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248-261 **KRISTINA PERKOV**
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HISTORICAL DEVELOPMENT OF MILITARY SITES AND THEIR IMPACT ON URBAN
AND RURAL LAND USE IN THE EUROPEAN CONTEXT
EXPLORING THE SOCIAL CONTEXT AND SPATIAL FOOTPRINT

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FIG. 1 AN AERIAL VIEW OF THE DEMILITARISED BRIBIRSKI KNEZOVI BARRACKS IN ŠIBENIK, CROATIA



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HISTORICAL DEVELOPMENT OF MILITARY SITES AND THEIR IMPACT ON URBAN AND RURAL LAND USE IN THE EUROPEAN CONTEXT EXPLORING THE SOCIAL CONTEXT AND SPATIAL FOOTPRINT

DEMILITARISATION
HISTORICAL ANALYSIS
MILITARY TRANSFORMATION
SPATIAL INTEGRATION
URBAN DEVELOPMENT

This study explores the historical development of military sites and their impact on land use in the European context. Reflecting broader social, political, and technological changes, the impact of military sites on urban and rural areas has undergone a notable transformation. By employing qualitative research methods, this study investigates demilitarisation challenges, transformations, and the integration of military sites into urban environments. It reveals societal perceptions, regulatory complexities, and spatial dynamics,

thereby illuminating the potential of repurposing military sites for sustainable urban development. It uncovers the interplay between the military and civilian spheres through nuanced analysis, offering valuable insights into modern city development strategies. As this research unveils historical dynamics, it also provides crucial knowledge that can be employed in planning the future development of cities, considering the evolving relationship between military and urban spaces.

INTRODUCTION

The ongoing radical transformation, characterized by simultaneous social, political, and economic changes, presents a considerable challenge when forecasting the developmental trajectory of existing institutions and future scenarios. However, this century is not unique in its experience of rapid military, political, and economic changes (Hirst, 2001). Throughout history, military sites have played a significant role in shaping European urban and rural landscapes, leaving enduring indelible marks on both the physical and social dimensions.

This article delves into historical transformations concerning the military use of land. It seeks to investigate how the military and society navigated these shifts, to discern whether past reactions could offer insights that would assist urban spaces and societies in adapting to forthcoming changes in the military framework. This study explores the complex relationship between military sites¹ and the development of land use patterns across urban and rural settings. The choice of Europe as the central region for this inquiry is justified by its role in creating two distinct political-spatial entities: the self-governing city and the sovereign territorial state. This unique socio-political landscape provides a compelling setting for exploring the interplay between military sites and land use evolution.

An essential aspect of this study consists of examining defence heritage sites and aban-

doned military sites, commonly referred to as *military brownfields*. These military brownfields encompass some of the earliest forms of brownfield sites and possess significant potential as spatial resources for future development, especially within urban areas. While interest in the military and its areas has grown, citizens still perceive domestic military presence as nearly negligible. This leads to complex and slow processes of demilitarisation and integration into cities (Bagaeeen, 2006; Clark and Brebbia, 2012; Bagaeeen and Clark, 2016). Abandoned or vacant spaces are often viewed as burdens and spatial problems. However, they can also be viewed as a development opportunity (Hercik and Szczyrba, 2012: 142) through the intricate process of brownfield regeneration, which must necessarily include their consideration in the context of the overall spatial development of a specific territorial unit (Matkovic and Jakovčić, 2019: 357).

The methodology in this study is used to unravel various interactions between military presence and spatial configuration of European territories. The first chapter outlines the research methodology, which combines different qualitative techniques such as bibliographic research, content analyses, cross-disciplinary examination, and analysis of quantitative data. The subsequent chapters form the core, including the theoretical framework that sets out the conceptual foundation which guides the existing literature on military studies, historical analysis, spatial planning, and urban development.

This approach presents a comprehensive exploration of the social and spatial dimensions of military site transformation. It lays the foundation for examining the interplay between military sites and European land use patterns. The following chapter examines the diverse military sites formed during different periods. The evolutionary stages of military sites were examined through comparative analysis, considering their strategic positioning, functional roles, and societal implications. This section offers insight into Europe-

¹ This article presents “military site” in a broader sense and is not limited to the standard military practice categories. The elaboration of the typology of military assets is detailed in the report “Typology of Military Assets” (Brzoska et al., 2000: 5, 68-69). The interpretation adopted in this article encompasses a spectrum of military sites, ranging from large to small, urban to remote, and encompassing a diverse array of specialized functional structures (Bagaeeen and Clark, 2016: 6).

² In this study, the term “landscape” is related to three distinct dimensions: the physical reality, its representation, and the way it is perceived. The term “military landscape” primarily designates landscapes with military origins, and their presence is ubiquitous-

an landscape transformations by charting the progression from fortified urban centres to sprawling rural complexes.

By elucidating the historical development phases of military sites in Europe and providing an overview of various military sites and types, the article aims to provide a clearer perspective on their transformation processes and underscore their potential role in urban development. In conclusion, the discussion chapter addresses contemporary challenges and opportunities, emphasising the repurposing potential of demilitarised sites in urban development and the need for a sensitive and strategic approach to integrating these sites into the urban fabric.

RESEARCH METHODOLOGY

The methodology employed in this study mainly relies on the qualitative approach, emphasising content analysis, bibliographic research, historical inquiry, cross-disciplinary examination, and theoretical exploration. The primary objective of this study is to comprehensively understand the historical development of military sites within the complex dynamics at play in the European context, focusing on their interaction with urban and rural spaces. This methodology is integral to a more extensive multi-year investigation into the military-city relationship and the evolving relationship between *military and civilian landscapes*², continuing in the Doctoral Scientific Study in Architecture and Urbanism.³

A comprehensive literature survey supports this study, drawing from diverse fields like architecture, planning, militarism, and social sciences, and offering reference sources for further research. This diverse literature significantly contributes to the formation of a holistic understanding of the historical development of military sites. Primary sources, including books, book chapters, and specialised military journals, are pivotal for presenting the development of military sites and architecture. Secondary sources included scholarly works, academic articles, and rele-

vant literature on military history, urban development, and demilitarisation processes.

The availability of historical records, differing interpretations of historical events, and challenges in obtaining accurate data from various periods and regions have impacted the scope and depth of this research. Furthermore, the reduced availability of data in researching the range and consequences of the demilitarisation process on contemporary landscapes poses additional challenges. The collected data were subjected to a two-phase thematic analysis. This involved identifying recurring patterns, pivotal events, and changes in military spatial dynamics across historical epochs. The gaps identified in the primary literature review were addressed by integrating supplementary sources, primarily academic articles, in order to ensure a broad comprehension of the historical evolution of military sites.

A comparative historical analysis was carried out, tracing the evolutionary path of military sites across different historical stages in Europe, categorising the historical development of military sites into distinct phases, each characterised by unique features, spatial demands, and societal influences. The research compared the evolution of military presence in urban and rural areas, highlighting the transformation of military-society relationships over time.

A more comprehensive understanding of the degree to which military sites and architectural structures influenced these areas was attained through the categorisation and overview of numerous military sites and architectural structures based on distinct historical phases.

The methodology merges the theoretical framework with a comparative analysis approach, to elucidate the dynamics that have influenced the military and civilian landscapes throughout European history. Through systematic literature collection, a two-phase thematic analysis, and comparative historical lens, this research aims to contribute to a deeper understanding of the multifaceted relationships between military sites and urban/rural contexts.

CHANGES IN THE RELATIONSHIP BETWEEN THE MILITARY AND THE SOCIETY

Although defence and the military are concerned mainly with space, the military's presence within society often remains somewhat hidden. This theoretical framework aims to shed light on the significant shifts in the relationship between the military and the society (Fig. 2) in order to provide insight into demilitarisation challenges in various military sites.

ly evident. For a more detailed description of the terms consult: Woodward, 2014. Conversely, the term "civilian landscape" primarily designates landscapes of civilian origin.

³ This study was prepared as part of the Doctoral Scientific Study in Architecture and Urbanism at the University of Zagreb Faculty of Architecture. Part of the research, authored by Kristina Perkov, was written with the guiding supervision of the mentor and co-author Prof. Emeritus Ph.D. Tihomir Jukić, and started in the following courses: *Methodological workshop* led by academician Mladen Obad Šćitaroci and *Import into scientific publishing* led by associate professor Ph.D. Zlatko Karac.

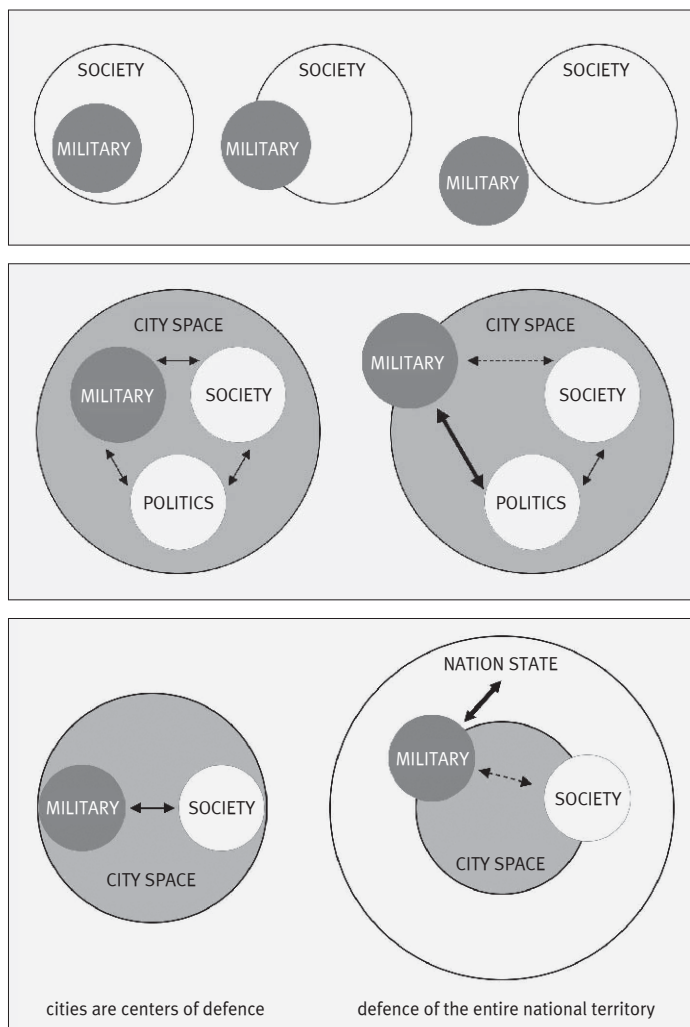


FIG. 2 THEORETICAL FRAMEWORK: CHANGES IN THE RELATIONSHIP BETWEEN THE MILITARY AND SOCIETY – SCHEMATIC DIAGRAM

FIG. 3 SHIFT IN THE RELATIONSHIP BETWEEN THE MILITARY AND SOCIETY DUE TO ARMY'S RELOCATION TO PERIPHERY OR URBAN OUTSKIRTS – SCHEMATIC DIAGRAM

FIG. 4 THEORETICAL FRAMEWORK: CHANGES IN THE RELATIONSHIP BETWEEN THE MILITARY AND SOCIETY IN THE CITY AND NATION-STATE CONTEXT – SCHEMATIC DIAGRAM

Throughout history, the military, warfare, and organised violence have undeniably held pivotal roles in shaping societies, as emphasised by Malešević (2011). However, it is essential to recognise that their significance and perception have shifted considerably over time (Fig. 2).

The evolution of nation-states, particularly the differentiation between the roles of the military and the police since the mid-19th century, transformed the military into an instrument of national policy or state power. In response to this change, academic research redirected its focus towards internal societal matters.

Hooks and Rice (2005) observe that studies related to war and its associated topics became increasingly rare, mainly due to a shift towards investigating internal social issues within the framework of the nation-state. Scholars like Joas (2003) and Malešević (2011) concur that a pacifist trend marginalised militaristic thinking post-World War II. This trans-

formative journey from central stage to the periphery of societal discourse has made the military's presence less conspicuous and its impact less overt (Fig. 2). Consequently, with its unique perspective, the military presently stands somewhat apart from other social groups and institutions within the civil society (Caforio, 2006: 3-6), marking a distinctive position in the modern social order.⁴

Conversely, the origin and evolution of cities is a rare interdisciplinary field that has received greater research attention. However, comparable studies of the military heritage of rural and sparsely populated areas are lacking; often, research concludes with an examination of urban fortifications from the 19th-century. This limitation is notable, given that during that era, the military in continental Western European countries had direct control over more significant space areas than in earlier periods. The military's departure from urban areas did not signify its disappearance (Fig. 3); on the contrary, in many countries, it led to an increase in its personnel and resource allocation (Kardov, 2015: 18).

Studying the different aspects of the military poses several challenges, primarily due to security measures⁵ like secrecy and limited data availability. A notable historical example of this challenge emerged during World War II and is referred to as "magic geography" by Hans Speier (Speier, 1941: 310-330). The literal erasure of military areas from the maps for security reasons symbolises what happened to the military's position and, consequently, military sites in society and social thought.⁶ Consequently, military areas were omitted from maps, urban development, and

⁴ Kardov believes that the "pacific" orientation of most social sciences is one of the possible explanations; another is the problem of secrecy and unavailability of data, which results in disinterest and self-understanding, and in the end, one of the more essential reasons stands out as the fact that the army in many countries was seen as the basis of statehood, as an institution that represents the very essence of national identity. Such characteristics of the army gave it a better and more "special" position than other social organisations (Kardov, 2015: 25-31).

⁵ Lack of scientific interest in researching and the place of the military in society that occurred after World War II, according to Kurt Lang, is explained by war security measures that made the decision-making process related to defence and the army hidden (Lang, 1965: 1-26).

⁶ Foucault's concept of military space as a heterotopia (Foucault, 1986) underscores its distinct regulations, differentiating them from those of civil society.

⁷ In spatial plans, military areas are often indicated as a special purpose, signifying the presence of the military without being explicitly depicted or represented. Their original purposes of military spaces were not planned depending on local conditions but rather due to centralised planning to fulfil defence objectives for broader national territory.

spatial plans⁷, making them more abstract and inaccessible to the local community and obscuring their actual societal influence. This explains why citizens and local authorities perceive domestic military presence as non-existent⁸ and inconsequential.

The military consistently sought to acquire land designated for its specific purposes, with “military geography” showing its influence in shaping the surrounding spatial domain.⁹ Nevertheless, a significant gap exists in fully comprehending the profound impact these factors can exert on urban development. The military sphere has undergone notable transformations in recent decades, as shall be explained in subsequent chapters. Consequently, the distinctions between military and civilian spaces have blurred, traditional boundaries have faded, and a complex network of interconnections has emerged. However, the military’s spatial significance and demilitarisation’s impact on urban development are still inadequately explored. Hence, there exists a critical need to delve into the intricate relationship between military use of space and society, primarily within the contexts of self-governing cities and sovereign territorial states (Fig. 4).

Examining various influences that the military has on numerous phenomena in the society is indispensable, and it is necessary to see them in their entirety, not omitting the periods when it became “invisible”. Understanding the historical phases of military site development and deepening our knowledge about the multitude of military sites is crucial for unveiling their transformative potential in shaping cities.

⁸ The fact that we call its spatial manifestations locations even when they occupy areas larger than a few hectares is a consequence of the presentation of the domestic military presence as significant, unproblematic, and almost non-existent. The research found that local authorities in Hungary were unaware of 24% of abandoned military sites located within their administrative territory, especially in secret locations such as former bomb depots (Kádár, 2014).

⁹ “Militarised geography” extends beyond military facilities alone (Woodward, 2004), as the military has left its imprint on a vast array of locations through its regulations and activities. Even areas that are statistically categorised as civilian spaces are influenced by military presence due to security concerns. Security planning has become a pervasive characteristic in most developed countries during the modern era, and it is virtually impossible to identify a locality in Europe without a nearby military installation, resulting in the consequential impact of military spatial regulation.

¹⁰ Childs’s research introduced a comprehensive framework of three distinct phases, which questions the military use of space in peacetime based on the distinction between urban and rural areas (Childs, 1997). Subsequently, upon further examination of its applicability within the contemporary context, an additional phase, named the demilitarisation phase, was proposed as a valuable supplement to the existing framework.

HISTORICAL DEVELOPMENT OF MILITARY SITES: COMPARATIVE ANALYSIS IN THE EUROPEAN CONTEXT

Social, technological, and geopolitical factors have profoundly influenced the development of military land use in Europe. This study explores the development of military spaces in the European context, tracing their evolution from the ancient world to the present day. By studying the origin of city walls and fortifications (Keogh, 2019: 1-16), we realise the importance and significance of military influence on the very genesis of cities. With the development of modern territorial states comes the development of the strategic defence of the national territory, i.e., in military use, the rural and sparsely populated area gradually gains importance and assumes primacy.

DEVELOPMENT PHASES OF MILITARY LAND USE IN PEACETIME

To foster a more cohesive understanding of the progressive dynamics involved in spatial interactions between the military and urban and rural landscapes, Childs (1997) scholarly contribution serves as a fundamental reference.¹⁰ Continuing his research, this study highlights the dynamic relationship, which questions the military use of space in peacetime and identifies four key phases in this evolution: Urban, Urban and Rural, Rural, and Demilitarisation. The following stages (Table I, Fig. 5) are a simplified representation, and their boundaries should be perceived flexibly, as it is evident that there were instances of overlapping or the emergence of distinct social arrangements and spatial conceptions in different regions of Europe during various periods.

- **Phase I – Urban:** The Urban phase, which commenced over 8,000 years ago and continued until the conclusion of the Early Middle Ages, signifies a period during which the defence of cities is predominantly prioritized. This phase also marks the beginning of integration between military and civilian spaces.

The military spatial footprint is closely related to the cities, which were initially the centres of defence. The earliest cities were characterised by the presence of defensive walls. These walls not only protected the city but also symbolised urbanity itself (Mumford, 1961: 5; Mumford, 1970: 86-89). They created a distinct cultural universe and delineated the boundary between the civilised and uncivilised worlds (Tracy, 2000). Europe’s most ancient cities, established over 8,000 years ago, trace their origins to human settlements from the Neolithic period. The earliest of these

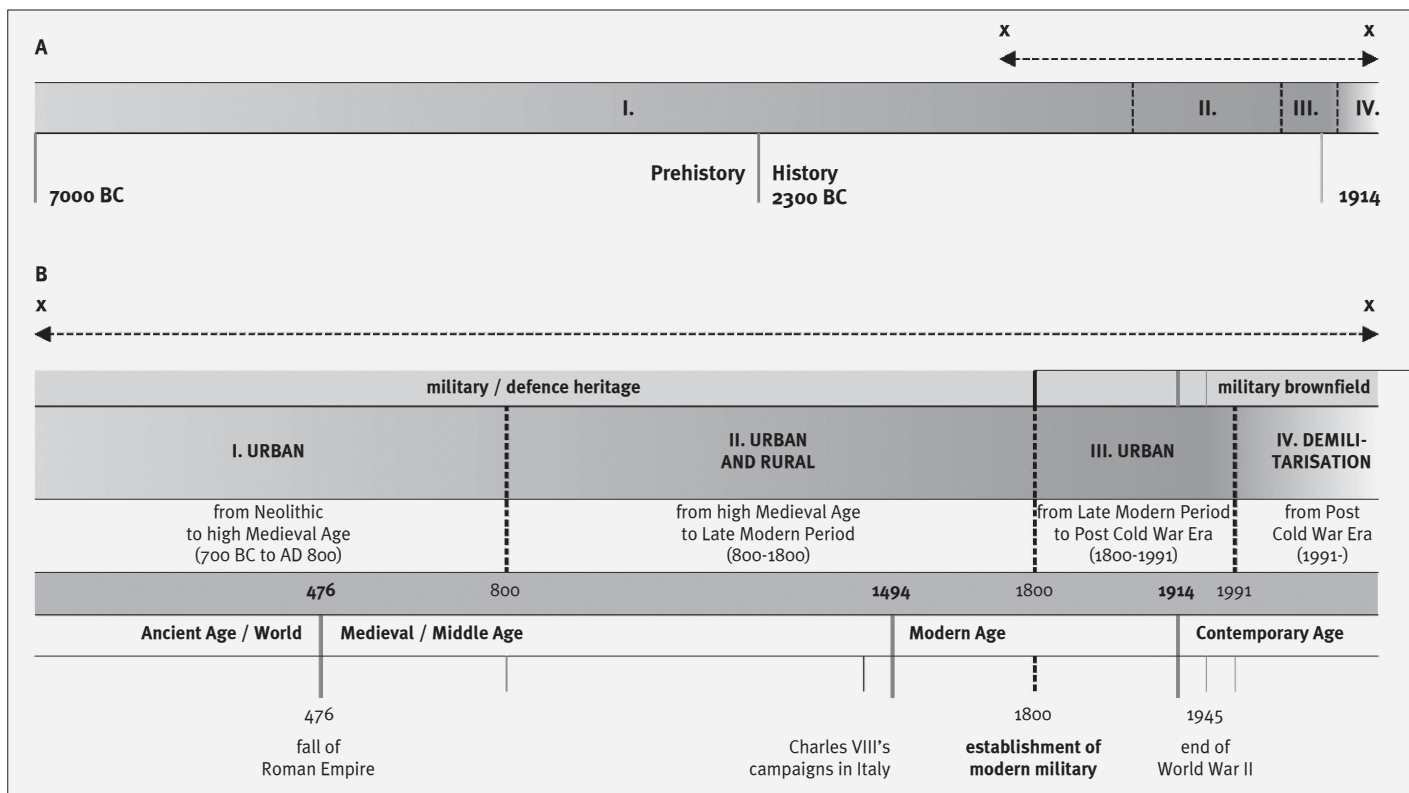


FIG. 5 PHASES OF DEVELOPMENT OF THE MILITARY LAND USE IN PEACETIME – TIMELINE:
 A – COMPARATIVE OVERVIEW OF THE TOTAL DURATION OF ALL PHASES
 B – A SEGMENT OF THE TIMELINE OFFERING A MORE IN-DEPTH OVERVIEW OF THE PHASES

European settlements can be traced back to Greece and northwestern Turkey around 6500 BC, presumably under the influence of Anatolia (Furholt, 2016: 1196). Urban settlements such as Çatalhöyük lacked many features of later cities, so they are sometimes called proto-cities or embodiments of proto-urbanism.

The period when the earliest walled settlements appeared represents the time when the integration of military and civilian spaces occurred (Fig. 3). During this urban phase, which persisted into the Early Middle Ages, military demand for land is dominantly related to the construction of city fortification.¹¹ The presence of walls physically separating the municipality from the countryside was one of the essential criteria for towns to attain their coveted status (Childs, 1997: 86). Nonetheless, traces of military installations in rural areas, such as Roman frontier defences or temporary and marching camps, also emerge.

- **Phase II – Urban and Rural:** The Urban and Rural phase, from the High Middle Ages to the Late Modern Period, saw the extension of military influence into rural and less populated areas. Forts, castles, and later bastion fortifications emerged, marking the transition from tactical defence to territorial control.

As warfare evolved, military spatial requirements expanded. Forts and castles emerged,

while the early modern era witnessed the development of bastion fortifications in broader urban contexts.

From the 10th to the 13th centuries, castles primarily served tactical functions, establishing areas of local dominance. In times of peace, these structures transitioned into business and administrative centres, effectively controlling extensive and productive farmlands (Hughes, 1991: 27). Military spaces often maintained limited interaction with

¹¹ Archaeological evidence of city fortifications can be found across the globe (Delfino et al., 2020); however, the most notable European examples from the ancient world are the massive acropolis-style defences of Mycenae and Athens (Childs, 1997: 82).

¹² In discussions concerning fortifications and cities, a crucial distinction must be drawn between military cities, designed primarily for military objectives (Mandarino et al., 2021: 2), and fortified cities, encircled by defensive walls (Hughes, 1991: 58).

¹³ During the 18th century, the law established three zones around French fortified towns. The first was 275 metres wide, prohibiting the construction of any buildings. No masonry buildings were allowed in the second zone, which was 530 metres wide. The third zone, with a width of 1060 metres, required authorisation to construct paths, roads, embankments, and, curiously, rubbish dumps (Childs, 1997: 87).

¹⁴ “After the French Revolution, the army became professionalised and formed a separate sphere from the rest of society, both in social and physical space, with direct control of ever-increasing spatial resourc-

surrounding communities and functioned autonomously (Drake, 2002: 106).

Vertical defence remained effective until the 15th-century, enabling fortified locations to be safeguarded by a small number of men. Charles VIII's campaigns in Italy in 1494 marked a turning point, highlighting artillery's potency in overcoming prior defensive systems, as fortified cities were swiftly and effortlessly captured. During the Early Modern Period of European history, the widespread adoption of gunpowder weapons and the resultant artillery fortifications according to the *trace italienne* gave rise to an increased military appetite for urban land (Childs, 1997: 85). During this period, urban land acquisition for military purposes was notable, in contrast to the relatively modest demand for rural tracts.

The development of a new fortified defence system¹² called for substantial investments and a progressively intricate logistical organisation that could only be fulfilled by states and major cities, which contributed to strengthening the central government. The expanse of the new fortifications extended to several hundred metres, with exclusive military control imposed¹³, where civilian access to the area was often prohibited.

When examining the development of the modern military (Blumenson, 1980), which encompasses both its technical and material dimensions and its social underpinnings, the establishment of military spaces, as we recognise them today, occurred only from the 18th century onward. Concurrently, Giddens (1987) highlights that this period marked the first instance of the city losing its inherent status as a fundamental defensive unit.

• **Phase III – Rural:** The Rural phase, from the Late Modern Period to the conclusion of

the Cold War Era, represents a shift in military strategy due to advances in artillery technology. This phase is closely associated with the post-French Revolution era and the formation of nation-states, which led to the transition from city-based defence to the protection of the entire national territory.

Until the 19th-century, the military's impact on rural areas was limited, focussing on unproductive or marginal land due to sporadic needs. The advancement of artillery technology brought about a significant change in urban defence, which led to the creation of the "Prussian system", or detached fortifications, characterised by concentric defensive rings positioned at considerable distances from the urban core (Childs, 1997: 90).

Following the French Revolution, the professionalisation of the army¹⁴ resulted in greater separation from civil society while establishing direct control over spatial resources. The development of the military and state organisation in the preceding era blurred the line between defence in urban and rural settings, with defence strategies focused on safeguarding the entire state territory (Fig. 4). At the end of the 19th century, the formation of nation-states led to the distinction between the army and police and the more clearly defined role of the military, whose task was primarily to defend against the external enemy. Standing armies emerged, resulting in spatial needs for accommodation and training areas.

Obsolete city fortifications from the mid-19th century were dismantled¹⁵ and repurposed into city parks, boulevards, and public buildings, opening previously restricted spaces to civilians. Despite this shift, the military's need for space during peacetime increased significantly. The army retreats and isolates itself in its specially built areas, transitioning from high visibility to relative invisibility. The army's professionalisation, democratisation, and widespread recruitment solidified its relationship with political power by the early twentieth century, establishing it as a distinct sphere¹⁶, i.e., a "military society", separate from civil society (Figs. 2 and 3).

By 1914, permanent fortifications lost credibility¹⁷, leading to a decline in their reliance on defence. At the beginning of the 20th century, war ceased to be a conflict between rulers or dynasties and became a conflict between nations – it became total (Howard, 1993: 93). Towns and cities became too large and sprawling to effectively serve as fortresses (Asworth, 1991: 47). During this historical period, permanent fortifications experienced a significant shift away from being primarily within cities. Instead, they were relocated to the countryside.¹⁸

es. The loyalty of the army and its uniqueness were manifested in its organisation, role, and mission, and in its institutional autonomy" (Kardov, 2015: 73).

¹⁵ During the 1830s, Brussels and Budapest underwent defortification. Geneva followed suit in 1851, Barcelona in 1854, Berlin in the 1850s, Basel between 1860 and 1867, Madrid in 1868, Bologna in 1902, and Paris between 1926 and 1932. Vienna's inner belt was also demolished in 1857, and the vacated space was utilised to develop the Ringstrasse (Childs, 1997: 90-91).

¹⁶ We can see how significant this separation is with the appearance of special military cemeteries in France at the beginning of the 20th century (Mosse, 1991).

¹⁷ Permanent fortifications had suffered such a severe blow that it seemed unlikely that in the future anyone would trust his defence to them, and had it not been the fortress of Verdun, this would probably have been the end of the line (Hughes, 1991: 209-210).

¹⁸ For example, the Maginot Line, a type of military space known as a defensive fortification, is a complex system of fortifications, barriers, and obstacles constructed by France in the 1930s to protect its eastern border from potential invasions (Childs, 1997: 92).

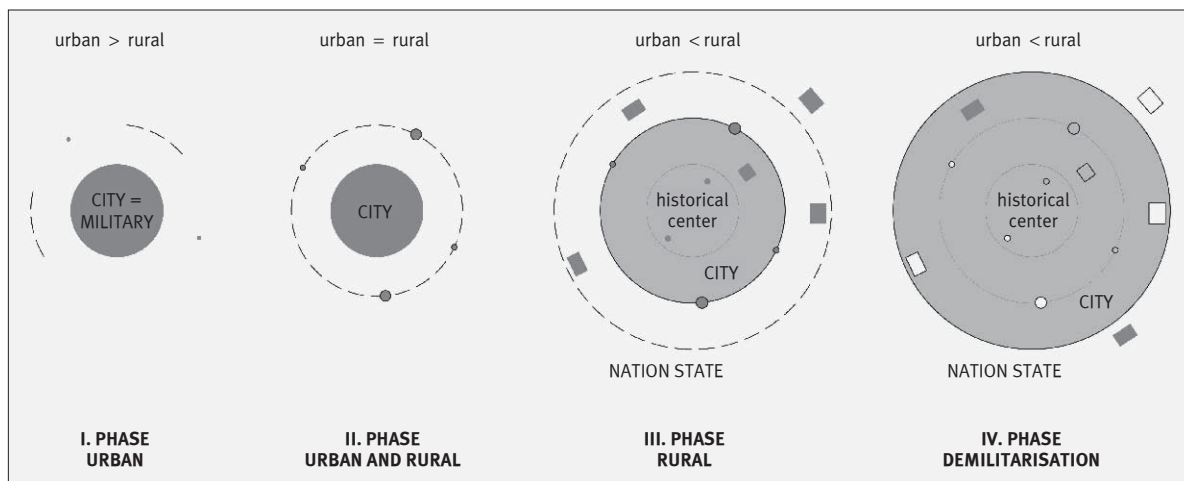


FIG. 6 SCHEMATIC REPRESENTATION OF THE PHASES IN THE DEVELOPMENT OF MILITARY LAND USE IN PEACETIME, BASED ON THE DISTINCTION BETWEEN URBAN AND RURAL AREAS

After World War I, military facilities shifted to less populated areas, away from public view. Between 1939 and 1945, military presence returned to urban areas for protection, but for most of the 20th century, the army focussed on strategic defence of borders and territory. As a result, the military space manifested itself as a network of strategically important locations like warehouses, barracks, training grounds and ports. During the period of the wars, the military's presence and use of resources surpassed that of any previous era, with the Second World War playing a particularly influential role in this expansion.¹⁹

During peacetime, extensive defence systems, fortifications, bunkers, and installations were constructed to uphold the primary objective of modern defence for the entire national territory. Aligned with the escalating spatial requirements of the military across numerous countries, the extent of space under direct military control increased substantially during the latter half of the 20th century.²⁰ Additionally, the Cold War's nuclear threat prompted the construction of public shelters and other security infrastructure during the 1960s and 1970s. During the 1980s²¹, there was also a notable rise in the military's land requisitions.

- **Phase IV – Demilitarisation:** The Demilitarisation phase, closely tied to the post-Cold War Era, reflects the changing landscape of military organisation. This phase is marked by globalisation and shifts in the military's role. It denotes reduced military presence and a transition from traditional institutions to a more professionalised force.

The transformation in the latter half of the 20th century, driven by the need for swift adaptability (Virilio, 2005) induced distinctive changes in the army's organisation and the spatial aspects of military units (Bagaeeen and Clark, 2016: 1; Hirst, 2005: 142-144).

Armies are smaller, accompanied by a reduced need for spatial resources, leading to the demilitarisation of numerous military areas which increased accessibility to previously military-controlled areas for civilians. Over the past three decades, the process of redundancy has gained momentum.

Instances of substantial demilitarisation can be traced in historical records, such as the deconstruction of city walls. Moreover, evidence also indicates that the discontinuation of specific military area uses occurred even during the Cold War (Wallwork, 1974: 195-197). However, globalisation, characterised by the emergence of global networks, has weakened nation-states, and significantly reshaped their institutions (Tourain: 1998). After the Cold War, the military's role transformed, resulting in diminished personnel sizes. These changes, which occurred from the mid-20th century, can be described as a transition from viewing the army primarily as an institution to perceiving it as a profession, as proposed by Moskos in 1977.

¹⁹ For instance, Great Britain is an illustrative example, where the army exerted direct control over as much as 20% of the country's land territory during the war (Childs, 1997: 98).

²⁰ In 1939, the German army utilised 386,000 hectares of land throughout the country, whereas by 1972, an army comprising half a million soldiers required 423,000 hectares, excluding East Germany from the calculation. This signifies an increase of more than double the original amount (Ashworth, 1991: 69).

²¹ Using the British army as an example, in 1985, the Ministry of Defence indicated a need for extra 2,000,000 acres of land. From 1985 to 1989, approximately 600,000 additional acres were acquired in Britain, Europe (Norway and Germany), and North America. The Ministry of Defence also rents training grounds abroad, particularly 750 square miles in Suffield, Alberta, Canada, and occasionally uses training areas owned by the US armed forces (Childs, 1991: 99).

²² In Germany, this process released 386,000 hectares of land previously utilised by the military. More-

The professionalisation of the army, combined with post-Cold War budget cuts and the ensuing modernisation needs, led to private sector involvement in the military domain. Furthermore, political changes in Central and Eastern Europe after the Cold War resulted in significant reductions in military personnel and the release of former military assets, particularly in Europe.²² Globally, over 8,000 military sites spanning one million hectares have been demilitarized (Katzch, 2007).

Parallel to evolving social dynamics, armies increasingly engage in international alliances and collaborations at the global, regional, and local levels. In the contemporary context, armies are more frequently involved in peace operations²³ than in war. Events following September 11, 2001, challenged previously held notions that enemies were confined within national borders and that state territory alone could ensure security. This shift in security perceptions reduced the number of armies in most European countries after the Cold War.

The concept of 'Europe without borders' is closely linked to the European integration process and the European Union (EU) establishment, aiming to foster peace, stability, and prosperity in the region. However, that vision does not eliminate the possibility of military-related challenges and conflicts as geopolitical dynamics and security issues continue to shape the region's landscape. Events such as the destabilisation of the former Soviet Union, Balkan conflicts, and the Ukrainian war have renewed the potential for armed confrontations in Europe since the end of the Cold War. Contemporary history has brought various manifestations of militarisation, however, the twentieth century has also witnessed significant instances of extensive demilitarisation, enforced, or voluntarily chosen (Stearns, 2013). As a result, predicting

over, in the Russian Federation, the planned reduction of the army to 1.2 million soldiers is expected to lead to the release of numerous military areas (BMFUNR, 1997).

²³ Military missions progressively shift from traditional military objectives towards more police-like roles. Consequently, the focus is moving away from war and territorial defence to peaceful, multinational, and humanitarian activities (Moskos, Williams, and Segal, 2000).

²⁴ This study offers a comparative overview of the development of military phases and various sites and types across Europe, considering exceptions, such as colonial forts and military colonies typically situated outside of Europe. The analysis extends to reverse processes, acknowledging the influence of innovations in warfare, such as those emerging from the American Civil War (Hughes, 1991: 184-189), and newer military facilities, such as main operating bases (MOBs), initially pioneered by the American army and implemented across Europe.

the future of warfare and the utilisation of military land in the region becomes challenging (Fig. 6).

CONCLUSION ON THE HISTORICAL DEVELOPMENT OF MILITARY SITES

An investigation into the historical evolution of military sites within the European context²⁴ underscores the dynamic relationship between military and civilian landscapes. This study emphasises the foundational role of military presence in shaping urban and rural spaces (Fig. 6, Table I). Historical trends reveal the initial connexion between the military and fortified cities, transitioning to the expansion of military influence into rural areas. As modern territorial states emerged, the military's relationship with urban and rural landscapes evolved, prompting changes in spatial demands, and demarcating distinct phases. Although these divisions cannot be universally applied to all European countries simultaneously, they nonetheless serve to exemplify framework processes and the evolving relationships between military sites and urban and rural landscapes. The transformation of the military and its evolving relationship with political power and national state are central to this narrative (Fig. 3).

Furthermore, during the comparative analysis (Table I), a thorough review of military sites and types, which were created in different historical phases, was additionally made. This examination serves as evidence that the concept of the *military landscape* largely permeates our environment, and its presence is evident everywhere. The examination was primarily guided by the overview made by Childs in 1997, complemented by insights derived from various authors (Bagaeen and Clark, 2016; Hughes, 1991; Brzoska et al., 2000) and a range of sources mentioned in this chapter.

This exploration enriches our comprehension of the past while providing insight into the ongoing transformation of these spaces in response to evolving societal and geopolitical contexts. As we move forward, understanding the interplay between military and civilian spaces is crucial in deciphering our societies' complex history and evolving nature.

DISCUSSION: EXPLORING THE POTENTIAL OF DEMILITARISED MILITARY SITES IN URBAN DEVELOPMENT

This chapter explores the potential of using demilitarised military sites within the context of future urban development. It builds on a historical analysis of military sites, their spatial significance, and the dynamic relation-

TABLE I COMPARATIVE ANALYSIS OF THE PHASES OF DEVELOPMENT OF MILITARY LAND USE DURING PEACETIME AND VARIOUS MILITARY SITES AND TYPES WITHIN THE EUROPEAN CONTEXT, PRIMARILY FOLLOWING THE FRAMEWORK PROPOSED BY CHILDS, IN CONJUNCTION WITH INSIGHTS FROM DIVERSE AUTHORS AND SOURCES

Historical period		Phase of development of the military land use in Peacetime		Military site / type	
Pre-history	Neolithic (7000 BC to 2300 BC)		<ul style="list-style-type: none"> – The earliest Neolithic settlements in Europe emerged in Greece and north-western Turkey. – Proto-cities marked the prehistoric phase of urban development, often fortified with walls for defence purposes. 	Town Fortifications (including fortifications, ditches, walls, ramparts, earthworks, stockades, bastions, towers, and gates)	
History	Ancient Age / World (2300 BC to AD 476)	I. URBAN	<ul style="list-style-type: none"> – Cities/towns ceased to be centres of defence and the martial requirement for land was largely confined to the construction of town walls. – During the Roman period, there was a notable emphasis on frontier defence and employment of temporary or marching camps. 	Citadels, Defensive Towers, Parade Grounds, Housing for Military Personnel, Space for Fixed Fortifications, Forts, Milecastles, Field Fortifications, Hillforts or Earthen Ramparts and Ditches, (Fortified) Camps, Signal Towers, Safe Keeps and Lookout Towers, Temporary Military Camps or Auxiliary Forts, Legionary Fortresses, Coastal Fortifications, Blockhouses, Semi-Fortified Villas, Transport Infrastructure (Including Roads and Bridges), Fortified Frontiers (Limes), Military Colonies	
			<ul style="list-style-type: none"> – This era witnessed large-scale migrations, frequent warfare, and a significant decline in urban life. 	/	
	Medieval / Middle Age (476 to 1494)	II. URBAN AND RURAL	High (800 to 1300)	<ul style="list-style-type: none"> – During the Middle Ages, European military institutions had limited land demands, except for constructing castles, which extended certain military installations into the countryside. – The construction of castles from the 10th to the 13th century was primarily tactical, and their spatial relationships created areas of local dominance. 	Strongholds and Castles (including Inner and Outer Wards or Baileys, Revetted and Glacis Banks, Gatehouses, Drum Towers, Citadels, Curtain Walls, and Fortifications), Feudal Castles, Tower Houses, Watchtowers, Keep-Towers (Donjons), Military Batteries, Military Cities
			Late High (1300 to 1494)	<ul style="list-style-type: none"> – The infantry gained significant importance, and the revolution in artillery had a profound influence. – Until the late 15th century, vertical defence remained effective, enabling fortified locations to be protected by a small number of defenders. 	Artillery Fortifications, Bastion Forts (<i>trace italienne</i>), (Multi-Storey) Gun Towers
Modern Age (1494 to 1914)	II. URBAN AND RURAL	Early Modern Period (1494 to 1800)	<ul style="list-style-type: none"> – Military appetite for rural land became voracious, leading to the establishment of fixed fortifications in both urban and rural settings. – This era also marked a transition to “suppressive defence,” a strategy that enabled better control of the surrounding terrain, broader visibility, and the use of artillery for repelling attacks. – Development of standing armies in Europe resulted in growing requirement for training and manoeuvre grounds. 	Esplanades (<i>non aedificandi</i>), Artillery Gardens and Grounds, Linear Frontiers, Militarized Frontier Belts/Zones, Star Forts, Bastioned (Multi-Gun) Forts, New Artillery Fortifications (Including Ravelins, Orillons, Counterguards, Tenaille Traces, Caponiers, Casemates, Lunettes, Glacis, Ramparts, Cavaliers, and Earthworks), Barbicans, Fortress Towns, Colonial Forts, Fixed Fortifications, Arsenals, Storehouses, Officer Quarters, Special Churches, Stables for Army Horses, (Summer) Training Camps, Army Camps, Practice Grounds, Corps Headquarters (Complete with Practice and Experimental Grounds, Laboratories, Target Butts, and Trial Fortifications), Barracks Complexes (Complete with Armouries, Workshops, Guardhouses, Parade Grounds, and Recreational Facilities), Restricted Lands, Detached Forts, Fortified Trading Posts and Factories	
		Late Modern Period (1800 to 1914)	<ul style="list-style-type: none"> – From the middle of the 19th century towns ceased to be centres of defence and fixed fortifications shifted from the town to the countryside. – The development of the “Prussian system” or detached fortifications, characterized by concentric defensive rings positioned at considerable distances, spanning tens of kilometres away from the urban core. – Army bases needed to be situated close to population centres and strategically located within a transport network. 	Martello Towers, Ranges, Depots, Educational and Training Establishments (Including Schools of Musketry or Gunnery), Support Services, Administration Offices, National Camps (Permanent Training and Manoeuvre Grounds Equipped with Hospitals, Bakeries, Abattoirs, Barracks, and Roads), Military Colonies and Dominions, Armoured Cupolas	
Contemporary Age (1914 to the present)	The Period of the Wars (1914 to 1945)	III. RURAL	<ul style="list-style-type: none"> – Towns and cities have become too large and sprawling to effectively serve as fortresses. – Military sites such as army bases, airfields, and naval dockyards required large expanses of flat land, often in proximity to major urban areas. – During peacetime, significant construction efforts were directed toward defence systems, fortifications, bunkers, and water installations aimed at defending the entire national territory. 	Military Installations, Field Fortifications, Army Bases, Airfields, Naval Dockyards/Ports, Firing Ranges, Artillery Ranges, Research and Development Centres, Colleges, Schools, Hospitals, Prisons, Manoeuvre Grounds, Anti-Aircraft Batteries, Public Shelter Construction, Defensive Fortifications (Including Complex Systems of Fortifications, Pillboxes, Barriers, and Obstacles), Permanent Defences (Gun Sites, (<i>gros-ouvra</i> ges), Bunkers, Armoured Turrets, Observation Posts, Command Posts, Submarine Pens, Rocket Sites), Naval and Army Forts, Underground Infrastructures of Communications Systems and Command Centres, Facilities for Manufacturing, Storing, or Researching Weapons and Ammunition (Defence Manufacturing Facilities), Overseas Training Grounds, Defence Industries, Battlefield/War Memorials, Military Cemeteries	
			Cold War Era (1945 to 1991)	<ul style="list-style-type: none"> – This phase was marked by geopolitical tensions between the United States and the Soviet Union and their respective allies, the Western Bloc and the Eastern Bloc. – The extent of space under direct military control experienced a substantial increase during the latter half of the 20th century. 	Military Frontiers, Military Colonies, Military Headquarters, Nuclear Testing Locations, Logistics Facilities, Special Purpose Facilities, Safety Zones, Tourist-Catering Facilities, Military Health Facilities and Personnel Recovery Centres, Military Academies, Armed Forces Halls.
	Europe Without Borders (1991 to the present)	IV. DEMILITARISATION	<ul style="list-style-type: none"> – The need for swift and flexible responses in modern times necessitated entirely different spatial characteristics for military units. – Smaller armies accompanied by reduced spatial resource requirements resulted in the demilitarization of many military areas. 	Main Operating Bases (MOB), Forward Operating Sites (FOS), Cooperative Security Locations (CSL), Maritime Operations Centres (MOC), Advanced Technology Research Centres, Training and Simulation Centres, Cyber Security Centres (CSC), Military Space Command Centres, ...	

ship between military and civilian landscapes. As a unique institution with its distinct mindset, the military has often been marginalised in public discourse and academic research regarding its role in civil society. A noticeable gap exists in exploring the relationship and spatial significance of the military within urban settings.²⁵

Recognising these challenges and comprehending the distinctive status of the military is imperative for achieving a comprehensive understanding of the conversion and integration of military sites into urban environments.

The research highlights the challenges inherent in demilitarisation processes and reveals that transitioning military sites from active military use to civilian domains is not straightforward. The erasure of military areas from maps for security reasons, led to the removal of military areas from public awareness, and the unique regulations governing military spaces created significant obstacles to integrating them into urban development plans. Challenges such as data availability and access further hinder their incorporation into the urban fabric. Therefore, any discussion about utilising demilitarised sites for future development must address these challenges and establish mechanisms to overcome them.

While military land use has caused environmental impacts, it has also conserved certain valuable landscapes. An overview of military sites and types (Table I) highlights their diversity and potential for urban development, which lies in the strategic proximity of military spaces to major urban areas, making them valuable assets for future growth. Certain military zones, characterised by minimal construction, are strategically situated in landscapes of significance, protecting them from potential devastation. Despite their limited economic contribution, these areas shield valuable landscapes from potential devastation caused by alternative and less complementary purposes, such as industrial or tourism-related developments. With the ongoing demilitarisation of these zones, there is a growing risk of their conversion, leading to the potential destruction of valuable landscape features.

²⁵ Although there is a whole series of economic and geographical studies, especially in Great Britain, which dealt with the consequences of the conversion of the defence sector on the development of cities and regions in which the emphasis was placed on the possibilities and mechanisms of urban revitalisation, the potential and specificity of that space have been insufficiently explored through spatial planning aspect. The challenges inherent in researching military spaces are not confined to Western countries; they are further exacerbated in non-democratic states.

In this context, how the demilitarised military areas are changed and for which purpose is gaining importance. Military spaces such as airfields, docks, and barracks are strategically positioned near major urban centres, making them valuable for development. Transforming military spaces, especially those from the 19th and 20th centuries, presents a significant opportunity for urban renewal (Jukić et al., 2020). Once on the city outskirts, these spaces are now integral urban components, necessitating efficient transformation and integration while preserving historical value.

As research probes military-civilian interactions, it raises crucial questions about the future. Given the evolving geopolitical landscape and security concerns, how can these demilitarised areas be strategically repurposed to align with contemporary urban development goals?

Investigating the historical evolution of military sites within the European context lays a foundation for pondering these questions. It offers valuable insights into the potential for the utilisation of demilitarised military areas in future urban development. By acknowledging the complex historical layers of military presence and demilitarisation, urban planners and policymakers can approach integrating these areas into urban development more responsibly and with greater understanding.

This chapter aims to emphasise the need for a careful and responsible approach to transforming military sites. Despite challenges, history shows that repurposing military areas for civilian use enriches urban landscapes and promotes interactions between diverse societal spheres. These lessons can guide us in creating more dynamic, inclusive, and sustainable cities.

CONCLUSION

The paper offers a deeper understanding of the historical development of military sites, revealing the intricate dynamics that have shaped European landscapes. The evolution of military spaces, shifting from urban fortresses to expansive rural complexes and ultimately transmuting into demilitarised enclaves, provides profound insights that resonate within urban development. It highlights the dynamic interplay between military and civilian spheres throughout history. The research sheds light on how military sites have influenced and been influenced by societal and strategic forces over time, emphasising the enduring impact of pivotal spatial and organisational factors – the city and the state – on their development.

In this era of substantial transformation, numerous aspects are undergoing scrutiny. Profound changes resembling those of the sixteenth and seventeenth centuries are reshaping the core structures of social and political organisations. The prescience exhibited by Childs three decades ago foreshadowed privatisation potentially leading to reductions in military estate, resulting in the transfer of some land from the military to the private sector. Assertions about the imminent decline of the nation-state warrant scrutiny and propel us to inquire into how these shifts might shape the trajectory of warfare and, by extension, the utilisation of military land.

With increasing urbanisation, the need arises to concentrate future developments within the existing urban fabric, predominantly on brownfield land, which emerges as a pragmatic and sustainable solution. Integrating former military sites into contemporary urban development presents both challenges and opportunities. The research through the historical development of military spaces highlights the challenges inherent in demilitarisation processes. The erasure of military areas from maps for security reasons and unique regulations governing military spaces create obstacles to their integration into urban development plans. This clarifies why we often discover and start dealing with modern military spaces and facilities only when they lose their primary function. From the perspective of the local population, modern military areas are foreign and inaccessible, excluded from social processes, which leads to the local community's insufficient involvement, sometimes even the impossibility, of participating in planning the future development and use of former military sites.

This study further clarified the special status of the military in society, their "invisibility" and "non-existence", raised awareness regarding the magnitude of military sites in cities, and provided additional insight into the reduced need for their use. By understanding this and the historical transformations, societal dynamics, and spatial implications, urban planners, policymakers, and stakeholders can navigate the complexities of the conversion processes of demilitarised sites and harness their potential.

In summary, this study reveals the profound role of military reorganisation and the transformation of military sites in shaping the urban landscape throughout history. A brief historical overview serves as an incentive for further comprehension of their developmental potential because integrating these sites into urban fabric can enhance the overall urban quality and contribute to economic and sustainable city development.

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SOURCE OF ILLUSTRATIONS AND TABLES

FIG. 1 Marin Šušić, 2022

FIGS. 2-6 Authors

TABLE I Authors

