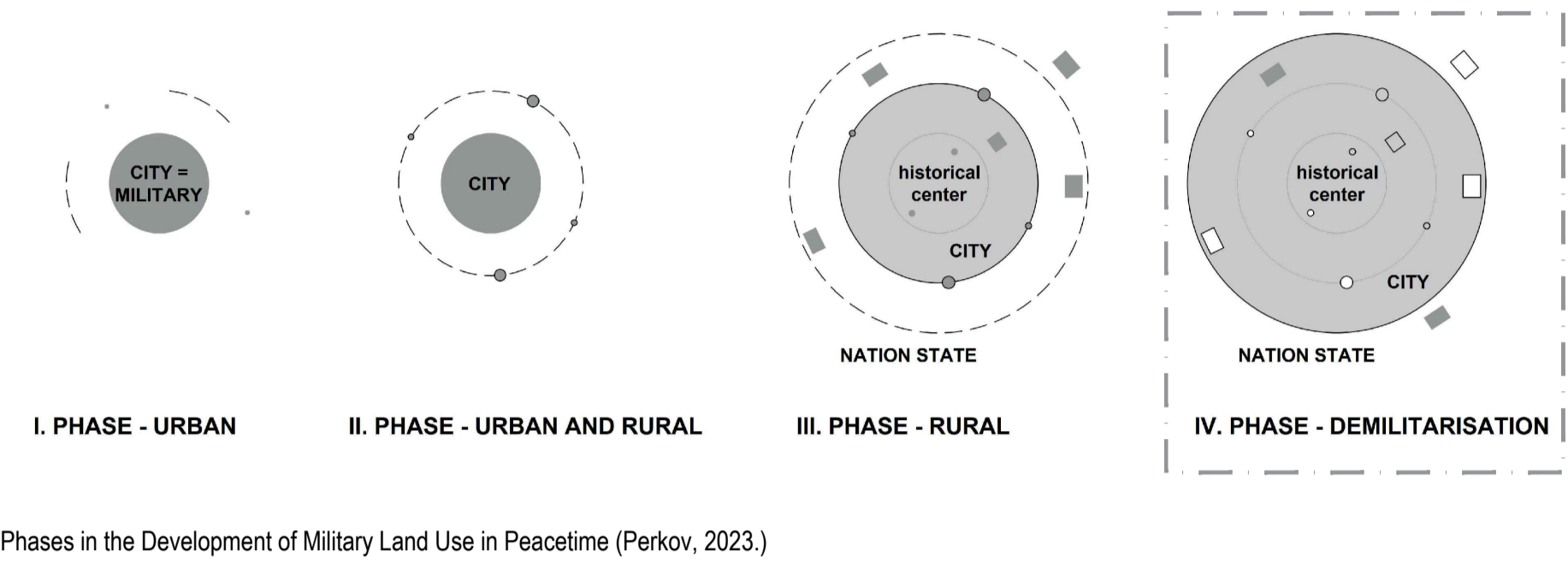


URBAN PLANNING MODELS FOR THE TRANSFORMATION AND INTEGRATION OF MILITARY BARRACK SITES IN THREE COASTAL CITIES OF THE REPUBLIC OF CROATIA: ŠIBENIK, PULA, AND ZADAR

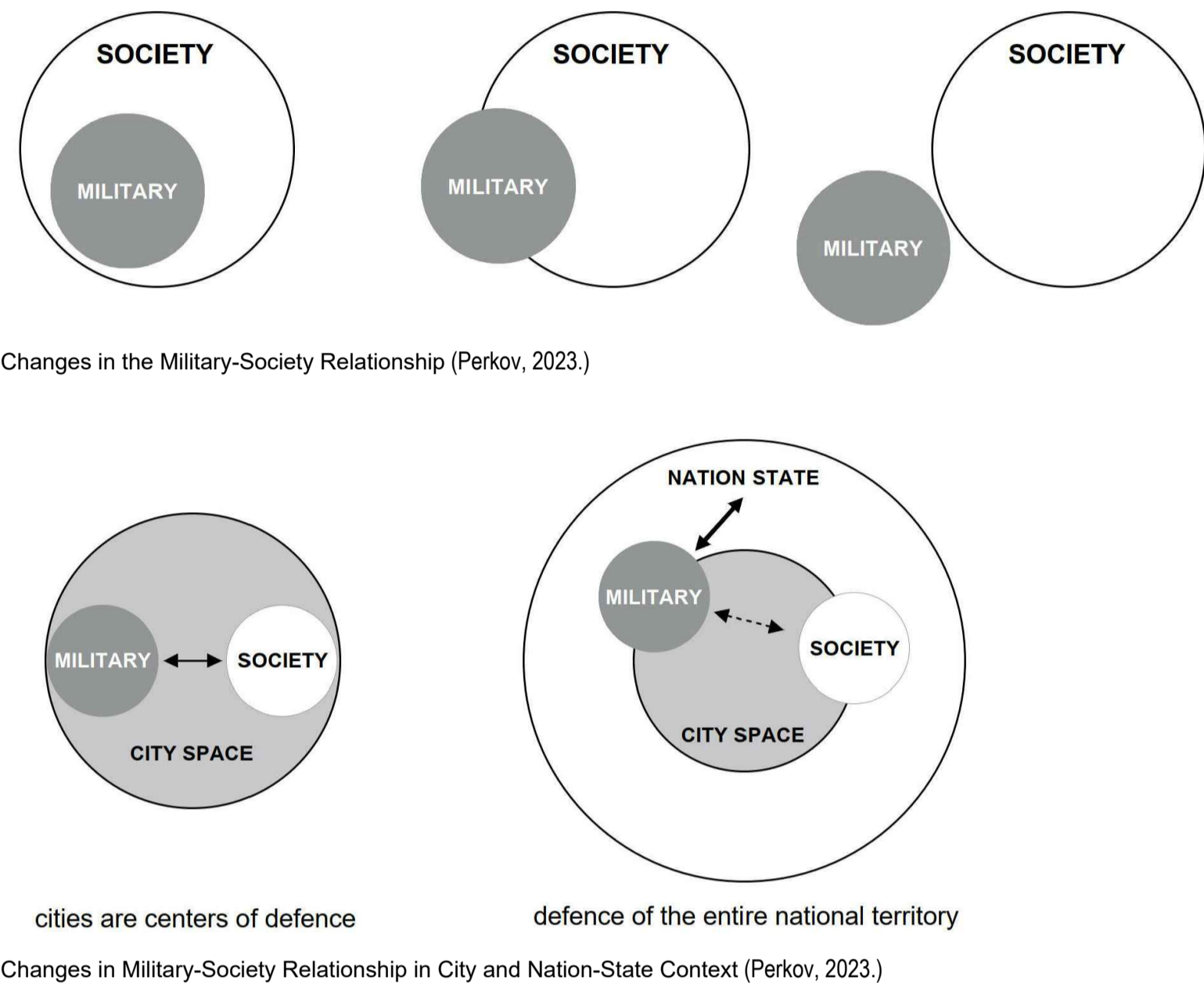
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INTRODUCTION

This research was prepared as part of the doctoral dissertation, "**Urban Planning Models for Transformation and Integration of Military Barrack Sites within the City of Šibenik**", which explores the processes involving the transformation and integration of barrack sites within the urban context. It does so through the lens of urban planning and approaches related to city development.



MILITARY-SOCIETY RELATIONSHIP



RESEARCH APPROACH

The research pays particular attention to the interplay between urban planning strategies and the repurposing of barrack spaces. Through urban analysis, the research recognizes the area of the barrack sites as a spatial potential for the city's development. Concurrently, it refines spatial planning methodologies by establishing criteria for evaluating the transformation and integration potential of these areas.

RESEARCH METHODOLOGY

Methodologically, this research is grounded in the analysis of relevant scientific and professional, as well as relevant spatial planning documentation. Within this framework, a set of criteria has been synthesized to facilitate the qualitative assessment of the transformation and integration potential of barrack sites. Theoretical assumptions are thoroughly verified through research, focusing on barrack sites located in three coastal cities of the Republic of Croatia: Šibenik, Pula, and Zadar.

OBJECTIVES AND HYPOTHESES

- O1** Establish types of military spaces and their characteristics.
- O2** Define spatial features and establish criteria for evaluating the potential for urban transformation and integration of military barracks.
- O3** Determine urban models for the transformation and integration of military barracks spaces within the city context.

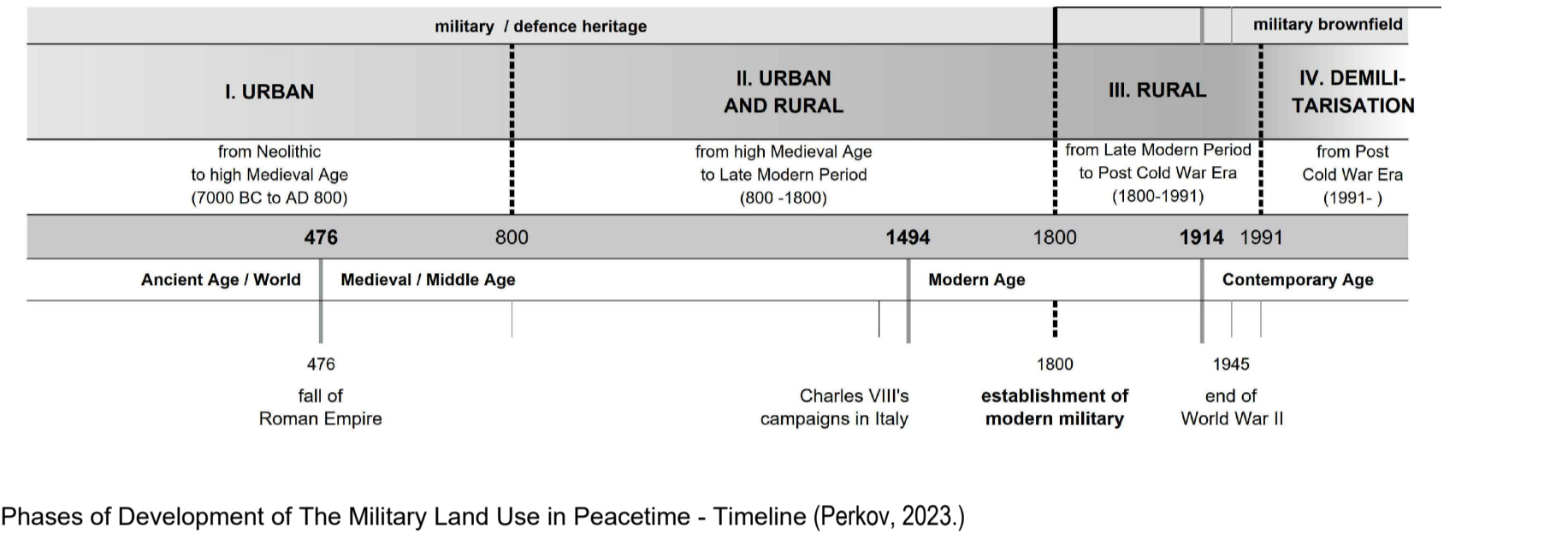
H1 The type of military space directly influences its functional and content transformation.

H2 The spatial arrangement of military barracks in relation to the city centre directly affects the speed of transforming and integrating these spaces into the urban fabric.

H3 Establishing comprehensive urban criteria and identifying urban models for the transformation and integration of military barracks spaces will enable their better integration within the existing urban fabric.

Demilitarisation phase

The Demilitarisation phase, closely tied to the post-Cold War Era, reflects the changing landscape of military organisation. The armies are smaller, accompanied by a reduced need for spatial resources, leading to the demilitarisation of numerous military areas which increased accessibility to civilians. Over the past three decades, the process of redundancy has gained momentum.



Types of military spaces

Historical period	Phase of development of the military land use in Peacetime	Military site / type
Pre-history	I. URBAN	Town Fortifications (including fortifications, ditches, walls, ramparts, earthworks, stockades, bastions, towers, and gates)
Neolithic (7000 BC to 2000 BC)		Citadels, Defensive Towers, Parade Grounds, Housing for Military Personnel, Space for Fleet Fortifications, Forts, Missiles, Field Fortifications, Hilltops or Earthen Ramparts and Ditches, (Fortified) Camps, Signal Towers, Gate Keeps and Lookout Towers, Temporary Military Camps or Auxiliary Forts, Logistical Fortresses, Coastal Fortifications, Blackhouses, Semi-Fortified Villages, Transport Infrastructure (including Roads and Bridges), Fortified Frontiers (Lines), Military Colonies
Ancient Age / World (2000 BC to AD 476)		
Medieval / Middle Age (476 to 1454)	II. URBAN AND RURAL	Strongholds and Castles (including inner and Outer Wards or Bailey, Revetted and Glacis Banks, Gunhouses, Drum Towers, Glacis, Curtain Walls, and Fortifications), Feudal Castles, Tower Houses, Watchtowers, Keep-Towers (Donjons), Military Bazaars, Military Cities
Early / Migration Period (476 to 800)		Artillery Fortifications, Bastion Forts (space balloons), (Multi-Storey) Gun Towers
High (800 to 1300)		
Late High (1300 to 1454)	III. RURAL	Esplanades (iron anvils/camp), Artillery Gardens and Grounds, Linear Frontiers, Militarized Frontier Belts/Zones, Star Forts, Bastioned Multi-Gun Forts, New Artillery Fortifications (including Bastions, Officers, Counterguards, Tenaille Traces, Caponiers, Casemates, Lunettes, Glacis, Ramparts, Cavaliers, and Earthworks), Barbicans, Fortress Towns, Colonial Forts, Field Fortifications, Airbases, Shoreposts, Officer Quarters, Special Churches, Stables for Army Horses, Gunner Training Camps, Army Camps, Practice Grounds, Corps Headquarters (Complete with Practice and Experimental Grounds, Laboratories, Target Ranges, and Trial Fortifications), Barracks Complexes (Complete with Ammunitions, Workshops, Gunhouses, Parade Grounds, and Recreational Facilities), Restricted Lands, Detached Forts, Fortified Trading Posts and Factories
Early Modern Period (1454 to 1800)		
Late Modern Period (1800 to 1914)		
Modern Age (1454 to 1914)	IV. DEMILITARISATION	Marble Towers, Ranges, Depots, Educational and Training Establishments (including Schools of Musketry or Gunner), Support Services, Administrative Offices, National Camps (Promoted Training and Maneuver Grounds) Equipped with Hospitals, Bazaars, Abazars, Barracks, and Roads), Military Colonies and Detachments, Armoured Capades
The Period of the Wars (1914 to 1945)		Military Installations, Field Fortifications, Army Bases, Airfields, Naval Dockyards/Ports, Firing Ranges, Artillery Ranges, Research and Development Centres, Colleges, Schools, Hospitals, Prisons, Museum Grounds, Anti-Aircraft Batteries, Public Shelter Construction, Defensive Fortifications (including Complex Systems of Fortifications, Pillboxes, Barriers, and Obstacles), Permanent Defences (Gun Sites, (group) coverages, Bunkers, Armoured Tunnels, Observation Posts, Command Posts, Submarine Ports, Rocket Sites), Naval and Army Forts, Underground Infrastructures of Communications Systems and Command Centres, Facilities for Manufacturing, Storing, or Researching Weapons and Ammunition (Defense Manufacturing Facilities), Overseas Training Grounds, Defence Industries, Battlefield/War Memorials, Military Cemeteries
Cold War Era (1945 to 1991)		Military Frontiers, Military Colonies, Military Headquarters, Nuclear Testing Locations, Logistics Facilities, Special Purpose Facilities, Safety Zones, Toxic-Clearing Facilities, Military Health Facilities and Personnel Recovery Centres, Military Academies, Armed Forces Halls
Europe Without Borders (1991 to the present)		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, ...

RESEARCH CASES

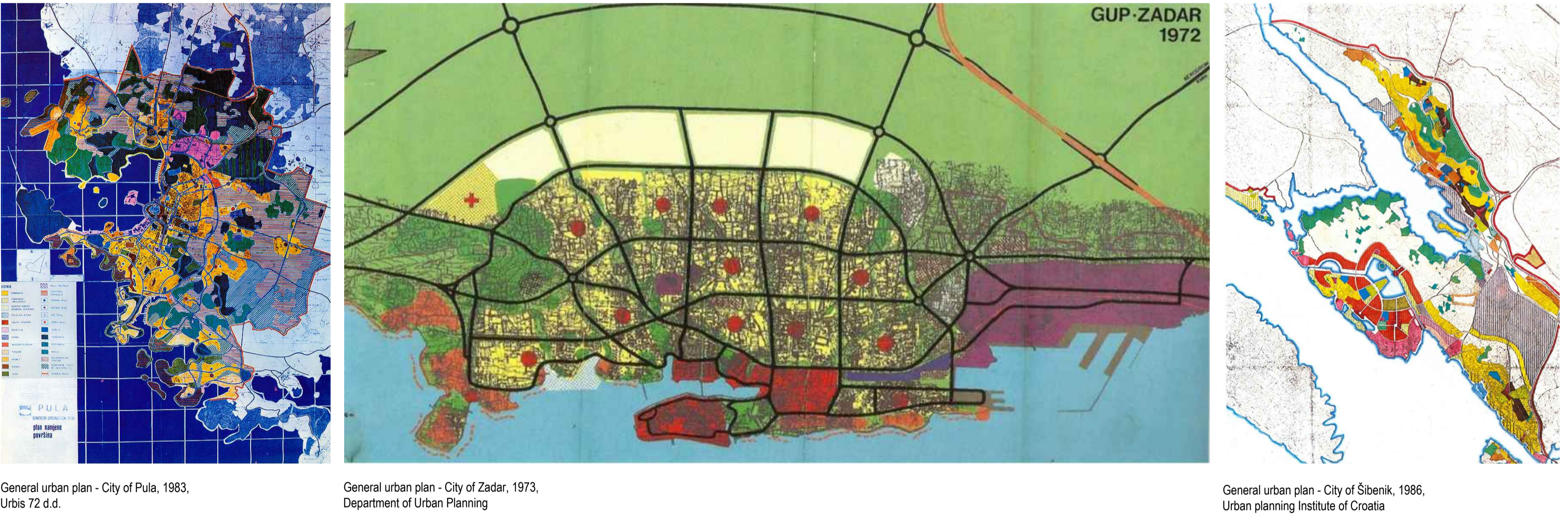
Although the process of conversion of military areas is present in all parts of Croatia, research indicates that these processes are most visible in coastal areas due to the consequences of modern urban transformation processes and the increasingly pronounced influence of tourism. The research singles out coastal cities due to different approaches to the transformation and integration of these spaces into the existing city fabric.

Over a century and a half, many military facilities of various purposes were built on the territory of the City of Pula, and Pula rightly bore the name "military city".

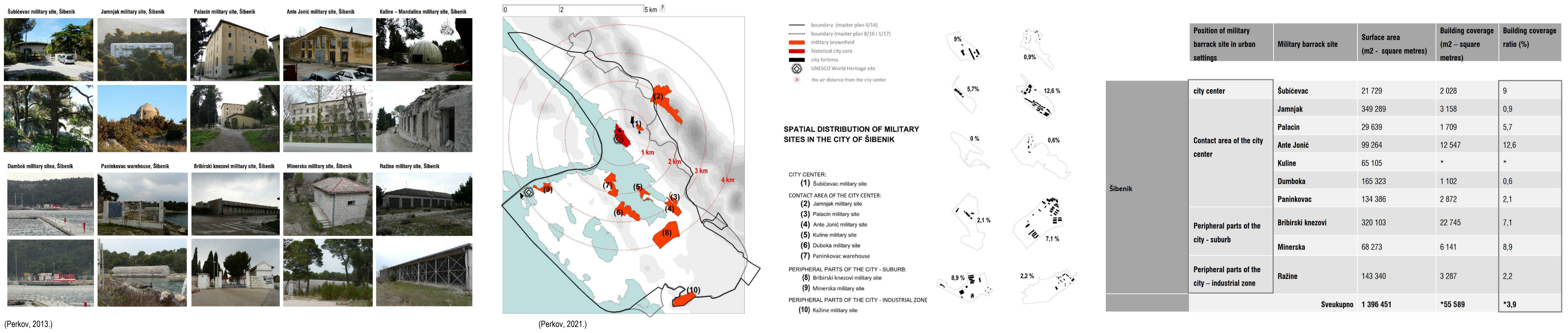
The first plan in which there are no special purpose areas (barracks) was the General Urban Plan of the City of Zadar - GUP Zadar from 1973.

Šibenik is a city with a rich military heritage, and because of its position in the urban fabric, military buildings and sites have been a factor in its uneven spatial development for years.

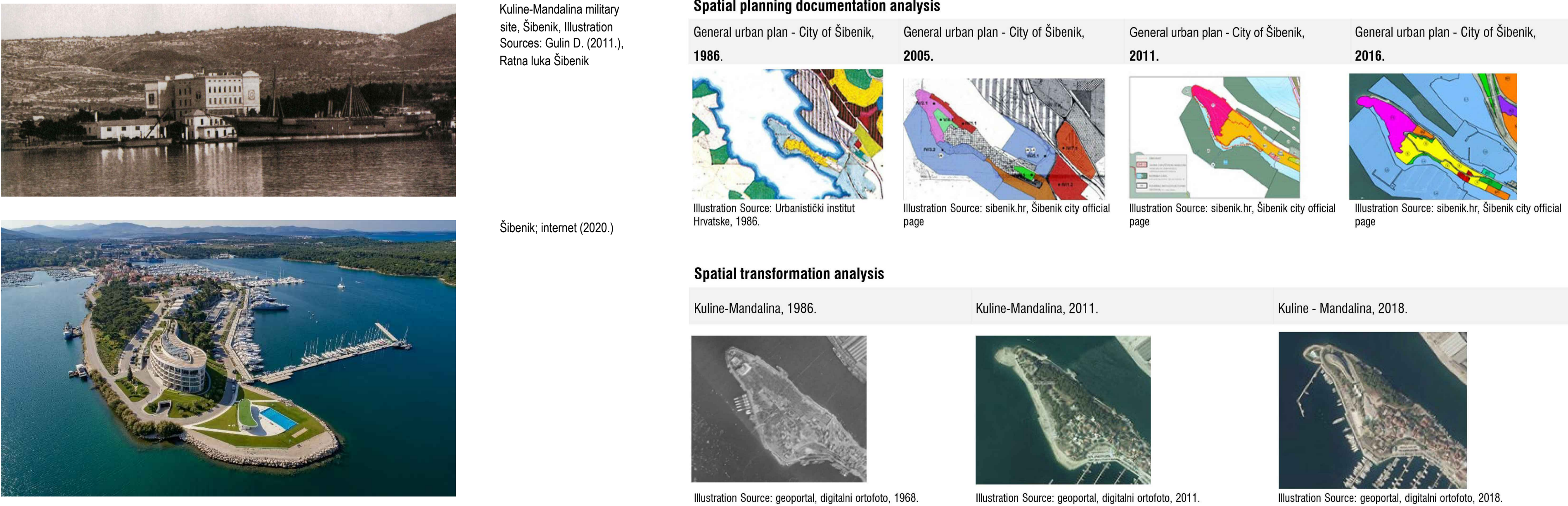
SPATIAL PLANNING PRACTICES - PULA, ZADAR AND ŠIBENIK



MILITARY BARRACK SITES WITHIN THE CITY OF ŠIBENIK



TRANSFORMATION AND INTEGRATION OF MILITARY BARRACK SITES



CONTRIBUTIONS

This work contributes to a better understanding of the transformation and integration process of barrack sites and their significance in effecting structural changes and advancing urban development.

The contribution of this research includes the theoretical progress of the methodology (through the addition of the general urban planning model in the context of barrack sites). Moreover, it has practical implications through the possibilities of application in the planning process and creation of spatial planning documents (specifically spatial and urban plans) in the Republic of Croatia.