POST-ANTHROPOCENTRIC LANDSCAPES: UNOCCUPIED MILITARY LANDS IN ANKARA

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ABSTRACT

POST-ANTHROPOCENTRIC LANDSCAPES: UNOCCUPIED MILITARY LANDS IN ANKARA

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As the world struggles with climate change and its destructive effects on the planet, our global urbanization processes that are largely responsible for further exacerbating the crisis also need to be reformulated. In fact, combatting the environmental crisis in a meaningful way necessitates a radical paradigm shift that moves away from the human-centered urbanism practices and adopts instead a post-anthropocentric approach to urban design. This study speculates on the role of unoccupied urban lands in this shift. As sites that exclude the human agent by definition, their different spatial conceptions, scales and ecological values are examined and instrumentalized to reframe them as post-anthropocentric landscapes. The unoccupied military lands in Ankara are investigated as the study focus of this thesis. Since the 2016 coup attempt, decommissioning and relocating military installations has become a part of the government's urban transformation program. Large tracts of unoccupied urban lands are thus emerging in various cities of Türkiye as a new urban design challenge. In this regard, Ankara's post-military lands are examined in terms of their ecological performance, urban significance and redevelopment potential. Based on this research, three main design principles -*Embracing natural processes, Creating hybrids, Establishing connections*- are suggested to guide alternative, non-human-centered approaches of redevelopment. Thus, the unoccupied military lands in Ankara are reframed as post-anthropocentric

landscapes that can transform the entire city and help it mitigate the local effects of the climate crisis.

Keywords: Post-anthropocentric landscapes, Unoccupied Lands, Post-military lands

ÖZ

POST-ANTROPOSENİK PEYZAJLAR: ANKARA'NIN BOŞALTILAN ASKERİ ALANLARI

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Dünya iklim değişikliğinin yıkıcı etkileriyle boğuşurken, bu krizi şiddetlendirmekte büyük rolü olan kentleşme süreçlerimizin de sorgulanıp yeniden inşa edilmesi gerekmektedir. İklim kriziyle anlamlı bir biçimde mücadele edebilmek için radikal bir paradigma değişikliği gerçekleştirerek insan-merkezci kentleşme pratiklerinden uzaklaşıp kentsel mekanı post-antroposenik bir yaklaşımla ele almak elzemdir. Bu tezde kentsel boşlukların bu geçişteki rolü sorgulanmıştır. Tanımları gereği insan kullanıcıların bulunmadığı bu mekanlar, ölçekleri, ekolojik değerleri ve çeşitli ele alınma biçimleriyle incelenip post-antroposenik peyzajlar olarak yeniden çerçevelendirilmiştir. Ankara'da bulunan atıl askeri alanlar bu bağlamda çalışmanın odak konusu olarak ele alınmıştır. 2016 yılındaki darbe girişiminden itibaren, kent merkezinde bulunan askeri birliklerin taşınması ve askeri kışlaların boşaltılması Türkiye genelinde uygulanan kentsel dönüşüm programının bir parçası haline gelmiştir. Bunun sonucunda, ülkenin birçok kentinde aniden ortaya çıkan büyük kentsel boşluklar yeni bir kentsel tasarım problemi olarak ele alınmalıdır. Bu bağlamda, Ankara'nın atıl askeri alanları, kentsel önemleri, ekolojik değerleri ve dönüşüm potansiyelleri açısından irdelenmiştir. İnsan merkezci dönüşüm

yaklaşımlarına alternatif bir tasarım anlayışını yönlendirecek üç ana prensip - *Doğal süreçleri kucaklamak, Hibrit durumlar yaratmak, Mekanlar ve türler arası bağlantılar kurmak* -önerilmiştir. Böylelikle, Ankara'da bulunan atıl askeri alanlar, tüm kenti dönüştürme ve iklim krizinin yerel etkilerini hafifletme potansiyeli bulunan post-antroposenik peyzajlar olarak tanımlanmıştır.

Anahtar Kelimeler: Post-antroposenik peyzajlar, Kentsel boşluklar, Askeri alanlar

To the song inside Blue 52

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CHAPTER I

INTRODUCTION

" *Look around you, at today's world. Your house, your city. The surrounding land, the pavement underneath, and the soil hidden below that. Leave it all in place, but extract the human beings. Wipe us out, and see what's left. How would the rest of nature respond if it were suddenly relieved of the relentless pressures we heap on it and our fellow organisms? How soon would, or could, the climate return to where it was before we fired up all our engines?*"

(Weisman, 2007)

1.1 Aim of the thesis

This thesis explores the topic of urban unoccupancy, particularly the post-military lands in Ankara, within the context of post-anthropocentric urbanism. The Anthropocene epoch we are currently in is prominently distinguished from the previous ones by the pressing threats of the climate crisis and its destructive effects on our natural as well as urban environments. Cities and the global urbanization processes that shape them are responsible for intensifying the climate-induced disasters to a considerable extent. Thus, meaningfully combatting the environmental crisis cannot be achieved independently from the way in which we design, build and manage our cities. Therefore, there is an urgent need for breaking free from the prevailing human-centered conceptions of urban space and adopting instead a post-anthropocentric approach to urbanism.

Unoccupied urban lands that are by definition free of direct human influence can play a critical role in this paradigm shift. By referring to the landscape-based lexicon of urban unoccupancy, such sites are evaluated in terms of their definition, scale, urban significance and ecological potential. By doing so, they are unveiled as post-anthropocentric landscapes that can foster alternative conceptions of urban space. Within this framework, the unoccupied military lands in Ankara are examined as the study focus of the thesis. Türkiye's project of decommissioning and relocating military installations has resulted in the sudden emergence of large tracts of post-military lands as an urban design challenge. Particularly in Ankara, although they account for a significant portion of the total urban land, their fate remains largely unknown. Hence, this study distills the emerging post-military lands in terms of their urban significance and ecological performance and investigates their transformative potential for the city.

1.2 Scope of the thesis

Given the accelerating degradation of the planet's biophysical conditions, we are currently living in times of uncertainty. The destruction of natural habitats, pollution, and rampant deforestation are some of the many disasters that are intensified and fueled by processes of global urbanization. (Seitzinger, 2012). Approximately 70% of the global CO_2 emissions from total energy consumption are attributable to cities. (Angelo & Wachsmuth, 2020). The majority of the harm that has been inflicted upon the planet is linked to urban and global processes of production, consumption, and the management of waste. Naturally, there has been a growing expectation that cities should be able to provide spatial, organizational, and technical solutions that can help matters regarding the environmental threats they are responsible for. (McDonald & Beatley, 2021). Some of the prevailing approaches to environmental theory have since moved away from a strictly "anti-urban" perspective to one that recognizes the potential of cities to stimulate novel forms of urbanization, more efficient use of resources, and original contributions to ecological design. (Gandy,2022). Considering the realities of the climate crisis, it is evident that the way in which we

shape and treat the urban environment must be fundamentally reformulated and re-oriented towards more ecologically conscious approaches.

The limited efficiency of the mainstream urban practices that aim at combating climate change through so-called “green architecture”, “eco-friendly urbanism”, “sustainable design” principles highlights the need for a different approach. The current environmental predicament can be attributed to a mindset that is predominantly sustained by an anthropocentric bias. For instance, even the environmentally conscious urbanization practices inevitably operate under the capitalist economic model that habitually favors human interests over ecological value. Thus, they fail to address the underlying issues at the base of the climate crisis. (Teymur, 2018). In other words, adopting a post-anthropocentric approach to urbanism is crucial for confronting the threats of climate change. Post-anthropocentric urbanism as a paradigm abandons the limited human-centric worldview and acknowledges the interdependence and inherent worth of all organisms and ecological systems. It reframes cities as integral components of broader ecological systems by removing the constructed separation between binary oppositions such as *urban vs wilderness*, *natural vs human-made*, *human vs non-human*, etc.

In this regard, a critical urban problem to investigate is the role and fate of unoccupied lands in the shift towards more ecological, post-anthropocentric conceptions of the contemporary city. Contrary to currently oppressed urban spaces, unoccupied lands nevertheless still hold the possibility of discovering other forms of urbanization. Such lands inherently call for alternative approaches to the existing urban fabric due to their very nature, that exists outside the sterile, normative territories of urban space and defies the social, functional, economic, and cultural boundaries of urban life. (Barron, 2014). There has been an exponentially increasing interest in the topic of urban unoccupancy within many disciplines including architecture, urban design and urban ecology. Numerous theorists and practitioners have individually and collectively, ruminated on the particularities of such unoccupied urban lands under a variety of terminology and within a diverse set of

research scopes. The study focus of this thesis is mainly the unoccupied military lands in Ankara and their ecological potential as sites of post-anthropocentric urbanism and their role in addressing the climate crisis.

Since the end of the cold war, changes in warfare strategies, technological advancements, and countries' inclinations to redistribute their military budgets have led to the emergence of post-military lands. (Bagaeen, 2016). As they previously were extremely well protected military sites with restricted human access, such spaces introduce unique and complex layers to the urban unoccupancy discussion. Although for different reasons, Türkiye also witnessed a sudden increase in the number of unoccupied military lands across several cities. The decommissioning of military installations has emerged as a notable urban phenomenon in Türkiye since the 2000s, with a pronounced acceleration following the 2016 coup attempt. (Ural, 2019). The sudden political shift has resulted in unoccupied military sites becoming urgent urban design challenges within the cityscape of Türkiye. Particularly in Ankara, post-military lands have a critical importance within the urban fabric due to their vastness and uniform distribution in the city. Thus, the current approaches in the redevelopment of post-military lands in Türkiye and more specifically, in Ankara are critically analyzed. On that basis, an alternative and post-anthropocentric redevelopment approach is proposed.

1.3 Structure of the thesis

This thesis consists of five chapters that aim to recontextualize unoccupied urban lands, particularly the post-military lands in Ankara as post-anthropocentric landscapes.

The first chapter briefly explains the aim and scope of the thesis. It introduces urban unoccupancy as the focus of the study and frames it as one of the critical urban challenges to be studied in the Anthropocene. Then it introduces post-military lands in Ankara as the chosen case study of this research and explains the significance of

studying them through the lens of post-anthropocentric design. The second chapter presents the theoretical framework of the thesis by introducing the topic of urban unoccupancy and analyzing it from its various aspects. It also grounds the discussion in the post-anthropocentric design discourse by exploring its main principles through case studies. Finally, it reframes unoccupied urban lands as post-anthropocentric landscapes.

The third chapter focuses on post-military lands and explains their emergence as a global urban phenomenon in relation to the major political and technological shifts in our recent history. Having introduced them, it explores the positive and negative effects of military activities on the ecology of military sites and comments on the unique position they hold within the discourse of urban unoccupancy. Finally, it concludes with a section studying several post-military land redevelopment projects and analyzing their different approaches.

In the fourth chapter, the unoccupied military lands in Ankara are introduced and studied. Beginning with a brief summary of the military site decommissioning project of Türkiye, this chapter highlights the significance of post-military lands as critical urban design challenges the country is currently facing. It also identifies the prevailing post-military land redevelopment approaches by analyzing several cases from Türkiye. The chapter then narrows its focus to the particular context of Ankara and explores the unoccupied military lands in terms of their urban significance, ecological role and their transformative potential. It concludes by suggesting three main design principles - *Embracing natural processes, Creating hybrids, Establishing connections*- to guide an alternative, post-anthropocentric approach to post-military land redevelopment in Ankara. The final chapter presents a discussion on the fate of unoccupied military lands in Ankara by framing them as post-anthropocentric landscapes that can transform the entire city and help it mitigate the local effects of climate change.

CHAPTER 2

GROUNDING URBAN UNOCCUPANCY IN POST-ANTHROPOCENTRIC DESIGN

This chapter aims to ground urban unoccupancy as a phenomenon to be tackled through the lens of post-anthropocentric design. The first section dwells on the definition and emergence of unoccupied urban lands which are then categorized and analyzed according to their scale. The following section outlines the theoretical boundaries of the topic of urban unoccupancy by analyzing the three prevailing approaches to unoccupied lands in both theory and practice. Then, it highlights their potential as post-anthropocentric landscapes by exploring their ecological significance. The final section of this chapter suggests re-framing the urban unoccupancy discussion through the lens of post-anthropocentric design and examines its main principles through several case studies.

2.1 On Urban unoccupancy

The topic of urban unoccupancy is a multifaceted problematique that has been approached in many ways by architects and urbanists alike. The core of this lies in the idiosyncratic nature of unoccupied urban lands as spaces that are challenging to clearly define or even identify. In an attempt to make sense of them, this section dwells on their definition, nomenclature and emergence as peculiar sites of interest within the urban environment.

2.1.1 The definition of urban unoccupancy

Unoccupied

adjective

"un·occupied ": without anyone in it or not busy."[1]



Fig. 1 Unoccupied urban land.

Source: Mike Linksvayer / Flickr.

The absence of humans is emphasized in the notion of unoccupancy, which is a form of spatial emptiness. A room that is already furnished, for instance, is not an empty space. However, we can refer to it as an "unoccupied room" if there are no people present in it and it is not being used. The task of defining urban unoccupancy, on the

[1] Cambridge dictionary definition.

other hand, is far more challenging. Situations of urban unoccupancy can be vague due to several factors, including the lack of clearly defined spatial boundaries, the multi-layered usage of the urban land, or the social and spatial complexity of the context itself. This complexity is reflected in the amplitude of urban researchers' different attempts of identifying, defining and theorizing such spaces. While there are many names given to such spaces, they are often characterized by their quality of emptiness. Terms such as "Vacant lands", "Empty Spaces", "Urban Voids", etc. are inevitably besmirched with negative connotations that associate unoccupancy with nothingness. (Lopez-Pineiro, 2020). However, unoccupied lands are not empty or vacant lands, they are dynamic spaces that can host thriving ecosystems. Nor are they urban lots that are devoid of any values, they are sites of limitless alternative – non-economic- potential. (Lopez-Pineiro, 2020). On the other hand, the concept of unoccupancy does not imply nothingness and valuelessness. It instead highlights the limited presence of human agents in the processes that create and shape the unoccupied urban land.

Conditions of urban unoccupancy are intricately connected to global financial flows, processes of urbanization and de-industrialization, as well as production and consumption systems across the globe. Berger likens the natural mechanisms that the city uses to generate waste, dispose of it, and maintain control over it to those that are found in living organisms. (Berger, 2007). The "urban wastelands" are often associated with instances of abandonment and deterioration and are created organically when cities expand and contract due to the natural growth and shrinkage of cities. In urban and landscape theory, there has been a rise in interest in the so-called "wastelands" throughout the course of the past several decades. This interest has notably risen to the forefront with regard to contemporary urban and global concerns such as climate change, social inequality, and economic crises.

Academics have conceptualized urban wastelands, which will be referred to as "unoccupied lands" in this thesis, for decades under many titles and within varying scopes. Their common denominator is their unique role and position within the urban

setting as parts of the city that exist outside of its conventional, normative processes of production and consumption. They are spaces that defy the ongoing economic, social, cultural, and political dynamics of the urban fabric they are an inseparable part of. (Barron & Mariani, 2014; Lokman, 2017). From a traditional point of view, unintentional and undesigned voids are regarded as anomalies that have no place in the city. They are regarded as points of stagnancy and non-productivity. In fact, some theories define them as holes or pores that break the continuity of the urban fabric and the various programs it inhabits.

Nevertheless, such seemingly vacant spaces that are not ordinarily regarded as landscapes actually serve numerous functions in the city. Their vacancy translates to a sense of programmatic freedom, limitless mobility, as well as unbounded spatial, social, and ecological possibilities. Due to their unique position outside the already existing and "conventionally urban" fabric, the unoccupied lands can also be defined as breeding points for alternative and opposing forms of urbanity. The artist and architect collective STALKER defined them as "spaces of confrontation and contamination between the organic and the inorganic, between nature and artifice" that "constitute the built city's negative, interstitial, and marginal spaces, abandoned or in the process of transformation." (Romito, 1996, as cited in Carieri, 2017, p.207). Hudson and Panas, remind us that vacancy is not a uniform urban phenomenon. Depending on the underlying multilayered factors that produced the unoccupied urban land, the spatial implications of unoccupancy might vary significantly. (Hudson & Panas, 2010). They can be found in varying spatial densities, with differing boundary conditions, varying sizes, and complex ownership states, as well as diverse biophysical and ecological conditions.

Furthermore, the duration of vacancy also plays an important role in terms of forming the attributes of the site. Unoccupied lands with no future plans of development can be significantly different from temporarily abandoned sites that are in the phase of transformation. (Nassauer & Raskin, 2014). Having said that, despite - and also because of- all these unknowns and externalities contributing to the ambiguous

nature of unoccupied lands, they are sites of limitless social, ecological, aesthetic, and artistic potential as described by Cupers and Miessen. (Cupers & Miessen, 2018).

2.1.2 Scales of urban unoccupancy

Unoccupied urban lands are heterogeneous in terms of the immense variety they can be found in. Their emergence, their location, and their physical as well as cultural and historical attributes all contribute to the creation of a wide range of typologies of unoccupancy. This section categorizes unoccupied lands in reference to their scale. Although they can be found within urban settings on countless scales, ranging from the interstitial voids in-between building blocks to the city scale, they will be discussed under three categories: Interstitial spaces**,** Urban lands and City as unoccupied terrain.

2.1.2.1 Interstitial spaces

“Interstitial space” is a name that describes different forms of “in-between” spaces. They are often deemed too insignificant to pay proper attention to, as they tend to get defined by their surroundings rather than existing on their own. This state of insignificant in-betweenness has been traditionally linked to unoccupied and waste urban spaces, which they deem to emerge as “unplanned” by-products of conscious urbanization processes. However, within the discourse of unoccupied urban lands, such overlooked spaces present exceptionally interesting cases to study.

LentSpace (Fig 2.2) is a temporary public space for gathering and promoting art designed by Interboro Partners on an unoccupied lot which was vacant awaiting future development plans. Their main approach to the site was guided by their awareness of the ephemeral nature of their proposal. Hence, instead of colonizing the site with bold, persistent design interventions, they transformed it through

minimal, non-invasive design operations. For instance, the lack of vegetation in the site's surrounding area was solved by installing temporary tree nurseries. Despite their modest numbers, the trees have been reported to provide some ecosystem services such as heat island mitigation and pollution filtering. (Lokman, 2017). In addition, modular and adaptable urban furniture was used to unlock the social potential of the site as a gathering space and art hub. Thus, the designers underlined the underappreciated values of urban unoccupied lands as well as their dynamic and constantly changing nature.



Fig. 2 Lentspace.

Source: Retrieved from: http://www.spontaneousinterventions.org/project/lentspace

De Ceuvel is another project that reclaims unoccupied land and transforms it into a highly functional, integral part of the urban fabric. A small contaminated post-industrial land in Amsterdam was unwanted and undervalued for development until Space & Matter and DELVA landscape architects proposed a temporary project to

redevelop the site and raise its value. The main approach of the project was creating a soil-cleaning nutrient landscape that would heal the ground and transform the unoccupied land into an ecological and social hub. Similar to LentSpace, the designers abstained from making any invasive interventions and leaving permanent marks on the land. Thus, temporary structures made of recycled materials were placed on elevated platforms to create temporary living and working spaces. (Glasl, 2015). In addition to the aesthetic value the vegetation adds to the site, it contributes to the overall value of the now occupied land by purifying the contaminated soil and creating a habitat and biomass for on-site energy generation. Once the temporary usage is over, the non-invasive structures will be removed, leaving behind a less contaminated, ecologically significant, and economically valuable land.



Fig. 3 De Ceuvel.

Source: Photograph by Sebastian Van Damme.

Taken from: https://archello.com/project/de-ceuvel-2

2.1.2.2 Urban lands



Fig. 4 Natur-Park Südgelande.

Source: Photograph by Frank Sperling.

Taken from: https://www.natur-park-suedgelaende.de/en/service-information/about-us/

Natur-Park Südgelände is a significant case of larger scale unoccupied urban lands turning into ecological ground and is thus frequently studied by both landscape architects and ecologists. The 18-hectare park is located in the southern part of Berlin. The site was once a small part of a much bigger railyard. When the main train station was damaged during World War II, it had to be closed, and the site was taken out of use. Since then, Südgelande was mostly abandoned and inaccessible to humans. The limitation of human accessibility to the area encouraged organic wilderness growth over the years and the site slowly got occupied by a collection of different kinds of vegetation, shrubs, and woodland. During the 1980s, the municipality had plans for completely ridding the site of the "colonizing" vegetation and clearing it for new development plans. However, these intentions faced serious opposition from the community that advocated for the preservation of the site as it is due to its unique ecology. In response to the protests, the biodiversity of the site was

studied, and many rare and endangered species were found, proving the ecological richness of the site. (Kowarik & Langer, 2005).



Fig. 5 Recreational activities on the elevated platform.

Source: Photograph by Stephanie Braconnier.

Taken from: https://landezine.com/schoneberger-sudgelande-park-by-odious/

The main challenge of redeveloping the unoccupied land into a public park was the conflict of *conservation vs transformation.* On the one hand, the land had developed a rich ecosystem that must be protected during its unoccupancy period due to the absence of humans. On the other hand, it was essentially detached from the surrounding urban life and needed to be connected to the city fabric. Thus, the designers had to create a hybrid situation that entailed both conserving the existing values and adding new spatial and social qualities. Hence, their design approach combined excluding and prohibiting human access to most parts of the park and inviting them to explore it through small spatial interventions that aim for minimal damage. In fact, walking is strictly prohibited outside the elevated pathway that separates the visitors of the park from the layer of vegetation beneath, helping to preserve its natural qualities as much as possible.

2.1.2.3 City as an unoccupied terrain



Fig. 6 Unoccupied land on the west side of the Berlin Wall.

Source: Photograph by Paul Glaser, 1988. Taken from Alamy, edited by the author.

The discussion of urban unoccupancy gains new dimensions when the scale is enlarged to encompass a whole city. It shifts from the unoccupied land within the city to cities that are defined by unoccupancy. Although such cases are relatively rare, they are becoming increasingly common as cases of depopulation and urban shrinkage increase across the globe.

Berlin is one of the exceptional cases in which a city as a whole has been associated with depopulation and its consequent spatial and social effects for a long period of time. Due to its unique history, the city has undergone several transformations that were ignited by political forces. (Bütüner, 2020). The construction and later destruction of the Berlin wall have resulted in the emergence of an abundance of unoccupied lands at the center of the city. This situation has forced Berlin to adopt new forms of urbanization that focused on the reclamation of said unoccupied lands

and their integration into the urban fabric. In fact, temporary occupations of the emergent unoccupied land led to alternative conceptions of public space. (ibid.). Unlike most of the cases encountered in shrinking cities, the unoccupied lands in Berlin were not isolated and detached from the daily urban processes. On the contrary, they were embraced by the local community as integral parts of the urban fabric and were appropriated as such, proposing creative ways of reclaiming the urban land. (ibid.).



Fig. 7 Drawing by Peter Reimann. From “Pictures at an Exhibition” The City in the City: Berlin: A Green Archipelago.

Source: https://drawingmatter.org/drawing-a-metaphor/

In 1977, a group of architects led by Oswald Mathias Ungers published a manifesto concerning the urban problems of post-war Berlin, accompanied by “The Green Archipelago" project as an anti-dote. By embracing the emergence of the unoccupied lands at the city center, the manifesto proposed a radical conception of West Berlin as an archipelago of cities within a sea of greenery. (Koolhaas & Ungers, 1977). Although this project remained as a thought-provoking urban discussion, some of its proposals have proven to be important reclamation strategies for shrinking cities. One of these strategies is allowing nature to reclaim the unoccupied land through its

own processes without human intervention. Matthew Gandy's Natura Urbana explores the unique ecologies of emergent urban wildlife in post-war Berlin through cases of spontaneous vegetation colonizing the unoccupied lands and creating a distinct habitat of diverse fauna and flora species. (Gandy, 2022).



Fig. 8 Abandoned neighborhood in Detroit.

Source: Photograph by Spencer Platt. Taken from Getty Images.
Retrieved from: https://www.npr.org/sections/money/2011/04/05/135149131/another-shrinking-city-chooses-which-neighborhoods-to-save

Detroit is another prominent example of a city that has been defined by its unoccupancy. At the beginning of the 20th century, the establishment of several automotive industries in the city transformed it into a hub for automobile production, development, and repair. In the postwar era, however, as major companies disappeared and other related businesses moved out of the city, the population of Detroit began to dramatically decline. As a result of depopulation, some districts and neighborhoods were abandoned and many unoccupied lands emerged across the city.

In the past decades, there have been various revitalization projects aiming at reclaiming these spaces and reanimating the city's economic and social life by providing a renewed and highly functional green infrastructure. (Berkooz, 2011).

Reclaiming the unoccupied lands in Detroit a "right-sizing" operation which is a concept that plans for the shrinkage of a city and describes a process of adapting it to unoccupancy. (Krohe Jr., 2011). Right-sizing Detroit has been mainly realized by demolishing the abandoned buildings at the core of the urban settlement and, by doing so, leaving the lands open to development for the purposes of creating social and ecological infrastructure in a renewed city. For instance, a special typology of agricultural neighborhoods that are built on reclaimed unoccupied lands emerged in Detroit to combat food insecurity and decrease the community's dependence on outside resources. (Adams, 2019).

2.2 Aspects of urban unoccupancy

As previously mentioned, the topic of urban unoccupancy has been approached from various directions by different researchers. In this section, the spatial and ecological aspects of unoccupied urban lands will be explored. The spatial understanding of urban unoccupancy has gradually transferred from a stance that simply overlooks them or renders them in a negative light to embracing them as valuable spaces of urban wilderness. This perspectival shift is influenced by other disciplines' – such as biology and environmental sciences - interest in unoccupied lands due to their ecological role within the urban environment. The second part of this section explores this ecological aspect of urban unoccupancy under three subheadings and thus highlights its post-anthropocentric value.

2.2.1 Spatial conception of urban unoccupancy

Identifying the first theorizations of unoccupied lands in the academic realm is challenging due to the aforementioned problems of the highly ramified nomenclature. However, it can be argued that the discourse of urban unoccupancy in the conventional sense only surfaced in the second half of the 20th century in response to the spatial implications of social and political forces of the time. Various typologies of urban unoccupancy emerged as direct outcomes of the modernist approach to planning and design, as well as the world wars that have caused unprecedented situations of destruction and abandonment in cities. Subsequently, in the period that followed, urbanists acknowledged these spaces as an urban phenomenon that must be examined and began to dwell on them in both theory and practice.

2.2.1.1 Unoccupied lands as lost spaces

With the coining of the term SLOAP[2] to refer to leftover spaces, unoccupied lands were identified as spatial defects. They were in fact used as criticism directed at the modernist conception of the city that had to be transformed. Jane Jacobs refers to unoccupied lands as “a curse” by identifying them as border vacuums that not only break the spatial and functional continuity of the urban fabric but also limit the mobility of the inhabitants, turning into spaces that exclude and reject any kind of meaningful human use. (Jacobs, 1961).

[2] Stands for “Spaces Left Over After Planning”, coined by Leslie Ginsburg in the 1960s. Defined as “Useless bits of ground left between streets and rigidly rectilinear buildings of international modernism” in the Oxford Dictionary of Architecture and Landscape Architecture.



Fig. 9 A wasteland under a motorway as an example of SLOAP.

Taken from:
https://www.freeimages.co.uk/galleries/buildings/structures/slides/urban_wasteland.htm

In the late 70s and early 80s, the discussion slightly shifted from a stance that merely identified unoccupied lands as problematic leftover spaces and dead zones to a tendency of embracing them as urban realities that can (and should) be transformed into more functional spaces. For instance, in Vacant Lottery, Myers and Baird emphasized the economic value of unoccupied lands and proposed them as an alternative to urban sprawl. They suggest using their economic and developmental potential as sites of urban infill and transforming them through architectural programs to create a dense and compact urban tissue. (Myers & Baird, 1978). Roger Tranick described unoccupied lands as "undesirable urban spaces that are in need of redesign- anti-spaces, making no positive contribution to the surroundings or users." (Trancik, 1986, p.3). Based on this understanding, they have been--and still are--being regarded as sites of potential economic benefit, sites waiting to be developed and exploited for profit.

The conception of unoccupied land as lost space is often based on a narrow understanding of what constitutes a valuable urban space. This perspective privileges built environments over nature and views land primarily in terms of its economic

value. Consequently, it ignores the cultural and historical significance of unoccupied lands. Even the seemingly more benevolent approaches such as Tranick's still make the mistake of overlooking the existing values of the unoccupied lands and attaching imposing meanings on them.

2.2.1.2 Unoccupied lands as reclaimed spaces



Fig. 10 The highline.

Source: Photograph by Spencer Platt. Taken from Getty Images.

In the late 90s, with the surfacing of "landscape urbanism" as a new conception of urbanity, Tranick's call for reclaiming unoccupied lands was revisited as an alternative to familiar architectural and urban practices of the time. Decentralization of industries, as well as the complete abandonment of some, resulted in an abundance of urban unoccupancy in the form of the so-called post-industrial landscapes that stood in the urban context both as sites of trouble and potential. A major strand of landscape urbanism practices focused on the transformation and reclamation of such post-industrial unoccupied lands as a way of repairing and enhancing the urban fabric

through large open public spaces such as parks, museums, and art centers. In both Edensor's Industrial Ruins and Berger's Drosscape, the approach of reclaiming the post-industrial and post-military sites is in fact rooted in a criticism of the modernist planning and urban design practices that have created them in the first place. Thus, urban unoccupancy shifted from being a mere problematic urban space that has to be transformed for economic profit into a manifestation of a philosophy that aims to right the wrongs of modernism.

In fact, the public potential of unoccupied lands as sites of alternative urban processes was also highlighted in Loose Space, describing urban unoccupancy as a condition that can "stretch" the conventional boundaries of the modernist city and create situations of informal, spontaneous and socially driven counterparts to the rest of the city they are part of. (Franck & Stevens, 2006). In this sense, the approach of reclaiming the unoccupied land and re-integrating it spatially to the urban fabric and socially to the community gained momentum in many cities across the globe. Projects such as Tilla-Durieux-Park in Berlin and High Line in New York are famous examples of such "reclaimed" unoccupied lands.

2.2.1.3 Unoccupied lands as nature

In the anthropocene, the relocation of environmental concerns from the fringes to the center of urban discussions has led to the emergence of a new understanding of urban unoccupancy. The unoccupied lands which were previously either overlooked or reclaimed for their economic or social value started to be acknowledged as valuable sites of urban nature that must be preserved. Although such spaces were getting attention from environmental scientists and ecologists for a relatively longer period of time, their acceptance as culturally and ecologically productive components of the city is relatively new in urban theory. Although Baines's article *Where The Grass Grows Greener* highlighted the value of unofficial spaces that were conquered by wildlife back in 1986, the merit he saw in such urban wilderness was their anthropocentric potential as patches of nature that are accessible to urban dwellers. A less human-centered approach was then proposed by Gilles Clement in his theory

of third landscape. Clement posits that unoccupied lands that are sites of urban wilderness are a different form of landscape, sites of human exclusion that have higher ecological value and biodiversity and thus, are extremely valuable and should be preserved and protected as they are. (Clement, 2006). In their chapter named "From Wasteland to Wilderness", Rink and Herbest describe urban wilderness as a form of a new urban nature in which the relationship between city and nature is transformed and deepened. (Rink & Herbest, 2011).



Fig. 11 A functional wetland dominated by reed developed in an unoccupied factory.

Source: Photograph by Peter Del Tradici.

Taken from: Asset or Liability? Ecological and Sociological Tradeoffs of Urban Spontaneous Vegetation on Vacant Land in Shrinking Cities. (2018).

The recent publications focusing on unoccupied lands such as Urban Wildscapes and Natura Urbana also follow Clement's track by removing humans from the center of discussion and exploring the value of unoccupied lands with all their abiotic, human, and non-human constituents alike. Even though respecting and appreciating nature is an ancient concept, identifying urban unoccupancy as a kind of nature that is novel and complete with all of its intrinsic values is a relatively new idea. Desmini posits

that this approach may be the key to a completely new conception of urbanity that leads to a novel way of creating the cities of the future. (Desmini, 2013). Unlike the previously mentioned attempts at transforming unoccupied lands into public spaces for human use, viewing them as nature requires embracing slowness and evolution and leaves the stage to the forces of nature.

Table 1 Three conceptions of urban unoccupancy.

	 LOST SPACE	 RECLAIMED SPACE	 URBAN NATURE
Nomenclature	Dead Zone Badland Blank Space SLOAP Wasteland	Underused Space Neglected Land Drosscape Post-industrial lands Brownfield	Urban Wildscape Spontenous Landscape Third Landscape Forth Nature New Wilderness
View	Negative	Positive	Positive
Values	None	Economic / Social Aesthetic	Ecological/ Social Aesthetic
Worldview	Anthropocentric	Anthropocentric	Post-anthropocentric

Made by the author.

2.2.2 Ecological understanding of urban unoccupancy

Since unoccupied urban lands are neither isolated, inaccessible areas of wilderness nor fully functional, man-made urban spaces, it is imperative to study their ecology as a third category that is a hybrid of both worlds. In this section, the ecological value of the unoccupied urban lands is explored under three subheadings: *Urban ecology, Ecosystem services, Ecological testing ground.*

2.2.2.1 Urban ecology

Biodiversity loss is a key concern within the context of the Anthropocene. Due to the increasing intensity of destructive natural hazards which accelerate the extinction processes of numerous animal and plant species, biodiversity loss is inextricably linked to climate change. The ecological processes of urban environments are the primary focus of urban ecology, a subset of ecology that analyzes the link between species and the urban environment in which they live. Urban ecologists and designers alike have become more interested in unoccupied lands as they have been proven to act as biodiversity hotspots in urban areas. Spaces that were before disregarded as urban wasteland are now viewed as grounds for nonhuman urban life and are acknowledged as components of the urban ecological infrastructure. (Gandy,2022).

The diverse ecosystems that may be found in cities are made possible by the complex and dense land use patterns that characterize unoccupied lands as they pack a wide variety of habitats into a relatively small space. (Rink,2009). In the form of spontaneous urban "wilderness," the often-overlooked unoccupied spaces give rise to a vision of urban habitat that is far more nebulous and peculiar than previously thought. (Gandy, 2022). Bonthoux et al have published a paper titled "*How can*

wastelands promote biodiversity in cities?" in which they reviewed 37 different articles on the role of wastelands in maintaining urban biodiversity. The main findings of their work highlight the importance of unoccupied lands in conserving common and rare species in the city. However, the majority of the studies indicate that their local characteristics are more vital in determining their biodiversity performance than the structure of the urban unoccupancy mosaic. Thus, the authors state that maintaining different types of unoccupied lands in terms of scale, soil type, microclimate, age and stages of plant succession contribute to higher levels of biodiversity in the city scale. (Bonthoux et al, 2014).

Brownfields, post-industrial wastelands, and other contaminated and abandoned sites also hold significant ecological potential. While suggesting options for the rightsizing of declining cities and reintegrating the unoccupied lands into the urban fabric, Nemeth & Hollander (2016) highlight their environmental potential. They argue that the environment (enough land and time) provided by cities' shrinkage is ideal for pursuing the formation of ecosystems on urban-industrial wastelands. In fact, some studies have demonstrated that pollution may lead to surprisingly good ecological results, suggesting that unoccupancy is not the only reason why unoccupied lands are appropriate for nurturing high biological diversity. Ecologists have found that contaminated sites often have more diverse biological ecosystems than the undeveloped areas around them. (Berger, 2007). Torsviken, Sweden, is famous as a bird habitat despite major pollution and waste dumping, suggesting that this may also be the case in sites where human activity has had a substantial detrimental effect. (Barron,2014). However, in certain situations, the toxicity of the soil and the general polluted status of post-industrial lands inhibit the emergence of spontaneous vegetation and necessitate rehabilitating the land to unleash its biological potential. (Hall, 2018). Existing studies on the characteristics and importance of urban wilderness on unoccupied lands indicate that they have significant ecological potential as grounds for diverse plant and animal life. However, their ecological performance of depends on a number of criteria, including

the character of the land, the level of pollution and disturbance that was previously imposed, and their overall continuity and connectivity.

2.2.2.2 Ecosystem services

Rapid urbanization since the 1950s has been accompanied by widespread environmental degradation, rapid depletion of natural resources, habitat loss, and drastic alterations to world ecosystems. (McNeill 2000). As a result, the degree to which ecosystems met particular human needs was influenced by both the rising demand for ecosystem services and the devastation of the natural systems that provide them. Ecosystem services are the tangible and intangible commodities, services, and benefits that humans either directly or indirectly derive from healthy ecosystems. (Wiggering et al. 2006; Selman 2012, Burkholder, 2012; Nassauer & Raskin, 2014). Increased urbanization places enormous stress on the natural resources in and around cities, making it imperative that we maintain a steady flow of ecosystem services. (Grimm et al., 2008). Thus, research on sustainable development is increasingly using the ecosystem services concept to identify and address regions with poor ecosystem service provision in an attempt to shrink the gap between their supply and demand. (Elmqvist et al., 2003). In the year 2000, the United Nations launched a study known as the Millennium Ecosystem Evaluation, which is an assessment of the status of ecosystems and their potential to satisfy human needs. (Haines-Young and Potschin 2010). In the subsequent Millennium Ecosystem Assessment (MEA)[3] study, it was also determined that 60% of the global ecosystem services assessed, such as potable water, fisheries, and air and water

[3] Initiated in 2001, the objective of the MEA was to assess the consequences of ecosystem change for human well-being and the scientific basis for action needed to enhance the conservation and sustainable use of those systems and their contribution to human well-being. See: https://www.millenniumassessment.org/

purification, were degraded and continuing to decline. (Millennium Ecosystem Services Assessment 2005).

That being said, recent research confirms that while cities are a substantial contributor to the issue of insufficient ecosystem supply, they may also contribute to the solution. The Ecosystems Approach to Landscape Management, according to Kay and Schneider (1994; Christensen et al., 1996), strives to conserve ecological integrity by protecting or strengthening urban ecosystem processes and enhancing the ecological performance of the city. Spontaneous vegetation on unoccupied lands have been proven to provide several provisioning and regulating services, including stormwater management, soil enhancement, heat reduction, and biodiversity. (Hwang & Yue, 2019). Dobbs, Kendal, and Nitschke state that vegetation in urban landscapes contributes to air pollution removal, carbon storage, rainfall interception, and urban heat control by providing more shaded areas for humans as well as habitat for fauna. (McPherson et al., 2013; Bolund and Hunhammar, 1999). In their paper titled "A social-ecological assessment of vacant lots in New York", Kremer et al have found that 62% of the unoccupied lands in New York are naturally covered by trees, herbaceous vegetation, and grass. Their findings suggest a correlation between the naturally colonized unoccupied lands and the overall green density of the neighborhood, indicating that such lands of urban nature are parts of a connected green matrix and thus, provide many ecosystem services that are associated with the presence of a green cover. (Kremer et al, 2013). In fact, Dobbs links the high levels of ecosystem provisioning services with the presence of large trees due to their greater ability to store carbon and retain water run-off. (Dobbs, 2013).

The paper "*Mind the Gap: Tools for a parcel-based Stormwater Management Approach*" discusses the stormwater management opportunities provided by small-scale and dispersed vacant sites in American Rust Belt cities and places special emphasis on the function of vacant urban landscapes in flood control. . Incorporating the unoccupied lands into the urban fabric as little patches of green infrastructure increases the city's absorbency rate and makes it more resilient to floods. (Albro et

al., 2017). Similarly, in "*Blue Void, Stormwater Strategies for abandoned lands*", Desimini analyzes the potential of unoccupied lands as an urban tool to mitigate the effects of floods. She presents three cases in which three different spatial strategies are incorporated, a dispersed and acupunctural configuration of unoccupied lands, a linear and connective tissue, and a field-like hybrid approach. While the first two approaches are relatively restrictive, the last approach of hybrid field-like zones of urban unoccupancy is claimed to offer great potential in places of perforated, existing urban fabric. (Desimini, 2013).



Fig. 12 Unoccupied land in New York.

Source: Photograph by David Joseph. New York Times.

2.2.2.3 Ecological testing ground

Unlike the aforementioned direct ecological benefits of urban ecology and ecosystem services, the third contribution of unoccupied lands to the discourse of the climate crisis in the Anthropocene is a rather indirect one. One of the most challenging facets of our collective attempts at combating the threats of the Anthropocene is the degree of uncertainty and ambiguity we must deal with. This is especially relevant for urban designers, architects, and landscape architects, as per the nature of their occupation,

every move they make must be a future oriented one. However, with the accelerating destructive and oftentimes unpredictable repercussions of climate change, the task at hand becomes an extremely difficult one to tackle. It is believed, however, that the uncertain, highly ambiguous, and dynamic nature of unoccupied urban lands may contribute to the solution in the face of climate uncertainties.

The complex topography of human constructions and footprints, as well as the processes of natural development and decay on unoccupied lands may serve as a foundation for informing future site planning and design. (Jorgensen & Tylecote, 2007). For instance, the natural emergence of specialized tree and shrub colonies on unoccupied land might be used as a design input to direct future vegetation processes and optimize their ecological services. (ibid.). In their research on the ecological potential of introducing intended wildness to the unoccupied urban lands, Hwang & Yue have stated that the emergent ecologies present a unique opportunity for designers to construct new paradigms for long-term resource management in accordance with the city's natural environment. (Hwang & Yue, 2019).

Nevertheless, unoccupied lands are also valuable sites for ecological performance assessment and analysis, as well as places for ecological testing positioned within the real complexity of an urban environment. Unlike urban simulations in controlled environments, they physically exist within a multilayered spatiotemporal context; therefore, they serve as a model for how different parts of the city function ecologically without having to rely on scientific predictions and approximations. Unoccupied lands may function as labs for the study of future ecological scenarios that supply architects, landscape architects, urban designers, and planners with scientific data and design inputs. (Gandy, 2022). Thus, the uncertainty of such lands may be creatively utilized in the short and long terms by making interim use of unoccupied property as a form of testing ground for future urban programs. Vacancies offer a chance to research and create fresh perceptions of the spatial and temporal dynamics of urban ecology. In other words, unoccupied lands are trial

grounds for conceptualizing and organizing novel design strategies for combating the effects of climate crisis.

2.2 Unveiling unoccupancy in post-anthropocentric urban design

The foundation of the prevailing anthropocentric approach to urban design is a deceptive dichotomy between nature and culture[4]. Detaching the human from the rest of the natural world and categorizing them in two separate realms, undermines the agency of both natural and anthropogenic forces. As humans are positioned above non-human entities, nature is seen as a distant "other" that can be endlessly exploited for their needs. The predominant urbanization practices further exacerbate this separation by creating a duality of *urban vs wild* in which the urban areas are regarded as safe havens that protect the human from the natural world. Nevertheless, such conceptual divides have begun to disappear as the Anthropocene discourses unveiled the interdependencies between supposedly separate realms. (Sijmons, 2021). On the one hand, the climate crisis itself is proof of human involvement as an anthropogenic force that can influence the earth's systems. Similarly, climate induced natural disasters such as floods, droughts and bushfires remind us that urban areas are as susceptible to destruction by natural forces as wildlands. Both of these powers in play illustrate the redundancy of the separation between the two realms. (Maller, 2021). As such, the conceptual ground of human-centered worldviews have faded away, forcing architects and designers to reconceptualize the relationships between the land, humans and the planet they inhabit. (Sijmons, 2021).

[4] The nature/culture opposition is in fact rooted in the tendency of othering all that is not human. The "human vs non-human", "nature vs culture", "urban vs wild", "natural vs man-made" dichotomies are all reflections of the same anthropocentric separation that elevates the human above all else.

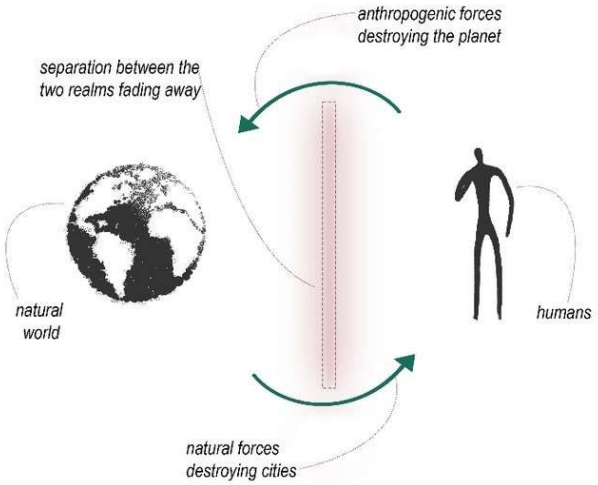


Fig. 13 The fabricated nature vs culture dichotomy fading away in the Anthropocene.

Drawn by the author.

The transition to a non-anthropocentric understanding of urbanism is inextricably linked to the changes in contemporary environmental ethics discourses. Philosophies concerned with land ethics, for instance, reject human-centric perspectives that restrict moral worth to humans and advocate for the ethical standing of non-human entities. Thus, they act as principles that guide designers to creating just and sustainable urban environments for the community in its expanded sense[5]. Needless to say, we have a greater chance of effectively combating the threats of the Anthropocene if we abandon the human-centric worldview and acknowledge the rights and values of non-human others with whom we are inseparably entangled in all environments. (Hinchliffe et al, 2005, Maller, 2018).

This shift in perspective displaces humans from the center of the world and redefines them as a mere part of the ecosystem, eradicating all forms of constructed hierarchy

[5] The expanded understanding of community encompasses all the human, non-human and inanimate inhabitants of the land.

between different species[6]. The spatial reflection of the aforementioned paradigm shift can be observed in the emerging post-anthropocentric urbanism practices. Two distinct approaches to post-anthropocentric urban design are eco-centric design and non-design.

- Eco-centric design

Ecocentrism is an environmental worldview[7] that recognizes the value of all members of an ecosystem, including human, non-human and abiotic components. (Washington et al, 2017). It views the natural world as an unbreakable whole and acknowledges the interconnectedness between the land and different species that inhabit it. Thus, an eco-centric urban design approach removes the human from the center of attention and aims to treat the site and all of its inhabitants equally. Rather than the traditional urban design practices that essentially aim to serve human needs alone, an eco—centric approach aims to serve the community in its expanded sense.

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[6] It is important to note that this non-anthropocentric approach is not exempt from criticism in contemporary environmental ethics literature. An opposing view argues that humans are too guilty of the damage inflicted upon the planet that putting them at the exact same position with the other species is not a realistically plausible solution on its own. Sijmon's adoption of the concept of "Anthropocentrism 2.0" based on Clive Hamilton's definitions of anthropocentric worldviews is a fitting example of this. Anthropocentrism 2.0 offers keeping the human at the center, though not the center of privilege, but the center of responsibility. Thus, while still differentiating between the human and the rest of the natural world, it puts the burden of undoing the damage done to the planet and combating the climate crisis on the human. See: "In the Anthropocene, Site Matters in Four Ways".

[7] Unlike anthropocentrism, zoocentrism or biocentrism, ecocentrism is an all-inclusive worldview that treats nature as a whole and acknowledges the intrinsic value in all of its constituents.

Kate Orff's Living Breakwaters project is an interesting example of eco-centrism in practice. The main idea of the proposal is to create an ecological infrastructure that combines the urban fabric of New York with the marine ecology of the site through the utilization of a series of breakwaters. Even though it ultimately serves to protect the city from potential destructive waves, the project actually caters to more than the human inhabitants of the site. For instance, the breakwaters were envisioned as dynamic ecosystems that foster habitats at different scales ranging from the small pores in the concrete structure to the streets that offer sanctuary for the local marine life. Additionally, the remaining population of indigenous oysters were planted into the concrete walls to turn them into literal living organisms that filter and purify the contaminated water. (Orff, 2016). As a result of this, the breakwaters became more than an instrument for protection and turned instead into a space of interaction between different species including humans, oysters, crabs, fish, seals and birds.

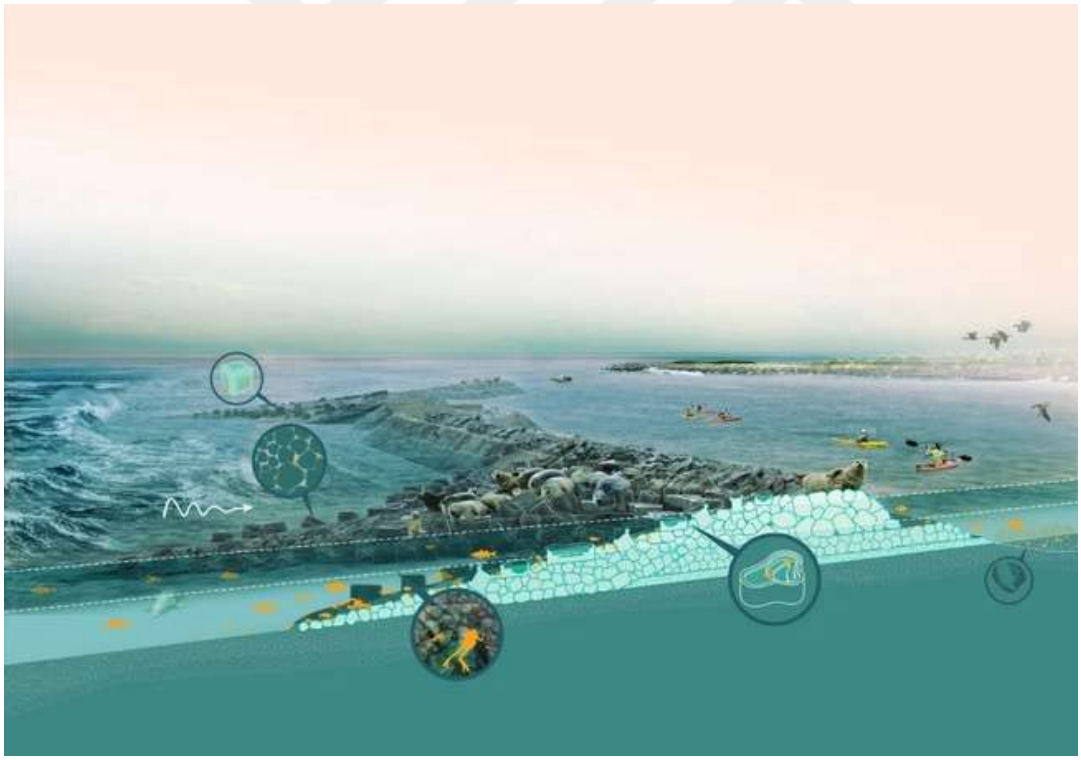


Fig. 14 Section drawing of Living Breakwaters by SCAPE.

Taken from: https://www.scapestudio.com/projects/living-breakwaters/

- Non-design

The other emerging post-anthropocentric urbanism approach is non-design which is abstaining from design interventions or limiting them and embracing the natural processes instead. It differs from the eco-centric design understanding in that the human agent is not only removed from the center of discussion, but also from the sole designer/planner position. The main principle of this approach is establishing a cooperative relationship between humans and the natural processes that shape the environment. As opposed to the prevailing design methods in which humans dominate, tame, and transform nature according to their needs, non-design establishes nature as a co-author of urban spaces.

> "Urban planning and landscape architecture needs to learn when to stand back: doing nothing or doing as little as possible may often be preferable to a tabula rasa approach."
>
> (Jorgensen & Licka, 2012, p.234)

Jorgensen & Licka advocate for this approach to unoccupied lands as an alternative to traditional urbanism practices. Rather than imposing an external identity on the land by the designer through extensive redevelopment projects, they call for embracing the emerging natural processes that transform the land into what it actually is. Gilles Clement is another prominent advocate of this design philosophy. He claims that creating truly sustainable conceptions of urban space is only possible when the designer avoids fighting natural forces and lets time run its course. (Clement, 2006). That being said, this does not mean completely eliminating the human actor from the designer position, as Clement's work often manages the natural landscape through minimal interventions such as eradicating invasive species

or guiding the growth of plants that are better adapted to the local ecosystem. Thus, the designer has to create a hybrid approach of design and non-design.



Fig. 15 Landschaftspark Duisburg-Nord.

Source: Taken from: https://www.duisburg.de/tourismus/stadt_erleben/industriekultur/

Landschaftspark Duisburg-Nord, created on post-industrial land in Duisburg, Germany, is a well known example of this approach in practice. Following the shutdown of the plant in 1985, the site remained unoccupied for a period of four years in which nature was slowly reclaiming its colonized land. The designers recognized the natural forces that were shaping the site during its lifespan of unoccupancy as the co-authors of the park. (Langhorst, 2014). Certain areas of the site were left untouched by the designers and allowed natural processes to take their course while other parts were altered and transformed by plantation and maintenance processes. In other words, even though the initial vegetation growth was a purely natural process that was embraced by the designers, it still required the designers' guidance and maintenance. The combination of design and non-design thus has resulted in a public space that is co-authored by anthropogenic and natural forces.

Landschaftspark Duisburg-Nord's approach of "controlled wilderness" is not the sole method of creating a *design vs non-design* hybrid. Landscape architects Hwang

Yun Hye and Zi En Jonathan Yue have gone through a similar path of establishing a balance between design and natural processes by utilizing a method of “intended wildness”. To explore the unique conditions under which urban wilderness can thrive if left undesigned and minimally managed, they created a garden on the derelict roof of a university building and let it grow without human interventions. (Hwang & Yue, 2019). After a period of time, the fences were removed and a boardwalk was created to serve as an outdoor laboratory place for researchers to study the natural growth patterns and intervene when necessary. The outcomes of this test have highlighted the potential of spontaneous vegetation growth in enhancing biodiversity on a local scale.



Fig. 16 Roof garden at the NUS.

Source: Photograph by Zi En Jonathan Yue.
Taken from: https://www.archdaily.com/976437/how-singapore-is-pioneering-the-way-to-creating-a-greener-urban-environment

In conclusion, post-anthropocentric design is becoming increasingly interested in unoccupied urban lands due to their evident potential to offer suitable conditions for

the establishment of ecosystems that benefit all constituents of the urban environment, human and non-human alike. As Langhorst describes them, they are "contested terrains" in terms of their position as sites of negotiation between human and non-human communities.[8] (Langhorst, 2014). Thus, they are spatial manifestations of the post-anthropocentric discourse that aims to demolish the nature/culture divide. Nature occupies the marginalized spaces of unoccupied lands and fuses into a hybrid of the *natural and the man made*, of *nature and culture*. (ibid.).

[8] Langhorst particularly studies situations of unoccupancy in post-industrial sites and emphasizes their unique role of simultaneous ruins of both nature and culture. According to his view, post-industrial sites are inherently hybrids of the natural and the man-made which defy the espoused nature/culture dichotomy by their mere existence.

CHAPTER 3

PROJECTING URBAN UNOCCUPANCY TO POST-MILITARY LANDS



Fig. 17 Dismantled radar dishes on the post-military landscape in RAF Stenigot radar station.

Source: Photograph by Richard Croft. Retrieved from https://militarymachine.com/abandoned-military-bases/.

Countries around the world have undergone significant changes in their national defense systems which led to military site decommissioning programs being applied in various cities. As this sudden increase in unoccupied post-military lands presented a critical challenge for urbanists, they garnered a remarkable scholarly attention. Post-military lands constitute a distinct category of unoccupied lands due to several unique attributes that differentiate them from other forms of urban unoccupancy. Firstly, they possess a unique historical and national significance within their local

contexts. In addition, they often have unique spatial configurations and ecological conditions as they are extremely well protected urban spaces that heavily restrict human access. This chapter dwells on the emergence of post-military lands as critical cases of urban unoccupancy and explores the various factors that differentiate them from other categories of unoccupied lands. It studies the ecological dimension of these lands and in terms of their potential as post-anthropocentric landscapes. The chapter concludes with an analysis of post-military land redevelopment precedents through significant case studies.

3.1 Post-military lands

Post-military lands stand out as exceptional cases of urban unoccupancy. The emergence of unoccupied military lands is intricately linked to larger economic considerations. In response to recession and defense cuts, governments often reassess their military strategies and decide to decommission specific military sites. (Bagaeen, 2016). Moreover, the evolution of military technology, shifts in geopolitical priorities and changes in warfare and defense strategies all further contribute to the strategic repositioning of military forces and the abandonment of sites designated to them. (Clark, 2009. Bagaeen, 2016). Although there still are ongoing political conflicts all around the world, the evolving military requirements for swift and adaptable responses necessitate distinct physical resources compared to the previous extensive and stationary positions of the Cold War. This transformation has led to the redundancy of expansive tracts of land and structures in both central urban locations as well as remote rural regions across the globe. (Bagaeen, 2016). In the book titled Sustainable Regeneration of Former Military Sites, Bagaeen (2016) describes the abundant emergence of post-military lands across the globe as a “brownfield bonanza” in which more and more countries are viewing the unoccupied military sites as opportunities to address housing shortages and create jobs. (Bagaeen, 2006). As a potential remedy for the expansion of urban

sprawl, Hansen (2004) contends that decommissioned military grounds, especially those situated in urban environments, offer pre-existing opportunities for the establishment of industrial parks, airports, universities, and other economic assets. This approach, he argues, avoids the need for "additional habitat destruction" for the sake of fulfilling the human needs. (Hansen, 2004). Thus, transforming post-military lands by assigning new functions to them became an increasingly common urban design challenge that deserves scholarly attention.

Unlike the aforementioned examples of unoccupied urban lands, military site unoccupancy situations often introduce unique challenges that differ significantly from the more common cases of dereliction and reclamation. Warf notes that military sites are " a heterogeneous category of facilities, including airfields, shipyards, ordnance and storage depots, training and research centers, hospitals, laboratories, and so on; the type and size of such facilities heavily affect the politics and economic consequences pertaining to their closure". (Warf, 1997, p.544 as cited in Ural, 2019). The challenges encountered during the redevelopment of former military sites are multifaceted. For instance, the confidential nature of military activities and the inevitable exclusion of the public from the military sites results in a lack of awareness of these lands. Communities may be completely unaware that these lands exist or have little understanding of their potential. Additionally, due to the involvement of a wide range of stakeholders -*designers, government officials, developers and financiers, community groups, heritage organizations and the military itself-* , each with different expectations and personal agendas, such post-military land redevelopment projects often last too long and eventually fall through (Clark, 2009, Ural, 2019). Another significant challenge that is inherent to the redevelopment of post-military lands is contamination. As noted by several researchers, in most cases, redeveloping a former military land and transferring it to civilian use requires extensive processes of remediation and decontamination. In fact, the degree of contamination and the amount of hazardous materials found on the site -*especially on military facilities that were directly involved in producing, storing or testing*

weaponry- may completely block any redevelopment opportunities. (Hansen, 2004, Bagaeen, 2016, Ashly & Touchan, 2016).

Naturally, countries differ in the strategies they propose and apply for the disposal and redevelopment of these lands. For instance, in the U.S, the decommissioned military lands are left unoccupied for long periods of time more often than not. While the UK or other European countries always remediate the site and reuse it due to their land shortage problem. (ibid.). Moreover, regulatory frameworks governing the transitional process vary, influencing the methods applied, such as free transfer, development by local authorities, public-private partnerships, or sale to the highest bidder. According to Bagaeen, the difference in the way these post-military lands are treated and re-developed in different geographies inevitably leads to a lack of meaningful experience exchanges and communication between them. Thus, emphasizing the importance of developing and tailoring post-military land reclamation projects for the specific context of each country. (Bagaeen, 2016).

3.2 The ecology of military lands

Although military lands are often overlooked in terms of their ecological significance, they play a pivotal role in biodiversity conservation and habitat preservation. (Warren et al, 2007). They are often shielded from intensive agriculture and urbanization processes, making them unique grounds for various species of flora and fauna. (Quist et al, 2003). In fact, military sites are known to house various endangered species. The percentage of military areas included in the Natura 2000 network[9] is a remarkable indicator of this. The selection of areas for inclusion in the

[9] Natura 2000 is a network of nature protection areas in the territory of the European Union formed to protect the seriously threatened natural habitats and species in Europe.

list is contingent upon the presence of substantial biodiversity, the existence of species listed on the red list, and the prioritization of essential habitats. Denmark, in evaluating these criteria on its military training lands, has nominated 45% of its military estate. Likewise, the Netherlands has incorporated 50% of its military training areas, and Belgium has put forward 70% of its training areas for inclusion (Gazenbeek 2005, Warren et al 2007).

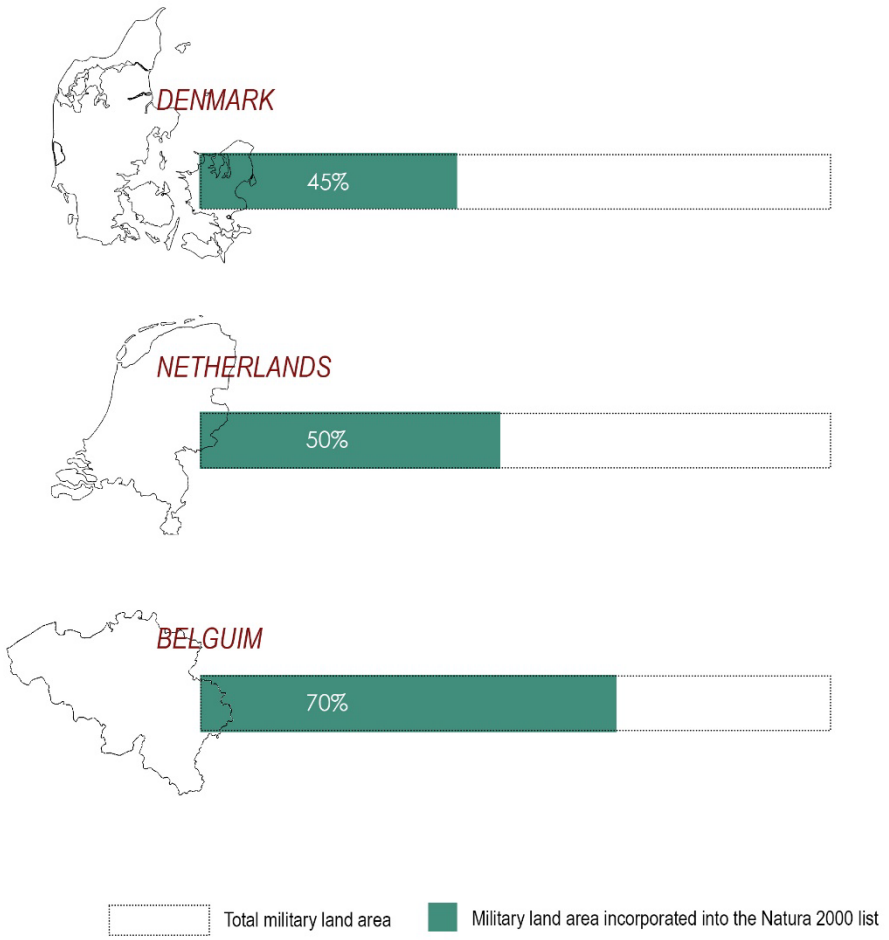


Fig. 18 Percentage of military lands included in the Natura 2000 list from Denmark, The Netherlands and Belguim.

Drawn by the author.

In “Natura 2000 and the military”, Gazenbeek provides various examples of military lands being biodiversity hotspots. For instance, military training areas in the Netherlands, despite constituting less than 1% of the total land area, are reported to host 53% of all vascular plant species and 61% of all bird species documented in the country. (2005). Similarly, Warren et al note that the U.S. Department of Defense (DoD) lands support habitat for 3–18 times more threatened and endangered species per unit area compared to lands managed by other major federal land management agencies. (2007). Military training areas have also been noted to function as hotspots for conserving a wide range of species when effectively managed, particularly those that are dependent on wetland ecosystems. (Zentelis & Lindenmayer, 2014). Aycrigg et al remark that in the United States, lands that are managed by the DoD rank second only to those overseen by the National Park Service in terms of ecological biodiversity. (Aycrigg et al, 2015).

As discussed in the previous chapter, the ecological performance of unoccupied lands in terms of biodiversity richness is mainly associated with the absence of humans and their anthropogenic activities. In a similar manner, military sites - *even when they are actively operating*- restrict human access and movement to a significant extent. As sites that generally prohibit public access, they enclose and protect large areas of undeveloped land from the potentially harmful human traffic as well as the destructive forces of conventional urbanism. Thus, they inevitably generate a refuge effect that positively impacts the species that inhabit them. (Grimes et al, 2023). Gibbs reinforces this note by exemplifying the wetland species that are dependent on vast, unfragmented wetland landscapes to thrive. As military lands preserve extensive and unfragmented habitats, they contribute to the biodiversity levels by providing suitable landscape conditions for various wetland species. (Gibbs, 2000).

Furthermore, regulations and policies are formulated to safeguard habitats, including wetlands, on military training lands both in the USA and globally. (Patrick & Boyd,

2001). Military land managers grapple with the challenge of reconciling the primary military activities with legal obligations to safeguard land and water quality, as well as protect endangered species. (Milchunas et al. 1999, Quist et al. 2003). Additionally, the military sometimes deliberately takes action in order to enhance the habitat quality of its landscapes for their shared interests. For instance, wetlands have been intentionally modified in the course of training activities and conflicts to enhance the movement of assets, interfere with the livelihoods of opposing populations, and create cultivable land for individuals displaced by war. (Grimes et al. 2023, Ahram, 2015). An important example of this is a particular training exercise called Mud Ops in the U.S. Marine Corps aims to eliminate invasive pickleweed species by maneuvering heavy assault vehicles on the wetlands. (Stimpson, 2022).



Fig. 19 Mud Ops training on wetland.

Source: Photograph by Sgt. Jesus Sepulveda Torres.

Retrieved from: https://www.popularmechanics.com/science/animals/a41045818/military-personnel-defend-endangered-animals/

That being said, the ecological impacts of military activities on ecosystems are often destructive. The soils of wetlands, for example, experience compaction and erosion due to the weight, path, and disturbance frequencies associated with the transport of military assets (Grimes et al., 2023; Anderson et al., 2006). Despite efforts in conservation and policy implementation, wetland habitats endure harm from recurrent munition discharges and the movement of troops and vehicles, resulting in the reduction and degradation of habitats (Silveira et al., 2010). Vehicle maneuvers, spanning from wheeled support vehicles to heavy tracked vehicles, lead to soil disruption, vegetation compression, and alterations in the landscape's heterogeneity (Warren et al., 2007, Hirst et al., 2003). The discharge of munitions exacerbates these issues, causing changes in fire regimes and a decline in populations of vertebrate fauna (Grimes et al., 2023, Lindenmayer et al., 2016). The repercussions of military activities encompass soil compaction, removal of vegetation, and degradation of habitats for amphibian, reptilian, and avian species (Grimes et al., 2023, Patrick & Boyd, 2001; Quist et al., 2003). The utilization of military lands for large-vehicle maneuvers consistently results in adverse effects across diverse ecosystems, manifesting as reduced populations of native perennial grasses, heightened abundance of introduced species, and an increase in exposed bare soil (Quist et al., 2003, Milchunas et al., 1999).



Fig. 20 Traces of soil disruption caused by military vehicle maneuvers.

Besides the impacts from vehicles, military training lands confront human-induced disturbances such as bivouacking and foot traffic, leading to soil compaction and diminished vegetative cover (Warren et al., 2007, Whitecotton et al., 2000). Excavation activities, including the creation of anti-tank ditches and weapon system emplacements, disturb soil layers and annihilate vegetation, while the detonation of munitions causes cratering, soil displacement, and wildfires (Warren et al., 2007, Demarais et al.,1999). In addition, the fauna and flora of military lands can also be exposed to environmental contaminants introduced during conflicts, such as petrochemicals and explosive compounds (Grimes et al., 2023; Walsh et al., 2014). For instance, contamination from a toxic chemical that is found in hand grenades used during military training was spotted in 16% of the drinking water sources near Fort Jackson military training area as reported by The Associated Press in 2019. (The Associated Press, 2019).



Fig. 21 A Vietnamese soldier next to a hazardous warning sign for dioxin contamination at Bien Hoa air base.

Source: GETTY IMAGES. Retrieved from: https://e360.yale.edu/features/fifty-years-after-a-daunting-cleanup-of-vietnam-toxic-legacy-dioxin-agent-orange

Nevertheless, it has been observed that military training activities can also contribute positively to habitat and biodiversity by creating distinctive ecosystems. Depressional features, formed through abandoned excavated pits, live-fire craters, compacted soils, and other alterations, serve as habitats for wetland species, including amphibians, reptiles, and other wetland-dwelling organisms (Grimes et al., 2023; Ecrement & Richter, 2017; Warren et al., 2007). Contrary to the notion that military activities exclusively yield negative consequences, numerous threatened and endangered species thrive on military training lands due to the disturbances, not despite them.



Fig. 22 Endangered gray hairgrass thriving on military land in Malacky, Slovakia.

Source: Valachovic, M. 2012. Succession Model with Corynephorus Canescens in Abandoned Sandy Fields. Hacquetia.

The gray hairgrass (Corynephorus canescens), an endangered species dependent on frequent ground disturbance, flourishes on active or recently abandoned military training areas in Germany (Warren et al., 2007). In fact, the closure of military training areas has imperiled populations reliant on landscape disturbances, leading to exploration of alternative disturbance methods such as the use of megaherbivores,

mowing, tillage, and prescribed burning to sustain open areas and the thriving species within them (e.g., Tscho¨ pe et al. 2002; Warren et al., 2007). Warren et al propose a hypothesis of heterogeneous disturbance to explain this phenomenon, suggesting that "biodiversity is maximized where multiple kinds, frequencies, severities, periodicities, sizes, shapes, and/or durations of disturbance occur concomitantly in a spatially and temporally distributed fashion." (Warren et al., 2007).

3.3 Precedents on post-military land redevelopment

As mentioned earlier, there is an abundance of post-military site redevelopment projects across the globe. This section briefly studies three examples of redevelopment projects: The New Dutch Waterline, Maurice Rose Airfield Park, Rainham Marshes. While each of these cases has their unique approach to the treatment of post-military lands, they all share a level of ecological sensitivity.

- The New Dutch Waterline



Fig. 23 New Dutch Water Line park featuring a sliced unoccupied military bunker as part of an art installation.

Source: Photograph by RAAF.

The New Dutch Waterline, functioning as an important historical defense line for the province of Holland from 1815 to 1963, employed a uniquely Dutch method of warfare: inundation. By utilizing a series of flooding fields, the Dutch army used water as a form of military protection. In the event of an attack, a system of waterworks, canals, and sluices would flood these fields. Non-floodable areas were fortified with fortresses. The primary system consisted of a main resistance line coupled with adjacent inundation fields. Waterwork controls, inlet sluices, and inundation canals facilitated rapid flooding, creating a 6–8 km wide and 40–60 cm deep impassable water zone for foreign ships. The non-floodable parts of the military land, though, were protected through a more conventional system of defense such as castles and tower fortresses. (Verschuure-Stuip, 2016).



Fig. 24 Former fortress Werk aan het Spoel transformed into a social space.

Source: Photograph by Rob ‘t Hart.

Retrieved from: https://worldlandscapearchitect.com/fort-werk-aan-t-spoel-culemborg-netherlands-rietveld-landscape-atelier-de-lyon

During World War II, this water defense line became obsolete as airplanes dropped paratroopers behind the lines. After the war, fortresses and bunkers were gradually abandoned and left to be taken over by nature as the site remained unoccupied. In the 1980, there was an interest in the physical remains of these old defense systems which led to the categorization of these unoccupied lands as Dutch heritage landscapes. As this interest started to gradually grow, the government decided to initiate a redevelopment program to transform the waterline into a public park for recreational purposes. The remaining structures such as the abandoned fortresses, bunkers and watchtowers were assigned new recreational functions. Today, the park stands as a reminder of the military legacy of the country but also functions as a vibrant social space where the community can connect with urban nature. (ibid.).

- Maurice Rice Airfield Park



Fig. 25 Maurice Rose Airfield Park.

Source: Favargiotti, S. (2019). Renewed landscapes: Obsolete airfields as landscape reserves for adaptive reuse. Journal of Landscape Architecture.

Another interesting post-military site redevelopment project is the Maurice Rose Airfield Park. Previously functioning as an American military aerodrome in Frankfurt, Germany, the land remained unoccupied for two years until it was assigned to a civil society organization in 1994. (Bordas, 2018). However, the local community showed interest in the surrounding unoccupied lands and began to appropriate them for activities such as bicycle riding and roller-skating. Meanwhile, the spontaneous growth of vegetation was reclaiming the land contaminated by its previous military life. In 2003, the city council acquired the land and initiated a program to redevelop the site. Rather than demolishing and dismantling the military installations, they went for a less invasive approach that necessitated minimal intervention. One third of the runway as well as auxiliary pavilions were preserved intact for recreational purposes such as workshops, bicycle riding and skating. A café was opened in the control tower, offering spectacular views over the Nidda River and surrounding fields. The basic idea of the design was to gently modify the original airfield and its materiality, allowing the military character of the area to unite with the surrounding nature. (Favargiotti, 2018).



Fig. 26 naturally grown vegetation in between the cavities of the broken runway at Maurice Rose Airfield Park.

Source: Retrieved from: https://www.publicspace.org/works/-/project/d079-umnutzung-alter-flugplatz-maurice-rose-airfield

Another remarkable approach of redevelopment they went for in this project is the method of demolishing the remaining parts of the expansive runway. First, the concrete hard surface was cut and divided into chunks of varying sizes. However, contrary to the conventional methods of demolition, these concrete surface pieces were not removed. The designers intentionally left the runway with broken chunks of concrete and cavities for native plants and animals to take over and inhabit. (Favargiotti, 2019). Over the years, the broken runway saw a gradual growth of spontaneous vegetation which in turn attracted new species of animals to the site. The growing plant and animal population has been monitored, documented, and studied by the Senckenberg Research Institute since then. (Bordas, 2018).

- The Rainham Marshes



Fig. 27 Target range at former military training area in the Rainham Marshes.

Source: Photograph by Robert Lamb. Retrieved from: https://commons.wikimedia.org/wiki/File:Target_range_in_Rainham_Marshes_Nature_Reserve_

The Rainham Marshes, a 411-hectare bird reserve located on the north bank of the Thames, is another interesting example of a post-military landscape that underwent a significant transformation. Originally a MOD (Ministry of Defense) site with historical military use during the First and Second World Wars, as well as serving as a training camp and shooting range, the land was derelict after the MOD's departure in the 1990s. Various proposals for its future, including a Disneyland-style theme park, were considered. However, in 2000, the Royal Society for the Protection of Birds (RSPB) acquired the site. (Heatherington et al., 2017). The RSPB then initiated an extensive clean-up operation to ensure the safety of the area, during which some remaining military artifacts were removed.



Fig. 28 The recycled education units at the Rainham Marshes.

Source: Heatherington et al. (2019). Understanding landscape change in a former brownfield site. *Landscape Research.*

Architect Peter Beard proposed boardwalks, footpaths, and bridges, often tracing historic tram and railway tracks to provide visitor access. Despite the removal of certain military artifacts, visible remnants, such as a lookout tower, mantlet banks, stop butts, and cordite and ammunition stores, continue to be part of the landscape and remind the local community of the military past of the land. Additionally, an education center crafted from three repurposed shipping containers was installed. Steel mesh floors and a viewing platform surrounded by timber verticals were also installed allowing observation into the wetland. (ibid.).

The three cases discussed above present three different approaches to post-military land redevelopment, yet they share some design principles. Their proposed designs are informed and influenced by the post-occupancy programs that were introduced by the local community or through natural processes. They are guided by ecological sensitivities to transform the former military land into a shared space that is beneficial for humans, non-human organisms as well as the abiotic components of the landscape. Lastly, all three redevelopment projects aim to find a balance between conserving the existing natural and historical values of the land and transforming it by introducing new programs.

In conclusion, the abundance of post-military lands is an urban reality that has to be dealt with. Many factors such as defence budget cuts, advancements in warfare technologies, and changes in the global military strategies all lead to the emergence of unoccupied military lands in urban areas. Even though redeveloping them is considerably more challenging in comparison to other forms of urban unoccupancy, post-military lands are often exceptionally valuable opportunities for urban renewal. The restrictive and introverted nature of military lands and the limited human access to them help sustain and protect particular ecosystems within their borders. Even though military activities can have devastating effects - *such as land compression, soil contamination, the destruction of wildlife refuges,etc*- on the local habitats they house, studies show that they can also have positive effects on the natural ecosystems they support. Whether by simply protecting them through limiting

human access or by actively working to manage and sustain the natural habitats, military lands can be ecologically valuable biodiversity hotspots for endangered species that cannot survive on other urban landscapes. Thus, unoccupied military lands are suitable sites for fostering alternative and post-anthropocentric conceptions of urban (*re*)development.

CHAPTER IV

TRACING UNOCCUPIED MILITARY SITES IN ANKARA

4.1 Unoccupied military lands in Türkiye

Although the issue of evacuating military sites in Türkiye by relocating them out of the city has started to come up frequently after the coup attempt in 2016, it is a much older debate. Before the year 2000, the relocation of military sites was too sensitive of a topic to be discussed freely. This sensitivity arose due to the perception, held by both the military and a segment of the public, that these discussions were an attack that aimed to undermine the military and weaken it, camouflaged as urban planning strategies. (Ural, 2019). Since the 2000s, the military tutelage on Turkish politics has started to gradually decrease until the 2016 coup attempt. After that date, though, the tutelage of the army was completely removed. Consequently, the military lands have also lost their immunity to the expansionist forces of urbanization, and the project of relocating them was placed at the top of the government's agenda. (Alp, 2021).

Thus, the issue of how the emerging unoccupied military sites will be approached and "redeveloped" became a critical urban design problem for Türkiye. (Ural, 2019). In addition to the obvious correlation between the attempted coup and the government's decision to relocate military sites to the outskirts of cities, this phenomenon should also be read within a larger context of Türkiye's "urban transformation" (Kentsel Dönüşüm) project. Jülide Alp considers the increasing emergence of plans to relocate military sites across the country as part of the government's larger "urban transformation" policy. (Alp, 2016). Alp argues that military sites were given special treatment and attention as a part of the "urban transformation" agenda of the government because of their typically large scales and lucrative locations at the outer margins of the city and on the growth corridors.

Particularly in larger cities of Türkiye, military sites are among the most functional areas that come to the forefront within the legal framework of urban transformation and represent a substantial "reserve land stock"[10]. Thus, military sites are labeled as potential lands to be transformed and developed if a necessity arises. Erbaş notes that this was an attempt to take over the only remaining low-density parts of the cities and transform them into dese, highly urbanized zones. (Erbaş, 2021).

Since 2016, the nation's security has been an increasingly important issue of concern in Türkiye, which has led to an increase in the frequency of debates on the relocation of military sites. Diverse points of view have evolved, some of which consider these lands as prospective sites for urban parks, others as potential reserves for urban transformation, and yet others as fresh opportunities for financial investment. According to Anadolu News Agency, the Ministry of Environment and Urbanization, the Ministry of Finance, and the Ministry of National Defense have formed a committee to investigate the current state of affairs throughout the country and come up with a strategy that would be most effective in bringing about the desired changes in the decommissioned military lands. The committee has listed the factors that will determine which military site to be dismantled. First, they noted that the sites will be chosen based on their location within the city, their scale, their current function, as well as the local municipal authorities' demands. They have also declared that the emerging unoccupied lands will be utilized to serve the city's needs by re-developing them into urban parks and green areas. However, if the post-military lands are not suitable for development as green areas, they will be included

10 In the context of implementation carried out in accordance with Law No. 6306, a 'reserve land' refers to areas designated by the Ministry, either upon request of the Housing Development Administration or at the discretion of the Ministry itself, to be utilized as new residential areas."

in the urban transformation plan of the city and used to lower the population of the central areas of the city, the committee has stated.[11]

Having said that, the findings that were prepared by these commissions are not accessible to the public. As a result, the fate of the military sites in the cities remains largely unknown, which raises concerns of their potential redevelopment. (Hazar & Özkan, 2020). Ural's thesis includes an interview conducted with members of DGSP (Directorate General of Spatial Planning[12]) in which planners are interviewed about their personal insights on the fate of relocated military sites. According to the findings of this interview, different reasons can be mentioned for the government's project of relocating military sites. While some claim the reason to be the need for larger areas designated for military use outside the urban areas, some have pointed out the possibility of this being an attempt to generate income by selling military lands. However, since 2007, by altering their usage and ownership, extensive military land spanning millions of square meters has been converted into residential, commercial, industrial, and tourism zones. (Baluken, 2023). Because of this, serious doubts have been raised on the public interest in the redevelopment of military sites and buildings when the decision was made to relocate these military bases. (Ural, 2019). It is worth noting that, at this point, the issue is not only about spatial planning but also a significant public administration problem as large urban lands previously protected by strict institutions like the Ministry of National Defense, or the Turkish Armed Forces (TSK) are now being handed over to the eager hands of market stakeholders. Large-scale real estate developers are drawn to post-military lands' proximity to forests and central urban areas.

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[11] See: -Askeri Alanların Şehir Dışına Taşınması Emirdir, http://www.yapi.com.tr. -Askeri kışlaların taşınması için 3 bakanlıktan oluşan komisyon kuruldu, https://www.cnnturk.com/turkiye

[12] Mekansal Planlama Genel Müdürlüğü

Post-military lands in Türkiye constitute a substantial percentage of the total open and green spaces in the city. Some of the former military sites may also include important architectural structures of cultural and historical value. Thus, the manner in which these large tracts of post-military land will be approached is an exceptionally critical problem for Turkish cities. It has been stressed by relevant professional organizations and academics that some valuable military lands, particularly those that are still present in or around the city center, may be subject to strong demand for urban development and may be lost to speculative urban rent-seeking practices. (Hazar & Özkan, 2020).

4.2 Framing post-military land redevelopment in Türkiye

This section studies several military site redevelopment approaches within the context of Türkiye. For the sake of simplification, the projects are categorized into three categories based on scale and function of the military land. The categories are city blocks, encapsulating isolated structures of architectural scale; military clusters, representing complex arrangements of several buildings and open spaces that constitute a single military urban unit; and urban enclaves, comprising expansive campuses that undergo comprehensive redevelopment.

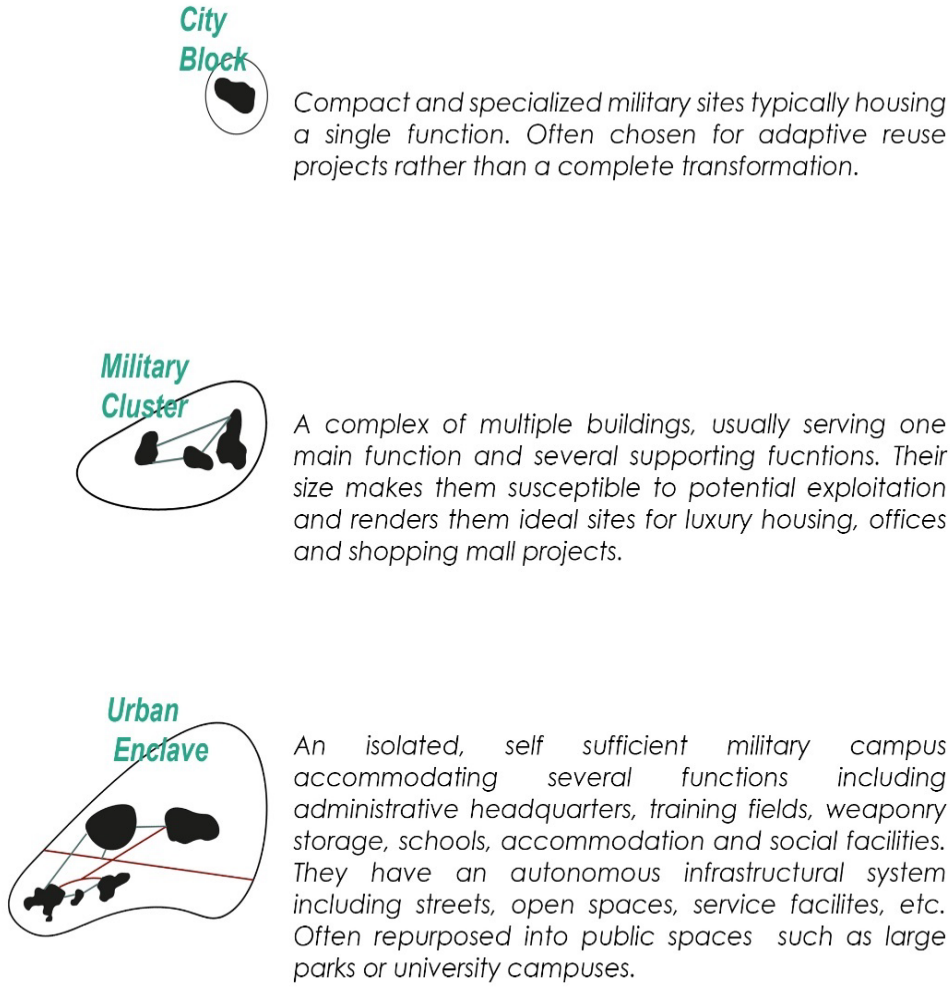


Fig. 29 Categorization of military lands.

Drawn by the author.

4.2.1 City Block

In most cases, the redevelopment of singular unoccupied military buildings is a non-invasive restoration attempt. The former military buildings are either simply repurposed and assigned a new function or restored and renovated to accommodate its new program such as a museum, a library, a school, etc. One case of an unoccupied military building turned into a school is Redif Barracks in Çorum. The historical significance of this site lies in its construction during Mahmud II''s era. It served as part of the Ottoman military's modernization efforts and was actively used during major wars until its military function ended in 1945. (Middle Black Sea Development Agency, 2024). After remaining unoccupied for decades, it was redeveloped through a restoration project that spanned 7 years and was opened as a local cultural center in 2024. The three-story stone-built structure, covering 720 square meters, is now revived and repurposed into a public building. The renovated building now features a conference hall, a stage for cultural events, storage facilities, and dressing rooms. (Balcı, 2024).

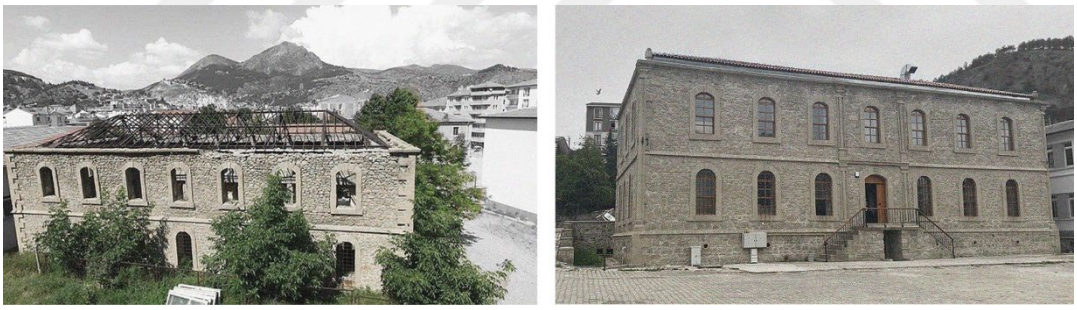


Fig. 30 Redif Barracks before and after the redevelopment project.

Source: Retrived from: https://www.aa.com.tr/tr/kultur/corumda-150-yillik-redif-kislasi-restore-edilerek-kultur-merkezine-donusturuldu/3202776

Although the redevelopment of city blocks is often a non-destructive adaptive reuse process, there are some exceptions. Kalyoncu barracks, for instance, is a controversial case of redevelopment in which the historical military building was completely demolished in 2016. Located in Kasımpaşa neighborhood in Istanbul, the

military barracks were built in 1782 and are considered to be one of the first examples of the Ottoman military's modernization attempts. (Erbaş, 2021).



Fig. 31 Kalyoncu Barracks before and after demolition.

Source: Erbaş, İ.Y. (2021). Askeri Arazilerin Dönüşümü: İstanbul Örneği. PhD dissertation. İstanbul University.

Originally, a comprehensive restoration project was proposed and initiated in 2013. However, claiming that the existing structure was a 1966 reconstruction that does not possess the historical value of the original, the building was demolished in 2016 with plans to reconstruct it by remaining faithful to the original design. Following the sudden demolition despite the previously planned restoration program, there was controversy regarding the fate of the historical site. Seltuk Akatay, one of the authors of the restoration project justified the demolition of the historical building noting that it was built on unstable ground and posed a risk of tumbling. (Demirkaya, 2020). As of now, the construction of the brand new Kalyoncu barracks is ongoing while the new function of the building still remains unknown.

4.2.2 Military Cluster

Despite some efforts to redevelop military sites with the understanding that the unoccupied land should be considered a public asset, the reality is that a significant

number of post-military land redevelopment projects in Türkiye remain primarily motivated by private profit interests. This is reinforced by the Municipality of Istanbul's note that the majority of the post-military lands in Istanbul are being transformed into luxury housing complexes. (Gökçe, 2023). It is noteworthy that military clusters are primary sites of rent-seeking redevelopment projects. Military lands in the architectural scale are often too small and limiting for an economically driven transformation approach. Likewise, large post-military lands are generally embraced by the local citizens and protected by the municipalities. Thus, military sites that lie in between the two scales tend to be more easily and frequently exploited for such projects.



Fig. 32 Satellite images of the Ayazağa military land before and after redevelopment.

For example, the military land in Ayazağa, Istanbul, previously owned by the Gendarmerie General Command, was initially transferred to the Housing Development Administration of Türkiye (TOKİ). Subsequently, it was put up for auction through the Real Estate Investment Partnership (Emlak Konut GYO), leading to the realization of the Ağaoğlu Maslak 1453 project. (Hamsici, 2023).

Another case of valuable post-military land being exploited for economic profit and rent-seeking is the military site in Istanbul's Zeytinburnu Kazlıçeşme area. Initially

built as an iron refinement factory in 1845, it was transferred to the Ministry of National Defense in the republican period and served as a military tank factory until

Fig. 33 Satellite images of Davutpaşa Barracks before and after redevelopment.

the year 2010. (Erbaş, 2021). In 2006, it was included in the Ataköy Tourism Center Master Plan, and its ownership shifted from the Ministry of National Defense to the Housing Development Administration of Türkiye (TOKİ). Later, the Ministry of Environment and Urban Planning changed the zoning law, and the land was designated as a Tourism and Residential Area. (Halkçı MMSP, 2020). Currently, a luxury housing complex stands on the post-military land.

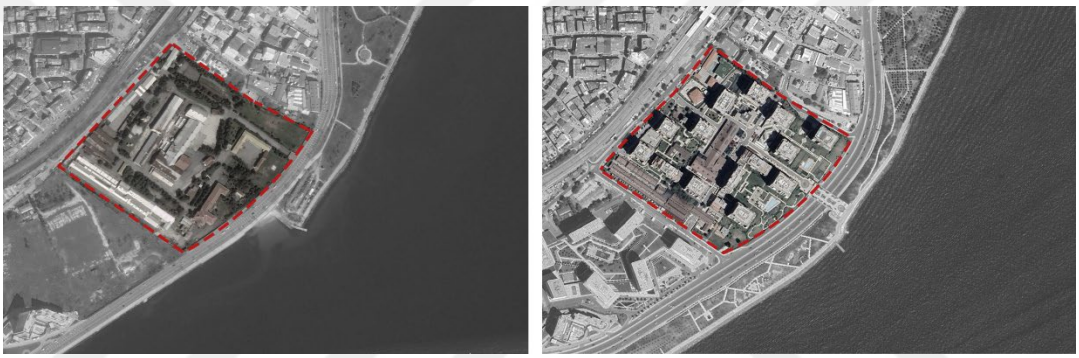


Fig. 34 Satellite images of Zeytinburnu military land before and after redevelopment.

One example of a military cluster that was preserved and restored is the Rami military barracks building which was transformed and turned into Rami Library in Istanbul. The barracks, with a history dating back 250 years, has been transformed into a public library after undergoing a restoration process that lasted approximately one and a half years. Originally built during the reign of Mustafa III, the barracks served as a military building until the 1980s. It had been out of active use since then until the restoration planning began in the early 2000s, with the actual restoration work commencing in 2014. The redeveloped Rami Library is now one of the three largest libraries in the world. In addition to its role as a library, it includes exhibition halls, conference halls, and spaces for various cultural events. (Uştuk, H & Şani, A.E,2023).

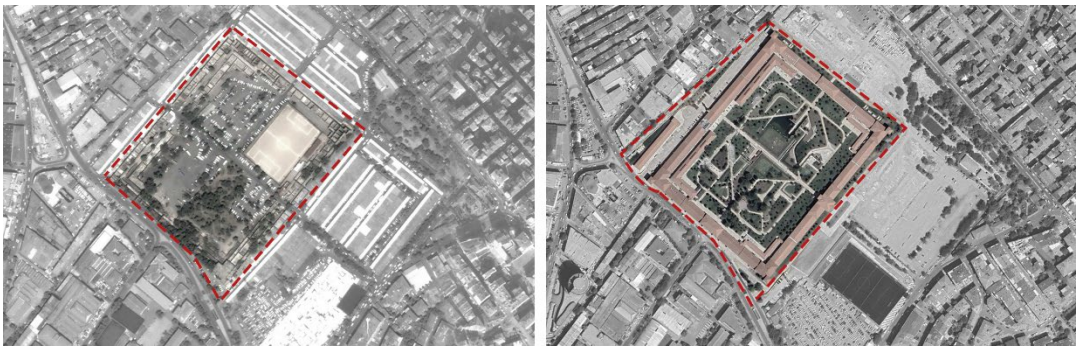


Fig. 35 Satellite images of Rami military land before and after redevelopment.

4.2.3 Urban Enclave



Fig. 36 Satellite images of Davutpaşa barracks before and after redevelopment.

As noted earlier, while the process of repurposing former military lands picked up speed and became more common after the 2016 coup attempt, there were earlier instances of repurposing post-military lands. An example of this is the case of Yıldız Technical University Davutpaşa campus. It was originally constructed in 1832, on the outskirts of Istanbul, but over the years, the city expanded, and the barracks found itself in the midst of an industrial zone. Throughout the years, it served various military purposes, including housing immigrants and operating as a military hospital.. It was also utilized as a detention center for political prisoners in periods of Turkish history. (Hürriyet, 1999). However, in more recent times, the military

barracks ceased being used for military purposes. In 1999, it was transferred by the General Staff of the Turkish Armed Forces to Yıldız Technical University. The barracks, along with its historic buildings and surrounding green spaces, now serves as the university's new campus.

Another relatively common approach in post-military site redevelopment is turning them into national gardens (Millet Bahçesi). There are such transformation projects in various former military sites in different Turkish cities such as Istanbul, Kocaeli and Manisa. Gebze Military Barracks were Originally decommissioned in 2013, the site was initially designated for a mass housing project under TOKİ (Housing Development Administration of Türkiye). However, after residents of Gebze expressed their opposition to this plan, advocating for a public space instead, the site was reclaimed from TOKİ. Subsequently, it was repurposed into a national garden that is currently under construction. Once completed, Gebze National Garden will be one of Türkiye's largest national gardens, covering an area of 400 acres. It is planned to host several recreational spaces such as a teahouse, sports café, a biological pond and exhibition spaces. (Kocaeli Municipality).

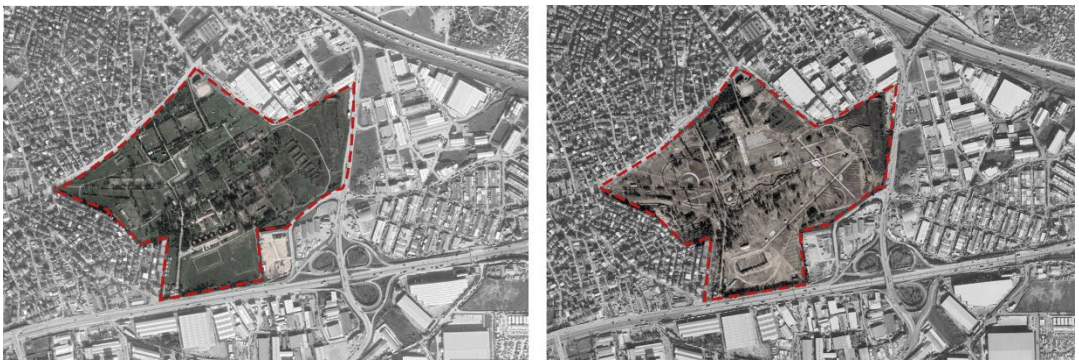
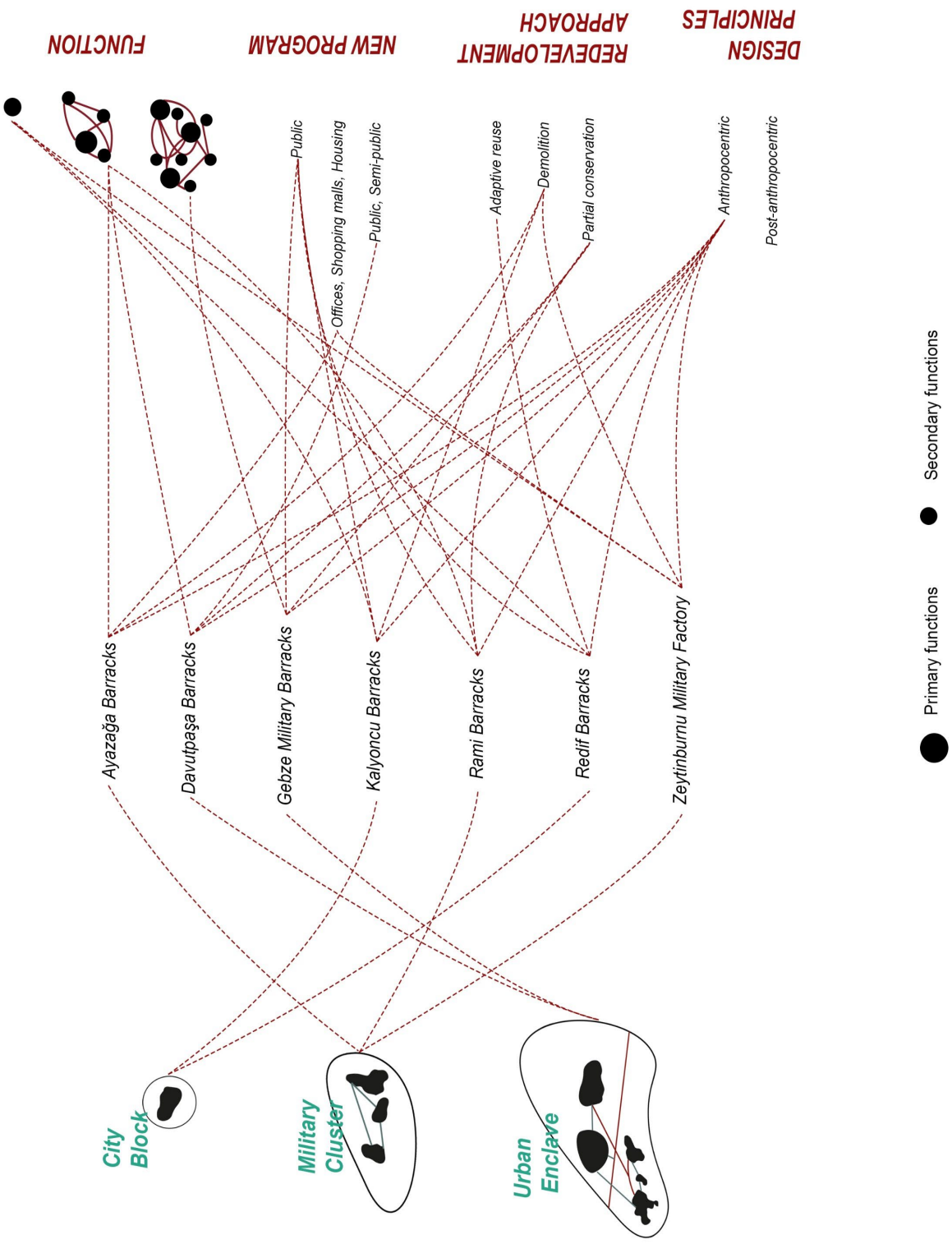


Fig. 37 Satellite images of Gebze military land before and after redevelopment.

In conclusion, the redevelopment approaches of post-military lands in Türkiye may vary significantly according to factors such as the site’s size, location and ownership status. These approaches range from conservation and adaptive reuse projects that

aim for preserving the spatial and historical value of the site, to cases of complete demolition and transformation. Nevertheless, whether the military land is exploited for economic gain or transformed into a socially valuable public space such as a national garden or a library, the redevelopment projects in Türkiye are always guided by human-centered considerations. The following table distills post-military land redevelopment cases according to scale, function, transformation approach and the principles guiding the projects.

Table 2 Post-military land redevelopment cases in Türkiye.



Drawn by the author.

4.3 Unoccupied military lands in Ankara

According to a declaration made by the Ministry of Environment and Urbanization, the country possesses a total of 326 thousand 200 hectares of land that is used for military purposes (Hürriyet, 2016). Ankara is home to a substantial portion of these lands. According to the Chamber of Architects of Türkiye, the combined land area of all military zones in Ankara and its surrounding districts is 7,000 hectares. This accounts to one-eight of the city's total land area, which comes to about 13 percent. Additionally, the open and green lands that make up Ankara's military sites account for approximately one-fifth of the city's total urban greenery. (Candan, 2016)[13]. In fact, the local climate action plans report prepared by the Municipality of Ankara categorizes the military lands as semi-private open and green spaces.[14] (Ankara local climate change action plan, 2022).

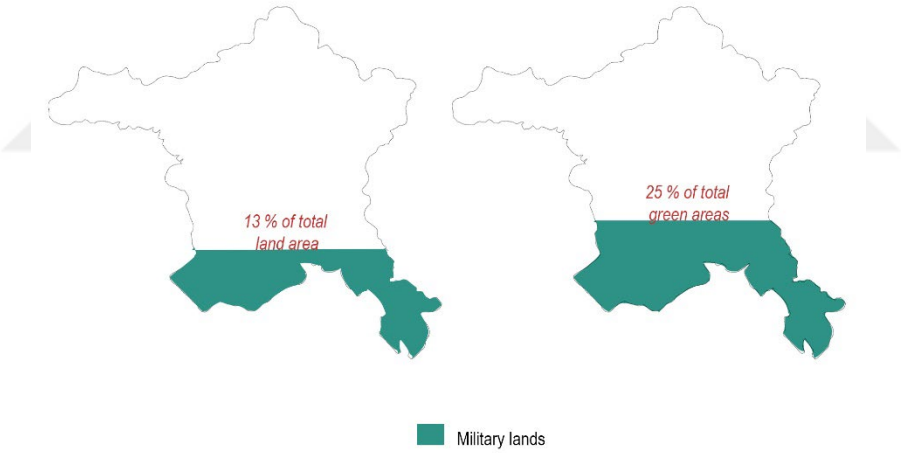


Fig. 38 Percentage of military lands in Ankara in relation to the total land area and total green area. Drawn by the author.

[13] See 'Askeri alanlar yapılaşmaya açılmamalı. Ankara nefessiz kalır' (2016) Mimarlar Odası Ankara

[14] Institutional spaces that are accessible to a particular portion of the public. Other examples include school gardens, governmental institution gardens, factory lands, university campuses, hippodrome, golf and tennis clubs.

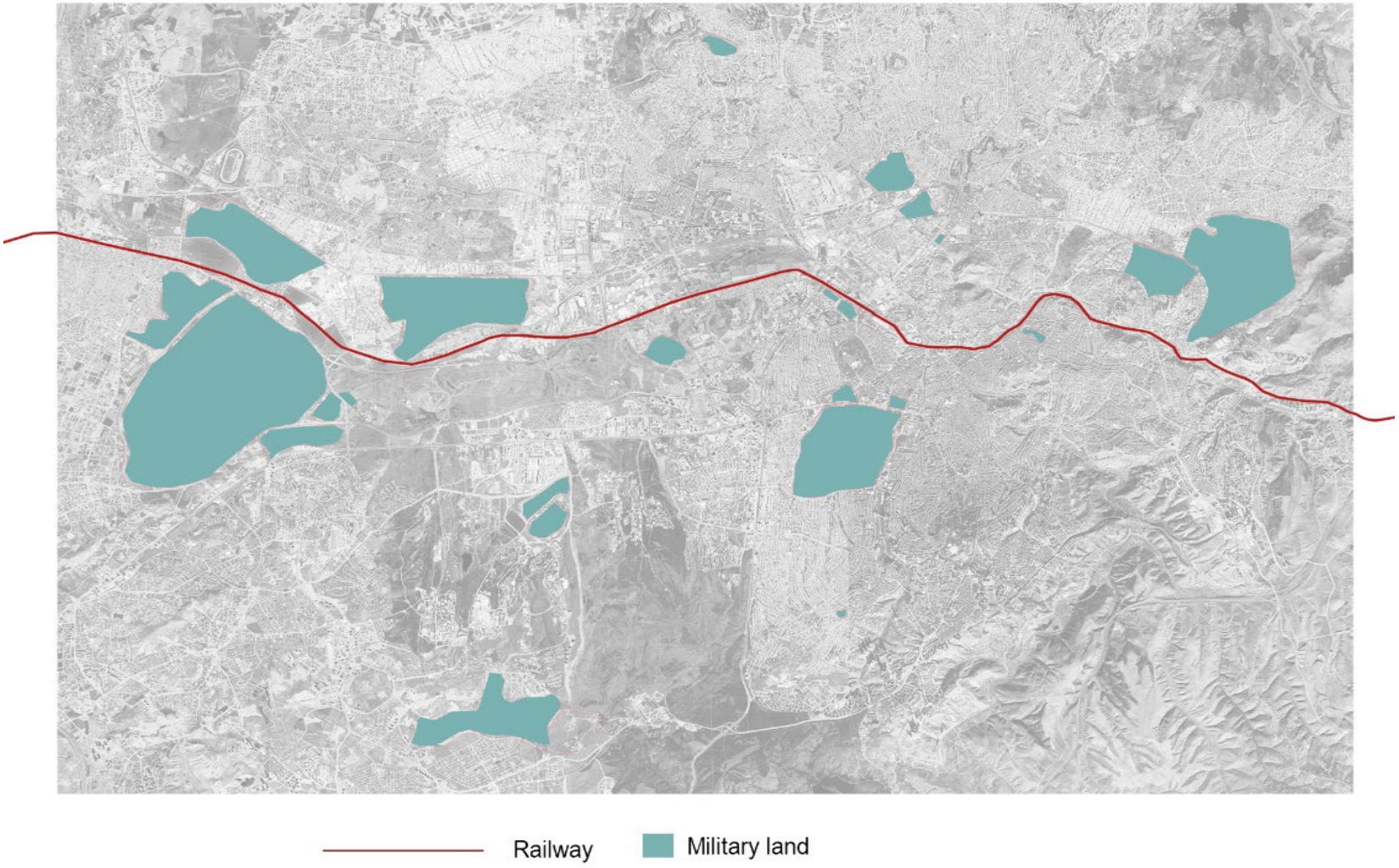


Fig. 39 Currently existing military lands in Ankara. Drawn by the author.

Ankara's military lands are distributed and spread across the city. The map below represents the existing military sites in the city, ranging from small urban interstices to large military campuses. Even though they are strategically dispersed in different parts of the city, there is a discernible concentration of them along the east-west axis.

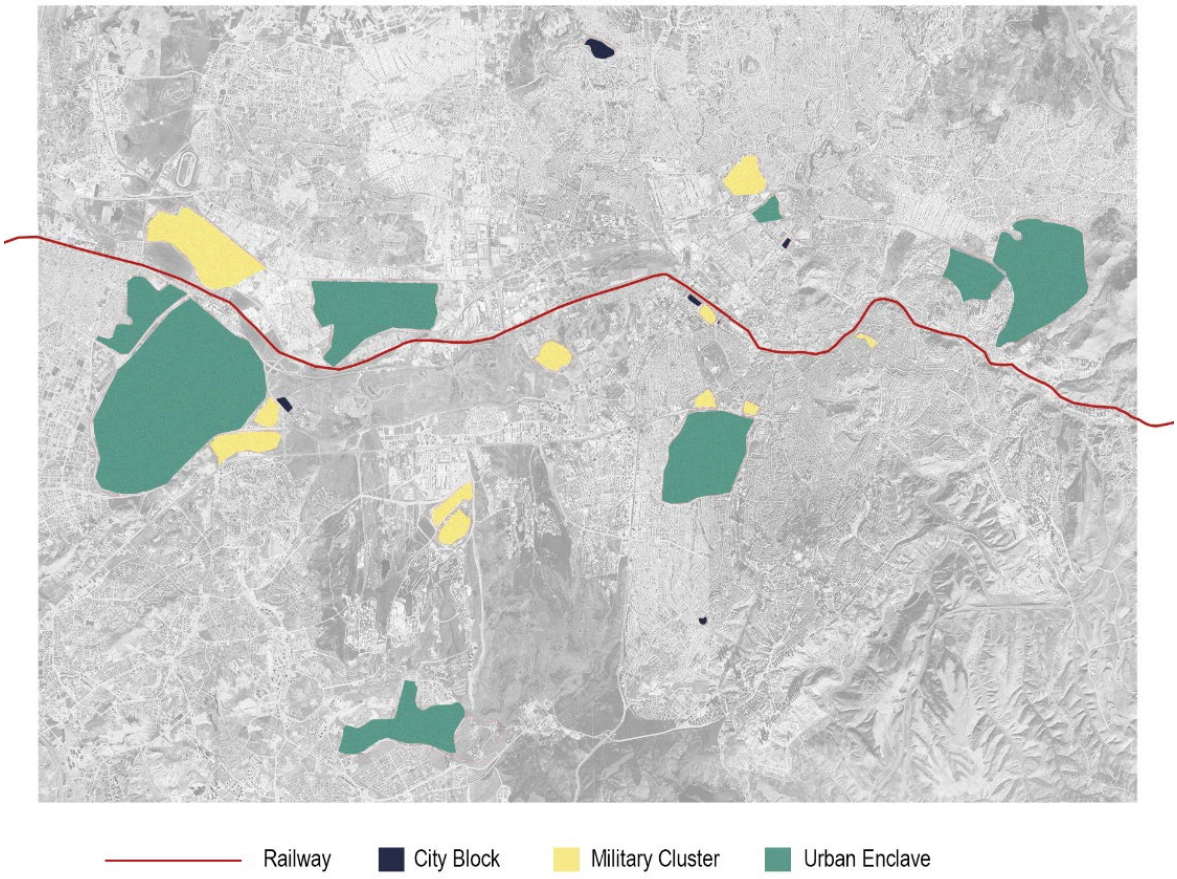


Fig. 40 Ankara's military sites, categorized according to their scale. Drawn by the author.

For the sake of simplification, the previous categorization of military lands is applied to Ankara's military sites as well. Figure 4.11 shows the distribution of these sites under the three categories: City Block, Military Cluster and Urban Enclave. The military sites in Ankara exhibit a diverse range of functions and scales. While the larger military campuses situated on the east and west sides of the city - Mamak and

Etimesgut barracks- serve as hubs of several military functions, the majority of smaller scale military sites which stand either as singular buildings or small building complexes are distributed throughout Ankara. The following table lists the existing military lands according to their approximate size and occupancy status.[15]

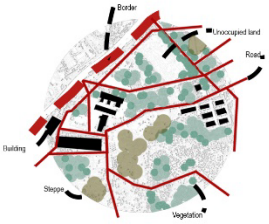
Table 3 The approximate size and occupancy status of the military sites in Ankara.

		Approx. Size	Occupancy Status
City Block	Gazi Military Club	0.50 km²	Active
	Etiler Military Club	0.1 km²	Active
	Tandoğan Military Club	6000 m²	Active
	Unknown	45300 m²	Unknown
	Unknown	0.26 km²	Unknown
Military Cluster	Air Logistics Commandry	0.46 km²	Active (Set for relocation)
	Land Force Logistics	0.35 km²	Active (Set for relocation)
	GATA	0.80 km²	Active (Taken from the military)
	Directorate of Mapping	0.1 km²	Active
	MoND Education Center	0.15 km²	Active
	Land Forces Commandry	0.21 km²	Active (Set for relocation)
	General Staff	0.12 km²	Active (Set for relocation)
	Radar Position Commandry	1.1 km²	Active (Set for relocation)
	Şefik Erensu Barracks	0.50 km²	Unoccupied
	Military Rehabilitation Center	0.48 km²	Active
	Çağlayan Barracks	0.93 km²	Unoccupied
	General Cavit Erol Barracks	0.34 km²	Unoccupied
	Etimesgut Military Airport	3.4 km²	Active
Urban Enclave	Mamak Military Campus	6.6 km²	Unoccupied
	Güvercinlik Military Airport	4.4 km²	Unoccupied
	Ayyıldız MoND Campus	13.4 km²	Under construction
	Etimesgut Military Campus	1.9 km²	Unoccupied
	Beytepe Military Campus	2.9 km²	Unoccupied
	Çankaya Military Campus	4 km²	Active (Set for relocation)

[15] Aside from Mamak and Etimesgut campuses, the occupancy status of the military lands remains unclear. The information presented in the table was deduced from several official declarations and their implications.

Another important aspect that affects the categorization of Ankara's military lands as well as their spatial configuration is the functions they accommodate. City blocks, for instance, typically house singular primary functions like guesthouses and recreational spaces for members of the military and their families. This is reflected in their relatively simple site planning consisting of a limited number of buildings connected by a single main road.

Table 4 The total land area of the three military land categories and the functions they each host. Made by the author.

	City Block	*Military Cluster*	*Urban Enclave*
			
LAND AREA	0.46 km²	8.68 km²	33.19 km²
FUNCTIONS	Guesthouse Recreation Sports	Military hospital Military school Guesthouse Sports Commandry Accommodation Museum Park Administrative spaces Dormitory Training areas Rehab. center Warehouse Airport	Education center Accommodation Administrative space Training area Warehouse Factory Airport Social space Military school Guesthouse Recreational space

Military clusters, on the other hand, encompass functions such as factories, medical campuses, airports, rehabilitation centers, commandries and military barracks. A typical military cluster accommodates a single primary function alongside secondary programs that support it. The military rehabilitation center presents a good example of this case where the military site is designed around a main rehabilitation center building and other accommodation and recreational spaces forming a cluster of interconnected spaces. The last category comprises spaces that are directly involved in military activities such as training, weaponry testing, and weaponry storage. Urban enclaves include military schools, education centers, dormitories, and training facilities. The Çankaya campus of the MoND (Ministry Of National Defense) stands as a special site in this category both due to its scale and its central role as the main campus of military management and commandery authorities as well as military schools and accommodation. However, what renders this site of exceptional importance is the fact that almost all the functions that it houses are set to be transferred to the new MoND headquarters in the newly built Ay Yıldız Campus, leaving the site unoccupied.

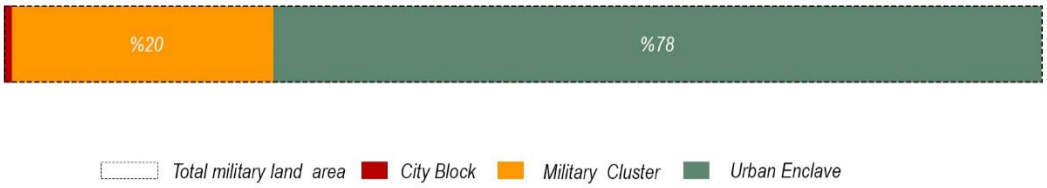


Fig. 41 The percentages of each category of military land in relation to Ankara's total military land area. Made by the author.

As shown in Table 4 and Figure 4.12, urban enclaves constitute the largest portion of Ankara's total military land area. Followed by military clusters that equate to one-fifth of the total area. Whereas city blocks only marginally contribute to the total military land area. This is especially important considering that most of the military lands that are currently unoccupied or are slated for decommissioning are large

military campuses, military barracks or commandry headquarters. Thus, the total area of unoccupied military lands becomes greater than the remaining active sites. Fig 4.13.

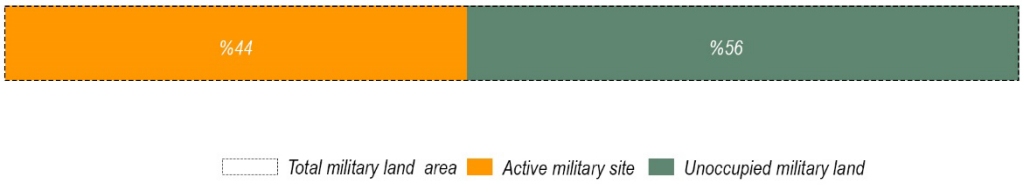


Fig. 42 The percentages of unoccupied and active military lands in relation to the total military land area. Made by the author.

Even though the fate and occupancy status of each individual military land is unknown, some remarks by government officials give an idea about the military installations that are set to be unoccupied. There have been news articles reporting that the decommissioning process had begun in the Armed Forces Military School and Educational Division Commandery in Etimesgut military camps. General Eşref Akıncı Barracks in Mamak were also reported to have begun the relocation process. (TRT Haber, 2016). The MoND's official statement regarding the issue indicated that eventually, all of the military lands that are directly involved in military activities will be relocated. This includes all the barracks, warehouses, training areas as well as the military airport. Normally, purely administrative military spaces such as the MoND campus or Land, Air and Naval Forces Commandry campuses seem to not be included in Türkiye's relocation project. However, Ankara presents a unique case due to the plans for the new Ay Yıldız Campus to house all administrative spaces within one large military land. The implication of this plan is that the currently existing commandry complexes are also set for relocation and abandonment. Within this framework, approximately %56 percent of the total military land area in Ankara can be regarded as unoccupied post-military lands.

4.4 Post-military land redevelopment in Ankara

Unlike İstanbul in which most of the post-military land redevelopment projects are implemented on abandoned military barracks from the Ottoman period, the documented pre-republican era military barracks in Ankara have not survived. Thus, up until the 2016 military land relocation project, most of the existing military lands were active installations and administrative spaces.



Fig. 43 Satellite images of Esertepe military land before and after redevelopment. Made by the author.

One case of redeveloping Ankara's military land is present in Esertepe. In the early years of Türkiye, this land served as an outdoor shooting range for the Turkish Armed Forces and was gradually encircled by the city's growing high-density housing. In 1970, the Turkish Armed Forces ceased using the land because of security reasons. In 2013, Ankara Municipality acquired the site, establishing Esertepe Park, which was opened to the public in 2015. After its dereliction, The Housing Development Administration of Türkiye (TOKİ) had acquired the land from the MoND to construct new housing units. However, TOKİ's housing plans did not go through and the land was sold to the municipality of Ankara instead. Which

in turn transformed the former military land into a large park that contains children playgrounds, sport facilities and other recreational spaces. (Yılmaz, 2013).



Fig. 44 Satellite images of Etimesgut military campus before and after redevelopment.

Another important case of military land redevelopment is the Ay Yıldız Campus, the new headquarters for the Ministry of National Defense. Previously used as a military barracks with expansive training areas and warehouses, the Etimesgut military campus was decommissioned and the land was chosen as the site of the new Ay Yıldız campus. Situated for many years in the Kızılay-Bakanlıklar district along Inönü Boulevard, adjacent to the Turkish Grand National Assembly, the existing buildings housing the General Staff Presidency, and the Command Centers for the Army, Navy, and Air Force will be consolidated under the umbrella of the new MoND headquarters in Etimesgut. (Pehlivan, 2021).

4.5 The urban significance of post-military sites in Ankara

The unoccupied military lands in Ankara, comprising approximately 13 percent of the city's total land area, are of great urban significance due to their vastness. Needless to say, they have the potential to profoundly impact the city, both positively

and negatively as they constitute a substantial portion of the urban fabric. Whether active or unoccupied, Ankara's military lands are defined by their unsurpassable borders that largely restrict human access. Having these large tracts of urban land that is inaccessible and unknown to the local community operates as what Jane Jacobs describes as border vacuums that break the continuity of the urban fabric. (Jacobs, 1961). Thus, integrating them into active urban life has the potential of weaving previously disconnected parts of the city together and increasing both human and non-human mobility across Ankara. In addition, some of the post-military lands have historical and architectural value, exemplified by the military installations that were constructed in the 1930s, which are contemporary with the establishment of the Republic of Türkiye itself. (Şahin, 2016). Such spaces of historical significance are often overlooked due to the introverted nature of active military sites. However, the newly emerging post-military lands in the city are now capable of exhibiting their historically and architecturally valuable assets to the public.

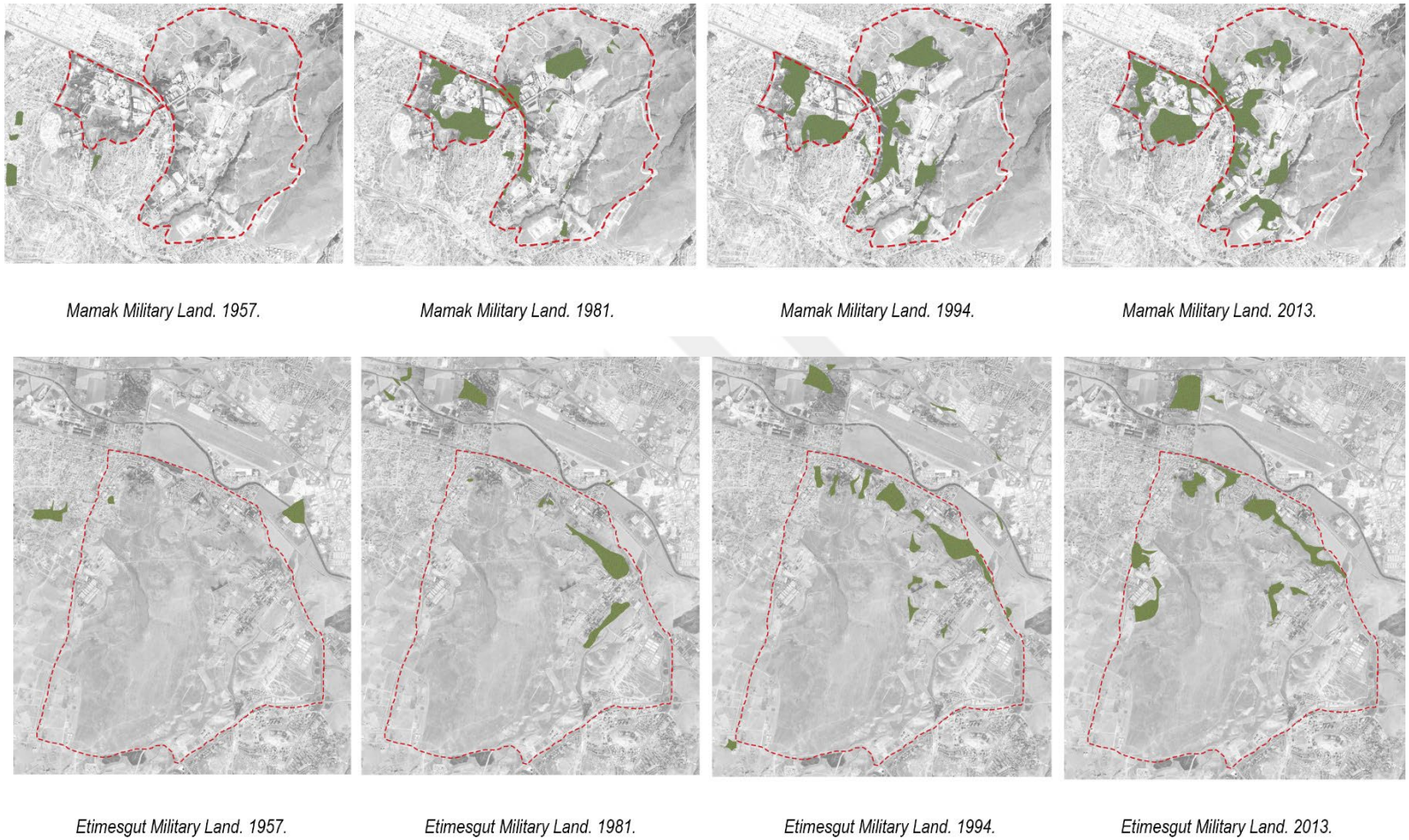
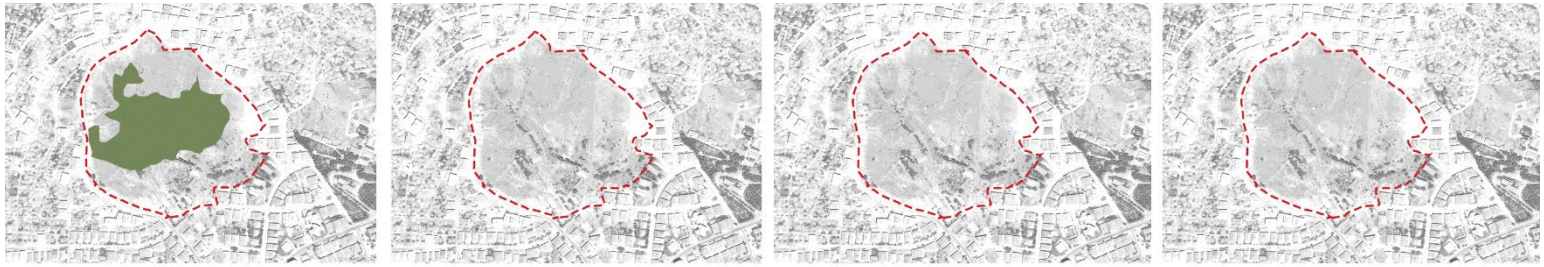


Fig 45 The change in green lands in Ankara's military sites through time. Made by the author.



Esertepe Military Land. 1957. *Esertepe Military Land. 1981.* *Esertepe Military Land. 1994.* *Esertepe Military Land. 2013.*



Çankaya Military Land. 1957. *Çankaya Military Land. 1981.* *Çankaya Military Land. 1994.* *Çankaya Military Land. 2013.*

Fig. 45 Fig.45 cont.

As previously discussed in Chapter III, the restrictive and inaccessible nature of military lands also inevitably contributes to the preservation of the ecosystems that exist within their boundaries. Ankara's military lands are no exception to this case. Even though the profit-driven and expansionist urbanization practices have largely prevailed over the city, the military sites have protected large tracts of the urban fabric from such forces. Hence, they currently hold a significant position as some of the few remaining open spaces in a highly dense city like Ankara.

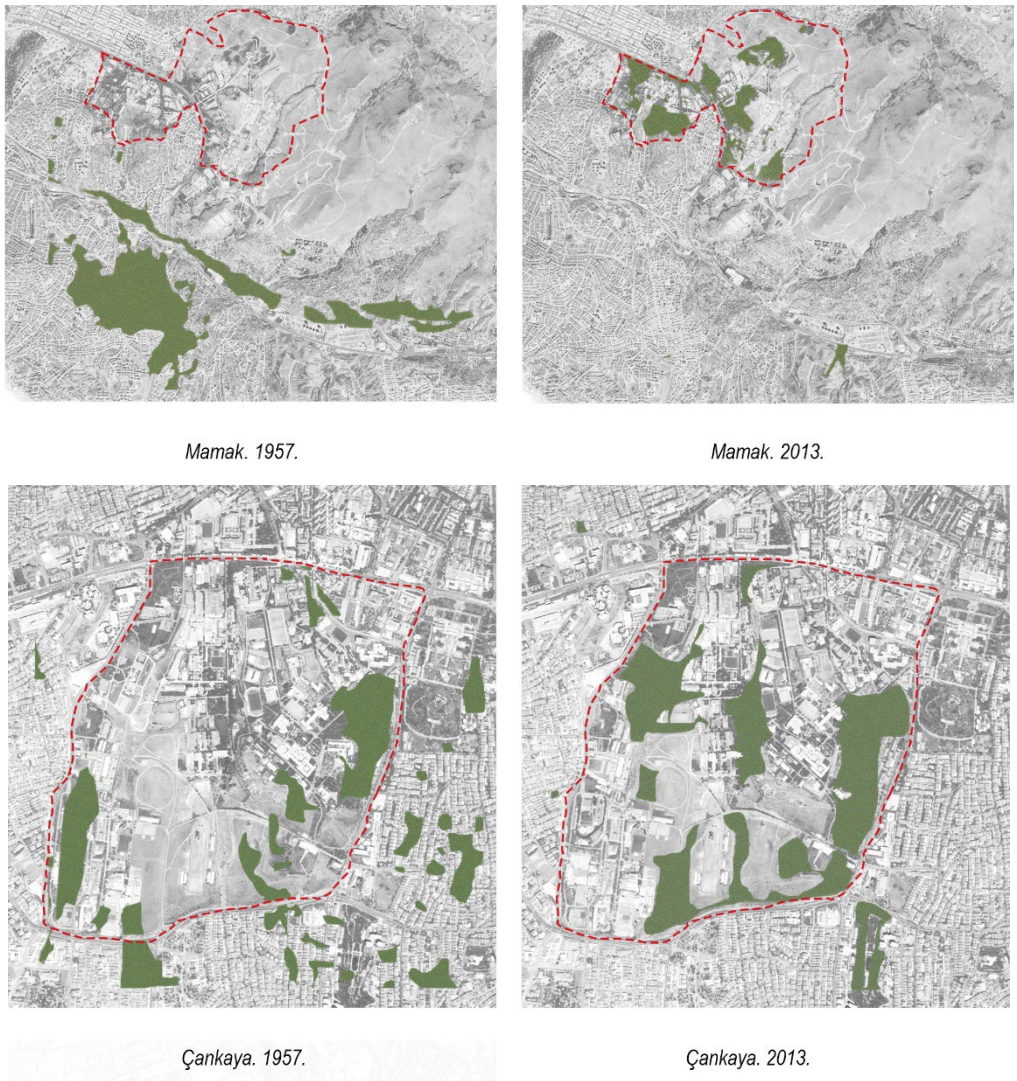


Fig. 46 The change in green lands within and outside the military site borders of Mamak and Çankaya. Made by the author.

As seen in Fig 4.16, the green portion of the land has expanded in time from the 1950s until 2010s in all three cases of large military campuses (Mamak, Etimesgut and Çankaya). Conversely, the case of Esertepe which was originally designated as a military land and was abandoned in the 1970s shows the loss of green with the loss of its military status. This comparison clearly shows a correlation between the military function of the land and the percentage of greenery on it. The same case can also be observed in the change of green lands within and outside the boundaries of military sites. Fig 4.17 illustrates how the amount of urban greenery existing within the boundaries of the military lands has significantly increased between the years 1957 and 2013. Meanwhile, the green areas that remained outside these borders were mostly lost to the forces of urbanization in both Mamak and Çankaya military lands.

In other words, military sites are not just integral parts of the green fabric of Ankara, but they are also the protectors of it. With a total percentage of %56, the larger portion of Ankara's military sites are classified as unoccupied lands equating to approximately 2400 hectares. Roughly %62 of which are open and green spaces. Which raises concerns regarding the fate awaiting the unoccupied military lands in the city once their protective military status is no longer applicable.

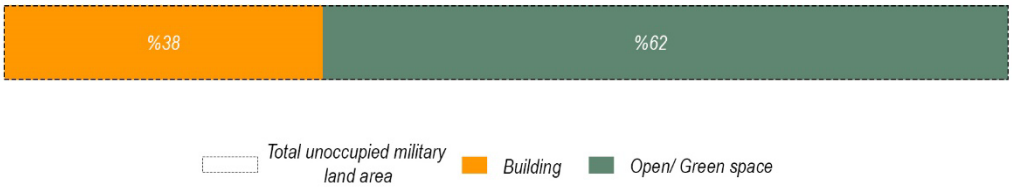


Fig. 47 The ratio of buildings to open and green spaces in Ankara's unoccupied military lands.

The greater contribution of Ankara's unoccupied military lands lies in their ecological potential as they are an integral part of the city's environmental infrastructure. This is clearly evident in their positioning in relation to the larger context of Ankara's other open and green lands.

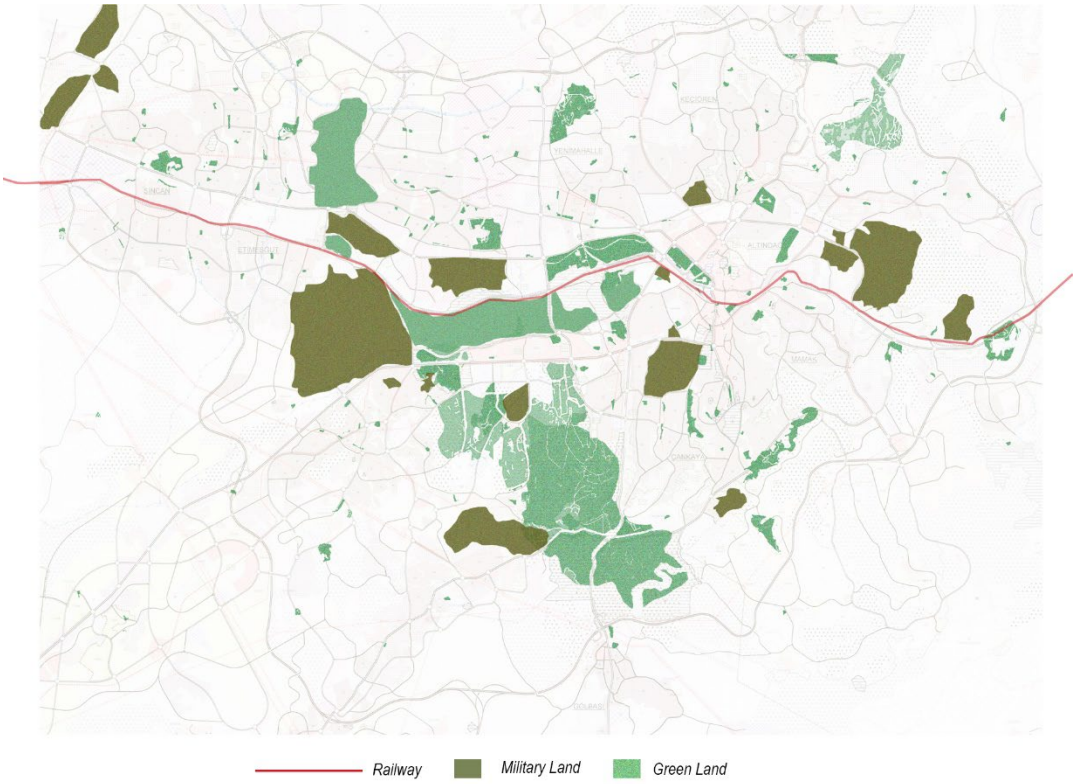


Fig. 48 Military lands as part of the larger green network in Ankara. Made by the author.

As seen in Fig 4.19, the Etimesgut Armored Forces School Commandry acts as a significant green and open buffer zone on the Çayyolu-Etimesgut axis of western Ankara. This military land is particularly important as it is an essential portion of an open green space network that continues with Atatürk Forest Farm and extends into the central parts of the city. (Ankara local climate change action plan, 2022). Similarly, the Mamak Military School and Information Systems Commandry campuses located on the east axis of the city serve the same function. In addition, the Etimesgut and Güvercinlik military airports are also open green spaces that function as valuable parts of the Atatürk Forest Farm. (ibid.).

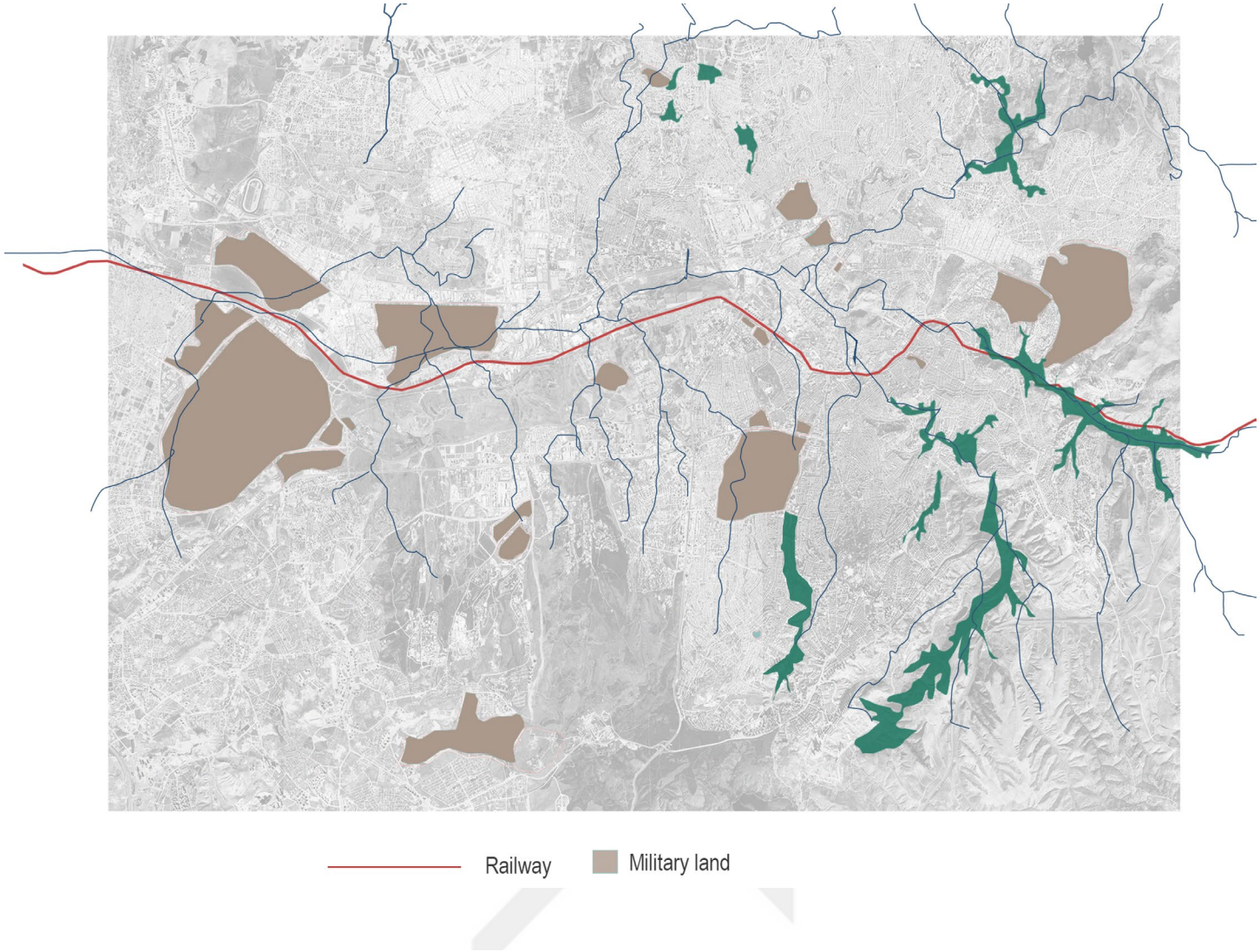


Fig. 49 Connecting species by providing a continuity of green spaces. Drawn by the author.

As illustrated in Fig 4.24, the post-military sites located at the south-east part of the city are in close proximity to ecologically significant spaces such as Dikmen valley, İmrahor valley, Hatip çayı valley and Mavi göl. Meanwhile the larger post-military lands located on the west growth corridor of Ankara can be connected to Atatrük Forest Farm lands and Hacettepe, Bilkent and METU campuses.

Thus, the contribution of the unoccupied military lands to Ankara's green spaces is noteworthy. Even though they do not explicitly provide public physical access,they currently play a role in preserving the silhouette of the city. (Şahin, 2016). In addition, their integration into urban fabric has the potential to establish ecologically significant green spaces. They offer an opportunity to enhance Ankara's green infrastructure and provide benefits such as improved air quality and enhanced urban microclimates. In fact, they have been proven to help mitigate the heat island effect of the city by decreasing the temperatures of the surrounding high density and industrial production areas. (Ankara local climate change action plan, 2022). Therefore, if preserved and approached within a post-anthropocentric understanding of urbanism, the unoccupied military lands in Ankara can be transformed into ecologically meaningful green spaces.

4.6 Post-anthropocentric approaches to unoccupied military lands in Ankara

The unoccupied military lands in Ankara have the potential of positively changing the urban fabric of the entire city. Türkiye’s history of redeveloping post-military sites presents various approaches ranging from creating socially driven public spaces to exploiting them for economic profit. The common denominator of the various redevelopment approaches is their human-centered guiding principles. However, the transformative potential of Ankara’s post-military lands can be instrumentalized to propose an alternative vision for the city itself. Three primary design principles are proposed as guidelines for a post-anthropocentric redevelopment approach.

A. Embracing natural processes

When left uncontrolled, unoccupied urban lands tend to organically change in time. They are either taken over by the forces of nature or appropriated for various uses by the local community. Allowing time to run its course and reveal the hidden ecological, spatial and social potentials of the land dislocates purely anthropocentric interests from the center of redevelopment projects. Thus, the naturally emerging new identities of the unoccupied urban land can inform the design process about the site's capacity for transformation and the real values it holds. Whether reclaimed by nature or appropriated to fulfill the spatial needs of the local community, the definitive outcomes of each natural process are unpredictable. Hence, each individual case of organic transformation presents its own scenario that is shaped by its unique dynamics.

- Post-military land taken over by nature

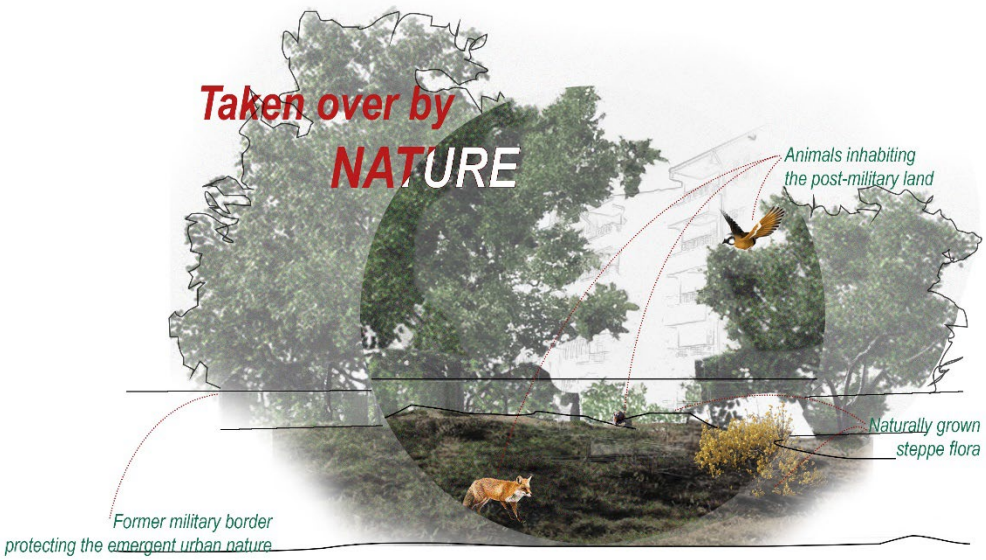


Fig. 50 Post-military land reclaimed by nature. Drawn by the author.

On post-military sites, the ability of nature to reclaim the unoccupied lands depends on several factors such as soil quality, existing ecosystem and species mobility. In addition, time is a key factor in determining the nature of the emerging urban landscape as it is a slow and gradual process of change that goes through several phases of growth. As more time is allowed for the natural forces to shape the landscape, the local ecosystem of the land is changed accordingly with the addition and elimination of different emergent dynamics between different species and the land itself.

- Post-military land taken over by the local community



.

Fig. 51 Post-military land reclaimed by the local community. Drawn by the author.

Once lands lose their military status, their introverted and restrictive qualities also gradually disappear as the local community begins to appropriate them for their spatial needs. The border vacuums that once were obstacles blocking people's circulation paths turn into shortcuts, informal gathering spots, and recreational spaces. In both cases of unoccupied land reclamation, the overlooked potentials and

values of the land are organically exposed and highlighted. Thus, embracing the natural processes of change and allowing them to transform the site can also inform post-anthropocentric design processes by providing agency to nature and the community as co-authors of the urban space.

B. Creating hybrids

Post-anthropocentric understandings of urban space are based on the rejection of the divide between false dichotomies such as *human / non-human*, *urban / wild*, *man-made / natural*, etc. Unoccupied lands are spaces that categorically defy the binary oppositions by being *hybrids* of both extremes. Ankara's post-military lands can operate as the physical manifestations of these hybrids through the adoption of design principles that aim for establishing a balance between seemingly opposing approaches. Instead of framing them as either / or situations, such dualities must be defined as *spectrums* on which individual post-military land redevelopment projects can fall anywhere between the two extremes.

- Design & Non-design

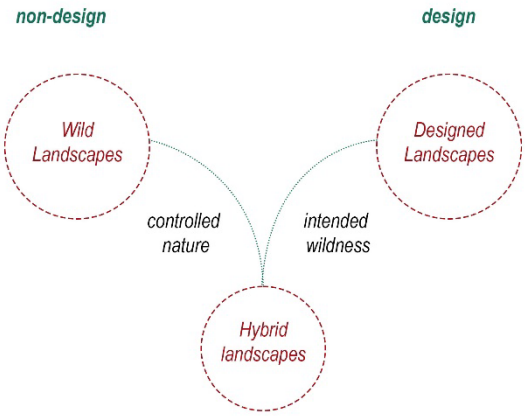


Fig. 52 Creating a hybrid of design and non-design. Made by the author.

The unoccupied military lands in Ankara can significantly differ according to several factors such as scale, location, existing ecological condition, former function, land cover, soil quality, etc. Each of these situations necessitate a different design operation that falls somewhere on the design ↔ non-design spectrum. Controlling and maintaining urban nature or cultivating intentional wildscapes result in the emergence of hybrid landscapes that adapt to the specific post-military site.

- Transformation & Conservation

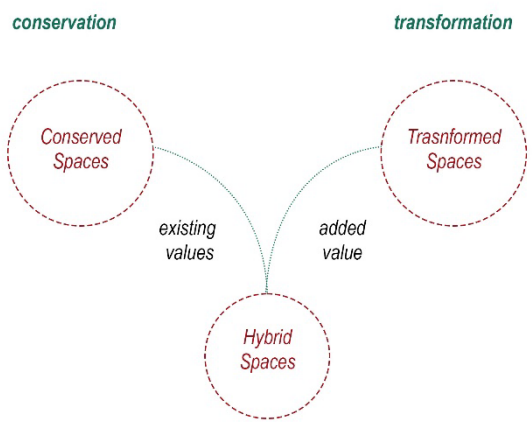


Fig. 53 Creating a hybrid of transformation and conservation. Made by the author.

The conflict of conservation / transformation is a given challenge of any unoccupied land redevelopment task. On the one hand, the pre-unoccupancy heritage of the land's past as well as the added values - *such as the ecological values of natural takeover or the social values of community appropriations* - of the unoccupancy period must be conserved. Conversely, transforming the land and integrating it into

the daily processes of urban life require spatial interventions that may sometimes be disruptive. The post-military lands in Ankara do not pose an exception to this conflict. Currently, they exist as introverted landscapes that are disengaged from the larger urban context. That being said, reintegrating them into the city's urban fabric must be done through a meticulous process of finding balance between conserving the existing values and transforming the site to add new values.

C. Establishing connections

Aside from the small city blocks in the architectural scale, Ankara's military lands are defined by their rigid and impervious boundaries. Not only do these borders isolate the military lands from the urban fabric, but they also break the spatial continuity of different parts of the city. Nevertheless, the restrictive nature of said borders also help in conserving the natural habitats within the post-military lands. The limited human access plays a role in sustaining healthy and undisturbed ecosystems. That being said, military borders also limit species mobility and hinder the interaction of different ecosystems. Thus, a post-anthropocentric approach to redeveloping Ankara's post-military lands must prioritize establishing connections between different spaces and different species simultaneously.

- Connecting spaces

Depending on the nature and program of the post-military land, borders of differing qualities must be used to control the connection between spaces. For instance, some parts of the unoccupied military lands are home to sensitive ecosystems that must remain as human free zones. Similarly, landscapes of urban nature must be connected to the surrounding urban fabric to create zones of interaction between the local community and nature. That being said, this connection must be achieved in a controlled and regulated manner to avoid any disturbance to the natural habitat of

the post-military land. Nevertheless, the sections that host public and social programs are the zones of maximum interaction between the unoccupied military lands and the surrounding urban fabric where the borders are eliminated, and the different spaces are weaved together.

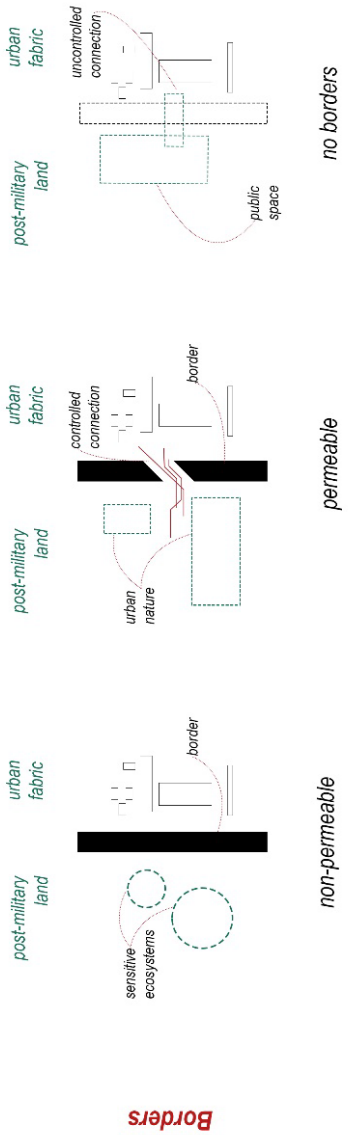


Fig. 54 Connecting spaces through borders of differing qualities. Made by the author.

- Connecting species

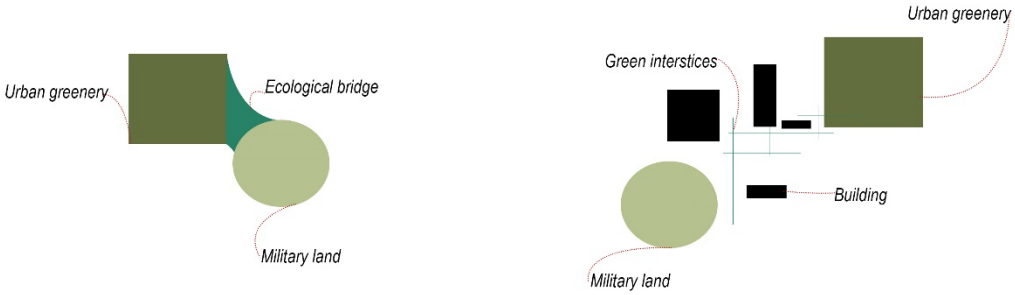


Fig. 55 Connecting species by providing a continuity of green spaces. Made by the author.

Even though Ankara's military lands are distributed in different parts of the city and are positioned in close proximity to other open and green spaces, the lack of a physical connection between them limits inter-species interactions and hinders their true ecological potentials. Whether by creating ecological bridges or simply by forging indirect connections utilizing the interstitial green spaces, the continuity of green spaces can be ensured across different parts of Ankara. Redefining the post-military lands as integral constituents of a continuous green network can significantly increase species mobility and strengthen the interaction of different ecosystems. This can be achieved by connecting the post-military lands to the existing streams and valley systems parks, university campuses, embassy gardens, temporarily unoccupied lands, farmlands, etc.

In conclusion, if guided by post-anthropocentric design principles, redeveloping Ankara's unoccupied military lands has the potential of transforming the entire city. Embracing the natural processes that evolve in time and learning from them, rejecting the dualities that are inherent to situations of urban unoccupancy and creating hybrids instead, and establishing connections between spaces and species are suggested as principles that can guide this transformation.

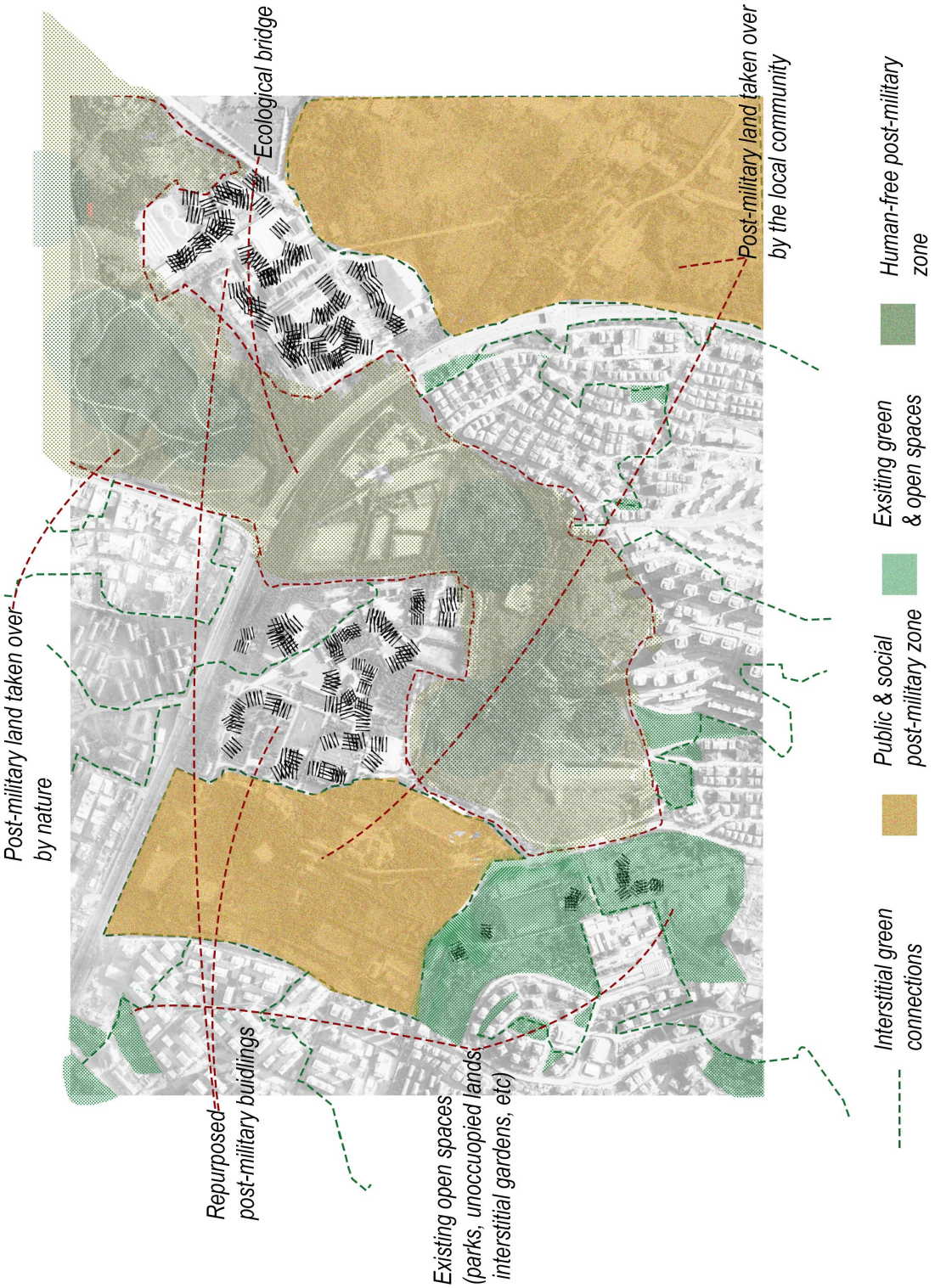


Fig. 56 The proposed post-anthropocentric principles applied to Mamak Military land in a potential scenario. Made by the author.

CHAPTER V

CONCLUSION

Urban unoccupancy is one of the topics that deserve revisiting and studying within the context of the Anthropocene. Unlike the currently oppressed urban areas, they provide a wider range of action to mitigate the disruptive symptoms of the climate crisis. Based on this, in this thesis, the role unoccupied urban lands play - or may play - in the resistance of cities to the destructive effects of climate change was questioned. Undoubtedly, theorizing urban occupancy within this context requires approaching it from a different, post-anthropocentric perspective. Thus, the main aim of this study is redefining unoccupied urban lands as post-anthropocentric landscapes that can play a critical role in the face of environmental threats. In this regard, the unoccupied military lands in Ankara were scrutinized and reframed as post-anthropocentric landscapes that can help the city meet its climate-combating goals if approached and treated carefully.

Adequately addressing any subject in a post-anthropocentric context necessitates abandoning the human-centered biases that shape our understanding of it. This can only be achieved by destroying the false *human vs nature* duality that lies at the very foundation of the prevailing worldview that favors humans above all else. The manufactured duality that we have taken for granted influences the way in which we create our spaces and shape our cities. As a matter of fact, it leads us to categorize everything into binary oppositions such as *urban vs wild* and *man-made vs natural*. This is precisely why urban unoccupied lands must be examined in a post-anthropocentric context. Although these spaces are of utmost complexity due to their

vague and ambivalent nature, one essential feature they are all defined by is the absence of humans. Not only are they characterized by the lack of human influence, but they are also physical evidence of the falsity of the urban vs wild dichotomy. As spaces that exist both *within* and *outside* the normative boundaries of urbanity, spaces that are simultaneously *unoccupied* - by humans- and *occupied* - by nature-, spaces that are at the same time *urban* and *wild,* unoccupied urban lands are sites of a hybrid nature that operate as post-anthropocentric landscapes.

Beyond being inherently positioned on a post-anthropocentric ground, unoccupied urban lands are spaces that can play a meaningful role in the Anthropocene per their remarkable ecological performance. The lands that were colonized and oppressed by our anthropogenic forces, when left unoccupied for a certain period, are generally re-claimed by natural processes. Even though the scale, nature, and extent of this natural takeover can significantly differ, this is the case in all urban situations of unoccupancy. It has been discussed how these naturally emerging landscapes constitute a new category of nature that falls in the middle of the *wild* vs *urban* spectrum. They have been proven to play an ecologically significant role in the city as hotspots of urban habitat that are rich in terms of biodiversity. They provide numerous provisioning, regulating, and supporting ecosystem services, as well as ecological testing grounds that inform the future design and planning decisions. This is partly why unoccupied urban lands have the power to offer alternative visions for a post-anthropocentric future. However, the real challenge they pose for architects and urbanists is rooted in the contradiction of seeking to keep and enhance their ecological performance - *which exists thanks to the exclusion of humans*- while also aiming to occupy and re-integrate them into the urban fabric. Achieving this task necessitates finding a delicate balance between polar opposites such as *inclusion* vs *exclusion* and *transformation* vs *preservation*. As a matter of fact, one category of urban space excels at establishing and maintaining this balance.

Military lands, due to the secretive and sensitive nature of the functions they house, are an interesting case of this balance in practice. For security purposes, military lands are known to heavily restrict human access, allowing controlled human traffic only on designated parts of the military installation. The partial absence of humans inevitably leads to situations of urban nature similar to those found on unoccupied urban lands. With the natural takeover of human-restricted zones and the surprisingly beneficial effects of military activities on the local ecosystems, military lands operate as spaces of high ecological value within the urban environment. In this context, a frequently asked question is how post-military urban lands - *the number of which has been significantly increasing in the last decades*- should be approached. Türkiye is one of the countries that have been dealing with this particular challenge in recent years. Especially after the 2016 coup attempt, de-commissioning military sites and relocating them elsewhere became an official government program. Ankara is one of the cities that is most affected by this program as a non-negligible portion of its urban land is emerging as unoccupied military lands waiting for redevelopment.

In addition to the reasons explained in the third chapter and written above, the post-military lands in Ankara are even more valuable considering the scarcity of urban nature and open green spaces in the city. Ankara Metropolitan Municipality has emphasized the critical importance of these unoccupied military lands for the city both in terms of biodiversity and the ecosystem services they provide in their local climate change action plan report. However, their fate still remains largely unknown. In fact, due to the sensitive nature of the topic and the attached security concerns, there has not even been an official statement regarding which of the existing military sites are set to be decommissioned and transferred, let alone the plans for their future redevelopment. The intention of this thesis, however, is not to analyze these spaces in a detailed manner and make specific design suggestions for their future. Rather, this study aims to initiate a discussion on what unoccupied urban military lands mean for Ankara and how they should be approached within today's Anthropocene context. Hence, three design principles – *Embracing Natural Processes, Creating*

Hybrids, Establishing Connections- are suggested to guide Ankara's post-military land redevelopment projects.

Some of the military lands in Ankara have been unoccupied since 2016 while some others are still active, awaiting relocation following the opening of the new Ay Yıldız campus. As discussed in Chapter 2, urban unoccupancy generates programmatic freedom and enables alternative conceptions of urban space to emerge on the unoccupied land. Thus, the unoccupied military lands in Ankara can reveal the urbanity potentials of the post-military land if left to the transformative forces of nature or the local communities. Whether reclaimed by nature or appropriated by the local residents for particular activities, such natural processes that organically transform urban space can unearth the true ecological and social value of the post-military land. A post-anthropocentric redevelopment approach must acknowledge, embrace and encourage the naturally emerging alternative identities of the unoccupied military land and instrumentalize them as design inputs.

Some challenges are inherent to the redevelopment of unoccupied lands as observed and discussed in the redevelopment cases in Chapter 2 and Chapter 3. Besides the technical difficulties – *such as contamination and the involvement of a multitude of stakeholders*- that are directly linked to the military nature of the land, the redevelopment of post-military lands in Ankara presents design challenges that stem from conflicts of two seemingly opposite forces. For instance, the unoccupied lands in Ankara possess many ecological, historical and architectural values that need protection and conservation. At the same time, truly unlocking the potential of these post-military lands requires a transformation project that integrates them into the daily processes of urban life and highlights their existing values. A redevelopment approach that is guided by post-anthropocentric principles does not view such challenges as an either/or situation and seeks to create hybrids instead.

The third proposed design principle is establishing connection between different spaces as well as different species. Not only do the military lands in Ankara stand as inaccessible spaces on their own, but they also actively break the continuity of the urban fabric by hindering physical connections and mobility between different parts of the city. This situation affects the overall ecological performance of the post-military lands as they also limit species mobility in general. Therefore, meaningfully integrating the unoccupied military lands in Ankara into the urban fabric necessitates establishing connections between spaces and species in order to maximize their social, spatial and ecological potentials.

Undoubtedly, the very first step to be taken is the protection and preservation of the existing military lands. Considering that even the socially driven, less destructive redevelopment approaches still instrumentalize the emerging unoccupied lands to further emphasize their anthropocentric bias, they are facing a serious threat of loss and destruction. As a symptom of an understanding that automatically positions the human at the center, neither their historical nor ecological significance is given due attention. Thus, protecting them and preserving their values is primarily a matter of adopting a post-anthropocentric approach towards them.

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