## **Military and Postmilitary Landscapes**

Prague, Czechia / February 14 – 15, 2018



# **ABSTRACT BOOK**

MILITARY AND POSTMILITARY LANDSCAPES

CENTRAL EUROPEAN CONFERENCE OF HISTORICAL GEOGRAPHERS

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The Historical Geography Research Centre









#### **ABSTRACT BOOK**

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Photo by Zdeněk Kučera

## **Opening Ceremony**

Wednesday, February 14, 2018 / 12:00 - 12:30 / Room 1

## Legacy of military and post-military landscapes in Czechia

## Pavel Chromý et al.

Charles University, Czechia

The extremely complicated history of Central Europe in the course of the 20th century is also evidenced by the existence of large-scale military training grounds which were marginalised (taken out of the regional system). They were established in Czechoslovakia both during the democratic regime in the period before World War II and especially during the Communist totalitarian era. In the mid-20th century, Czechoslovakia was one of the most militarised countries in the world. At the time after the demise of the bipolar world and in the period of post-totalitarian transformation, it turned out that the legacy of military and post-military landscapes is very contradictory. The history of the areas is often veiled in a mystery and their future is often an object of disputes. Military landscapes are examples of intensively transformed landscapes, including the areas with valuable nature on the one hand and an environmental burden on the other. Rather than an object of a public discussion, they are a matter of conflicting visions of various actors/entities and interest groups.

The contribution is based on a long-term research of military landscapes in Czechia. Following a comparison of former and current military training grounds, its authors try to evidence the transformation of environmental thought of society in the past century. The initial part of the contribution is devoted to the transformation of military landscapes in Czechia and to the process of shaping of a specific legacy of the landscape and spatial identities. Its next part examines the reactions of the public to the establishment and existence of military areas, their conversion and future. The research is based on the analysis of archival documents, the interpretation of the data on long-term land-use changes and on field surveys.

A transformation of natural scientists' thought is an interesting phenomenon. While in the past scientists considered the emergence of military training grounds a major problem for society and the landscape, in the latest discussions of the conversion of military landscapes they are often opponents of the "release" of the landscape, insisting on its legislative protection.

## Session 1: Military Space & Place: Theoretical Approaches

Wednesday, February 14, 2018 / 12:30 - 14.00 / Room 1

## Looking beyond the fence. The production of military landscapes

## Thomas Theis Nielsen, Stig Roar Svenningsen

Roskilde University, Denmark

Military landscapes are much more than the physical space where the military occupies itself and where it holds land deeds; barracks, training grounds, depots etc. We will argue that military landscapes - and spaces - transcends ideas of bounded, Euclidian spaces and should be conceptualized rather as a complex system of social interactions constantly changing as the result of the spatial practices of the military and of civil society. Hence, military landscapes are not just a constant physical space and cannot only be measured and understood solely in terms of physical structures; hectares of training grounds or prices of office buildings alone. While physical structures such as depot building, barracks etc. all display a very constant presence, the actual use of these structures may vary considerably, even within a relatively limited timespan. Other structures and their use are more stable and constant for longer periods. Military landscapes, we argue, should be conceptualized, inspired by the ideas of Henri Lefebvre and other key thinkers in geography. Hence, military landscapes and spaces are constantly produced as the result of interaction between the spatial practice of the military, the physical space and installations found herein and finally the representations of military spaces, for instance maps, images, statues etc. In this paper, we will conceptualize the military landscape of Denmark in the past 150 years. We will focus on the ephemeral practices and presence of the military as well as the long lasting military influence on the cartographic practice of Danish topographical mapping and the construction of memorial sites in order to establish a more comprehensive understanding of military landscapes and spaces in Denmark.

« Believe it or not, this is Afghanistan » Constructing meaning through an embodied performance of war in the Mojave Desert, USA

### Alexandra Martin

University of Montreal, Canada

In the middle of the Mojave Desert (USA), next to the small town of Barstow and other ghost towns of the Calico Mountains region, is built Medina Wasl, a fake Middle-Eastern town. Medina Wasl is one of many mock Iragi and Afghan villages found at Fort Irwin's National Training Center. These villages are used to prepare the troops before their deployment to Iraq and Afghanistan. Mosques, tea rooms, souk/street markets, traditional houses and so on shape the visual landscape, thereby transforming the northern part of the San Bernadino county into an immersive training environment in which the military reproduces the cultural and religious landscapes from overseas on US soil. To make the training hyperrealistic, Afghanis and Iraqis are hired as role players to enact the villagers. Through this mise en scene of the "war on terror", the mock villages are not only simulating a cultural encounter between US military and local populations, but are also implementing a spatial performance. As Gregson and Rose point out, "space too needs to be thought of as brought into being through performances and as a performative articulation of power" (2000: 434). This paper looks precisely at the hegemonic imaginaries at play in these simulations. It examines the embodied performance taking place in the Californian desert, where this once indigenous territory, occupied by Serrano and Cahuilla Nations, has become a US military landscape mimicking the East. Following the performative turn in social sciences, I use Judith Butler's idea of the "copy of a copy" (1990). Although Butler was using this image while talking about gender, I extrapolate this concept to point out that these fake villages are not copies of Afghan or Iraqi towns, but a copy of a copy. The territory is being acted out through a Western lens. It is the Iraq and Afghanistan that the US wants it to be (Licha 2009). This paper addresses the performative practices that enable the space to exist in this fashion. What are the rationalities and technologies that sustain and make possible such military landscapes? How are the different identities being produced in these facilities and, more importantly, how is the space brought into being? I am using "performative geographies" as an organizing principle. The analysis results from a visual ethnography of Medina Wasl consisting in observations, an image analysis and interviews. In 2012 and 2013, I participated in a guided visit of Medina Wasl for civilians, called the "Box Tour". At the end of the visit, before we entered a bus to exit the "Box », a soldier mentioned proudly, while pointing at the mountains: "Believe it or not, this is Afghanistan".

## Roadside picnic? Overcoming the military past

## **Hannes Palang**

Tallinn University, Estonia

I'll pick up the topic of former Soviet military places in Estonia and Germany and explore how these places are currently understood by local people. The focus will be on the meaning of those places – are they (still) seen as hostile landscapes of the other or is the memories of the past being buried under the layers of time. The key-word for all three cases is re-domestication, creation of a completely new meaning for the landscape that helps people to deal with the past.

#### Session 2.1: Current Potential of Fortifications

Wednesday, February 14, 2018 / 14:30 - 16:00 / Room 1

Present exploitation and development potential of Warta and Widawka Second World War shelter's line in central Poland

#### Łukasz Musiaka, Ewelina Stasiak

University of Łódź, Poland

Presented work deals with war shelters line of Warta and Widawka rivers, built in 1939 in present central Poland. Analyzed defense structure during World War II was the main line of defense of the "Łódź" army. With the beginning of the WWII, the defensive line was not even completed in 3. Despite this fact, the line of war shelters played a significant role in slowing down the German troops attacking from the West, which allowed Warsaw to evacuate. 47 battle shelters have survived to the present days, most of them are unilateral trams. All the objects are currently located within the limits of the Lodz province. Currently, they do not play any military or utility function. The main objective of the study was to investigate the condition of war shelters on the Warta and Widawka line and their utilization and developmental potential. In addition to inventory research, preliminary social research among the local population has been carried out to check the level of knowledge and ability to use selected war shelters. The inventory confirmed the poor technical condition of war shelters, which is the result of natural degrading factors and damage caused by the local community. It is also a result of lack of legal protection of the examined objects. Despite the designation of touristic trails and using shelters during the historic reconstructions commemorating the events of September 1939, a local community is unaware of the developmental potential of the owned military heritage. According to the authors, with the proper management, legal protection in the form of a "cultural park" and a broad promotion campaign, as well as the cooperation of local governments and non-governmental organizations, the examined objects have a chance to become a significant tourist attraction of the region in the future.

## Anti-aircraft Defence of Pilsen

#### Martin Váňa

Asociace recentní archeologie, Czechia

During the World War II, the West Bohemian City of Pilsen was the largest military-industrial area in the German-occupied Protectorate of Bohemia and Moravia. In the city and its surrounding, the complex system of civil and military anti-aircraft defense was created for protection against the allied bombing. Dozens of bomb shelters were built in streets and factories and the whole city was wrapped by the ring of artillery batteries with famous German anti-aircraft cannons FlaK 88. After the war, part of these objects were adapted to the new world conflict – the Cold War – but most of them were destroyed or forgotten. This paper will present results of project "Anti-aircraft Defence of Pilsen". Main goals of the project are documentation of physical remnants of war activities and their presentation to the public. Resersearcher in this project uses a wide variety of archaeological, historical and ethnographical methods to study the former military landscape. Findings are presented via social networks, interactive web applications, documentary films, excursions and field workshops. This attractive communication helped to build a strong community of amateur documentary makers, local witnesses of the WWII and military history enthusiasts who participate in the project by collecting of new data and taking care for remnants of anti-aircraft defense and other WWII heritage in Pilsen region.

## Multisensory landscape of fortifications

## Magdalena Olejniczak

University of Szczecin, Poland

A new research approach to the landscape can be seen in geography, sociology and psychology for some recent years. It relies on treating it as a source of meanings, aesthetic and emotional experiences. Communing with the landscape is a subjective sensory experience. The meanings and emotions associated with the scenery are primarily created as a result of visual source received through the sense of sight. On this basis, a preliminary assessment of the landscape is made and it determines what is important for the observer and what is negligible. Less attention is paid to other dimensions of the landscape received by the other senses (touch, hearing, smell, and even taste). What is more, they also provide tools to interact with the environment. The more senses are involved in the reception of the environment, the more profound the landscape is experienced thus it becomes multisensory landscape. There are historic fortifications and their relics spread all over many parts of Europe, which is the result of numerous armed conflicts. Currently, monuments of defensive architecture gain more attention, both in terms of their protection, and the need to adapt them to modern functions. The aim of our article is a humble attempt at identifying the landscapes of multi-sensory fortifications. An effort of identification and classification the components which affect their perception has been made. Then we presented examples of stimuli that can be felt in selected objects. Finally, we did our best to realize their significance in the perception process of the fortification space and attempted its multi-sensory diagnosis. The article can be a comment in the discussion of both the multisensorial landscape and the fortified landscape in the traditional sense. It points out the need of paying more attention to extending the possibilities of interpretation of the fortress landscape - on a material, symbolic, ephemeral and sensual plane. Finally, the cognitive and practical significance of the issues presented in the publication has been stressed, with a special emphasis on the need to spread the knowledge about the fortifications and their intangible value with many senses.

## Session 2.2: Environmental Impacts of Military Activities

Wednesday, February 14, 2018 / 14:30 - 16:00 / Room 3

The Long Shadows: Global Environmental Impacts of the Second World War

#### Simo Laakkonen

University of Turku, Finland

It is a challenging task to attempt to compile an overall account of the environmental impacts of the Second World War. A major characteristic of this was its fragmented nature. World War II was a macroscale war, yet its history is made of microhistories. This war began and ended at different times and ways and in different places. It was truly a global war, with sixty-one countries becoming engulfed in it. In all these countries, memories and studies are basically dependent on national, regional, local, or individual accounts of the war. Furthermore, the environmental consequences and legacies of modern wars are only beginning to be studied systematically. The environmental history of wars has thus ended up in an academic no man's land between two traditions of historical research: the history of war and environmental history. This also holds for World War II; a few articles have been published about its environmental history, and some books have touched on the period. The first book to discuss the global environmental implications of this war was published only recently. On basis of this recent study the proposed paper attempts to point out some main environmental impacts of this war on a global scale. The proposed paper will argue that nearly the whole of the earth—both societies and nature—was to some extent militarized during and after World War II. The global militarization of physical and above all psychological landscapes naturally served the interests of the armed forces and the military-industrial complex, strengthening their position and impact around the world. We live today in a world that is to a great extent made by World War II. The proposed paper will address major impacts including reformulation of our concept of global environmental history, exploitation of natural resources, change of global waste problem and infrastructure, the development of nature conservation movement and making of modern environmental policy. The paper argues that the deep structural changes brought about by World War II naturally caused severe environmental problems, but these changes also made industrial societies structurally more receptive to environmental ideas and activities, and enabled public power to carry out necessary reforms. Thus World War II explains to a great extent the emergence of institutional changes that were prerequisites for the advance of environmental awakening in the Cold War period.

## Resource Use on the Military Training Area Döllersheim/Allentsteig (Austria) 1938-1957

### Sofie Mittas

Johannes Kepler University Linz, Austria

In 1938, an area of about 20.000 ha was converted into a military training area by the National Socialist regime in the northern part of Austria (close to the Czech boarder). Before its conversion into a military training area, around 7000 people that lived in 42 villages inhabited it. Today this landscape, while still serving as a military training area, is considered one of Austria's last wilderness refuges. My paper examines how the conversion changed the use of resources on this area. From 1938 until today, four different organisations were in charge of the area: The German Wehrmacht (1938-1945), the Red Army (1945-1955), the Lower Austrian government (1955 - 1957) and the Austrian military (Bundesheer 1957now). In my paper, I am focusing on the resource use on the training area in the time between 1938 and 1957. I will show that the use of this military landscape was not isolated from its surroundings. It interacted with its immediate neighbours as well as with the greater economy of the German Reich, the Soviet Union and Austria. Although it was used almost all the time primarily for military training, it served multiple purposes. These included the production of wood, food and wool. Archival sources (written documents, aerial photos and maps) give an insight into military as well as economic reasoning and show planning activities in the transitioning phases. Realized projects included the continuation of military training, incorporation into the Soviet USIA companies and the construction of a hydroelectric power station. The planned but not realized projects included the resettlement of the area, big scale agriculture and university research facilities. These activities changed the landscape, left their marks, and created a unique landscape. An analysis of the historic sources shows, that the fate of this area was strongly tied to its resources.

## Landscape and nature of military training areas

## Zdeněk Lipský

Charles University, Czechia

Landscape and nature of military training areas, both active and former, are unique in many aspects. They are extremely important and valuable for naturalists because many rare species of plants, animals and whole communities vanished from surroundings intensively used cultural landscape survive only in these areas. The reason consists in the absence of chemical fertilizers and protective means on the one hand, and in mechanic distribution of soil surface and vegetation cover on the other hand. As the result of this special "management" of military training areas, a varied mosaic of different successive stages of plant communities can be found. Large parts of both existing and former military training areas, like Hradiště (Doupovské hory Mts.), Brdy, Boletice, Dědice, Libavá, Ralsko and Mladá were incorporated into the ecological network as important biocentres on highest hierarchical levels (of national or even European importance). Similarly, after 2000 when the Czech Republic related to the accession to the European Union accepted the European legislation, many parts of military training areas were integrated into the European system of protected areas NATURA 2000 in categories of Important Bird Areas (IBA) and Sites of European Importance. Moreover, the youngest landscape protected area in Czechia was established in place of the former military training area Brdy in 2015 and more small-scale specially protected areas like nature reserves and nature monuments were established on the territory of canceled military training areas Ralsko and Mladá. They need some special ways of management, for example pasturing of large herbivores like bisons and wild horses to maintain periodic disturbances of vegetation that keep the unique character of the landscape.

## The historical and arboreal research of the Attila line I

## Adam Bohár, Attila Hangya

International Business School, Hungary

During the World War II, the Soviet army reached the outskirt of the Hungarian capital Budapest by the fall of 1944. The German and Hungarian defenders started, by the orders of the Reich's high command, to build fortified lines around the city to halt the Red army's advance and to protect Budapest. The Hungarians created the Attila lines in record time; the army built smaller trenches for their infantry and larger ones against enemy tanks and armored vehicles and minefields were also planted in the Attila line I, near Gödöllő, northeast of the capital. The defense lines, although made in a hurry, were so effective that it hold off the first large Soviet assault and the Soviet command had to reorganize the whole Hungarian and Northern Balkan front for a systematic and long campaign before the siege of Budapest. The odds were uneven but caused a huge delay in Stalin's plans. Since then, with artificial help, nature has re-concurred the slopes of the Gödöllő-hill region, but the defender's construction still endures. The trenches are now home to a new vegetation. In this research, we will cover the previous landscape in the area and how this line changed it, how the construction and fights went down and, also, how the arboreal vegetation has been changing in the area since then.

## Session 3.1: Military Landscape Heritage: Values and Interpretation

Wednesday, February 14, 2018 / 16:30 - 18:00 / Room 1

## Military landscape as a cultural heritage

## Markéta Šantrůčková

Silva Tarouca Research Institute for Landscape and Ornamental Gardening, Czechia

All battles, ancient and modern, influenced the landscape by several traces so we could speak about military landscapes. Some of these traces were created or used in the time of the battle (e.g. open fields, view-points, ditches and trenches, batteries), others were built later for public memory (e.g. monuments, ossuaries and cemeteries, museums). The paper aims on methods of identification of the military landscapes and traces of the battle and on methods of their protection. Three important military landscapes with significant traces of the battle and post-war monuments are protected according to the Heritage Law by Landscape Conservation Areas. The conservation areas protect battlefields from the 19th century – two from Napoleonic Wars (Slavkov/Austerlitz – battle of the three emperors, 1802 and Chlumec-Přestanov, 1812) and one from Prussian – Austrian War (Hradec Králové, 1866). A lot of war and memory monuments are typical for all these military landscapes. The paper focuses on two questions. First, what are the cultural and heritage values of military landscapes and how to identify them? Architectural monuments are supposed to be the only one group of values of the military landscapes. Identification of values will be closely connected with landscape and the paper aims on how to identify traces of the battles in the landscape (e.g. open fields and view-points, graves, ditches). Identification of values will be presented on the model areas of the protected battlefields (Landscape Conservation Areas) from the 19th century. The second question is why only these three military landscapes are formally protected? Several important battles were held before and after but the battlefields are not protected as a Landscape Conservation Area. The most important joint feature of the three protected military landscapes is that they are present in the landscape by several post-war monuments. Other battlefields as widely known and/or important for European and Czech history as the protected ones are not so visually presented in the landscape by monuments. The paper will present other important military landscapes and discuss if they could be supposed as cultural heritage.

## Battlefields of the 19th and 20th century in Germany as landscapes of memory

#### Andreas Dix

University of Bamberg, Germany

Beside cemeteries, memorials and distinct places (e.g. houses where peace treaties were signed), battlefields always played and are still playing a major role in the memorialization of war. This process often started shortly after hostile actions finished. First visitors tried to describe the atmosphere of an important political moment or tried to find relics. Battlefields then were commonly signed on topographic maps, described in an endless number of military literature and a popular topic for painters. Until today, battlefields are popular touristic places where sometimes reenactment groups are reconstructing the historic event. The paper tries to give an overview of the memorialization processes on and with battlefields in Germany since the Napoleonic wars at the beginning of the 19th century. Due to the World Wars I and II, battlefields are today not as popular as in other countries like in the US where the battlefields of the Civil War (1861-1865) are often meticulously preserved and became important parts of the National Historical Landmarks Program. Visiting these battlefields is integrated into political education. Based on a reconstruction of the history of the battlefields in Germany after the battle, the history and the mechanism of memorialization will be analysed. In a second step, the question of the current status of battlefields in the collective memory in contemporary Germany will be discussed.

The Voice from Stone. The Past and the Present of Battlefield of Königgrätz

## Matouš Holas, Vojtěch Kessler

University of Hradec Králové, Czechia

West of Hradec Králové, more than 150 years ago, the largest battle inside the borders of current Czech Republic took place. It is also the location of one of the most complex, and at the same time, the most extensive set of sepulchral and funeral sculptures in the world. The tradition of maintenance of the battlefield, the construction of memorials and commemorative activities, took off almost immediately after the end of the war. In the area of approximately 70 km2, there are almost 500 registered monuments, memorials and crosses. Many of them, especially those of a larger size, can be regarded as artistically successful, or even as aesthetically valuable treasures. Most of the monuments are inseparably linked with the organization that was set up for the purpose of their construction and aftercare in the 80 s of the 19 century, that was re-established after 1989. As part of the activities linked to last year's anniversary, it was discovered that archeological approaches have been neglected in the battlefield reception. Nevertheless, it is the archeology of the battlefields that offers new possibilities and perspectives, answers the questions that have not been answered yet, and in particular, in its present form, addresses a wide range of recipients. It seems that in some areas and topics, conservative and/or "old" military history describing military events have already exhausted the subject of the Hradec Králové battlefield. Frequently repeated theses cease to arouse interest of the reader, and the authors respond with a pointless fragmentation of subtopics. On the other hand, archeology of battlefields has potential which has not been much utilized yet.

## Battlefields - so what exactly? Sources of interpretation

## Dagmara Chylińska

University of Wroclaw, Poland

Tourism has often a mass character as well as tourist attractions attract people with diverse and complex motivations. These are the vital observations in terms of modern tourism. Although some people would like to perceive battlefield tourism as a niche form of tourism or a bit elite travel activity, to make a successful tourism product based on battlefield potential a consideration of tourists' motivations and the complexity of the "battlefield" phenomenon might be helpful. Participation in cultural tourism combines education and entertainment. Moreover, tourism uses visual practices equally with practices based on emotions and experiencing. In the paper, I try to examine the complexity of the battlefield nature and describe each of its elements (a battlefield landscape among them) as a source of interpretation. The paper conceptualizes "a battlefield" as a phenomenon far beyond geographical location. To clear some presented ideas, the paper is based on an analysis of selected case studies.

## Session 3.2: Land Use & Land Cover Changes Provoked by Military Activities in the 20th Century

Wednesday, February 14, 2018 / 16:30 - 18:00 / Room 3

Military land use and the impact on nature and landscape - a study of Danish military areas 1900 - 2017

Stig Roar Svenningsen, Gregor Levin, Mads Linnet Perner, Thomas Thies Nielsen

Royal Danish Library, Denmark

Military use of land for preparations for war, such as training areas, ranges and depots constitutes a special form of land use, as it is governed by different drivers and logic compared to the civil landscape. Several studies imply that the military use of land for training and maintenance purposes generates landscapes, with a positive effect on nature and biodiversity. This paper reports on a comprehensive study of military land holdings in Denmark between 1900 to present. The relationship between military land use and nature quality as well as biodiversity was studied on all known military sites larger than 10 hectares (N=113) covering a total of 38.576 hectares. For each military site, land use trajectories were identified based on interpretation of historical topographic maps. Additional spatial data were applied to assess the present land use and land cover composition as well as the content of biological diversity. Results suggest, that military activities, in general, generate landscapes with a land cover and land use composition different from the Danish landscape in general, which is dominated by agriculture and urban land use. This difference is also reflected by a relatively high biodiversity on military sites. The analysis of historical topographical maps also revealed six typical development trajectories for military sites. (1) conserving original marginal land (with high nature quality); (2) change from agriculture to nature or open areas; (3) afforestation of former marginal lands; (4) permanent and continues forest cover; (5) change from arable land or nature to build environment and (6) development into recreational land. Interestingly, results also indicated that high nature quality and biodiversity on military sites, which originated from arable land. This suggests that military activities not only conserve nature and biodiversity but also create new valuable nature. However, some results also suggest that the benefits for nature are related to specifics types of military activity, such as maneuver grounds and ranges, while the positive impact of depots and technical installations are less significant or even negative.

Five military training areas - five different trajectories of land cover development? Case studies from the Czech Republic

### Hana Skokanová, Marek Havlíček, Petr Klusáček, Stanislav Martinát

Silva Tarouca Research Institute for Landscape and Ornamental Gardening, Czechia

The article focuses on land cover development in five military training areas (MTAs) in the Czech Republic during the past 180 years and tries to find answers to causes of similarities or differences of this development. Land cover development was researched on the basis of old military topographic maps and aerial photographs. The results show that there are two groups of MTAs that show similarities in land cover development up to the 1960s. These are Březina and Brdy and Hradiště and Libavá. In the first group, woody vegetation dominated while in the second group open landscape was prevalent. Also, the first group was characterized by little population and establishment of military camps already in 1920s-1930s while the second group was characterized by rather dense population and similar environmental conditions. All MTAs experienced drop of population after the WWII which resulted in drop of built-up area and open landscape and increase of woody vegetation area. With the optimisation of MTAs, the parts where intensive military training occured will likely stay preserved while the rest of the areas will be used for ecological agriculture or so-called soft tourism.

## Land Cover Changes of Military Areas: Case studies Brdy and Ralsko

## Přemysl Štych, Daniel Paluba, Radovan Hladký, Josef Laštovička

Charles University, Czechia

The study deals with an evaluation of land cover changes of the selected military areas: Brdy and Ralsko. The observed period is from 80's of the last century till present. The methodology of research is based on the remote sensing data and supervised classification method. The Landsat archive data were used for purpose of the classification and aerial photos were used for the validation and accuracy assessment. The results show the changes related to military activities in the areas: the increase of forest land, the expansion of successive vegetation and the attenuation of military activities. Remote sensing data and methods were found out as very useful and perspective approaches to the studies of land cover changes in the military areas.

## Session 4.1: Cartographic-atlas semiotic research Organizer: Alexander Wolodtschenko

Thursday, February 15, 2018 / 09:00 - 10:30 / Room 1

## Historical and historical-geographical atlases and military activities

#### Alexander Wolodtschenko

former TU Dresden, Germany

The historical and historical-geographical atlases contain diverse spatio-temporal, map-related information which visually documents the facts of military and (post) military activities. Based on selected historical and historical-geographical atlases from the author's library (ca. 20 atlases) and ca. 25 atlases from the library "Sächsische Landesbibliothek – Staats- und Universitätsbibliothek" (SLUB) in Dresden, an analysis of thematic maps relating to the periods of the First and Second World Wars was carried out (a list of used atlases is created). The results of the quantitative analysis were presented in a tabular form and included: - number of atlases (by country with edition year and city) - a number of thematic (basic and additional) maps for the periods of the First and Second World Wars. The cartographic material (maps) was systematized according to scales, names of maps, and territorial coverage.

## Spatial reflection of the ethno-confessional transformation the landscape of the Russian Caucasus region during First World War

## Nikolai Podpriatov

Perm State National Research University, Russia

The article, based on the visualization of historical and statistical data, conducts a consistent spatial analysis of the ethno-religious landscape of the Russian Caucasus during the First World War, its change under the influence of military actions and military needs of the country. Ethnic regionalization of the region is shown, its mobilization potential explored, as well as the subsequent transformation during the war years under the influence of the dynamics of human and economic resources and migration flows, both within the region and with adjacent territories. The article deals with the correlation analysis of state practices of recruiting representatives of various ethnic groups in the army and providing the army with everything necessary with changing types of economic activity and the use of natural resources in the regions with ethnic and confessional differences.

## Military and historical landscapes of the Russian Altai

#### Irina Rotanova, V. Gaida, I.Semin

Altai State University, Russia

In the 17th and 18th centuries, the Siberian line of fortifications was created to protect the southern borders of the Russian Empire against the raids of nomads. By the mid-eighteenth century, the Siberian line of fortifications covered a huge territory from the Urals to the Altai. Part of it was Kolyvan-Kuznetsk fortified line of defense. Kolyvan-Kuznetsk borderline of defense was an important link in the military colonization policy of the Russian Empire in the Altai. Creation of a developed system of defensive line of fortresses, outposts and redoubts in the South-West Siberia, as well as the system of militaryindustrial, military-administrative, shopping and business centers for a vast Siberian region in the XVII-XVIII centuries, was an important historical moment in the emergence of Siberian cities and settlements. Creating an edge defensive lines contributed to the development of the South of Western Siberia and the transformation of natural landscapes. Landscapes edge of the defensive line can be considered as a military-historical and historical-cultural heritage and used as resources in the development of tourism in Altai.

## Session 4.2: Military Landscape Transformations

Thursday, February 15, 2018/09:00 - 10:30 / Room 3

The city walls of Constantinople – The changing of a military landscape discussed by the means of selected textual, cartographic and pictorial sources

## Josef Gspurning, Wolfgang Sulzer

Institute for Geography and Regional Science, Austria

Constantinople's city walls, also known as the wall of emperor Theodosius II (408 – 450), represent the westwards oriented, landside part of the more than thousand years old fortification system of the Byzantine capital which - in combination with the so-called sea wall along the shores of Marmara Sea and the Golden Horn - delineates the ancient potential battleground encircling the city. These still impressive and now partly restored ruins not only define the boundary of the so-called historic peninsula, they also acted as a barrier affecting the city's urban development and leaving characteristic marks in the fabric of modern Istanbul. With respect to the thematic context and because of the fact that the obstacles established by the Marmara Sea, Bosphorus and Halic through the centuries enforced a mainly westbound urban growth, the vicinity of the Theodosian wall is proposed to be much more interesting area for the investigation of land-use and landscape changes than the shorelines. Therefore, the spatial focus of the research presented in this paper lies on the urban space between the district of Eyüp in the northern part of the Golden Horn and Zeytinburnu in the south; this area covers approximately 11.25 km<sup>2</sup> (= 7.5 km to 1.5 km) and shows an outstanding feature which makes it highly suitable for the intended kind of research (analysis of functional and landuse changes and the influence on the urban vicinity). Although this zone has been used for military purposes for more than thousand years, it has lost its relevancy after the Ottoman conquest in 1453. Since then, the sprawling city step by step enclosed the wall and its surrounding inducing drastic transformation processes. From the methodical point of view, the investigation employs a four step approach. After the assessment of relevant contemporary texts, the next step deals with the examination of pictorial sources like city plans, topographic maps, engravings and post-cards covering the time span between the 16th and mid of the 20th century. In addition to these historical sources, the study is complemented by the appraisal of a set of digital GIS- and Remote Sensing data. Finally, the paper closes with the analysis of material which has been acquired during several data acquisition and verification field campaigns in the years 2009, 2010 and 2011 to set up a working spatial database for further investigations and as an auxiliary resource to describe selected aspects of the social dimension of the ongoing transformation processes.

## Military-Postmilitary Landscape of Szigetvár-Turbek (16-17. century)

### Norbert Pap, Máté Kitanics

University of Pécs, Hungary

During the 1566 siege of Szigetvar, the Ottoman army was commanded from the camp of the sultan. The Ottoman headquarter was a practical part of the military landscape. Due to the death of the emperor before the end of the siege, the place gained symbolic value and a couple of years later a mausoleum was erected there. Exploration in search of the tomb of Sultan Suleiman I and the buildings around it in the vicinity of Szigetvár, Baranya county, southern Hungary, has been going on for some one hundred years and on a number of sites. On the basis of newly discovered documents and map representations, the authors have carried out a reinterpretation of earlier known sources and have abstracted from this appropriate information for a renewed geographical identification of the site of the tomb. The results have been construed in a reconstructed end-17th-century landscape using geoinformation methods. Identification of the Ottoman settlement at Turbék, which can be associated with the construction of the Sultan's türbe (tomb), was made possible through the collection of findings on the surface of the archaeological site at the Turbék vineyard, the increased intensity of findings and through geophysical examination. The small town was a unique settlement in occupied Hungary, standing between 1574 and 1692 as a symbol of the Islamic conquest of the region.

## Archaeology of (Post)military Landscape: War of the Bavarian Succession in East Bohemia

## Pavel Drnovský, Petr Hejhal

University of Hradec Králové, Czechia

The War of the Bavarian Succession took place from July 1778 to May 1779. The war was another in a series of wars between Austria and Prussia. An essential part of the conflict happened in the territory of north-eastern Bohemia. The report is devoted to research activities of the authors who investigate the relics of this war event in the landscape and the possibilities of their archaeological research. Except for basic archaeological research methods, particularly written and cartographic sources can be used for this study. Important monuments include relics of Austrian field fortifications, which played an important role in this conflict. The so-called Lacy's fortification system was made up of several dozen objects built in a line over 80 kilometres long from Chrudim to Vrchlabí. A large number of these fortifications are still preserved in a landscape. Most of these fortifications are preserved by forest, in fewer cases, the fortifications have remained in open treeless areas. The field fortifications in Broumov's region make up a geographically separated group. These field fortifications were used by the Prussian army. In some cases, already (still) existing fortifications from the Seven Years' War were used. Military encampments or places of clashes between Austrian and Prussian units are a specific group of objects related to the War of the Bavarian Succession. Both field fortifications and military encampments are structures with great archaeological potential. Currently, documenting the preserved Lacy's fortification objects is going on in terrain. The objects that are not preserved are investigated with non-destructive archaeology methods. Geophysical prospecting confirmed, among others, the accuracy of the 1st Military Survey. A few field fortifications were researched using archaeological excavations. Another present project is dedicated to a systematic survey in the area of the Prussian military encampment from August 1778 near the village of Střítež in the Trutnov region. Documenting other relics of the 18thcentury landscape (for example old road communications, small sacred architecture) is taking place in connection with documenting the military monuments.

## Military area Ralsko, its history and today's life

#### Klára Jandurová

Czech University of Life Sciences Prague, Czechia

The (former) military area Ralsko was established in 1946 in the northern part of the Czech Republic which was originally inhabited by the German population. Therefore after the World War II and the expulsion of Germans, the territory wasn't populated so much, so the Czechoslovakia army could use it. From 1968, the whole area was occupied by Soviet soldiers who left in 1991. Military area Ralsko was also one of the three areas in Czechoslovakia where nuclear weapons were allegedly hidden during the Soviet army presence. Even now, 27 years after the last Soviet soldier left the area, are the striking problems markable across the whole scale of living. There is still a huge unused area with no future utilization, very low cost living with socially excluded localities and the pyrotechnic sanitation finished literally a few months ago. The paper will compare historical use of the area with the nowadays consequences.

## Session 5.1: Visualizing Military Landscapes

Thursday, February 15, 2018/11:00 - 12:30 / Room 1

The Third Military Survey Map Sheets of the Map Collection (Faculty of Science, Charles University) and the process of transforming the landscape into its militarized depiction

#### Josef Paták

Charles University, Prague

Out of the many different spheres of human culture affected by war and armed conflicts, cartography undoubtedly stands out in particular, even if only for the strength of the connection between the two subjects. It was only natural that every piece of landscape which could potentially become a battlefield ultimately came to the attention of map makers and military cartographers, who struggled to provide contemporary armies with maps accurate and complex, yet compact enough to meet the requirements of the military forces. Successive generations of cartographers contributed to the gradual process of the making of military maps, which became specific depictions of the landscape tailored to the needs of armies. In this context, the Third Military Survey could be seen as an important milestone in the development of modern military maps, at least for Central Europe. As a vast map series covering the entire Austria-Hungary, it continued to be updated and remained in use for several decades as well as setting the standard for the successor states. This paper aims to underline the wide scale of methods and techniques ranging from the geodetic basis to the system of map signs that were used to transform the common landscape into its militarized depiction. It also attempts to trace the modifications (or lack of modifications) applied through decades in order to adapt to the changing face of war. The paper examines the large collection of Third Military Survey maps preserved by the Map Collection of the Faculty of Science of the Charles University, which consists of both valuable original hand-drawn topographic sections of the Czech lands and several thousand sheets of derivative maps.

## Engravings of Military Events of the Thirty Years' War in Theatrum Europaeum

### Tomáš Janata, Václav Matoušek, Růžena Zimová

Charles University, Czechia

The two hundred and three engravings of military events from 1618 to 1648, which were printed in the first six volumes of the publishing work of Matthäus Merian Sr., engraver and publisher in Frankfurt, form a unique collection of depictions of the largest European military conflict of the early modern age. A thorough interdisciplinary analysis of thirty engravings of military events in the Czech lands proved that the engravings published in Theatrum Europaeum have a relatively high documentary value. The majority of engravings depict battle landscapes and scenes of war in a simplified form; a special emphasis is regularly placed on the detailed depiction of a field and permanent fortifications. The authors of the initial sketches for the engravings were often military engineers who were also direct participants in the military events. Engravers working in Merian's publishing house then influenced the resulting appearance of the engravings. It is evident from a number of examples that the engravers were highly capable in their trade but did not know the depicted situations first-hand and sometimes did not fully understand the initial sketches. Although all the engravings were prepared by one publishing house, it is evident upon initial observation that they make up a strongly heterogeneous collection. The engravings can be divided into several groups and individual types according to their genre and method of creation. The dominant types of engravings are austere ground plans of fortifications accompanied by icons of military divisions, all placed in strongly schematic depictions of the landscape. The paper is focused on engravings of the military events of the Thirty Years' War in a European context. Based on research of more than 200 engravings, the authors have attempted to identify the characteristical traits of these unique iconographic sources that depict the landscape of military locations in several European countries. The selected examples of battlefield engravings on German territory are presented in greater detail.

## "THERE IS NO WAR WITHOUT PHOTOGRAPHY"

## Noemi Quagliati

Ludwig-Maximilians-Universität München, Germany

At the beginning of WWI, the powers involved in the conflict still hired painters to document different aspects of warfare. In the Austro-Hungarian Army, they were called die Kriegsmaler. Artists from the circles of the avant-garde, such as Egon Schiele, Anton Kolig, Alfred Kubin, and Oskar Kokoschka, joined this military corps. However, the work of the Kriegsmaler was soon replaced by the much more objective cameras able to record military activities in ways that paintings cannot. The growing importance of the photographic medium occurred exactly during the World Wars, when, in order to document these decisive historic events, and especially for political and military needs, various advances took placed in the development of optical and photo-technology. The observation of the enemy, for example, rapidly enhanced the employment of aerial photography, which serves as a weapon of war used by the aviation. The German Oskar Messter invented the Maschinengewehrkamera (or machine gun camera). This small and light device, constructed by the Ernemann company in Dresden, was used to map from above with unprecedented level of detail and fidelity. The American company Kodak and the Garman Leica were extremely popular at that time. During the Great War Kodak produced the Vest Pocket Camera: the first compact folding camera using the smaller 127 film, which was so small and practical to be advertised as the "Soldier's camera". The German compact camera Leica was, instead, the first that used standard cinema 35 mm film and was associated with street photography and photojournalism. Since WWI there is no war without photography. The camera was not just a device whereby easily document events, but was an "artificial eye", able to penetrate space and matter previously inaccessible to human perception as well as having the power to make eternal a fragment of time. Its mechanical precision portrayed the brutality of the industrial war. Aerial photographs showed the devastating environmental impact of the militarization and the topography of landscapes dominated by rigid and artificial geometries. Nowadays bird's-eye views still document unexpected morphologic transformations of the landscape caused by the increasing number and scale of human interventions, such as the exploitation of natural resources, the urban planning, and the industrial development. The technological and industrial sophistication adapted to the modern battlefield inaugurated a new era, in which photography is considered the best way to understand the shape of the present.

## Visualising fortifications of Vyborg with Story Maps

#### Antti Härkönen

University of Eastern Finland, Finland

The city of Vyborg lies in Russia near the Finnish border. The town of Vyborg was born in the 14th century around the castle of Vyborg. Russians conquered it in 1710. In 1812, after Russia had conquered Finland from Sweden in 1809, Vyborg was attached to the autonomous Grand Duchy of Finland. After Finland declared her independence in 1917, Vyborg was one of largest cities. Vyborg and the rest of Karelian Isthmus region were ceded to the Soviet Union after the WWII. Fortifications and garrisons are crucial for understanding Vyborg's complicated history. In Late Middle Ages, Vyborg was one of only three fortified towns in Swedish Realm. The eastern fortifications were expanded in the 16th century with artillery resistant modern walls. After the Greater Northern War, Vyborg became an important garrison town and fortifications were build facing west. After Crimean war, old walls were deemed obsolete and replaced by modern walls further outside. ArcGIS Online (AGOL) can be used to create visualisations in a variety of ways. GIS can be used to create diachronical maps showing expansion of fortifications. Viewshed analyses are a way to visualise dominant positions of walls and bastions related to terrain. All of these can be made available on the internet as interactive and aesthetically pleasing Story Map presentations.

#### Session 5.2: Documentation of War Relicts

Thursday, February 15, 2018 / 11:00 - 12:30 / Room 3

Field fortifications of Austro-Hungarian and Russian army from winter 1915 (examples from Northeastern Slovakia)

Martin Vojtas, Petřík, J., Zubalík, J., Těsnohlídek, J., Bíško, R., Fojtík, M., Drobňák, M., Kapavík, R., Tajkov, P., Petr, L.

Masaryk University, Czechia

The Carpathian Mountains became the focal point of war conflict at the beginning of 1915 when the fiercest clashes between the Russian and Austro-Hungarian armies of the whole war took place in the Carpathians. Due to the mountain terrain the combat operations took place in, the remnants of warrelated activities have been preserved until present days in many sites. Some of them were surveyed by archaeological methods: Austria-Hungarian trenches on Staviska hill (Bardejov district) and Kobyla hill (Medzilaborce district), Russian positions near Habura (Medzilaborce district) and near Olšinkov (Medzilaborce district). There are well-preserved remnants of field fortifications on all selected sites. Although the reconnaissance of the Russian outposts is still in its early stage, several interesting structures already emerged. Small foxholes for one kneeling/laying soldier, usually prone to quick destruction due to their small size, are still visible on the site near Habura. Positions on the ridge near Olšinkov consist of one or two distinctive trenchlines and numerous smaller shelters for soldiers, remarkable clusters of trenches, located behind the main trenchline (possibly smaller shelters related to commanding hierarchy), plus two very deep dugouts. These two positions might be dugouts for the 107mm field guns. All structures mentioned above are clearly visible on LiDAR-based visual data, originating from the reconnaissance carried on Polish territory. The defense of Austro-Hungarian troops on the ridge of Staviska hill consisted of one main trenchline. It was built using the stone, obtained by shattering the bedrock, disturbed during digging the trenches and related structures. Trench line is connected with backward slopes of peak via several communication trenches. On Kobyla hill, there is a whole tangle of trenchlines, often over 1 m deep. There are numerous shelters connected to the main trechline as well, plus the main trenchline is reinforced by traverses. Behind the main defensive trenchline, there is a remarkable cluster of entities. Detailed drawn documentation of the preserved remnants in 1:100 scale was carried out on both sites and the usefulness of photogrammetric 3D documentation was tested either.

Telling the stories behind the preservation of WWI-relics in Flanders Fields by using aerial photographs and LiDAR data

Hanne Van den Berghe, W. Gheyle, N. Note, B. Stichelbaut, T. Saey, D. Hanssen, J. Bourgeois, M. Van Meirvenne, V. Van Eetvelde

Ghent University, Belgium

During the period 2014-2018, the commemoration of the First World War (WWI) is taking place in many by the war affected and/or related areas. This war, which can be seen as a worldwide cultural calamity, destroyed besides the societies and their mode of life, also directly different landscapes in many regions. The extent of the impact depended on the warfare, hinterland activities, landscape characteristics, geology and many other defining features related to this complicated war. This paper discusses the impact of the war on the landscape in West-Flanders, an area located on the former Western Front of Belgium, which formed the theatre of warfare for four years long as a result of the stalemate of the trenches. Consequently, this area was intensively disturbed by many consecutive battles forming a lunar like landscape full of craters, mud and military features, with no or barely visible elements of the prewar landscape and a completely disturbed fauna and flora. The spectacular recovery and reconstruction with traditional pre-war influences took a lot of effort, time and money. Consequently, one hundred years later, the landscape looks 'healthy' again with many panoramic views and vista's, blooming nature and a well-running economy. Nevertheless, the war still left its footprint in the landscape, forming the last witness of this event. This can be found in above ground and in below ground preservation. Most of the above ground WWI-traces are obvious like protected relics (e.g. bunkers, trenches), but many of the traces are not always visible with the normal eye and can be found in the micro-topography of the landscape. The presented research analysed this micro-topography with remote sensing techniques such as valuable historical aerial photographs taken during and after the war and Light Detection and Ranging (LiDAR) data. With these sources, it was possible to study the temporal evolution based on land use/land cover and linear elements as an understanding of the presence of WWI-relics in the presentday micro-topography. Different landscape patterns and changes were linked with the above-ground preservation of WWI-relics and revealed that many WWI-craters still have subtle footprints in the landscape, making the area on and around the former frontline in West-Flanders a remembrance landscape.

Remains of World War II field fortifications in Region of South Moravia - Archaeological perspective

#### Jiří Zubalík

Ústav archeologické památkové péče Brno, Czechia

In the spring 1945, eastern front reached South Moravia region. German army prepared quite a complex system of field fortifications, spreading from Morava river on Moravian-Slovakian border to the city of Brno, meant to be fortified in the manner of unconquerable "Festung Brünn". Russian army launched the attack on Morava river on 5th April as part of "Bratislava-Brno Offensive" in order to gain Brno on 8th April. But Germans managed to fight on well-prepared defense until 26th April when Brno was seized. The rest of South Moravia was not liberated before 7th May when "Prague Offensive" started. The goal of this contribution is to give a brief review of German field fortification's state of preservance in South Moravia. One might assume that after more than 70 years of extensive recultivation and intensive agriculture nothing is left there. Sites like battlefields near Ořechov or Šitbořice - Těšany support this assumption - there is nothing but fields and some metal finds at best. But nowadays we have several examples of archaeologically excavated sites, suggesting that there might still be many remains of Second World War field fortifications hidden underground. These sites represent positions in Mušov-Burgstall and Pasohlávky where the Institute of Archaeology of the CAS, Brno, documented several dozens of mainly smaller structures like shelters for two kneeling or standing soldiers, machine gun or mortar positions or larger parts of trench lines. Another surveyed positions are located in several places in Brno and close surroundings where Archaeological Monument Care Department excavated parts of complex trench systems as well as smaller structures for one or two soldiers. Besides mentioned sites, there is at least one well-preserved fortification. It is placed on the eastern edge of the city of Brno and consists of several zig-zag trench lines. These trenches are clearly visible both on the historical aerial image and aerial laser scanning data (so-called LiDAR), they are also apparent on modern aerial images. This surviving position gives us a good insight into an effort German army put into defense during the last days of the war. All mentioned sites are good examples of reuse of landscape after the end of the war as well - they were often landed up and used for agriculture. Due to the widespread construction of new buildings in recent years, some of these sites were destroyed and serve a new purpose.

## Borderlands of Tachov Region - Great Example of Cold War Landscape

#### Michal Rak, Lukáš Funk, Lenka Starková

Asociace recentní archeologie, Czechia

Cold War is a period of over 40 years long which had a great impact on borderlands landscape of former Czechoslovakia as well as the present Czech Republic. The main aim of this paper is to represent the identification of sites associated with the political events of the 20th century (the Iron curtain, deserted villages, military monuments etc.) in the area of borderlands of Tachov Region as an example of Cold War landscape. The primary methodology consists of the identification and mapping of anthropogenic relics on the basis of airborne laser scanning (ALS) data, subsequent verification in terrain, documentation of current status and observation of spatial relationships in wider landscape context. The identification of individual sites was realized through the combinational analysis of remote sensing data (ALS, aerial photography) and non-destructive surface survey. We have discovered that "Cold War Landscape" is well preserved in the researched area and in the case of its devastation we will lose a wide range of unique information.

## Session 6.1: Strategies of War & Security

Thursday, February 15, 2018 / 13:30 - 15:00 / Room 1

Hiding the hydrological: Camouflaging **Britain's water landscapes** during the Second World War

#### James Robinson

Manchester Metropolitan University, United Kingdom

Despite attracting intellectual curiosity from across the arts, military history, architectural studies and the biological sciences, camouflage as an object of critical inquiry has received scant attention by human geographers. This paper seeks to demonstrate how a critical examination of the practices of concealment and deception can contribute to some of the key debates within cultural and historical geography, among them the impact of militarised practice upon the material landscape. At its core, camouflaging as a militarised practice is deeply and complexly entwined with debates about landscape: it involves developing an understanding about how landscapes are interacted with by militarised bodies through a variety of visual engagements and embodied entanglements; the categorisation of traces and features in the landscape as either 'conspicuous' or 'inconspicuous'; and the material transformation of landscape for the purpose of defence and security. With an empirical focus on the British 'Home Front' landscapes of the 1930s and 1940s, this paper examines the attempts of camouflage practitioners (or 'camoufleurs') to devise and develop camouflage strategies in order to conceal and hide a variety of 'natural' and industrial features. For its empirical focus, this paper will consider attempts to conceal water surfaces (canals, lakes and rivers) from the 'aerial threat', namely Luftwaffe bomber crews. It will trace how water surfaces were imagined and constructed as 'conspicuous' features in the landscape that might aid an aerial attack on Britain's 'vital' wartime industries, particularly at night. Moreover, given the unique challenges posed by hiding bodies of water, the paper will illustrate some of the novel techniques and methods that were trialled to distort, manipulate and obscure these surfaces. In doing so, the paper aims to demonstrate how militarisation can imprint upon not only our terrestrial worlds, but also our aqueous landscapes.

The Arctic Military Landscape: the role of military geography for the Winter War battlefields in the Finnish-Russian borderlands (1939-40)

### Pasi Tuunainen

University of Eastern Finland, Finland

Pasi Tuunainen The Arctic Military Landscape: the role of military geography for the Winter War battlefields in the Finnish-Russian borderlands (1939-40) The Soviet-Finnish Winter War was waged in unique Arctic and Subarctic terrain and weather conditions. These physical geographical factors created various problems for both belligerents but the Finns could better harness the elements and use them to their benefit because they had prepared themselves for winter warfare in their own territory. In this paper I aim to analyze the geographical features that affected the rivals' operational capabilities during the winter of 1939–1940, taking military geography as my interpretative framework. In order to understand how this peculiar northern environment could be exploited for military purposes, one needs to differentiate potential risks and benefits of the forested terrain that was characteristic along the Finnish-Russian borderland at the time. The geographical considerations that formed the basis for Finnish operational plans and that had been incorporated in their tactics and training are illustrated by a range of sources. Utilizing archival documents, maps, manuals and secondary literature, I will identify the ways in which the Finns managed to exploit the natural conditions to their advantage during the Winter War. Military operations conducted in the European north were heavily affected by seasons. When winter sets in, the ground and waters freeze - and the natural obstacles disappear. Thus the battlefield becomes larger. Winter can hamper movement and mess up logistical support, but it can also aid military operations if one possesses over-snow mobility. The Finnish Army not only had this strength but it also had the ability to conduct sustained operations in the trackless wilderness. This was imperative because broken and rough terrain and wintry weather can become an additional enemy if one is not equipped and trained to live, camp, move and fight in deep snow, ice, adverse cold weather and almost complete darkness of the far north. In their operations, the Finns pitted their own strengths against the absolute weaknesses and comparative disadvantages of the Red Army. These strengths that were derived from the exploitation of geographical conditions explain to a large extent the relative military success achieved by the Finns. The Finnish Army had correctly appreciated the role of geography, and, therefore, had "allied" itself with nature and used the results of this alliance as a force multiplier.

The Impact of Security Considerations on the Residential Map in Physically-Divided Cities: The Case of Israeli Jerusalem, 1948-1967

### Eldad Brin, Arnon Golan

University of Haifa, Israel

The topic of security-minded residential planning in physically-divided cities is of limited scope since there are very few cities which were or are divided between hostile political entities, such as Berlin which was divided in the years 1949 to 1989 between the former GDR and DDR and Nicosia which is divided since 1974 between the Republic of Cyprus and Turkish dominated Northern Cyprus. The 1948 Arab-Israeli War had far-reaching spatial consequences on the urban fabric of many Israeli cities and towns, especially regarding the alteration of their ethnic and socio-demographic makeup. The war's impact on Jerusalem has been especially detrimental as the city has experienced considerable damage to buildings and infrastructures, massive population dislocation and physical division between Israel and the Kingdom of Jordan. Shortly following an armistice agreement signed on 4 April 1949 Israeli-controlled West Jerusalem was effectively declared capital, a step officially unrecognized by the international community. Surrounded on three sides by a volatile armistice line, the Israeli sector of the city was since then and until the 1967 war vastly repopulated and its built-up area enlarged. The Israeli government intended to establish firm facts on the ground as regarding its political intentions for the city. Given Western Jerusalem's precarious geopolitical setting, security considerations have had significant weight in this process, influencing the populating of seam areas, the spatial layout of new residential clusters and even the design of specific structures. Consequentially the Israeli army, as sole security authority, had much leverage over the decision-making process. That said, the army's clout waxed and waned. This holds true for other actors involved in the process, namely the Jewish Agency, the Israeli Government and the Jerusalem Municipality. Thus, while security considerations remained relevant throughout the period in question (1948-1967), they have had more influence or less so vis-à-vis the ever-dynamic security and political situation and with realities on the ground.

