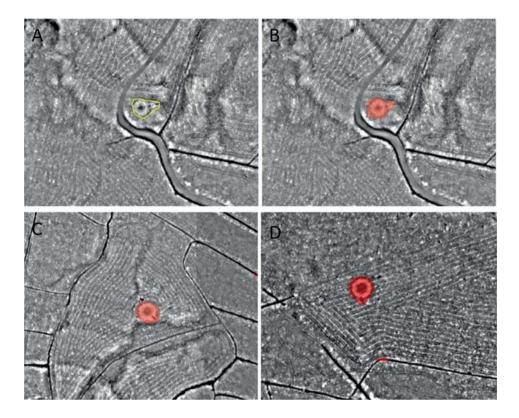


Figure 1. Examples of semi-automatically detected tar kilns and labels used for training the deep learning model. The yellow outline (A) shows a manually created label. Areas highlighted in red (B, C, & D) indicate tar kilns predicted by the deep learning model. ALS visualizations are based on ALS 5p data from the National Land Survey of Finland 2020

As semi-automatic feature detection can clearly be highly effective, it is important that heritage management institutions can make use of and effectively act upon such information. In the context of Finnish legislation, archaeological sites and features that meet the criteria are automatically protected by law from the moment they are identified as such. However, under existing guidelines, it is not clear whether automatically detected sites and features could or should be considered automatically protected unless their existence can be verified through observations made through archaeological fieldwork or other means. Efforts to find a workable solution to this issue are complicated by potential practical and legal ramifications. For example, ground truthing all detectable tar and charcoal kilns in Finland would require at least fifty years for a single archaeologist, which would be impossible to accomplish within a reasonable timeframe. On the other hand, using and evaluating semi-automatic feature detection data in heritage management contexts requires specialist GIS and remote sensing-related skills and knowledge, which may not be currently available to

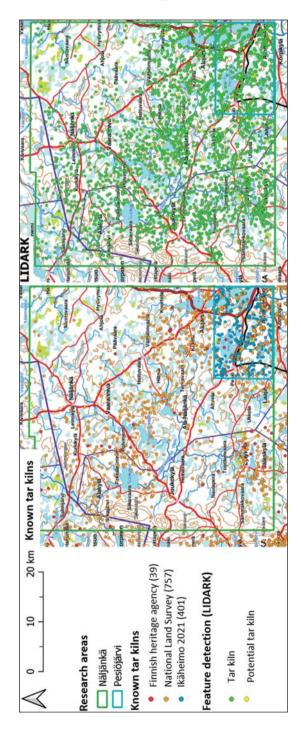


Figure 2. Impact of semi-automated feature detection on the number of known tar kilns in one of the research areas studied in the LIDARK project. Data on previously known tar kilns was provided by the Finnish Heritage Agency, the National Land Survey of Finland, and a desk-based survey by Janne Ikäheimo that focused on a smaller study area (Ikäheimo 2021)

all institutions. Therefore, there is an urgent need for revised guidelines and training materials to help heritage management institutions make efficient use of feature detection data.

Large numbers of semi-automatically detected features may also cause anxiety over increased workload for heritage management institutions. However, now these impacts are poorly understood, as the experience of using feature detection data in routine heritage management tasks is still limited. In Finland, semi-automatic feature detection data would probably have the greatest impact on forestry-related heritage management tasks, as these often focus on areas where archaeological surveys are unavailable and rarely involve commissioning new surveys. On the other hand, most planning and land-use-related processes that typically involve the commissioning of archaeological surveys would likely remain largely unaffected because most affected features would be detected regardless. In any case, it has been recognized that keeping the heritage management workload at sustainable levels may require making the affected processes more efficient, possibly through increased use of automation, but also prioritizing different heritage management tasks.

Semi-automatically detected features have also been debated in the context of a new law on archaeological heritage, which is currently being prepared. Most attention has focused on the potentially large number of relatively recent features, such as tar and charcoal kilns, which have been perceived problematic because of potential implications on heritage management workload and landowners' position. It appears likely that the number of tar and charcoal kilns that would be automatically protected will be limited by using an earlier terminus ante quem cut-off year of 1721 for automatic protection, compared to 1860 for most other features.

While semi-automatic feature detection may present heritage management institutions with tough decisions, it should be stressed that the overall impact is likely to be overwhelmingly positive. The vast amounts of data produced with the help of deep learning techniques allow heritage management institutions to improve their datasets, develop more efficient processes, and make informed decisions when responding to eventual challenges. However, reaping those benefits also requires heritage management institutions to not only react but also actively engage in using, developing, and creating guidelines for using semi-automated feature detection techniques in archaeology.

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Another case of making choices: alpine terrain, large-scale sites, and mass finds of the 20th century

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Keywords: mass finds, large-scale Alpine monuments, conflict archaeology

As in many other European countries, Austria's archaeologists have been dealing with remains of the two World Wars as part of excavations for years. Over the last 20 years, three topics have become very important in Austrian Heritage Management, and the following contribution tries to give an overview.

1. National Socialist (NS) camps

Excavations of sites of the 20th century in Austria started around the beginning of the millennium. Until then, such remains were always part of excavations but not the specific reason for archaeological interventions. That changed, and thus, new challenges for heritage management developed. Austria, once part of the Third Reich, deals with massive changes in the cultural landscape due to warfare and NS concentration and forced labour camps (Dornig & Steigberger 2017). Due to rescue excavations, more and more sites re-appeared that had been lost – either deliberately or coincidentally. To get an overview of the sites of specifically built NS camps, the Monuments Authority in 2019 started a project to catalogue those in a two-phase project. On the one hand, the results are as expected; on the other hand, the sheer numbers are overwhelming. So far, we know of 2,113 camps in Austria, and only about half can be located exactly (Mitchell & Steigberger 2020). The main and "infamous" sites of the concentration camps Mauthausen and Gusen are already well-known and protected; many others are still waiting for evaluation. Most built NS camps outline vast so-called Lagerlandschaften, areas of connecting camps that supplied the industry with a cheap workforce (Figure 1).

2. High alpine terrain

Alpine terrain holds remains of two world wars along the slopes and ridges up to 3,000 metres above sea level. The alpine frontline along the Carnic Crest is a linear site – also a very large one – that has very specific requirements regarding heritage management. Besides the alpine terrain and on-site preservation, climate change

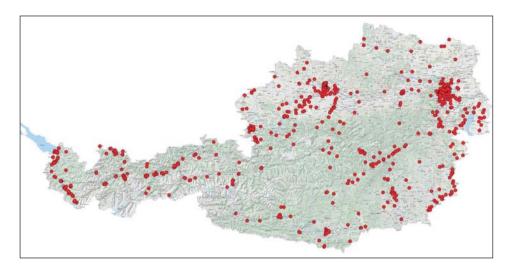


Figure 1. National Socialist camps in Austria (© Bundesdenkmalamt)

and retreating glaciers are an issue; moreover, the bilateral hiking trail along the Carnic Crest brings its own challenges. Monument protection, cataloguing of sites, monitoring, and preserving are tasks – as is making choices. What do we know, what can be protected, and what can be preserved? Two examples, one from East Tyrol and one from Carinthia, present ways of monument protection and site management. After heavy fighting in 1915, the war quickly turned into trench warfare. In this context, the mountain front was heavily fortified until 1916 for permanent defence. The remains of these fortifications, paths, and residential and functional barracks in the area were recorded using descriptions, photos, GPS mapping and 3D terrain models. These recordings formed the basic framework for elaborating two protected sites (Pöll-Steigberger 2024). Since the beginning of 2019 and 2020, the military buildings on the Carnic Crest in Kartitsch and Rattendorf have been listed. With the applied methods, the recording, mapping, and cataloguing were done precisely and very efficiently but still very accurately to ensure the necessary legal security and accuracy (Figures 2 & 3).

3. Mass finds

Three large development projects brought to light a huge mass of finds from the NS period. The development of new urban districts in Graz and Linz resulted in extensive rescue excavations. Excavations unearthed finds from industrial production as well as a huge complex of paperwork of NS administration. In Graz Liebenau, the remains of a forced labour camp that was *Aussenlager* to Mauthausen and a station of the death marches of April 1945 brings its own problems – the question of mass graves in the area is still unanswered but needs to be addressed with stakeholders and the public. A regulated procedure was developed for this category of finds: experts identify the findings and define groups, catalogue the whole assemblage, then propose what to keep; then, a commission of two heritage managers and the excavation's lead



Figure 2. Carnic Crest, Kartitsch Höhe, Kinigart (© Bundesdenkmalamt, E. Steigberger)

archaeologist go through all the finds on display and decide if the defined items will go into storage and research. Of course, all items found are photographed, described, and counted, and the exact location and find context of the findings are always recorded as carefully and diligently as if for a prehistoric find. The evaluation

Figure 3. Rattendorfer Alm, barracks detail (© Bundesdenkmalamt, Crazy Eye)





Figure 4. National Socialist papers, Graz (© Graz Museum)

process and the decision on what to keep takes place much later and after careful consideration (Figure 4).

Conclusion

The Austrian Monuments Authority develops guidelines and deals with the decision-making process on a day-to-day basis. Historically difficult topics need to be considered in this decision-making process, which must be very consistent, very clear, and very transparent for all parties and the public. Strategies were developed, and processes established – for example when dealing with human remains in mass graves together with the Interior Ministry and the police (Theune & Steigberger 2023). Mass find complexes are always individually evaluated, and a process is established for the specific requirements. These processes require the high personal engagement of our colleagues and a broad knowledge of not only legal topics but also the conservation of materials not typically expected on archaeological sites, such as aluminium or Bakelite. Contacts with specialists are very important to find a proper solution in each case. The sheer mass of sites and industrially produced mass finds seems overwhelming at times, and only the stringent decisions will help us deal with it.

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The need for archaeological research on modern period pottery production. A view from Rhineland

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Keywords: industrialisation, pottery kiln, pottery works, pottery workshop, porcelain, creamware, industrial whiteware, lead-glazed earthenware

The foundation of the Königlich-Polnische und Kurfürstlich-Sächsische Porzellanmanufaktur on the Albrechtsburg in Meißen in 1710 (König & Krabath 2012, 152–155) and of the "Etruria" factory by Josiah Wedgwood in 1769 (Kybalová 1990, 25–34) can be seen as some of the starting points of the industrialisation of pottery production. Manufactories and, from the later 18th century onwards, factories started to mass produce household ceramics throughout Europe.

Traditional crafts and industrial enterprises competed for the market for over one hundred and fifty years until the introduction of new materials and changing consumer behaviour drove most small pottery workshops and manufacturers out of business. Unlike in other sectors of the economy, in pottery production, the changes triggered and intensified by industrialisation can be particularly well studied archaeologically. This is due, on the one hand, to the large number of companies involved. On the other hand, and much more significant from an archaeological point of view, is the fact that, especially in the context of ceramics production, semi-finished and finished products are also found in large numbers in or close to the place of production since recycling of misfired products is impossible, and ceramics are permanently preserved in the archaeological record.

The problems and possibilities of the research in pottery production sites of the modern era are evident in the Rhineland, which is the western part of the German state of North Rhine-Westfalia and the area of the responsibility of the LVR-Amt für Bodendenkmalpflege im Rheinland, the archaeological state service. It is an area with a rich heritage of pottery production sites from the early medieval period to the present day, of which many have been excavated and recorded in the past. But only a few excavated sites can be dated to the modern period.



Figure 1. Excavated 19th-century earthenware kiln of the Maubach pottery workshop in Frechen (photo by © Andreas Vieten, AAV)

Four case studies will help to understand the potential of research when excavations are not limited to the kiln but cover the entire workshop and the archaeologically recorded information is combined with data from museum collections and archival sources.

At Frechen, a small town west of Cologne, stoneware and lead-glazed earthenware production began in the later Middle Ages and continued well into the 20th century. A kiln (Figure 1) excavated in Rosmar Street in 2019 was constructed and operated by Johann Maubach and his sons until the workshop had to close in 1907 (Vieten 2019, 26–29). Like many potters in Frechen, Maubach stuck to producing traditional vessel forms until declining sales forced him to produce simple and cheap flower pots.

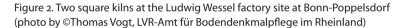
A different path was taken by a potter in Bedburg-Königshoven, whose three kilns were excavated in 1984–85 preceding the expansion of an opencast lignite mine (Schwellnus 1985, 69–70). Although part of his production range included milk bowls and pans for farmers' use, the other part was inspired by contemporary ceramic forms from the mid-19th century. In addition to coffee sets, he also made small fonts and other devotional objects. Vessel types, glazes, and kiln props indicate that he had

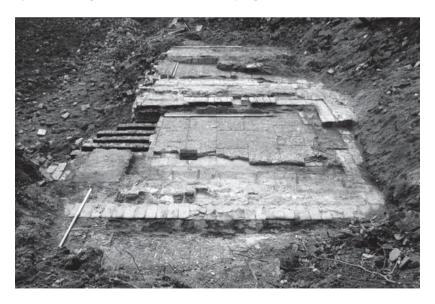
learned his craft in one of the modern ceramic factories. Nevertheless, his efforts were unsuccessful, as he had to convert his business into a brickyard.

The changes that a company underwent from a small workshop to a factory with international sales can be observed, at least in parts, at the Ludwig Wessel company in Bonn-Poppelsdorf, where archaeological excavations have taken place on the factory premises, and extensive historical sources have been published (Weisser 1975).

The business started in 1755 when Archbishop of Cologne Clemens August funded Johann Jacob Kaisin to set up a porcelain factory near his palace at Bonn-Poppelsdorf (Hüseler 1956, 65–66; Weisser 1980, 9–12). When Clemens August withdrew all financial support after two unsuccessful years, Kaisin started to run the workshop as a *Faience-Fabrique*. Like many other small faience manufactories, he and several successors struggled for economic success until the company was bought by Ludwig Wessel in 1825. During the 19th century, the change to porcelain and industrial white wares production turned the Ludwig Wessel factory into an internationally operating company (Weisser 1980, 22).

Part of the factory was excavated in 1987, prior to rebuilding. Due to later disturbances, only minor parts of the factory's foundations could be discovered. In the backyard, a pit was discovered, containing late 18th to early 19th-century faience as well as a series of three rectangular kilns (Figure 2). Porcelain wasters from several pits and layers provide a good overview of the range of vessel types and decorations produced at the turn of the 20th century.





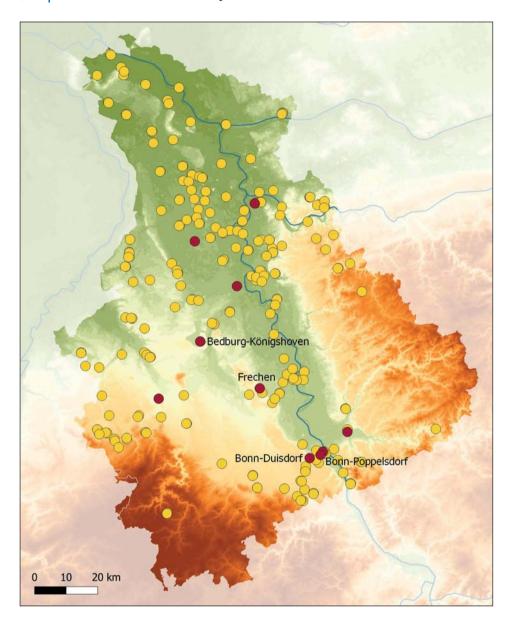


Figure 3. Pottery production in the Rhineland during the 19th and early 20th century according to historical sources (yellow) and archaeological investigations (red) (Map by ©Christoph Keller, LVR-Amt für Bodendenkmalpflege im Rheinland, based on Hähnel, 1987; Kerkhoff-Hader, 2008; base map by GMES/Copernicus EU-DEM v1.1; DLM250: ©GeoBasis-DE / BKG; TOP250NL: Dienst voor het kadaster en de openbare registers (Rijk); Réseau hydrographic wallon: Service public de Wallonie (SPW))

The last case study comprises a collection of ceramic wasters excavated in a former pond in Bonn-Duisdorf in 2005. Misfires, kiln furniture, and saggars indicated a dump layer from a nearby factory. This factory could be identified as the Lapitesta Werk Duisdorf by its distinct "LWD" logo impressed into the base of the vessels (Keller 2019; 2022). Combined research on the archaeological finds, sales catalogues, pieces in museum collections, and archival sources led to untangling the difficult history of this small company during World War I.

These case studies show the great potential for understanding pottery production and design changes in the rapidly changing world of the 19th and 20th centuries. The use of archaeological finds and features, information from historical sources, paintings, and photos, as well as the pieces kept in museums and private collections, can lead us there.

Only a small part of the 137 pottery workshops and ceramic factories in the Rhineland, known from historical sources of the 19th and 20th centuries, have undergone archaeological investigation (Figure 3). Many more, often located within urban areas, are threatened by redevelopment. To protect this part of the industrial and archaeological heritage, we need a proactive approach to locating and identifying pottery sites, mainly by archival research, and to protect them legally.

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The Holocaust, conflict and changing approaches



Pointe du Hoc, Calvados, Normandy. Actualised map of the battery and US Rangers' Memorial, made by INRAP after LiDAR and geophysical surveys, showing every concrete and earth feature as well as bomb craters (© V. Carpentier, INRAP)

Should we adopt a pragmatic approach to Holocaust heritage in the 21st century?

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Keywords: Holocaust heritage, idealism, pragmatism, heritage management, heritage presentation, sacred sites

This paper proposes that a pragmatic approach be taken towards Holocaust heritage in the 21st century. Its point of departure is the recognition that it is now nearly 80 years since the end of the war, and we are not making heritage decisions today about such sites based on inheriting them "untouched" in 1945 and dictating their future role as sites of education, remembrance, and pilgrimage. Rather, in acknowledgement that many decades have passed and that buildings from many sites of Holocaust heritage have been put to other uses, a pragmatic solution is required rather than an insistence that Holocaust heritage must have no function today other than one based *solely* on remembrance and memorialisation. This paper discusses whether we should be prepared to accept compromises and give up idealistic perceptions of the heritage futures of such sites. The research for this discussion is inspired by the 2019–24 International Holocaust Remembrance Alliance (IHRA) project *Safeguarding Sites*, chaired by the author. We wish to safeguard sites, but what does this mean? Holocaust heritage is not like the archaeological site of Pompeii; we have not inherited it untouched and preserved in volcanic ash, nor have we had ownership of every site continuously since the end of the war.

"Holocaust heritage" describes a range of remains, buildings and sites of concentration camps, killing centres, mass graves, ghettos, forced labour camps, prisons, detention centres, places of deportation and the like that were involved in the Holocaust. It has not been calculated how many of these sites are heritage sites or even marked with plaques today. Of the sites that are open to the public, not all former camp, ghetto or prison buildings are under the control of the memorial which runs the heritage site today; for example, Terezin Memorial does not own all the buildings of the former ghetto, including the iconic Dresden Barracks where the football match took place, captured in a Nazi propaganda film. For various reasons, many of them financial or practical, the full extent in the landscape of each of the historical sites of Holocaust heritage was not "purchased for the nation" over the last 80 years or was even standing soon after liberation. We are all familiar with the barracks burned down at Bergen-Belsen in May 1945.

Even where the state has owned the site and opened it to the public for many decades, there have also been changes to the layout of a site because of management decisions.

But such changes to what tourists and pilgrims see today are found all over Europe. At the *Polizeihaftlager* at the Risiera di San Sabba on the outskirts of Trieste in Italy, for example, the camp became a refugee camp until 1965 for those fleeing communism after the war. Here, the crematorium does not survive and is instead symbolically shown by metal paving on the ground. The architect Romano Boico, who was awarded the contract to turn the camp into a memorial site in the late 1960s, is quoted as saying:

The "prisoners' building" referred to is today called the "Hall of Crosses" (Figure 1) due to the visual effect recreated by the bare beams of the old factory after removing the upper three floors, according to Boico's architectural design. With Boico's reference to turning the courtyard into a "cathedral" and the prisoners' building into a "Hall of Crosses", we can see how Catholic Italy visually minimised the Jewish history of this building. Similarly, Holocaust sites beyond the Iron Curtain emphasised national or Soviet narratives at the expense of the Jewish victims. The sites we see today have been impacted by management, memorial, and architectural decisions just as much as by factors such as decay and demolition of buildings that have fallen apart.

While the historical authenticity of a site resides in its buildings and features, we must not be naive about the realities of restoration. Visiting Mauthausen Memorial today, one learns that the barbed wire around the camp and concrete on the ground are



Figure 1. The Hall of Crosses at the Risiera di San Sabba(© Gilly Carr)



Figure 2. The elevator at Mauthausen Memorial (© Gilly Carr)

not original; one sees for oneself how modernised the restored barracks that hold the museum are. The elevator added to the site in 2018 was widely condemned, but it represents a pragmatic change to a site like the many that have been carried out at Holocaust sites throughout Europe since 1945 (Figure 2).

The former concentration camp of Gusen, near Mauthausen, was knocked down, and a village built upon its footprint after the war. While some original camp buildings remain, such as the crematorium, others have been converted into domestic houses. At Melk, also in Austria, prisoners were placed in pre-existing army barracks; the barracks have reverted to housing soldiers today, having simply been returned to their prewar use. While one may view Holocaust heritage today as "sacred" and "untouchable", such a view suggests an unawareness of the plethora of changes that have already happened at sites across Europe since 1945.

To safeguard a site of Holocaust heritage is not just to turn it into a memorial museum. A pragmatic perspective often means compromise. If there is an accurate information plaque next to the site and a memorial plaque attached to any extant building, should we be prepared to accept this position? This is not a call to surrender our ideals; rather, it is a recognition that we, as heritage professionals, need to adopt a pragmatic position because there is no other choice; it is already too late to do otherwise.

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Ten years after: the French Second World War archaeology was born. Considering the French Second World War archaeological heritage in a shared international perspective

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Keywords: Atlantic wall, battlefield, contemporary archaeology, France, internment, operation theatre, violence, World War II

Although the archaeology of the Second World War has existed since the 1980s in English-language research, the vestiges of this conflict were only officially included in French national heritage at the end of 2013 by the Minister of Cultural Affairs and Communication. Hence, it was only from 2014, the year of the 70th anniversary of the D-Day landings in Normandy, that preventive archaeology operations were prescribed for French World War Two sites. Ten odd years after French archaeologists began focusing their efforts on the material remains of the First World War, it was finally time for them to study those of World War Two (Carpentier 2022).

Remnants of this conflict are notoriously numerous in northern France, particularly in Normandy, where countless discoveries of wartime remains have occurred since the late 1940s (Carpentier & Marcigny 2019). Until the early 21st century, French archaeologists had abandoned the exploration of battlefields, Atlantic Wall bunkers, military aerodromes, or plane crash sites to others, and the regional archaeological services publications mention almost no discovery relating to the Second World War.

What kind of archaeological sites and remains are we talking about?

Archaeology of World War Two theatres of operation

These remains are primarily those of the battlefields. In Normandy, around Caen, archaeologists can now study these military remains at the historical scale of the many theatres of operations. In addition, some human remains, those of fallen soldiers abandoned on the battlefield after the end of the war, are sometimes found during archaeological operations. Archaeology focusing on plane crash sites is also being deployed across France as a whole, in association with various partners, American universities, veterans, and memory associations. Underwater remains dating back to



Figure 1. Blainville-sur-Orne, Calvados, Normandy. Parts of the dismantled wreck of a Horsa glider of the 6th Airborne Division that landed on D-Day. These were used as raw materials by gunners of the Royal Artillery to build and comfort their foxholes (© V. Carpentier, INRAP)

the D-Day landings and air-naval operations have also been mapped and studied by diving archaeologists from the French Department of Underwater and Submarine Archaeological Research (DRASSM). The numerous discoveries made in Normandy and elsewhere in France have allowed for unprecedented comparisons between archaeological data and historical sources, including testimonies of soldiers and civilians. They also demonstrate the urgency of studying these very last remnants of the conflict in areas that have been densely urbanised since the 1980s. Subjects pertaining to material culture in times of war, the specific behaviour of soldiers or civilians, and the violence of war itself as a whole have already appeared in a few recent publications.

Archaeology of the Atlantic Wall

Research is also currently underway on major defensive and logistical structures, in particular on the Atlantic Wall fortifications, concrete bunkers, radar stations, artillery batteries, etc. Along the western coasts of France, a network of young archaeologists is currently conducting preventive operations on various sites of the Atlantic Wall. In particular, during the past ten years, several archaeological operations have been carried out on some of the largest coastal batteries in Normandy, which today are among the most visited WW2 sites in the world. This work, accompanied by significant documentary research, demonstrates the heterogeneity of the Atlantic Wall and



Figure 2. Pointe du Hoc, Calvados, Normandy. Actualised map of the battery and US Rangers' Memorial, made by INRAP after LiDAR and geophysical surveys, showing every concrete and earth feature as well as bomb craters (© V. Carpentier, INRAP)

specifies its exact composition for the first time, listing the destruction of bunkers and the erosion of sites since the end of the war.

Archaeology of World War II internment camps

Since 2006, work on internment sites has also progressed throughout France while, during the last years, the main camps linked to deportation and Shoah have been reclaimed as national memorials (Compiègne-Royallieu in 2008; Les Milles and Drancy in 2012; Rivesaltes in 2015). On these occasions, archaeological studies of buildings or such less-known features as escape tunnels and surveys of graffiti drawn by deportees, prisoners, Resistance fighters and hostages were conducted at many sites. In 2020, another ambitious archaeological programme was launched on the only genuine Nazi concentration camp in the current French territory, the KL Natzweiler-Struthof in Natzwiller, where several archaeological surveys have been carried out since 2018, alongside redevelopment and renovation works on the European Centre of Deported Resistance Members (CERD). In 2020 and 2021, Juliette Brangé and Michaël Landolt led prospecting operations throughout the camp, followed 2022 by excavations in the granite quarry, where industrial facilities and tunnels are currently being studied.



Figure 3. KL Natzweiler-Struthof, Natzwiller, Bas-Rhin, Communauté européenne d'Alsace. The new memorial of the gas chamber, built after the archaeological surveys, summer 2022 (© V. Carpentier, INRAP)

This research is still underway as part of a doctoral thesis by Juliette Brangé on the KL Struthof and its sub-camps in France. Moreover, operations have been led everywhere in France, on forgotten camps for German prisoners at Vandœuvre-lès-Nancy, Stenay, Poitiers, Miramas, Bétheny, Coyolles, Savenay, etc.

Digging into the violence of war

At last, French archaeologists specialising in World War II have joined the European and international community by developing and focusing on subjects suited to France's own heritage, leading French archaeology towards scientific maturity. As for the First World War a decade before, World War II archaeology brings us, in turn, closer to the objective materiality of combat and behaviour specific to the modern violence of war. There is little doubt that this still-nascent field will bear exciting developments in the coming decades.

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a comprehensive approach towards the remnants of Nazi violence, war industry, and post-war landscapes

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Abstract

Two world wars, countless other conflicts, state-inflicted and terrorist atrocities, genocides, mass internment and mass displacement: Europe's 20th century rightly has been characterized as the "deadly century" (Forbes, Page & Pérez 2009) or the "century of camps" (Bauman 1998). The material legacies of recent mass violence and war constitute omnipresent yet ambiguous remnants that may be either negated and disguised or prominently featured as "heritage" in public discourse driven by various political or social agendas. It is therefore not surprising that archaeological research and heritage management concerning the 20th century in Europe has developed a particular focus on remnants of mass violence, repression, and collective trauma (Saunders & Cornish 2013; Sturdy Colls 2015; Bernbeck 2017; Theune 2018; Jürgens & Müller 2020; González-Ruibal 2020; Symonds & Vařeka 2020).

In Germany and Austria, it is certainly the archaeology of the Nazi period that has received most attention in this framework. However, a critical review shows that most of these efforts in German-speaking Europe remain predominantly focused on former Nazi camps as distinct, isolated places that are selectively researched, valorized for "memory work" (*Erinnerungsarbeit*) or put under heritage protection. Comprehensive research as a prerequisite for making informed decisions when legally "qualifying" archaeological sites of recent mass violence as "heritage" or sound methodologies, for instance, for recording, assessing and researching places of Nazi terror as parts of larger, complex spaces of conflict are hardly discussed (see though Hausmair, Misterek & Stern 2021; Kersting 2022). Furthermore, the long-term impact of persecution and war (industry) on local landscapes, communities, and post-war developments is usually not considered relevant for assessing the "heritage value" of specific places. The efforts of heritage professionals, academic researchers, NGOs, and citizen scientists who engage with the traces of the Nazi period in various ways are often not integrated in a satisfying way.

Using the Nazi shale-oil project *Unternehmen Wüste* (Wurttemberg, 1944–45) as an example, this paper presents an archaeological approach that conceives of sites of Nazi terror as parts of complex cultural landscapes and to discuss prospects for an inclusive heritage management of remnants of Nazi atrocities by exploring three avenues of thought: (1) methodological considerations for recording places of Nazi terror and war industry; (2) understanding places of Nazi terror as parts of a multi-vocal, continuously changing cultural landscapes; (3) thinking of heritage management as a shared enterprise of state authorities, civil society and academic researchers.

Historical background of the Unternehmen Wüste

Towards the end of the Second World War, Nazi Germany got into tremendous trouble maintaining a stable fuel supply because most of its fuel plants had been damaged by Allied bombing, while access to oil fields in Estonia and Romania where lost. In order to avert the complete collapse of fuel production, the regime launched the *Unternehmen Wüste* ("Operation Desert") in the spring of 1944 – a high-priority project which aimed for the development of novel technologies for fuel production and the large-scale extraction of shale oil in Wurttemberg (Southwest Germany) (Glauning 2006; Zekorn 2019).

Despite the catastrophic war situation, an enormous amount of material resources and technical knowledge were mobilized, and vast areas of land were confiscated to build ten large shale oil factories. Seven sub-camps of the Natzweiler concentration camp were established, and more than 12,000 concentration camp prisoners were deported to the region and forced to build the factories under inhumane working and living conditions. Due to bad planning, engineering failures, and a shortage of building materials, only four factories went into production until the end of the war. "Operation Desert" eventually turned out to be a technological as well as an organizational and humanitarian disaster, characterized by war-related turmoil, insufficient planning, and the ruthless destruction of thousands of lives. At least 3,470 people exploited in the *Unternehmen Wüste* died due to inhumane working and living conditions or arbitrary violence of the guards (Glauning 2006).

After the war, the factories and camps were demolished to regain arable land and also in order to erase the reminders of the destructive war industry, the Nazis' crimes, and questions of responsibility among the local population. These efforts were only partially successful, however, because many remains of the shale oil industry – ruins of the factories, topographic alterations caused by rock extraction, the foundation of barracks and, not least, the cemeteries where the victims were buried – were simply too massive to be removed. Also, environmental pollution caused by the oil industry has become a long-term problem for local communities (Hausmair 2020).

Although the re-cultivation measures of the post-war period destroyed large parts of the *Wüste* factories, the oil industry has left substantial traces in the region's landscape. Archaeological remains of the factories are traceable as crop marks in fields or through terrain alterations resulting from the facilities' narrow-gauge railways, backfilled mining pits, and shale piles. In some cases, the former mines have permanently altered the local terrain as prominent incisions in the topography. At several sites, buildings

for the factories' electrical substations or oil tanks are preserved. In one case, almost the entire concrete infrastructure of the condensation facilities was intact, including the foundations of machines, settling basins, storage tanks, pipeline pillars, and the concrete shell of the fan system. Associated with this industrial heritage are the former locations of seven Natzweiler concentration camps and their archaeological remains and three cemeteries where the victims of the *Unternehmen Wüste* were reburied after the war (Hausmair 2019).

The lasting imprints of *Unternehmen Wüste* became the focal point of local grassroots initiatives in the 1980s, which started to engage with their region's Nazi past and tried to remind of the victims. By integrating the remnants of the oil industry into educational programmes and marking long-ignored and overgrown ruins as places of violence but also of remembrance, these initiatives created new spaces of reconciliation and learning. The continuous engagement of these initiatives and memorial initiatives at other sites of the Natzweiler concentration camp complex has been honoured by the European Commission in 2018 by awarding former Natzweiler sites with the European Heritage Label (Hausmair & Bollacher 2019).

In the year when EHL was awarded to the Natzweiler initiatives, the State Office for Cultural Heritage Management Baden-Wuerttemberg (LAD) launched a project on surveying sites of the Natzweiler concentration camp complex in the State of Baden-Wurttemberg in order to assess which sites should be registered as official monuments (Bollacher & Hausmair 2018). I worked in the Natzweiler project for two years as the main researcher. This presentation builds on my research on landscapes of the Nazi shale oil industry and forced labour (Hausmair 2020), which I conducted in this framework.

1. Methodological considerations for recording places of Nazi terror and war

In the first part of the paper, I will present a methodological workflow that I have developed over ten years of research on different aspects of the archaeology of the Nazi period and which I implemented as a main procedure for surveying Natzweiler sites during my employment at the State Office for Cultural Heritage Management Baden-Wuerttemberg. A particular focus will be on defining specific aims prior to starting any actual recording, how to integrate different stakeholders in the research process, how to locate textual or visual sources (that constitute the indispensable basis for any historical-archaeological project), which methods and software solutions are suitable for different levels of recording, and what results (and in which resolution) can be expected concerning initially declared aims (Figure 1) (Hausmair & Dézsi in press).

2. Cultural landscapes

Building on N. Saunders's (2001) work on large-scale remnants of conflict as "palimpsests of multi-vocal landscapes", I will then show how the proposed workflow may help to understand the remains of "Unternehmen Wüste" as parts of a cultural landscape that has evolved from a war-ridden and blood-soaked industrial desert, into a re-cultivated yet polluted and silenced land during the post-war period, only to be transformed into a space of remembrance and reconciliation through the efforts of grassroots initiatives in the recent past and present. I will discuss the challenges of translating these complex

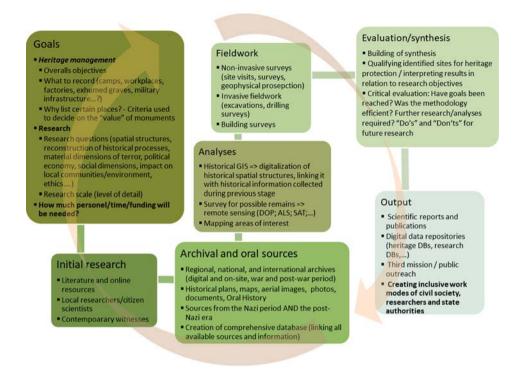


Figure 1. Workflow (graphic by the author)

transformations, which can only be grasped by intensive research, into current systems of categorisation used by heritage authorities. Consequently, I will also reflect on how registering sites of Nazi terror as legally protected heritage sites may impact memorial initiatives and their aspirations and efforts to employ these remains for learning from the past and fostering democratic values in the young generations (Hausmair 2020).

3. Inclusive heritage management

In the final part of the paper, I will argue that a better integration of the work of heritage offices, researchers, and local initiatives is required to create sustainable and inclusive heritage management. Recognizing remnants of past violence as "heritage" worth being legally protected is an important step that – in the case of remnants of the Nazi period in Germany and Austria – has to be understood as the reaction of state authorities to "heritagization" processes in civil society. It, therefore, can only be meaningful and sustainable if this legal recognition goes hand in hand with allowing such remains to be explored by different actors in society as a means to *learn* about and from this past and understand it as something not completed but continuously protruding into our present and future.

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Digging deeper is always rewarding. Policy instruments, challenges and recent research on conflict archaeology, WWI and WWII in Flanders

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Keywords: conflict archaeology, WWI, WWII, historical aerial photographs, LiDAR, excavation, landscape perspective, synthesizing research

Archaeology in Flanders and grants for synthesizing research

Flanders, one of the regions in Belgium, has seen an increase in development-led archaeological excavations since the implementation of the "polluter pays principle" in 2004. However, new insights remained limited due to a lack of funding for synthesizing research. In 2017, the government of Flanders decided to award yearly grants for synthesizing research on archaeological data produced via development-led archaeology. The grant system targets private companies and aims to raise awareness and increase the return on the investment of archaeological excavations. Since 2018, 34 projects have been awarded, including three projects dealing with the archaeology of the First and Second World Wars.

Trenches of the First World War and Missing at the Front 1914–1918

The first project studies the trenches of the First World War in Flanders, creating a general typology of trenches and a specific methodology for excavating and studying them. The second WW1 project deals with the thousands of bodies of soldiers missing at the front in Flanders. Despite extensive military cemeteries, the ground below the former battlefields is still full of remains of soldiers declared missing in action. This synthesizing project analyses how archaeologists should act when confronted with human remains of soldiers, both scientifically and ethically.

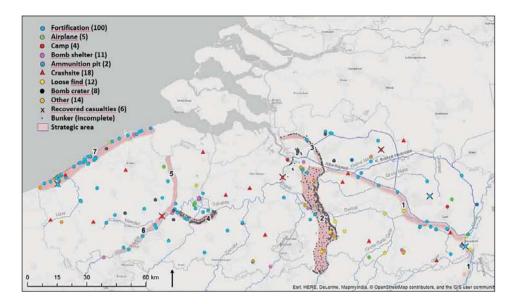


Figure 1. A schematic representation of the strategically important areas in our country during the Second World War, combined with the 172 archaeological sites with traces of said war.

1, Albert Canal cover line; 2, KW Line main line of resistance; 3, Antwerp armoured trench;

4, Ghent bridgehead; 5, Lys detour channel; 6, Lys; 7, Atlantic Wall (source: Syntar 11, Figs. 3–8)

Archaeology of the Second World War in Flanders

The study of the Second World War has also made progress in Flanders, with growing attention to recent conflict archaeology. A comprehensive overview of knowledge was created in a third synthesizing project by bringing together data from excavations and confronting it with historical aerial photos and LiDAR data. Three specific themes were elaborated: Atlantic Wall sites, airfields, and plane crashes. The results include an interpretation key, methodological guidelines, and recommendations.

Excavations of WW2 archaeological sites: chronology and geography

Data and results of 172 excavations were brought together, with a growth in the number of sites found and recognized in recent years. The geographical distribution of WW2 sites in Flanders corresponds to the course of the war. Clusters of sites correspond to strategically important defensive elements, with a chronological progression from east to west. In the east, early sites relate to Belgian defence lines and the mobile war at the beginning of the Second World War in May 1940.

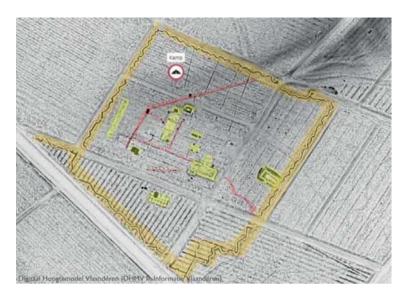


Figure 2. A large part of the radar station at Lanaken, "Hansenhöhe", is today located in the forest (National Park Hoge Kempen). Clearly visible are on the digital elevation model the ditches around the camp (orange), the outlines of buildings and radar stations (yellow), and even the trenches of presumed of suspected supply lines (UGent/Information Flanders) (source: Syntar 11, Fig. 4–65)

Atlantikwall sites, military airfields, and plane crash sites

During the German occupation, military infrastructure was built, including the German *Atlantikwall* along the Belgian coast. Archaeological preservation of these fortifications is good, but much has been destroyed by building expansion. The *Atlantikwall* should be seen as an archaeological landscape, including the hinterland. A second specific infrastructure is military airfields, some of which were in use before the war. Very few of these sites have been examined despite their large areas and many material traces. Archaeology has added value in complementing historical knowledge and anchoring stories about these sometimes-vanished sites in the contemporary landscape. The investigation of crash sites is the third aspect examined in detail. Some 6,000 aircraft crashed over Belgium in five years, creating challenges such as dealing with bodily remains and depositing large amounts of scrap metal. Since 2009, 18 sites have been investigated, with a proposal for how to approach such sites.

Interpretation key, challenges and recommendations

At the end of the war, there was mobile warfare during the liberation by Allied troops, followed by the terror of unmanned V-bombs. Traces of American and British presence in Belgium are also visible. The excavation data of 172 sites provides a unique view of the material culture of the Second World War, with an overview and interpretation key. Challenges include large numbers and areas, difficult identification of traces on site,

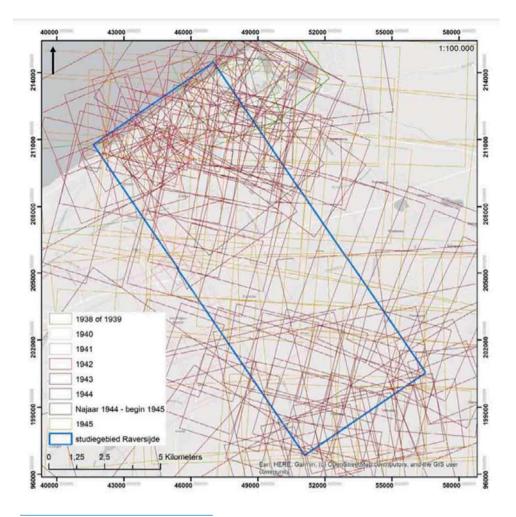


Figure 3. Coverage of a study area (Raversijde-Koekelare) with 178 historical aerial photographs (source: Syntar 11, Fig. 4–111)

and dealing with human remains and toxic substances. Recommendations include making inventories more accessible and involving metal detectorists. Historical aerial photography is a main source of information, with thousands of photographs taken during the wars.

Historical aerial photography – the aerial overview

Historical aerial photographs are a primary source of information for studying WW2 sites in Flanders. They are contemporary, reliable, and detailed. The province of West Flanders collaborates with Ghent University and the In Flanders Fields Museum to



Figure 4. Remains of a German artillery base hidden in a street in Koksijde-Groenendijk (photo by © Raph De Bandt)

explore these photographs through the Centre for Historical and Archaeological Aerial Photography (in Dutch: CHAL).

After digitization, the photos are mapped in a geographic information system through georectification. Thousands of images give an unprecedented view of the war landscape. Ghent University has processed over 25,000 WW1 aerial photographs and over 5,000 WW2 images. The dataset is valuable for research, science communication, public outreach, and heritage management. Relevant features are digitized in a GIS, transforming the images into a detailed dataset.

From research to heritage management and museum applications

About 22,000 WW1 aerial photographs have been mapped, resulting in over 250,000 war features. The results are visualized through detailed maps and brought to a wider audience using museological applications.

The "In Flanders Earth" application in the In Flanders Fields Museum in Ypres is an interactive multi-touch interface where people can see the then and now perspective of the Western Front in Belgium. A similar application was done for the Museum Lens "14–18". The applications encourage visitors to reflect on the war's impact and invite them to explore the landscape. Personal devices are used to overlay present-day and historical photographs.

The geoportal www.aerialphoto1914-1918.be brings aerial photographs to people at home. A similar project was done with WW2 aerial photos in the province of Limburg, where visitors can add testimonies and stories to the online portal: www.onderderadar.be.

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Archaeology of modern conflict and heritage legislation in Lithuania during thirty years of restored independence

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Keywords: archaeology of modern conflict, archaeological research, exhumations, heritage legislation, state institutions, public, First and Second World Wars, Lithuanian Partisan War, Lithuania

After the Lithuanian National Revival in 1988 and the restoration of independence in 1990, the public spontaneously searched for the remains of the fallen anti-Soviet Lithuanian partisans (1944–1953), excavating the burial sites of partisan remains, their bunkers and dugouts (Petrauskas & Petrauskienė 2020). Excavations of the burial sites of victims of the Soviet regime were chaotic. Procedures and excavation techniques were not followed during the exhumation process, and the remains were often removed with the help of excavators; the bones were mixed, collected in boxes, and buried in collective graves.

Spontaneous excavations prompted the need to establish regulations and procedures for the exhumation and transfer of the remains of victims of 20th-century conflicts and occupation regimes. Government resolutions adopted in 1992 obliged prosecutors, archaeologists, anthropologists, and forensic medical experts to be involved in the exhumation procedure and to carry out the exhumation in accordance with the basic requirements of archaeological research (Resolution of the Government of the Republic of Lithuania 1992). Before the exhumation process could begin, a new burial site had to be selected, and special technical, sanitary, and legal conditions had to be ensured. Moreover, the exhumation had to comply with the basic requirements of archaeological research, and the identification of the recovered remains had to be carried out in accordance with forensic methodology.

Due to the restoration and destruction of authentic partisan bunkers and dugouts, the increase in archaeological investigations at 20th-century conflict sites, as well as the emergence of a distinct field of modern conflict archaeology, the 2022 redaction

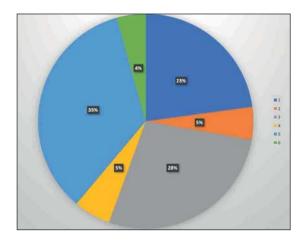


Figure 1. Percentage distribution of archaeological research carried out at sites of 20th-century conflicts between 1995 and 2022. 1, burial sites of Wehrmacht soldiers; 2, burial sites of soldiers of the Polish Home Army (Armia Krajowa); 3, labour camps or sites of massacre; 4, defensive fortifications of the First and Second World Wars; 5, sites of the Lithuanian Partisan War; 6, other sites (diagram by Lijana Muradian)

of the Archaeological Heritage Regulation Management stipulated the necessity to carry out archaeological research prior to any excavation works at all 19th- and 20th-century conflict sites (Order of the Minister of Culture of the Republic of Lithuania 2022). These include sites of massacre and death, battlefields, camps, shelters, memorial homesteads, bunkers, trenches, etc. The aim of this provision is to collect detailed data for the conservation and restoration of these sites while also providing the public with access to significant heritage sites related to modern conflicts.

Between 1995 and 2022, a total of 171 permits for archaeological excavations at 20th-century conflict sites were issued. The proportion of archaeological investigations carried out at 20th-century conflict sites has fluctuated over the last decade, representing 1.2% to 3.9% of the total number of permits issued each year. Investigations were mostly carried out at the burial sites of the Second World War *Wehrmacht* and Polish Home Army (*Armia Krajowa*) soldiers and Lithuanian partisans (Figure 1). Partisan bunkers, dugouts, campsites, battlefields, etc., also received considerable attention. The research objectives on 20th-century conflict sites also include collecting scientific data, adjusting the valuable properties of immovable cultural heritage sites, and adopting decisions on the conservation, restoration, and public presentation of these sites.

As of July 2023, 1,764 immovable cultural heritage objects related to 20th-century conflict sites had legal protection in Lithuania. This represents 7.3% of all immovable cultural heritage sites. Modern conflict sites include: 1, fortifications, forts and bunkers (61 or 3.5%); 2, graves and burial sites of German and Russian soldiers of the First World War, Polish soldiers of the Lithuanian Wars of Independence period, and soldiers of Nazi Germany and Soviet Union of the Second World War (350 or 19.8%); 3, Holocaust sites (202 or 11.5%); and 4, sites related to the Lithuanian Wars of Independence, the 1941 Uprising, the Lithuanian Partisan War, the repressions of the Soviet occupation regime, as well as the restoration of Lithuanian independence and the defenders of freedom (1990–1991) (1,139 or 64.6%) (Figure 2).

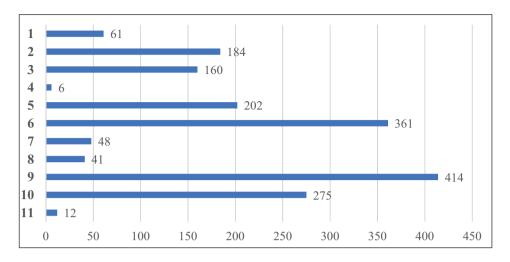


Figure 2. Distribution of modern conflict sites in the Register of Cultural Property: 1, 19th and 20th century fortifications, 2, First World War German and Russian cemeteries, 3, Second World War Red Army cemeteries, 4, Second World War Wehrmacht cemeteries, 5, Holocaust sites, 6, graves of Lithuanian soldiers, resistance fighters and defenders of freedom, 7, sites of terror and massacres and graves of victims of terror, 8, bunkers, dugouts and campsites of the Lithuanian Partisan War, 9, burial sites of Lithuanian partisans, 10, sites of battle and death of Lithuanian partisans, 11, other sites (diagram by Augustina Kurilienė)

The largest and most attention-grabbing group is the Lithuanian Partisan War sites. A total of 730 Partisan War sites are registered in the Register of Cultural Property, representing 41.4% of all modern conflict sites. A further 48 sites (2.7%) commemorate Soviet and Nazi terror, some of which are also linked to the Lithuanian Partisan War. Although the registered Lithuanian Partisan War sites include partisan bunkers,

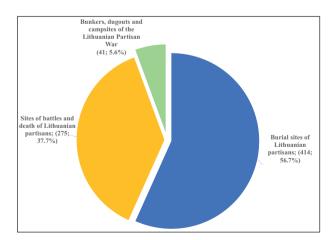


Figure 3. Lithuanian Partisan War sites registered in the Register of Cultural Property (diagram by Augustina Kurilienė)

dugouts, campsites, and battlefields, the majority of the recorded sites are partisan death sites, graves, and disposal sites (Figure 3). The predominance of partisan graves and death and burial sites in the Register of Cultural Property shows that the image of death and sacrifice associated with the Lithuanian Partisan War still dominates Lithuanian heritage protection.

Over the last three decades, modern conflict sites have received a great deal of attention from the public and authorities. A functioning heritage system has been established, heritage accounting has been carried out, and the need for archaeological research has been regulated. However, the protection and assessment of 20th-century conflict sites still pose major challenges, the timely resolution of which will determine the future and survival of this important heritage type.

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More than archaeology:

Archaeological heritage management and science on war and terror sites in Brandenburg/Germany

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Keywords: archaeological heritage management, war and terror sites, concentration camps, forced labour camps, Soviet prisoners of war, political education, crime evidence, commemoration

The Brandenburg State Archaeology has been conserving and analysing relics of war and terror for 25 years, recognising the task as a challenge and a chance. As a result of this work, archaeology is now an integral part of not only Nazi camp site research but one that covers World War I and II POW camps, Red Army camps, and the GDR Borderline/Iron Curtain system as well. Many sites have been investigated, including concentration camps and their sub-camps, forced labour camps, and prisoner-of-war camps. While most objects of an industrial culture of the 20th century can be quickly assigned a function, functions do change: such a shift is a characteristic of Nazi camp finds and reflects their context of bondage and deprivation. The identification of the functions of material remains enables their association with different spheres of life in the camp so that both perpetrator and victim groups are documented archaeologically. Moreover, these finds serve as tangible evidence to refute any relativisation of the crimes.

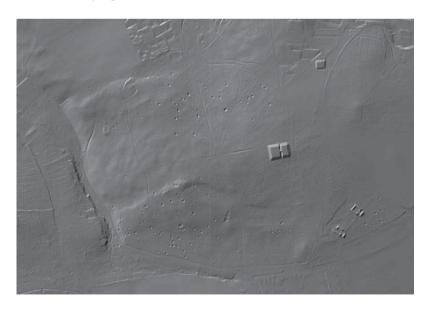
Introduction

Most modern monument protection laws in Germany no longer have an age restriction for archaeological monuments. In many regions, there is a considerable density of sites and material witnesses of war and terror from the two world wars. Archaeology of contemporary history is not an academic gimmick for archaeological heritage management but a concrete and urgent duty: the monuments are there, and their number is decreasing. Thus, since the mid-1990s, monument offices have dealt with a broad range of 20th-century monuments on the ground. The "omnipresence of concentration camps" is a fact and a task for archaeology. And yet, they are only part of the variety of monuments from the war-torn 20th century that are preserved in the ground. Cellars in bombed inner cities such as Dresden and Berlin have also been



Figure 1. Restaurant cellar destroyed by bombs in Dresden (photo by © Cornelia Rupp, Landesamt für Denkmalpflege Sachsen)

Figure 2. Bomb crater group in the Reusa forest, Sachsen (photo by © Michael Strobel, Landesamt für Denkmalpflege Sachsen)



excavated (Figure 1), and landscape-defining relics of fortifications and battlefields such as the Westwall, Hürtgenwald, and Seelower Höhen are protected and researched as archaeological monuments – as are groups of bomb craters preserved in the forest (Figure 2). Sometimes, even graves of fallen soldiers can become the subject of archaeological documentation during planned reburials, although they are normally protected as war sites.

The reaction of the public is often quite different from that of "normal" archaeology: aspects of crime and suffering, sacrifice and commemoration have to be taken into account. Here, archaeology takes on a new role: it gains current social relevance as a body of evidence against tendencies of relativisation and denial of Nazi crimes.

As early as 1990/91, the first regular excavation took place in a forced labour camp in Germany, in Witten-Annen an der Ruhr; it remained without a successor for a long time. Today, quite a few camp sites from the Nazi era have been at least partially archaeologically investigated, especially at sites of concentration camp memorials and large forced labour camps. In addition, the topic has a European connection due to the expansionist drive of the National Socialists: today, camp sites are being investigated in many formerly occupied countries.

General conditions: access of the state archaeology

Archaeology can make a decisive contribution to the construction history of the camps – the inmates, who were segregated according to political and racist criteria, spent a large part of their daily lives in these places. The structural conditions, equipment, and organisation directly influenced their chances of survival, which is why the construction findings of the camps, their spatial distribution, and their functional differentiation are indispensable sources. Often emerges the problem of subsequent use in eastern Germany by the Soviet military, which demolished or overbuilt the camps. In some places, the continued use of the camps as Soviet "special camps" creates new perpetrator-victim constellations, which, with their "double history" and the implied "victim competition", also raise their own commemoration problems.

However, their very character as a "place of suffering" also facilitates their protection: today, the designation of camp sites as archaeological monuments is often welcomed. Nevertheless, research on camps by local initiatives often does not reach the state offices because, with the best intentions of creating places of remembrance, there is a lack of awareness that these sites are also archaeological monuments.

Redesigns, road construction, and pipe laying led to the first investigations into concentration camp memorials. The remains of entire concentration camp sub-camps fell victim to the construction of completely new industrial estates. Excavations at so-called youth camps in concentration camp memorials also affect the substance. In the future, the associated factory areas themselves, which were not less places of suffering and exploitation, will also become the subject of archaeological research: only recently, a complete concentration camp subcamp was found in the cellar under the remains of the so-called *Deutschlandhalle* of Daimler-Benz (Figure 3).



Figure 3. Concentration camp in the cellar of the Daimler-Benz plant *Ludwigsfelde* (photo by © Matthias Antkowiak, ArchäoFakt)

The comprehensive inventory is the task of monument preservation, which also includes the systematic evaluation of historical standard works and sources, historical aerial photographs and digital terrain models. For state archaeology, besides the suffering of the victims and the guilt of the perpetrators, the exact localisation of the crime sites is of paramount interest because only in this way can they be protected.

Finds and findings: excavate or preserve?

(How) can original structures be preserved? Again, primary conservation means preservation *in situ*, e.g., visible (which raises questions of conservation and presentation) or invisible, with permanent preservation of the structures hidden just below the surface. Secondary conservation, on the other hand, means "preservation" in the form of documentation and finds on the shelf and in digital storage, abandoning the original substance. As always, a decision is determined in the process of weighing up public concerns, although commemorative and remembrance aspects also play a role here.

Perpetrator sites are more problematic as monuments, and it is more difficult to communicate their preservation; public acceptance is low – contrary to victim sites. However, the perpetrator sites are usually better preserved anyway because of their higher-quality construction and are often still in subsequent use, while the victim sites of simpler design are decaying and often cannot be saved.

ARCHAEOLOGY OF NS CAMPS ARCHAEOLOGICAL MONUMENT

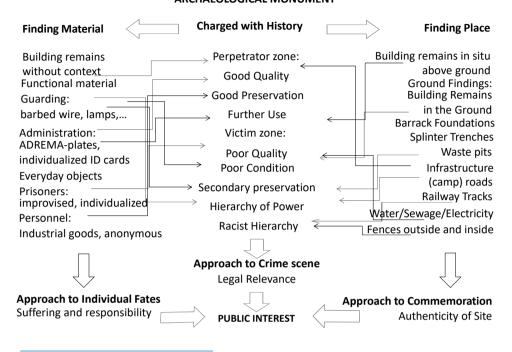


Figure 4. Charged Monuments (graphic by Thomas Kersting, BLDAM)

The archaeological monuments are linked to people and their fates, charged with history(s), which affects the character of finds and features – up to the fact that finds can be evidence and features can be crime scenes (Figure 4).

This charge means that the public's interest often moves (too) early in the direction of the "memorial site", to which the supposed authenticity of the site provides authentication. The finds themselves are auratic and emotionalising to an otherwise unknown extent in archaeology, and often even personalised (provided with names), and can thus be assigned to individuals and individual fates. In many cases, up to the point of "compensation relevance" because, e.g., found factory identity cards or data carriers of the administrations prove the labour employment in Germany – unfortunately, this possibility will be lost in the future with the disappearance of the victim generation.

The analysis of 20th-century find material is often difficult, but only an exact dating leads to the interpretation of a find as a Nazi camp (Figure 5). Materials of a new type accumulate, with a dating framework that is unusually narrow for archaeological objects. The problem of preserving and storing "modern" find masses is growing,



Figure 5. Find material from various camp excavations in Brandenburg (montage by Thomas Kersting, Fotos BLDAM)

given the limited capacities of the state offices, but must not be solved by rigorous selection on the excavation.

New challenge: learning phases of the state offices

Dealing with sites of terror as archaeological monuments first had to develop. At the beginning of the 1990s, excavations were carried out as "maintenance measures" with the best intentions by local initiatives. At the same time, an "ideological change of remembrance" began in the large concentration camp memorials in East Germany, which led to redesigns with interventions in the original substance. In this phase, the offensive claiming of responsibility by the state archaeologists was in demand – no memorial wanted (and still wants) to be an archaeological monument, and people feared delays and costs.

Cause excavations at smaller camp sites led to further acquisition of competence by the specialised offices. The public perception of such excavations away from the large memorial sites, in their own local environment, caused a rethink in the early 2000s, especially when they were accompanied by an exhibition. Well-intentioned activities

by interested amateurs can be professionally accompanied: one example is a forced labour camp near Treuenbrietzen, where schoolchildren found tin matrices from the factory administration with names, addresses, and birth and other data of forced labourers. These personal data have been taken over by the Arolsen Archives – this is no longer just about archaeology!

Sometimes, it is possible to use suitable anniversaries to convey the contribution of archaeology to the public. A research excavation by FU Berlin began in 2015, just in time for the centennial of the start of construction of the first mosque in Germany in the World War 1 "half-moon camp" for Muslims in Wünsdorf. This was where the "jihad in the name of the *Kaiser*" was supposed to begin at the time: prisoners of the Islamic faith were incited here against their "colonial masters". Berlin ethnologists immediately used human "research material" for linguistic, musical, and initial racial research at that time. Because an initial reception camp for asylum seekers was built on the same site, public interest was very high, especially in the Muslim community.

The Red Army forest camps in Brandenburg were presented in a travelling exhibition in time for the 70th anniversary of the end of the war. Forced labourers from Western Germany were also interned there as displaced persons or "repatriates". They can be recognised by typical found material. For the 50th anniversary of the construction of the Wall in 2011, a suitable excavation site with an escape tunnel was found in the former border fortifications; here, too, the public's attention was great, as expected.

Materiality and people: results of camp archaeology

Most objects of a 20th-century industrial culture can be guickly assigned a function. However, many are also subject to a change of function: things brought with them become souvenirs of a "normal" world, or leftovers from production are adapted for new purposes. This change of function under conditions of bondage and lack is a typical characteristic of Nazi camp archaeology. The archaeological remains from different spheres of life in the camp outline both perpetrator and victim groups. The question of the function of material remains in different types of camps is revealing because many features and finds can be found everywhere: remains of barracks, sanitary areas, supply and waste disposal, infrastructure, fences, canteen and enamel dishes, military eating or cooking utensils, combs, makeshift homemade things and souvenirs, as well as tin tokens. Others are specifics that are just not found everywhere: certain findings attest to racist practices, such as the remains of extermination facilities. intentionally buried barbed wire and low-quality pile grate foundations of barracks, or dwellings dug in by Soviet prisoners of war for lack of accommodation. Specific finds are, for example, so-called Stalaa marks of the Wehrmacht for Soviet prisoners of war, name-bearing Adrema matrices and factory identity cards, or pieces of material from production. Such special remnants mark individuals who were exposed to racist ideology, military conventions, economic interests, and dictates of politics. Instead of a "camp typology", the focus is on identifying groups of people due to archaeology (Figure 6).

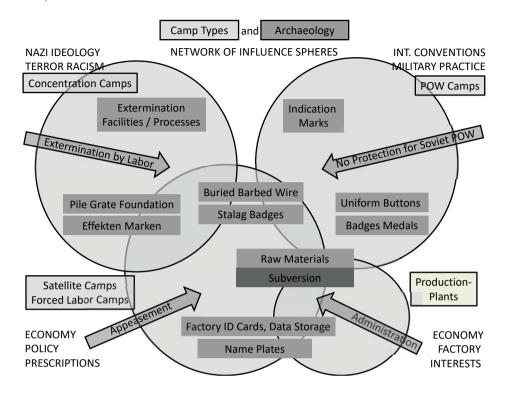


Figure 6. Network of Influences (graphic by Thomas Kersting, BLDAM)

However, the analysis of the material also proves that various camp types existed not only simultaneously and side by side but also at the same site for different groups of people. People defined as inferior by the racial hierarchy were to be flexibly deployed, housed, guarded and exploited, "used up". This criminal effectiveness, typical of National Socialism, with a high degree of flexibility in the intention to exterminate, can now also be proven archaeologically.

New opportunity – a new task for state archaeology

The original sites are indispensable today for the political education of future generations, which is also based on archaeological research precisely because of the crimes of violence and the suffering inflicted there. This leads beyond the boundaries of archaeology: the state archaeologies consider the special status of these archaeological monuments, which are not "completely normal". Archaeology's contribution to social discourse in the field of political education is new and valuable for all involved because, not least, it provides tangible and irrefutable evidence that opposes any relativisation of Nazi crimes.

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Developing interdisciplinary practices



Silver Torah shield pendant with the inscription dedicated to the memory of Nachum Morgenstern found in the Krasiński Garden after conservation (photo by Beata Jankowiak-Konik)

Massacres in the Arnsberg Forest. Interdisciplinary research on the end-of-war crimes against forced labourers in the last days of the Second World War in Westphalia (western Germany)

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Keywords: Second World War, war crimes, Division for Vengeance, western Germany, southern Westphalia, massacre of forced labourers, archaeological heritage

Abstract

In recent years, a historical reappraisal has been carried out of one of the worst crimes – outside of prisons and concentration camps – committed in Germany by the SS and Wehrmacht in the final months of the Second World War: the massacre of 208 forced labourers in the Arnsberg Forest near Warstein and Meschede (Westphalia, western Germany) by SS-General Kammler's "Division for Vengeance"S in March 1945. The use of archaeological research methods allowed us to (1) pinpoint both the scenes of the crimes and the events, (2) recover and classify finds attributed to both the victims and the perpetrators, and (3) uncover and record concrete finds and features from when the atrocity occurred in their historical context, the period of the initial burial of the victims by US troops in May 1945 and their exhumation in 1964, with the aim of preserving them for future presentations.

March 1945: The *Tausendjährige Reich* of Nazi Germany exists for only a few more weeks. During the past years, Germany had overrun a large part of Europe with a merciless war, which was waged mainly in the East as a war of extermination. Even when it was clear that Nazi Germany would lose the war, countless people still died during the forced warfare and the innumerable excesses of the further radicalising Nazi regime.

One of these crimes occurred during the final stage of the war at the end of March 1945 in the Arnsberg Forest around the villages of Warstein (today district of Soest) and Meschede (district Hochsauerland) in the north of the Sauerland region of southern Westphalia (Northrhine-Westphalia, western Germany). By this time, the first Western Allied units were already gathering east of the Rhine and preparing to form the Ruhr Pocket (Ruhrkessel) to encircle the remnants of the German Army Group B. In the Ruhr district, the centre of German heavy industry and armaments production, tens of thousands of then so-called Fremdarbeiter lived for years, i.e. forced labourers deported primarily from the former Soviet Union and Poland, who were forced to work in factories, collieries and other enterprises under inhumane conditions and were housed in an extensive system of camps through which they were only poorly supplied. Since the production facilities were now often destroyed and thus housing and supplies were no longer quaranteed, countless forced labourers were taken further east in large treks – whether organised or on their own. One important route led through the area between the rivers Ruhr and Möhne. Here, in the northern Sauerland uplands, more specifically in the Arnsberg Forest near Warstein, where accommodation and supplies were scarce, these piled up.

Fatally for 208 of these people, in October 1944, the staff of the *Division zur Vergeltung* or *Division z. V.* (Division for Vengeance) formed from Wehrmacht and Waffen-SS – charged with the deployment of the so-called V-weapons (*Vergeltungswaffen*) – under the command of SS-Obergruppenführer and General der Waffen-SS Dr.-Ing. Hans Kammler (1901–1945?) had established its headquarters not far from Warstein in Suttrop. In March 1945, during a visit to Suttrop – according to a later witness statement – Kammler perceived the numerous forced labourers as a security risk, and on 20 March 1945, he ordered the *"Zahl der Fremdarbeiter kräftig zu dezimieren"* (The number of foreign workers to be decimated considerably). As a result, during three consecutive days, members of his division killed near Warstein (71 victims), Suttrop (57 victims) and Meschede (80 victims), a total of 208 Soviet and Polish people, including many women, some children and even a baby. The dead were buried immediately at the sites of the massacres.

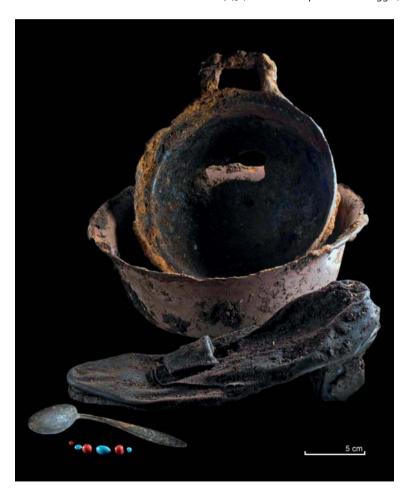
The murders in the Arnsberg Forest are among the largest German crimes from the final phase of the Second World War outside the prison and concentration camp system.

In two places (Warstein and Suttrop), the victims were reburied in early May 1945 under Allied supervision in provisional cemeteries adjacent to the crime scenes. To atone for the atrocities, the people of the neighbouring villages and towns were forced to view the exhumed bodies and to give them a proper burial. These events are remembered to this day, particularly in Suttrop, where there are a number of photographs and clips of film shot by a unit of the United States Army Signal Corps who happened to be in the area on that day and recorded the scenes, which are widely known until today. Later, at both cemeteries, Soviet memorials in the shape of an obelisk were erected. In 1964, the dead of both cemeteries were moved to Meschede-Fulmecke, a former First World War POWs cemetery, where the dead of Meschede (which had only been discovered in late 1946) were already buried. The memorial from Suttrop was also moved here,

while the identically designed obelisk from Warstein was deliberately buried at the site during the exhumation process.

The chain of events surrounding the massacres in the Arnsberg Forest has been the subject of a research project at the Westphalian Institute for Regional History (LWL-Institut für westfälische Regionalgeschichte) in Münster since 2015. The aim is to reappraise the historical background and how the murdered victims were dealt with after 1945. The results will be published in a comprehensive volume (Weidner 2025). A particular concern of this project was to precisely locate the crime sites so that they

Figure 1. Warstein, Langenbachtal. Typical finds of the murdered forced labourers (recovered in 2018) – enamelled food dishes, spoons, leather shoes and beads. These finds are representative of the numerous women who were executed here in March 1945 (©LWL-AfW Olpe/Thomas Poggel)



could be experienced in the future on a "memory trail". This was an opportunity for the Olpe branch of the Westphalian Archaeological Heritage Service (LWL-Archäologie für Westfalen, Außenstelle Olpe) to get involved.

The following aspects should be investigated by archaeological methods in more detail:

- exact re-location of the crime scenes, which could provide clues for the reconstruction of the course of events in the field.
- possibly recovery of relevant finds (Figure 1).
- exact re-location and examination of the two temporary cemeteries,
- clarification of the whereabouts of the obelisk from the Melkeplätzchen (provisional cemetery of the Warstein victims located close to the crime scene).
- follow-up search on the temporary cemetery in Suttrop for seven victims who are presumably still lying there according to the exhumation documents of 1964.

Between 2018 and 2021, almost all aspects addressed above could be clarified, and new insights could be gained.

Our results were summarised at the EAC conference in Bonn 2023. Several publications already reporting on them are listed below. In addition to several German-language publications, there is also an extensive English-language publication where all the essential aspects of the interdisciplinary project are presented. However, at the time of writing the manuscript for the 2021 volume of the Journal of Conflict Archaeology (published in 2022), the results of the archaeological investigation of the temporary Suttrop cemetery could not yet be included. The results are, therefore, briefly outlined here as a supplement to this article.

The Suttrop temporary cemetery

In May 1945, the 57 murder victims of Suttrop (a suburb of Warstein) were buried only a little below the crime scene. This "Russian cemetery" (Russenfriedhof), as it was known among the local population, was located directly east of a former road, which is now only a forest path. Later, the embankment for a new road was built a little further east.

The archival records of the exhumation of the corpses in 1964 contain a simple occupancy plan of the cemetery. It shows graves arranged schematically in rows (representing the former grave slabs without containing any names or dates; Figure 2), but only 49 dead are indicated by a corpse symbol. On the plan, further information was written down during the reburial: in the south-east corner, seven grave markers are characterised as "not occupied", while in the south-west corner, about "3 m" away from the grave markers, at least two more burials have been found; here there is also the note "no more layers". For grave 42 in the northwest corner of the cemetery, a striking smaller corpse symbol is found – the above-mentioned killed baby might have been buried here together with another body (perhaps of a woman). In total, only fifty of the 57 victims killed in Suttrop were exhumed and reburied in Meschede-Fulmecke. Only a

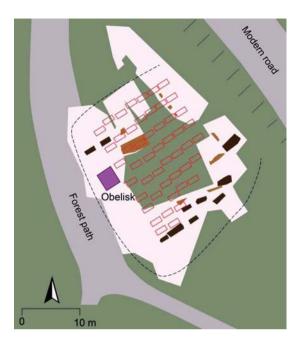


Figure 2. Warstein-Suttrop, temporary cemetery. Excavation areas 2021 (white), recent infrastructure (grey), concrete foundation (purple) for the Soviet memorial (obelisk), as well as intact grave pits uncovered by the archaeological excavation (dark brown) or grave pits partially destroyed by the exhumation in 1964 (light brown). The schematic plan of the 1964 exhumation of the graves (red rectangles) was referenced by the obelisk foundation, but this is hardly reflected in the archaeological features uncovered in 2021. Beyond that, however, the 2021 excavation allows the reconstruction of the boundaries of the 1964 exhumation pit (black dashed line) (©LWL-AfW Olpe/Thomas Poggel & Manuel Zeiler)

Figure 3. Warstein-Suttrop, temporary cemetery. Uncovered graves on the bottom of the large exhumation pit of 1964 (©LWL-AfW Olpe/Thomas Poggel)



few names are known in the records, but these have not been noted on grave slabs so that today, the dead all lie nameless in a collective grave in Meschede-Fulmecke. Also, the mass grave of the 201 dead has not yet been marked in the graveyard.

In autumn 2021, with the approval of the Russian Consulate General in Bonn. we tried to locate the seven missing dead. After all, this was not successful. We were able to uncover several grave pits (Figures 2 & 3) and succeeded in clearly identifying three edges of the former cemetery (Figure 2), except for the eastern edge, as the modern road embankment is present here. Since the inner surface of the cemetery was completely investigated in 1964 based on the available occupancy plan of the cemetery, we must assume currently that the burials not found then (and now again) are still lying under this modern road embankment.

We only examined individual burial pits more closely to gain an insight into their present state. As expected, the filler soil was quite loose, and only a small non-ferrous metal box with fabric attachments and a few human bone remains, which were obviously overlooked during the exhumation in 1964, came to light. Furthermore, at the western edge of the Suttrop cemetery, another human long bone was found in the earth that had been moved in 1964 (all bones were later buried in Fulmecke).

Furthermore, some of the unmarked, rectangular grave slabs made of limestone (presumably from Warstein quarries), which had been buried in the 1964 excavated pit after the exhumation, came to light. Also, as expected, remains of the concrete platform for the obelisk monument (which was re-erected in Meschede-Fulmecke) were uncovered (Figure 2). Of particular interest is a larger fragment with remnants of the iron reinforcement, on which the imprint of the base of the triangular obelisk is clearly visible. In the centre, there is a hole in which the remains of a piece of glass are stuck. It is known that when the obelisk was demolished, this glass container broke, and a note on paper with the number of the 57 victims buried here in 1945 came to light.

A brief assessment of the project as a whole

Our project is an interdisciplinary and instructive example of the "archaeology of modernity" or "conflict archaeology". In the coming years, the results will be further published and will also provide a vivid account of the horrors of March 1945 in the Arnsberg Forest at extracurricular learning sites, perhaps more directly than written files, black and white photos, and short films can.

Acknowledgements

More information on the background of the joined project described can be found in the Journal of Conflict Archaeology article (see References).

A special thanks goes to Julia Weidner (Bad Sassendorf, Germany) for her valuable corrections on the language of the manuscript. Nevertheless, any mistakes are up to us.

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Underground city – archaeology of the Warsaw ghetto in its academic, memorial and social contexts

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Keywords: Warsaw Ghetto, archaeology of the Warsaw Ghetto, archaeology of Warsaw, archaeology of Holocaust, Jewish history, World War II

In many aspects, the archaeology of the Warsaw Ghetto does not differ from the archaeology of other large cities. However, it presents some issues absent from other urban sites. Modern Warsaw is built on the rubble of the ancient city, almost completely destroyed by the Nazis during WWII. This is especially true in the former Ghetto area. After the Ghetto uprising in 1943, all the buildings were razed to the ground by the Nazis (Stroop 2009). After the war, when a new housing estate was to be erected there, its architect Bohdan Lachert decided to build on the rubble and out of the rubble concrete blocks, as he wanted to make it a memorial to the murdered Jews (Chomatowska 2012). Thus, contemporary Warsaw consists of two cities: one you can see and another underground (Engelking & Leociak 2013). At the centre of this "double city" space, there is the Ghetto, where any archaeological find acquires symbolic significance. Such emotional load implies consequences for the excavators, who must treat this place with special care. An important issue is the social reception of the research (Pawleta 2020). When archaeologists bring to light the pre-war "underground city", in a way they disturb the contemporary space with its new, post-war layout and social organization. That is why communication with the local community members is so important.

Archaeological research in the area of the former Warsaw Ghetto conducted in 2021–2022 was a joint venture of the Warsaw Ghetto Museum and the Aleksander Gieysztor Academy in Pułtusk, with support from Prof. Richard Freund's team from the Christopher Newport University, US. The area of the Warsaw Jewish Quarter has never been archaeologically investigated in a systematic and planned manner. Previous archaeological activities were undertaken because of investment projects, with no specific research program related to the quarter's history.

In 2019 and 2021, non-invasive research was conducted, finally in four sites: the northern part of the Krasiński Garden; the junction of Dubois St. and Miła St., near the so-called



Figure 1. Archaeological excavations in the Krasiński Garden, autumn 2021 (photo by Beata Jankowiak-Konik)



Figure 2. Silver Torah shield pendant with the inscription dedicated to the memory of Nachum Morgenstern found in the Krasiński Garden after conservation (photo by Beata Jankowiak-Konik)



Figure 3. Drone image of the excavations at the junction of Stanisław Dubois St. and Miła St., in the vicinity of the so-called Anielewicz mound (on the left), summer 2022 (photo by Miron Bogacki)

Anielewicz bunker; the former Bersohn and Bauman Children's Hospital complex; and the only location outside the Ghetto – the former property of the Wolski family with the bunker "Krysia" – a hiding place for many Ghetto escapees. All sites were surveyed using geophysical methods, including a magnetic gradiometer, electromagnetic terrain conductivity mapping, metal detector surveys, soil resistance measurements using a twin probe resistance meter, and electrical resistivity tomography (ERT). The main aim was to determine whether the locations contained tangible relics of the buildings from the period of the Ghetto's existence. The presence of such relics was confirmed at all the investigated sites. It was possible to locate clusters of metal, spaces filled with loose rubble mixed with soil, and to establish the probable course of the surviving walls (Konik 2021a).

In autumn 2021, short-term excavations were carried out in the northern part of the Krasiński Garden to verify the potential spots of archaeological interest and to determine the nature of the strong metal anomalies detected with non-invasive methods. The basement section of the wealthy tenement house was uncovered. The source of the metal anomaly turned out to be a huge (over 12 m long) construction steel beam. From among the movable relics found at the site, our attention was drawn to a fragment of a Jewish prayer book and to a silver plate which used to be a Torah shield pendant, with the inscription dedicated to the memory of the late Nachum Morgenstern, who died in 1880 (Konik 2021b).

In the summer of 2022, new excavations were undertaken in the immediate vicinity of the so-called Anielewicz bunker, where Mordechai Anielewicz, the commander of the

Warsaw Ghetto Uprising in 1943, fought his last battle and where he and his comrades died (they committed suicide while surrounded by the Nazis). Nothing certain is known about the bunker where they hid. Probably, it was stretching through the cellars of the three neighbouring tenement houses (Lubetkin 1999). During the excavations, the remains of the cellars of two tenement houses were unearthed. Before the war, they occupied the area between two parallel streets: Miła and Muranowska, Hundreds of artefacts of everyday use were found that create a picture of people's lives in the place not only during the war but also long before (some can be dated to the 19th century) (Konik 2023).

Traces of reconstruction activities were found in the exposed cellars, which significantly changed their original layout. At 20 Miła Street-41 Muranowska Street, a room with concrete walls and remnants of a concrete ceiling equipped with electrical and water installations was uncovered. It was clearly connected to the Anielewicz mound area through a network of cellar corridors. This connection was additionally confirmed in a short excavation campaign in December 2022. Another important discovery occurred in the basement of the 18 Miła Street-39 Muranowska Street. In one of the rooms, plaster fragments with painted decoration were found, together with the remains of a burnt library with Hebrew religious texts, among other things. Some objects related to Jewish worship (tefillin, cups for ritual handwashing, the Torah pointer yad handle) were also discovered. It is highly probable that the place was a house of prayer.

The excavations in the Ghetto area had strong social resonance. Thanks to the "open door" policy (everybody could visit the site), researchers received strong support from the local community. Older residents were eager to share their memories. Another important social aspect was cooperation with the volunteers, including refugees from Ukraine and Russia and emigrants from Belarus. They considered their participation in the excavations a tribute to the murdered Jews.

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Preservation and heritage protection of the archaeological remains of prison and forced labour camps from the period of Nazi occupation and the Communist era in West Bohemia

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Keywords: dark heritage, campscape, archaeology of totalitarianism, Holocaust archaeologies, POW camp, forced labour camp, concentration camp

The presented research is focused on material evidence of WWII and post-war, Communist period prisons and forced labour camps, which should be considered not only historical but also archaeological sites. With the use of historical evidence and aerial photographs, a total of seventeen campsites were located in West Bohemia (Pilsen and Karlovy Vary regions) from the period of the Nazi occupation, thirteen of which were situated on the territory annexed to Germany (Sudetenland) and four on the territory of the so-called Protectorate of Bohemia and Moravia. The studied sites include KZ Flossenbürg sub-camps, POW camps, and forced and compulsory labour camps. All campsites have been studied using remote sensing methods (aerial photographs by drone and LiDAR) and visual surface surveys (Adam 2016; Burzová et al 2013, 67-68; Bružeňák 2015; Bubeníčková, Kubátová & Malá 1969, 197, 226-257, 282-388; Cironis 1995; Jindřich 1999; Laštovka 1971). A topographic survey was applied on sites with well-preserved surface remains, such as relief formations, the foundations of buildings, or construction debris. A geophysical survey was only carried out on a limited number of sites with suitable conditions (open areas without building structures or vegetation). Small-scale excavations were performed in five sites. In addition, the heritage protection possibility of these sites has been examined along with the current state of the different types of memorials commemorating the former camps.

From the two concentration sub-camps that were established in the previously not built-in areas, some archaeological situations have been preserved in one case. Building complexes into which three sub-camps had been placed have been preserved in their entirety; however, post-war reconstructions seem to have erased the traces of their use as detention sites during the war. The contemporary use of former

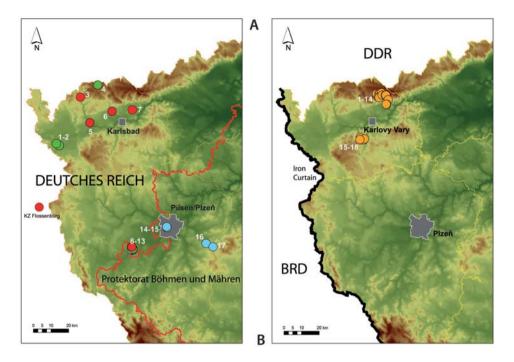


Figure 1. Prison and forced labour camps in West Bohemia. A: WWII Nazi camps; red - concentration camps, green – POW camps, blue – forced labour camps, white – compulsory work camps; 1-2 - Cheb, 3 - Kraslice, 4 - Rolava, 5 - Svatava, 6 - Nová Role, 7 - Ostrov, 8-13 - Holýšov, 14–15 – Plzeň Karlov, 16 – Mirošov, 17 – Kolvín. B: Post-war communist penal and forced labour camps (1949–1961): 1-14 – Jáchymov, 15–18 – Horní Slavkov (for details, see Figures 7 and 12: map by P. Vařeka)

concentration camp areas shows a very utilitarian approach to these sites - their uses include a municipal office, commercial and residential complex, kindergarten, industrial enterprise, and pastureland placed on a re-cultivated landfill. Regarding other types of camps, only a few places outside built-in areas have been at least partly preserved as intact archaeological sites. All concentration camps and one forced labour camp have been marked with commemorative slabs, stones, or a monument and have become objects of respect, remembrance, and piety in the post-war period. Surprisingly, no attention was paid to the actual camp areas and preserved material features. Except for Svatava (Zwodau), where a monument was established in a section of the demolished concentration camp, the authentic material remains were replaced by memorials. The architecture in which three concentration camps were established was adapted for new utilitarian functions without any limitations. The findings that intense construction activities were carried out at a number of former forced labour and POW camp sites in the last years without any preceding rescue archaeological research is alarming.

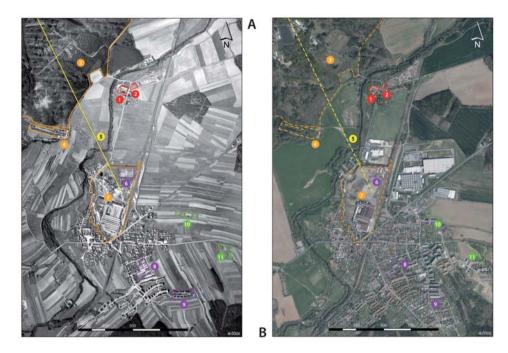


Figure 2. Holýšov WWII campscape. A: Ammunition factory and camps on the 1946 aerial photograph. B: Former ammunition factory and camps on contemporary orthophoto-map.

1 – concentration camp (female prisoners), 2 – concentration camp (male prisoners),
3 – ammunition factory (*Metallwerke Holleischen G.m.b.H - Werk II*), 4 – test shooting-range,
5 – cableway, 6 – *Deutsches Mädchenlager*, 7 – ammunition factory (*Werk I*), 8 – *Deutsche Arbeitsfrontlager*, 9 – *Tschechisches Frauenlager*, 10 – Italian POW camp, 11 – French and Soviet POW camp (aerial photographs from the Military Geographical and Hydrometeorological Office of the Czech Armed Forces, recent orthophotomap by ArcGIS on ags.cuzk.cz; compiled by P. Vařeka)

According to the Soviet model, an unfree labour force, including thousands of political prisoners, was used for the mining and processing of uranium ore in Czechoslovakia in the late 1940s and 1950s. The survey located all eighteen forced and penal labour camps linked to uranium mines in West Bohemia from 1949 to 1961 (Jáchymov and Horní Slavkov), some of which were used as POW camps for German captives from 1946 to 1948/1949. Due to their location in distant places, especially in Jáchymov, more than half of the campsites have been preserved in woodland or pastureland. Both non-invasive research (Bártík 2009, 15–58; 2017; Borák & Janák 1996; Bursík 2009, 30–34; Dvořák 2018; Kaplan 1992; Petrášová 1994, 337–340; Zeman & Karlsch 2020, 161) and sondages demonstrated that well-preserved archaeological remains can provide valuable evidence of the materiality of the communist campscape. As for the other campsites, long-term continuity in their use can be seen (a contemporary prison), as well as conversion into industrial or agricultural enterprises. The rapid transformation of the Jáchymov landscape of mass repressions into a mountain resort of mass recreation

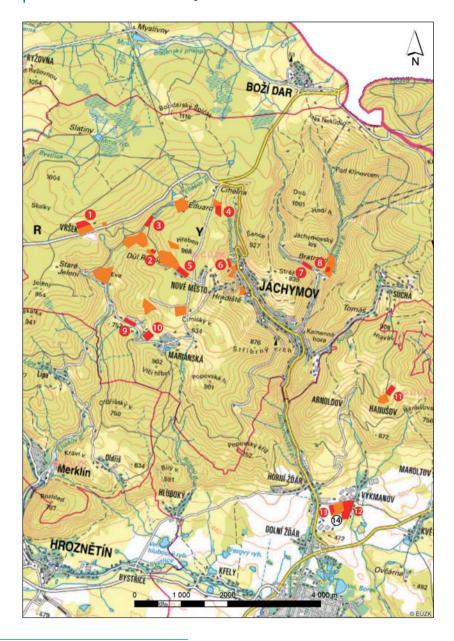


Figure 3. Jáchymov "Uranium Gulag" (1949–1961). Red – penal and forced labour camps, orange – fenced mines and uranium ore processing facilities. 1 – Vršek, 2 – Eliáš I, 3 – Eliáš II, 4 – Nikolaj, 5 – Rovnost, 6 – Svornost, 7 – Ústřední I, 8 – Bratrství, 9 – Mariánská I, 10 – Mariánská II, 11 – Plavno, 12 – Vykmanov I, 13 – Vykmanov II, 14 – the so-called "Red Tower of Death" (uranium ore processing plant; map by P. Vařeka)

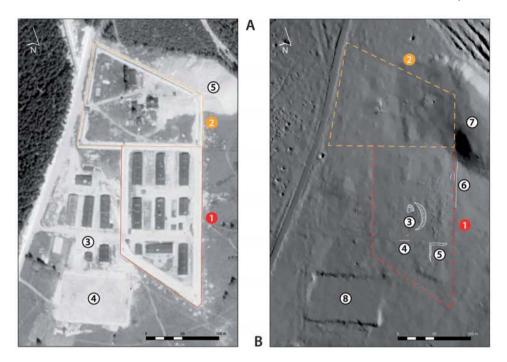


Figure 4. Jáchymov–Nikolaj forced labour (1950–1951) and penal labour camp (1951–1958). A: Aerial photograph from 1952; 1 – camp, 2 – mine, 3 – National Security Corps' barracks, 4 – football pitch for the guards, 5 – tailings heap. B: 3D terrain model of the site based on LiDAR data with projected results of the topographic survey of relief formations; 1 – former camp area, 2 – former mine, 3 – remains of a kitchen barrack with dining room, 4 – concrete foundation of the northern long wall of the "house of culture", 5 – remains of a barrack for thick prisoners, 6 – surface remains of fencing, 7 – tailings heap, 8 – traces of football pitch (aerial photo by the Military Geographical and Hydrometeorological Office of the Czech Armed Forces; compiled by P. Vařeka)

since the 1960s is reflected in the reutilization of some camps for recreational and sports activities. After a long period of official silence about these sites of mass repressions by the communist regime, interest in the former prison camps only began to appear in the 1990s. In West Bohemia, attention was focused on the Jáchymov area, which had the highest number of forced and penal labour camps, while Horní Slavkov went unnoticed. The intention to protect the unique historical mining landscape of the Ore Mountains resulted in the inscription of the region onto the UNESCO World Heritage List in 2019. The demarcated heritage zone also covers four communist campsites. In addition, four more uranium mining, processing, and campsites from the same period, situated outside the zone, are currently also listed as heritage sites. Other Jáchymov prison camp sites from the late 1940s and 1950s and all Horní Slavkov camps lack any heritage protection. The changing approach to the materiality of the dark Communist heritage is reflected in the activities of civic organizations and local museums, which are aiming to make some sites with authentic material remains accessible to the public.

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Archaeology and public perception of an exhumed cemetery of Soviet prisoners of war

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Keywords: cemetery, archaeology of modernity, Soviet prisoners of war, forced labour camp, excavation, civil society, POW-ID-tag, department of archaeology, archaeology and politics, exhumed war graves

1. Preface

The Free Hanseatic City of Bremen's modern state constitution was proclaimed on 21 October 1947. Bremen was then an American enclave in the British occupation zone.

During World War II and after the invasion of the Soviet Union, Bremen called for more POWs to work in the harbours, the armaments industry, and communal daily tasks. The first several hundred Soviet POWs brought to Bremen were in such a bad condition that a lot of them died in the first weeks after their arrival. The government had to install a burial place, which was built in an abandoned area far away from the public eye but close to the POW camp. It was planned with an area of up to 20,000 m², of which only 3,500 m² were finally implemented: https://goo.gl/maps/qBA8epjvdNpVi7rNA.

The cemetery was in use until the end of the war in April 1945. Due to a lack of documentation, papers and reports from that period about the cemetery and its first (as today we know) imperfect exhumation, the total number of dead buried here remains unclear.

The cemetery was exhumed in 1948. The mortal remains of "446 dead" (Weser Kurier 1948) were buried afterwards as "unknown dead" in the honorary cemetery in Bremen-Osterholz on a mass grave field of war dead with a permanent right of rest. It seems that no documentation of this exhumation was carried out, except for this small notice in the press.

Right after the exhumation, the site of the cemetery was filled up with World War II debris up to two meters high and in the 1970s, an industrial compound was built on parts of the site (Figure 1.a–b).





Figure 1. a, current memorial cross Reitbrake (2022); b, view of the site before the excavation (2021) (© Landesarchäologie Bremen)

2. The excavation: preliminary works and first results

At the beginning of 2021, investigations of two citizen's initiatives against the plans of a land development project revealed the former cemetery's location in the dock railway area in Bremen-Oslebshausen, drawing public and political attention to the site.

Figure 2. Aerial photo of the cemetery, spring 1945, section (© Staatsarchiv Bremen, reproduced with permission)



Before excavation, Landesarchäologie gained evidence about the cemetery's location via aerial photos of the area, taken by an Allied forces military aircraft sometime between January and March 1945 (Figure 2).

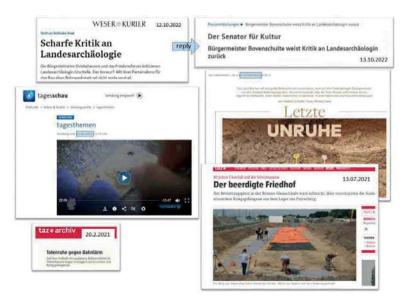
Based on these aerial photos, the cemetery could be georeferenced during spring 2021. After that, the remains of the cemetery were excavated archaeologically. By excavating the site, a closer look at the exhumation should show how many burials were originally situated here – we first expected only empty burial pits.

Due to the excellent bone preservation on the complete site, at least small parts of human bodies were found in each of the exhumed burial pits. Also, a total number of 66 complete skeletons were recovered in several burial pits, including five mass grave contexts. The findings of about 200 metal Prisoners of War ID tags, which the Landesarchäologie is currently restoring, are particularly important. These objects allow us to identify more than 150 people originally buried here (Halle & Hähn *in press*).

3. Public perception

Clearly, this excavation had a special political dimension already before it began – its major task had been to clarify the function, condition and dimensions of the site by excavating it precisely and in a profound scientific project. The results should have generated a neutral basis for further discussions and construction plans. Reappraising the World War II and post-war periods relations between the successor states of the

Figure 3. Slide of a presentation on the public relations work on the excavation (collage by © Landesarchäologie Bremen)



Soviet Union and Germany was one reason for the national and international media interest. This made continuous public relations work during this excavation essential, which consisted of up to three media events or public appointments per week (Figure 3).

The two mentioned citizen groups (Bürgerinitiative Oslebshausen und Umzu and Bremer Friedensforum) drew the public and political attention to the cemetery in the first place and are still observing the excavation and the analysis. Bürgerinitiative Oslebshausen und Umzu is committed to the quality of life and living in the districts Gröpelingen, Grambke and Oslebshausen and is therefore against the construction plans.

While the preliminary excavations had just started, the two citizens' initiatives informed Bremen's politicians, the German Foreign Minister, Germany's States president, and the responsible embassies of the Russian Federation and Ukraine of their receivables. In these letters, the two groups described Bremen's Senate as "unconcerned with history" (geschichtsvergessen in German) and put the local politicians and the Landesarchäologie on a par with the Nazis (Winge & Lentz 2021; Hethey 2021). The verbal attacks continue to this day and spread via the press and the Internet.

Right at the beginning of the excavation, the Landesarchäologie decided that no photographs of human remains must be given to the public. By this imperative, we followed the Guidelines on the Care of Human Remains in Museums and Collections (Deutscher Museumsbund 2021). Besides that, we decided to prevent the invasion of personal privacy of the buried individuals by not showing pictures without the consent of the perhaps existing living descendants.

Presently, the citizens' initiatives demand all the photos and the list of identified ID tags from the Landesarchäologie. They do not want to wait for the results of the scientific evaluation and perceive this measure of Landesarchäologie as "censorship" (Lentz & Winge 2022, 144).

4. Conclusion

In all these settings, from excavation to the current point of investigations and until the actual reburial, Landesarchäologie has taken responsibility for the human remains. This included pictures of human remains not to be shown in public. In the context of interaction with parts of civil society, the individuals represented by those archaeological finds of human remains, ID tags, and personal items can furthermore be viewed as victims in past, present, and future contexts.

The notion of "victims" has several connotations, and using the word "victim" as an identity can have different implications, depending on who is using, claiming, rejecting or attributing it to others. Why does the Landesarchäologie see the dead as victims of multiple contexts? We differentiate them as victims of different times and people.

By the conclusions we drew in Bremen, this excavation project can serve as an instructive example for the handling of other apparently exhumed Soviet POW cemeteries in

former Nazi Germany. With its scientific methods of documentation, field archaeology is a relevant instrument to approach such a problematic site in the context of heritage management. Nevertheless, further historical and bioanthropological research is necessary to come to an overall understanding and to gain the most societal and political benefits.

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Significance, values and emerging themes



Drone photo of a commercial area in Witten with remains of Steinhauser Hütte during the excavation 2018 (© LWL-AfW/R. Klostermann)

Categories beyond – Approach to value and relevance of archaeological heritage. Three cases from Westphalia, Germany

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Keywords: Max-Clemens-Kanal, Steinhauser Hütte, Neuenkirchen, POW Camp WW I, categories beyond, mediation of archaeological heritage, relevance and value of archaeological heritage, interdisciplinary approach, diachronic approach, public interdisciplinary research

Relevance and acceptance of archaeological heritage, especially from the 18th to 20th centuries, depend, first of all, on solid scientific and heritage work but also on mediation with the interested public. Indispensable components of mediation are exhaustive and unbiased answers to questions which target the monument's value and legitimization. Unlike other periods, objects of historical archaeology cover issues which grant rather direct and intensive access to the living environment of contemporary society. Archaeologists engaged in this field have to cope with diverse chances and risks of testimonies from early and advanced industrialization. A necessary interdisciplinary approach to relevant questions and viewpoints not only promotes a deeper understanding of the research subject but inevitably generates a greater public acceptance, too.

An unbiased and close examination of the elements of archaeological heritage can make visible their "soft power and persistence". Connected with an individualized, personal approach, they may become relevant for an increasing number of members of civil society. Diverse answers beyond specialists' view are suited to illuminate or even reset fundamental categories of human life. Questions of current importance allow the discovery of timeless categories of nature and human society in a specific relationship to present life. These questions may concern, e.g.:

- sustainability of organic or inorganic materials,
- means of spatial organization in cities and countryside,
- forms of exploitation and suppression of nature and man throughout history,
- long-term resistance of things against degradation and climate (change),

- phenomena of worldwide mobility,
- the interdependence of individuals and society.

Examples are given for applying the above issues on the following monuments in Westphalia: Münster, Max-Clemens-Kanal (18th century); Witten, Steinhauser Hütte (19th century); Neuenkirchen-St. Arnold, Prisoners of War Camp from World War I (20th century).

Max-Clemens-Channel from Münster to Maxhafen, 1731–1840

Keyword characterization

- Channel for civil shipping between Münster and Maxhafen, in use between 1731
- named after arch-bishops of Münster Clemens August, Duke of Bavaria (1700-1761), initiator of the first 30 km and Maximilian Friedrich (1708-1784), extension by 6 km to Maxhafen (1766-1771);
- ground-breaking ceremony in 1724, put into operation in 1731 between Münster and Clemenshafen near Neuenkirchen:
- aimed to connect Münster with the North Sea, but never realized to that extent;
- total length: 36 km, width: up to 18 m, depth: up to 3 m;
- equipped originally with wooden and stone floodgates;

Figure 1. Partially refilled Max-Clemens-channel with marked tree trunks of former water line near Emsdetten (Marvin 101, https://commons.wikimedia.org/wiki/File:Max-Clemens-Kanal.JPG)



- abandoned in 1840 because of lack of competitiveness against new alleys throughout Westphalia, technical insufficiency, and excessive maintenance effort:
- technical archaeological monuments of late premodern times, partially filled with sediments; popular bike and walking route.

Categories beyond

- Motivation: economic advantage by creating a never-completed water route to the North Sea:
- megalomania? huge French channel projects as stimulus and examples;
- exploitation: use of nearby Aa River as a water supply for channel misjudging the mud entry;
- lack of technical comprehension and efficiency: high maintenance effort:
- significance of the elongated wetland biotope for animals and plants.

Witten, Ennepe-Ruhr-Kreis, Steinhauser Hütte, 1856–1920

Keyword characterization

- Steel mill, founded in 1855, extended and rebuilt continuously until 1918;
- demolished in 1919, since then covered and forgotten;
- recovered during the clearing for a commercial area and partially excavated in 2018 (17,355 m²): puddle furnaces, fundaments of Bessemer converters and a rolling mill;

Figure 2. Drone photo of a commercial area in Witten with remains of Steinhauser Hütte during the excavation 2018 (© LWL-AfW/R. Klostermann)



- outstanding preservation of the remains until 8 m under the surface, partially overlaid by a commercial area, partially distinguished as a protected zone with an archaeological monument;
- characterized in local journals as "Pompeii of Witten": the focal point of regional identity?

Categories beyond Steinhauser Hütte

- Exploitation rate of manpower and nature over the years;
- development patterns and intervals due to technical development;
- transitoriness of technical development:
- market dependence;
- phenomena of mass production and specialization;
- durability of materials:
- sustainability of building materials;
- "Parallel to Pompeii" as an expression of regional identity?

Neuenkirchen-St. Arnold, POW-Camp of World War I

Keyword characterization

- POW camp in World War I, 1914–1915, so-called Vengeance-camp (Vergeltungslager) for French and Russian prisoners of war;
- ammunition dispersal facility until the 1930s;
- currently agricultural area;
- partially excavated in 2022, preceding the development of a commercial area (in preparation).

Categories beyond

- Continuity of military complexes;
- application of biblical principles in the camp: An eye for an eye, a tooth for a tooth (reciprocity);
- soil pollution and long-term risks of explosive materials and environmental
- aspects of memorial culture in the case of "dark heritage".

Presence of archaeological heritage

Fundamental categories and issues like the ones proposed above allow a diachronic and universal approach to archaeological heritage - and vice versa. Diverse new questions allow new answers adapted to contemporary and future societies. Public interdisciplinary research based on monuments permits the abolishment of limiting categories like the dichotomy of past and present – it is suitable to "make archaeological heritage present". Searching for categories beyond could possibly lead to the point where archaeological monuments are seen as a valuable and inspiring component of today's living environment.

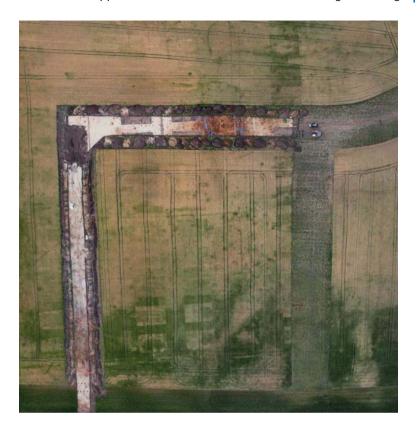


Figure 3. Drone photo of the camp site with excavation area. Vegetation features localize some of the 50 barracks in total, as well as the outlines in the excavation trench (© LWL-AfW/R. Klostermann)

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Different schemes – same city? How lessons from Luas Cross City works are informing the design and implementation of the Luas Finglas and MetroLink cultural heritage strategies

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Keywords: Luas, transport infrastructure, Ireland, Dublin, Megaproject MetroLink, Cholera, industrial heritage, canal transport site, railway transport site

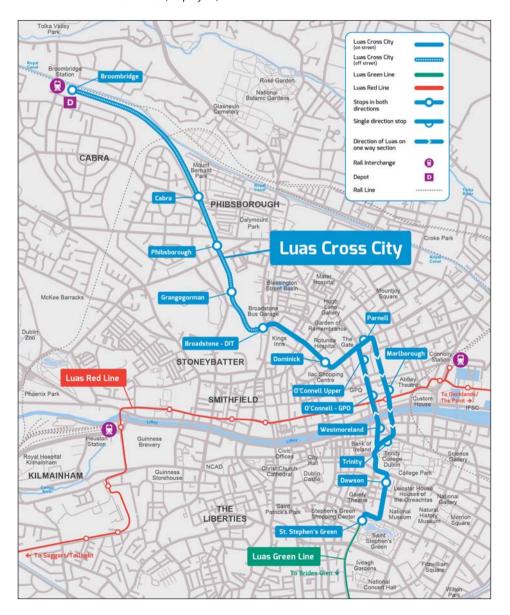
The first phase of Dublin's two light rail lines operating as *Luas* (the Irish word for "speed") was opened in 2004, serving the north (Red Line) and south (Green Line) city areas, respectively. Each line underwent various phases of expansion, but it was not until December 2017 that Luas Cross City (LCC), a northward extension of the Luas Green Line, was officially launched. LCC comprised "just" 5.9 km of light rail infrastructure, crossing the heart of the modern city – the first time the two Luas Lines were linked – resulting in a fully interchangeable sustainable public transport scheme (Figure 1).

Responding to the government's Project Ireland 2040 strategy (Government of Ireland 2018), Transport Infrastructure Ireland (TII) is now planning Luas Finglas, a 4 km northern extension of the Luas Green Line from its present terminus at Broombridge to Finglas Village (www.luasfinglas.ie). Furthermore, in September 2022, TII lodged a Railway Order Application for MetroLink, an 18.8 km metro system comprising 11.7 km of single bore tunnel (City and Dublin Airport Tunnels), 7.1 km of grade separated track, and 16 stations (www.metrolinkro.ie).

TIIs Archaeology and Heritage Section operates under a Code of Practice (CoP) for Archaeology (2017) as agreed with the now Minister for Housing, Local Government and Heritage. TII Project Archaeologists are responsible not just for archaeological remains but also for built and cultural heritage constraints. This includes protected structures, industrial heritage complexes, parklands, statues, and street furniture. From 2013 to 2017, TII Project Archaeologists managed the various cultural heritage requirements of work contracts associated with the construction of LCC.

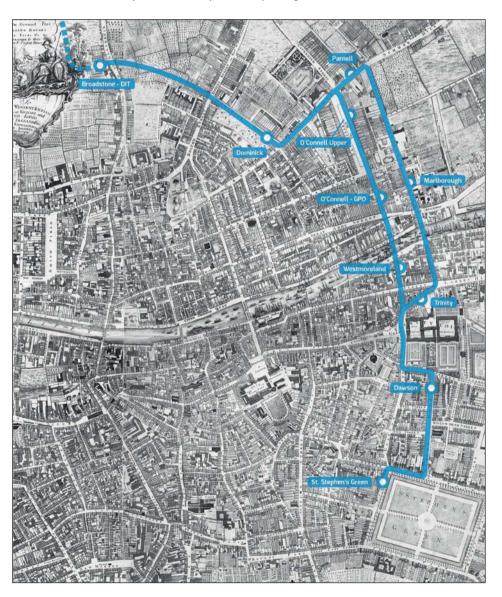
The southern end of LCC (Area 29) commenced at St Stephen's Green Park (a national monument in state ownership) and progressed north to cross Constitution Hill. Although Area 29 is within the "historic town" of Dublin and what is now the heart

Figure 1. Luas Cross City Route Map. The map also indicates interchange with Luas Red and Green Lines (map by TII)



of the modern city, it is located approximately 330 m east of the medieval city's outer circuit wall. This area was largely developed from the late 17th century (Figure 2), and

Figure 2. LCC Area 29 superimposed on "An exact extract of the City and Suburbs of Dublin" by Rocque (1756), illustrating the extent of Wide Street Commissioners demolition work. (© Irish Historic Towns, Royal Irish Academy and Trinity College Dublin)



though a predominantly Georgian Landscape, it was substantially damaged by the 1916 Rising, the Civil War (1922-1923), and "the Troubles".

On exiting the "historic town", LCC crosses through the former Broadstone Branch and Harbour of the Royal Canal, passing to the fore of the Midland Great Western Railway's (MGWR) terminal building ("Broadstone Terminal") before entering the former MGWR depot and railway cutting (Area 30). The scheme terminated at Broombridge, where a new depot was constructed on lands immediately parallel to the MGWR and Royal Canal.

Within Area 29, the archaeology discovered ranged from discrete deposits (predominantly historic demolition waste) and fragments of historic paving and utilities to mid-18th and 19th-century coal cellars, church foundations, and even five Tudor burials. Area 29 works also included the protection in situ or removal, conservation, and reinstatement of various elements of historic buildings, statues, and street furniture along the route.

Within Area 30, 8 m-deep excavations of the Broadstone Harbour and associated warehouse, including an underlying relict mid-late 18th-century landscape, took place in tandem with complex multi-phase construction works (Figure 3). Within the MGWR lands, retaining walls, railway drainage, manure works, engine sheds, turning circles, roundhouses, and historic tracks were identified. However, one of the most crucial finds was a series of graves, charnel trenches, pits, and deposits relating to the Cholera Pandemic that swept through Europe in 1832. In all, the remains of 1,615 individuals





were recovered, of which only 34 were articulated burials, and over 18,700 commingled bones

Prior to LCC works, there was no national comparison for TIIs required archaeological investigations of canals, historic railways, and pandemic cemetery sites that could have informed the LCC project as to the exact nature and state of preservation of surviving elements or their associated programme and costs. In transitioning from LCC construction and post-excavation phases to working on the planning and design of Luas Finglas and MetroLink, the heritage and engineering value of the LCC archaeological works became apparent. Both proposed schemes traverse a cultural heritage environment similar to that identified and archaeologically explored on LCC.

For example, MetroLink's Glasnevin Station is a proposed interchange station with Irish Rail located at Cross Guns, spanning the historic MGWR and Great Western and Southern Railway Lines. Historic railway infrastructure and the adjacent Royal Canal will be impacted, where a critical pinch point exists. Regarding engineering value, the information gathered from LCC heritage works relating to the design and construction of the associated Broadstone Harbour has been used to inform the Glasnevin Station design and construction methodologies.

LCC equally demonstrated that caution must be exercised when planning linear onstreet schemes where large-scale archaeological investigations have previously been limited. The works demonstrated the level of preservation of on-street remains despite the recurrent impacts of war, changing architectural fashions, public realm design, and the provision of modern utilities and infrastructure. Equally, it illustrated that the nature of on-street archaeology was not comparable to that recorded within the adjacent property plots, wherein the majority of the city's archaeological excavations have taken place to date.

In terms of proposed schemes, the information accumulated from LCC now allows us to work together within a familiar environment as unified project teams, where we can more accurately predict the nature of cultural heritage remains likely to be identified. Importantly, it facilitates a more informed and proactive planning and design collaboration with statutory and non-statutory bodies and private landowners.

Acknowledgements

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Archaeology of the Ottoman Period (15th–19th c.) and museum management. Sofia, Bulgaria

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Keywords: museology, Ottoman, heritage, archaeology, museum, multiculturalism, Sofia, Bulgaria

The prevailing part of the modern Bulgarian nation rejects the Ottoman past and underestimates its archaeological record (Strahilov & Karakusheva 2018, 179-180; Страхилов & Каракушева 2020). The historical literature and the school manuals tendentiously emphasized the themes of the violence of the Ottoman armies and militarized brigands (Kirdzhalis) against the Bulgarian population, as well as on the "compulsory" imposing of Islam at the expense of the traditional orthodox Christianity. In the so-called People's Republic of Bulgaria (9 September 1944–10 November 1989), the ruling Communist party spent substantial resources on the creation of scientific works and propaganda describing the Ottoman empire as an oppressor that had exterminated or expelled the elite of the Bulgarian nation, as well as for the museum process of de-Ottomanization through specifying typical forms of the Ottoman culture as "revivalist" and "national" (Недков 2006; Трънкова, Георгиев, Матанов 2012, 9). Nevertheless, in the last two decades, there has been an obvious trend of positive reconsideration of the Ottoman heritage in Bulgaria. The present article systematizes the architectural and archaeological remains of the Ottoman presence and describes the modus operandi in its restoration and reconsideration within the context of the constant urban development of the Bulgarian capital – the city of Sofia. It displays the main trends and the methods applied by one of the leading national museum institutions, the National Archaeological Institute with Museum at the Bulgarian Academy of Sciences (1892) and the National History Museum (1976) in preservation, presentation, and socialization of the remains from the Ottoman period (15th-19th centuries).

In the last quarter of the 19th century, Sofia used to have a rural character. The town counted around 3,000 houses grouped in neighbourhoods, with 15,000 inhabitants. The town was built with no plan (Станчева 2009). During the Liberation of Bulgaria (1877–1878), the arriving Russian soldiers destroyed dozens of Ottoman architectural monuments in order to provide themselves with building materials and firewood



Figure 1. The present-day Orthodox church "The Seven Apostles" built in 1901 by re-organizing the one-time Black Mosque. Wikipedia The Free Encyclopedia, Plamen Agov, Studiolemontree, CC-BY SA 3.0 (https://creativecommons.org/licenses/by-sa/3.0/)

(Трънкова, Георгиев & Матанов 2012, 29–30). The purposeful destruction and re-use of Ottoman buildings became a policy of the newly established Bulgarian state, striving for the capital to be re-organized as a modern town matching European standards

Figure 2. The Archaeological Museum at the Buyuk Mosque (© NAIM-BAS Photo Archive)



(Лори 2009, 10). Nowadays, Ottoman architectural remains in Sofia are scanty: three mosques built in the second half of 15th-16th centuries (the Buyuk Mosque turned into an archaeological museum in 1895, the Black Mosque turned into an Orthodox church in 1901, and The Banya Bashi Mosque as the only still functioning mosque), a prayer wall (namazgah) referred to by locals as "the Roman wall", a warehouse near the so-called Military Club, and a bath (hamam) in Knyazhevo District, as well as two antique churches, turned temporary into mosques in the 16th century: the rotunda of St. George and the basilica of St. Sofia (Миков 2012) (Figure 1).

In present-day Bulgarian museology, two different approaches co-exist regarding the interpretation of the Ottoman Empire in the Balkans. The first one is inevitably related to the "nationalistic", traumatic perception of the past (Лори 2002, 7–9; Тодорова 2013). In the field of museology, it finds expression in permanent and temporary exhibitions abounding with heartbreaking retrospective descriptions of atrocities inflicted by the Ottomans on the Christian population. According to the general museum practice, material forms of the Ottoman spiritual and material culture are kept in repositories and are not exhibited; the 15th-19th centuries are illustrated with neo-Byzantine orthodox art, as well as items related to the Bulgarian monasteries, churches, language and literature, the struggle for national liberation, and the establishing and strengthening of the independent Bulgarian state (Марков 2001).

The second way of interpreting the Ottoman cultural heritage within Bulgarian museology relies on the philosophical discourse about multiculturalism by putting





an accent on the co-existence and the complicated symbiosis between the Turkish, Islamic, Byzantine, and Balkan traditions within the Ottoman Empire in the 15th-19th centuries. Without making little of the segregation of the Christians within the empire, as well as of the military crimes of its armies and penal brigades, the museological method rationalizes – as "Ottoman" and "positive" – the continuity with the Byzantine architecture, the development of the trade and crafts, the religious tolerance, and the imposing of the Constantinople Patriarchy, i.e., the Orthodox Church of the Ottoman Empire on the Balkans (Василева 2019; Стайнова 1995, 33; Тодорова 2013). In this regard, the National Archaeological Institute with Museum at the Bulgarian Academy of Sciences (NAIM-BAS) is a symbolic example, as it is situated in one of the most characteristic Ottoman buildings in Sofia: The Buyuk Mosque (Карадимитрова 2005) (Figure 2). The curatorial decisions regarding the permanent exhibition emphasised the co-existence and variety of Ottoman Muslim artefacts (tableware, religious vessels, a parade helmet) with Orthodox icons within the context of the overall suggestion of the architectural monument (Figure 3).

In conclusion, it could be said that the "nationalistic" and the "multicultural" interpretations of the Ottoman cultural heritage in Bulgarian museology are present and are not incompatible. On the contrary, they could be moderated and combined successfully through substantial efforts to eliminate the existing, ossified prejudices and evaluations. One undoubtedly difficult but still possible and important task, within the context of which the Bulgarian museum specialists ought to minimize their political and emotional predispositions and aspire after a neutral professional method giving an account of the autochthonous cultural forms, the cultural continuities, the mutual influences, and the enriching of the traditional, "old-fashioned" narrative.

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The archaeological legacy of the lignite boom in Upper Lusatia

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Keywords: industrial archaeology, industrialisation, lignite mining, post-mining landscape, urbanisation

At the beginning of the 19th century, nobody in the heath and pond landscape of Upper Lusatia – a small region in the German-Polish border area – suspected what massive effects lignite mining would soon have on the economy, environment and, above all, local people.

From around 1810, the first lignite mines were developed by wealthy landowners, small businesses, and individuals. With the invention of the briquette press in 1857 and the increasing conversion to steam engines in small-scale industry from around 1860, the demand for lignite rose rapidly.

Stock companies soon developed large opencast mines, gigantic briquette factories (Figure 1), and coal power plants. The long-distance transport networks were expanded, and further industrial centres emerged that became known far beyond the national border. For example, the small village Weißwasser/O.L. developed into the largest

Figure 1. Briquette factories *Werminghoff* (1918–1993), today a museum, and *Schwarze Pumpe*, the last producing briquette factory in Europe (photo by © A. Prust, Saxon State Office for Archaeology)





glass-producing location in the world in the 1920s; the Lautawerk, established in 1917, evolved into the largest aluminium mill in Europe in the 1930s; and the Gaskombinat Schwarze Pumpe, built between 1953 and 1974, became the largest brown coal finishing industrial complex in the world because this industrial complex had four power plants. three briquette factories, a coking plant, one gasworks, water-processing units, and an own data centre.

The influx of workers was enormous. Since the beginning of the 20th century, new villages and entire districts have been set up in the heathland, while 53 settlements have been destroyed by opencast mining – thousands of people lost their homes. Among them were many Sorbs, a West Slavic group that formed the main population in Upper Lusatia until the 18th century. Today, fewer than 60,000 Sorbs – classified as a national minority – live in the region and keep their traditions and highly endangered language alive.

The local population and culture changed through migration and assimilation right from the beginning, as workers were recruited from all parts of the country. But the workforce was never sufficient. Consequently, prisoners were forced to do hard labour as early as 1914. During World Wars I and II, POW camps provided workmen for almost all industrial companies and the private sector in the region, and after wartime, GDR prisoners had to work for the lignite industry until the fall of the Berlin Wall.

Figure 2. Post-mining landscape next to the active Nochten opencast mine, in the background of the Boxberg power plant, 2021 (photo by © A. Prust, Saxon State Office for Archaeology)



With the change in the political system in 1989/1990, the lignite boom in Lusatia ended. Many industrial facilities were outdated, factories were closed, the demand for lignite decreased, opencast mines were taken out of service, and thousands of people lost their jobs and left the region.

The loss of work, home, and culture was followed by the loss of the landscape. The irreversible effects of more than 150 years of mining require decades of renaturation (Figure 2). In addition to agricultural areas, woodlands, and nature reserves, the largest artificial lake district in Europe is now being created. Geological restricted areas and landslides will continue to be problems for a long time.

This enormous transformation of an entire region still has an impact on the identity of the residents and political processes today. The gradual coal phase-out by the end of 2038 has been decided. While many objects from the heyday of early industrialisation have already disappeared, the last remnants of the almost 150-year lignite boom are also in danger of disappearing soon. It is now the task of archaeology and heritage management authorities to document this recent past and preserve its cultural value.

A project financed by the federal government recorded all structural and natural features of the lignite industry in the four lignite mining regions in Germany from July 2021 to September 2023. Executed by the monument authorities of the respective federal states, this project laid the basis for the preservation and conversion of outstanding industrial buildings and plants into living cultural monuments. In addition to the "industrial cathedrals" that still exist, the pre-and early industrial evidence (the first collieries, briquette factories, the devastated villages, etc.), the technical facilities (briquette presses, turbines, cooling towers, chimneys, glass melting pots, the large

Figure 3. Left: Foundations of the loading plant at the Caroline I lignite mine (1890–1913) near Weißwasser/O.L.; right: briquette presses in the Werminghoff briquette factory (photos by © A. Prust, Saxon State Office for Archaeology)





district heating pipes, substations, rail tracks) and distinctive features of the postmining landscape are documented and mapped (Figure 3). The project data, roughly 12,000 documented objects in Germany and 1,700 in Upper Lusatia will be published in autumn 2023 on the KuLaDig information platform (www.kuladig.de) by the Landschaftsverband Rheinland.

Using the example of Upper Lusatia, the rise and fall of an industrial landscape can be traced in detail: once a sparsely populated region with agriculture and forestry, it developed into the centre of the energy supply for an entire nation, and now, three decades after the end of the lignite boom, it is open the way to a touristic place with a unique natural landscape. Lignite mining still has a lasting impact on generations of people. The earlier achievements, both at the beginning of industrialisation and during the boom years, are perceived and appreciated again – people and the region are currently finding their way back to their identity. It is now a matter of protecting the few remaining testimonies of this era, preserving history, and passing on knowledge to create an appropriate culture of remembrance.

Acknowledgements

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Co-archaeology: working towards the present through the complex nature of archaeology of the 18th to 20th centuries

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Keywords: Co-archaeology, literature overview, case studies, graffiti, skateboarding, nightclub

This paper aims to provide European Archaeology Council (EAC) members and readers with a brief introduction to some of the potentials that archaeology of the 18th to 20th centuries can offer. In doing so, it will enable readers to access a small selection of examples that have been undertaken, with a view to providing guides to multi-, inter-, and trans-disciplinary approaches to the material culture from this period. It reflects on some archaeological remains, the theoretical approaches and the practices that originated in the 18th–20th centuries and could be pertinent to those who focus on this period. By outlining some of the general theoretical underpinnings, discussing a range of established and emerging practices in what we know to be the Anthropocene, it will hopefully enable readers to recognise that they are not alone in their endeavours to explore, interpret, manage, and learn from the complex recent pasts that we are surfacing.

Within the paper is a short literature overview; it is not a review, as others have undertaken such exercises and written extensive histories of archaeology undertaken of in the recent past and the present (Harrison 2011, Graves-Brown *et al* 2013, González-Ruibal 2014). This brief overview introduces the reader to some of the theories and practices undertaken over the past fifty years and could be used as a guide when needed.

From the perspective of the 2023 EAC symposium in Bonn, the dominant theme of the past 300 years of European archaeology has been conflict. Most papers at the symposium focused on material culture and various scales of conflict across the European landmass. Generally, they followed traditional archaeological practices. This paper provides readers with a few examples of projects that have begun to explore creative and collaborative approaches whilst focussed on the material culture from conflicts and emerging forms of heritage and have been investigated by applying and adapting archaeological practices (Herva 2014, Hale *et al* 2017) (Figure 1).



Figure 1. Creative responses, including graffiti, have increased amongst the remains of the Cold War station on the top of the Teufelsberg, Berlin, since it was decommissioned. These have now become part of the archaeology of the site (©Alex Hale)

Another theme emerges towards the end of our symposium's timeframe, when we encounter archaeology of and since the 1970s. The paper considers several areas of research and cultural heritage management issues that are beginning to become part of our archaeological landscape. From graffiti to skateboarding and nightclub culture, we are exploring new forms of archaeology (Hale & Anderson 2019, Hale 2023) (Figure 2). However, as we begin to stray into these new territories, we discover that the communities of practice, who share a passion for their heritage, are also keen to share their knowledge with us (Madgin 2018). But for these areas of recent archaeology to emerge, we should be aware that successful projects require mutually beneficial relationships with communities of practice and place. In this case, we may have to address our biases and embrace new ways of thinking about what archaeology can be, who it is for and what purposes it serves.

The paper ends by reflecting on three themes that EAC and readers could consider for future areas of research, management, and participation. This includes considerations

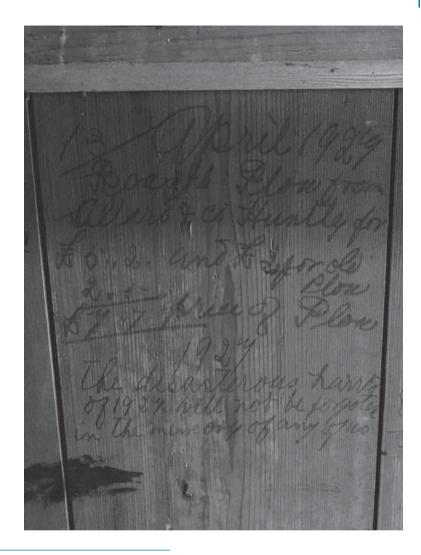


Figure 2. Handwritten graffiti in Scalan mill, Scotland, tells a story of not only the day to day workings of the farm, but the affects that climatic events can have on local populations (©Alex Hale)

such as how we, as archaeologists, grow fruitful collaborations with practitioners in associated disciplines to enable material culture to be suitably represented. This sometimes requires us to recognise our straightjackets and have the knowledge, skills, and confidence to discard them. In other cases, we need to be mindful and sensitive to the effects that our work may have had and may still have on people and communities who are marginalised, excluded, or unheard. As we engage with material culture that is part of living heritages, it is incumbent on us to recognise our own positions, acknowledge our biases and be guided by those beyond our organisations and sectors.

Overall, the paper aims to enable archaeologists, EAC members, and readers to have to hand a range of examples that they can draw on to demonstrate the complexity, necessity and impacts that engaging with the archaeology of and in the 18th to 20th centuries can provide if undertaken as part of a collaborative, co-archaeological practice. This, in turn, requires a range of skills, some of which have not necessarily been part of our toolkits, and so the ramifications for how we become (train and educate) archaeologists in the future is ripe for further discussion by the EAC membership.

Places where you might find useful information: Contemporary and Historical Archaeology in Theory https://chat-arch.org/ Society for Post-Medieval Archaeology https://spma.org.uk/ Art/Archaeology https://www.artarchaeologies.com/

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"Contemporary Archaeology" deals with sites, features and finds from the period after the beginning of industrialisation, obtained through excavation and documentation using techniques and methods applied in all fields of archaeology. The topic and the comparatively 'young' period in focus are not completely new for archaeological monument preservation, even if they are explicitly considered in only a relatively few monument protection laws. It has long been common practice in many places across Europe to protect, preserve, and research monuments of the recent past—simply because they are there. This is both a challenge and an opportunity for archaeological heritage management, considered in the 2023 EAC symposium papers. Archaeological heritage preservation gains weight because it is accompanied by a special interest from the public and, thus, can develop opportunities to participate in political education. The material remains of war and terror lead us to the limits of archaeology and beyond: they become evidence, crime scenes, and anchors for commemoration and political education.

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