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THE CITY CHALLENGES AND EXTERNAL AGENTS. METHODS, TOOLS AND BEST PRACTICES

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Former military sites and post-Covid-19 city in Italy. May their reuse mitigate the pandemic impacts?

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Abstract

The presence of former military settlements, along with other abandoned spaces in the Italian cities, constitutes an opportunity for developing inclusive and green cities through a good governance, especially after the 2020 pandemic outbreak. This paper develops an analytical matrix for comparing and evaluating the redevelopment projects of a number of case studies in the Italian metropolitan cities of Bologna, Milan, Rome, and Turin in the face of the challenges of the post-Covid-19 issues. Although the difficulties to evaluate still ongoing redevelopment projects, I found two main results. First, the Italian political and economic context is what most influenced the redevelopment process and not so much the intrinsic characteristics of former military sites. Second, it seems that the reuse of these urban voids will not match a couple of features of the so-called post-Covid-19 features, i.e. inclusive and good governance, though the redevelopments can seemingly develop green cities.

Keywords

Urban regeneration; Urban planning; Urban voids; Post-pandemic territories.

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1. Introduction

This work questions the management of former military sites in Italy and pinpoints how the programmed reuse of a number of case studies may succour health, social, and economic inequities in the post-Covid-19 city. In particular, the paper qualitatively evaluates and classifies the way the redevelopment of the selected case studies can contribute to build more inclusive and greener cities though a good governance.

This paper takes the redevelopment of former military sites in Italy as a starting point to examine the significance of these reuses in shaping new urban environment to mitigate the negative effects of the Covid-19 pandemics by analysing their correspondence to the so-called 'inclusive cities', 'green cities', and 'good governance'. The work is specifically focused in tracing in the commonalities and differences of these public-owned assets that have been privatised by selling them to real estate funds to boost their reuse. The research questions are the following: Are the current redevelopments of former military sites aimed to improve the quality of life of everyone or to materialise new profit-driven spaces? May these projects provide more inclusive, resilient, healthy sustainable, and safer environment in the context of the Covid-19 pandemic and beyond? For this purpose, the paper works with four cases of former military sites that exhibit significant characteristics to highly impact their context in the post-pandemic period: the Sani barracks in Bologna, the compound Baggio warehouses-Parade Ground in Milan, the Guido Reni barracks in Rome, and the La Marmora barracks in Turin.

In working toward the classification of the redevelopment projects affecting former military settlements in Italy, the paper advances the existing literature in three central ways. First, it identifies patterns across a specific type of urban void to redevelop in a comparative study where the dominant scholarship has been single case studies in Italy, with only few comparative studies of former military sites in diverse countries (Artioli, 2012; Ponzini & Vani, 2014). Second, it proposes an approach based on a systematic analysis of secondary sources through a case survey method along with specific fieldworks, interviews and archival work. Third, it evaluates ongoing redevelopment projects still to be carry out to expand on the comparative urban dimension on the critical urban studies analysis of former military sites that has been flourishing in recent years in Italy and abroad (Bagaeen & Clark, 2016; Camerin, 2020).

2. Theoretical framework

This work questions the management of former military sites in Italy and pinpoints how the programmed reuse of a number of case studies may succour health, social, and economic inequities in the post-Covid-19 city. In particular, the paper qualitatively evaluates and classifies the way the redevelopment of the selected case After the end of the Cold War in 1989 and in the context of the crisis that shook the capitalistic system of the Western countries (creating significant budgetary deficits), the last decades of the 20th century has given rise to the reuse of surplus military properties and the transition to civilian uses. As claimed by Ashley & Touchton (2016: 391) «current scholarship describes this process and provides snapshots of transition, yet there is very little systematic knowledge of what follows base closure». Although the closure of a number of military bases has been affecting contemporary urban and rural areas and become a new challenge for city planning and policymaking, little attention has been paid to this complex topic at an international level. The military abandonment and redevelopment involves a great range of disciplines (from geopolitics to geography, from planning and urban studies and heritage and conservation) and agents (usually more than in ordinary landuse change, such as Ministry of Defence and *ad hoc* agencies). The vast majority of the research has focused on the following aspects: the reasons behind the military abandonment (Brzozska et al., 1995); the redevelopment of military settlements from the point of view of their polluting effects (Paukštys et al., 1998), including them in the issues of 'common' (Marin & Leoni, 2016), 'heritage' (Cocroft et al., 2005), 'brownfields' (Lotz-Coll, 2019), the recovery of 'ecological systems' (Havlick, 2014) and urban austerity (Adisson & Artioli,

2020); the citizens participation into the decision-making process on their reuse (Van Driesche & Lane, 2002); and the economic effects of the military closure (Paloyo et al., 2010).

Taking into consideration the Italian case, Gastaldi and Camerin (2018a: 673-675) and state-led inquiries (Corte dei Conti, 2017) pinpoint that uncountable former military sites are still waiting for their redevelopment as a result of a mix of factors. This failure led to the long-lasting abandonment of these areas up to date. In the context of post-pandemic period, Italian cities are plenty of urban voids proceeding from military use that may match the urgent requirements to provide a healthy and safe life for the citizenship. They constitute proper opportunities for redevelopments that truly improve the quality of life, and not only for creating new profit-driven spaces following the incessant search for profitability far from the reality of the local context and the real needs of the city as a whole (Alexandri & Janoschka, 2020). After the outbreak of the pandemic, numerous cities across the world adopted specific measures to deal with the impacts of Covid-19, such as the Swedish "Street Moves", also known "1-minute-city" (O' Sullivan, 2021), and the Milanese experiment "Open Streets" (Comune di Milano, 2020) or speeding up the policies adopted before the Covid-19, as Paris en Commun's concept of the '15-minute city' and the Barcelona's 'Superblocks' (Mueller et al., 2020). All these proposals refer to the wide range of short-term, low-cost, and scalable interventions and policies that catalyse long term changes in a specific neighbourhood, i.e. the so-called Tactical Urbanism (Garcia & Lydon, 2012), promote slow mobility, as well as a decisive bet for public transport over private transport (Gaglione, 2020; Fenu, 2021). In the frame of the growing research regarding the post-Covid-19 city (Guida, 2020), an aspect deserving attention is what to do with the emptied spaces result of the abandonment of diverse typologies of activities (Balletto et al., 2021), especially in terms of health emergency and economic and territorial implications (Capasso & Mazzeo, 2020). Among the wide range of voids, this study takes into consideration the current redevelopment of former military sites in Italy to understand if their reuse could be adapted to three of the key aspects of the post-Covid-19 city according to the survey by OECD (2020): inclusive cities, green cities and good governance².

3. Methodology

The work comprises three ways to obtain the information. First, archival research, i.e., cities' archives and Italian University's libraries. Second, a series of fieldwork, i.e. on-site visits and interviews with actors and stakeholders involved (including the architectural design studios involved in the redevelopment projects) conducted in Italy's Milan (November 2017), Rome (October 2018), Turin (May 2019) and Bologna (September 2019). Eventually, the search for international scientific literature using the bibliographic databases Scopus and JSTOR along with the grey literature (i.e., press articles, government's legislative documents, and local administrations' urban and territorial planning sources) was performed.

3.1 The case study selection

The case studies selection was made according to the following elements:

- location in Italian capital cities (i.e., Bologna, Milan, Rome, and Turin);
- inclusion in policies of military rationalisation and redevelopment according to specific memorandum of understanding signed between the Ministry of Defence, the City Councils, and the State Property Agency from 2014;

¹ https://www.paris.fr/dossiers/paris-ville-du-quart-d-heure-ou-le-pari-de-la-proximite-37.

² The analysis leaves behind the features of the 'smart cities' as their focus is on territorial-scaled measures and interventions, not being focused on specific urban voids.

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- ownership, i.e. the current owner is a real estate fund (Invimit and CDP Cassa Depositi e Prestiti)³;
- high-consumption-land military settlements whose reuse works are still to carry out;
- the in-depth analysis of the processes of building, abandonment and regeneration of the case studies in Camerin (2020: 193-257).

3.2 The quantitative and qualitative analysis

This analysis aims to decipher the current redevelopment projects affecting four former military sites and was conducted on the basis of two methods: a quantitative and qualitative analysis as well as a gradual categorisation of the data. The data collection includes a review of the existing literature on the case studies and the interpretation of official documents released by the actors involved in the management of former military barracks (Ministry of Defence, State Property Agency⁴, and City Councils).

The quantitative analysis comprises two parts that contribute to give a brief resume of the case studies.

First, the identification of the former military barracks' main features: plot size and gross floor area (m²); number of buildings within the enclosure, and their volume (m³); époque of building, abandonment and disposal; presence of listed buildings; involvement of local citizens in the decision-making process through community-based management and planning⁵; occupation of the area by local associations or homeless; average property prices district and city⁶, cost of redevelopment works; and promotion of temporary reuse and activities before starting the redevelopment works. Second, each case study analysis comprises the morphological analysis of the context through a barrack-centred walkable catchment (400-m scaled map, see Figg. 1, 2, 3 and 4).

The qualitative analysis aims to classify the barracks redevelopments according to four variables of the inclusive cities, green cities, and good governance chosen from the 2020 OECD report (with values that fluctuate from 0 to 3, see tab.2. Each variables are indicate in Tab.2 with a letter)⁷:

 the building of inclusive cities, i.e. those that provide opportunities for all (OECD, 2020: 38), implies the following elements:

a) projects aimed to provide social and community services for disadvantaged groups such as health care and home care (i.e. elderly and homeless people), through the design and implementation of ambitious social innovation strategies and a repurposing of empty buildings;

b) ensuring that lower classes (i.e. low-wage workers and migrants) are targeted with customised employment and activation programmes that are adaptable, relevant, and flexible and respond to the new needs of the local labour market after the post-covid-19 crisis;

³ Both The Investment Management Companies "CDP-Cassa Depositi e Prestiti Sgr S.p.A." and "Invinit- Investimenti Immobiliari Italiani Sgr S.p.A." created the real estate funds named "Investment facility for the enhancement of public assets - Extra Fund, FIV" in 2012 (https://www.cdpisgr.it/valorizzazione-immobili-pubblici/fiv-comparto-extra.html) and "i3 Stato-Difesa" in 2015 (https://www.invimit.it/#). Both funds aim to establish institutional collaboration among all those public entities interested in the military real estate assets' reuse (Ministry of Defence, State Property Agency, public and local authorities), to sell them in the market, to attract international and national private investors' interests, to drive urban regeneration processes, and to reduce the Italian public debt (Camerin & Gastaldi, 2018b).

⁴ The State Property Agency is an economic entity belonging to the Ministry of Economy and Finance created in 1999 with the aim of managing public-owned assets (Ponzini, 2008), including their exploitation in the real estate market according to the disposal regulations (https://www.agenziademanio.it/opencms/it/).

⁵ The participatory processes and the initiatives of local associations in Bologna, Milan, Rome and Turin can be found respectively in https://www.osservatoriopartecipazione.it/scheda-processo/84; https://www.legiardinieremilano.it/ cronistoria/; http://www.urbanistica.comune.roma.it/news-edilizia/14-dipartimento/pianificazione/uo-prg/partecipazione .html?start=44; and Urban Center Metropolitano (2017a and 2017b).

⁶ Data retrieved from the Italian real estate portal https://www.mercato-immobiliare.info/ updated to February 2021.

⁷ By doing this research I also took into account the meaning of inclusive cities according to the World Bank (https://www.worldbank.org/en/topic/inclusive-cities) and the preliminary list of possible interventions of naturebased solutions for urban settings (European Commission, 2015: 28-51).

c) adjustment of housing quantity, quality and affordability to the variety of housing needs, with a view to promote social cohesion and integration with sustainable transport modes;

d) improving accessibility to soft mobility (i.e. cycling and walkability), including the needs of various categories of people (i.e. elderly, families with children, disables).

the creation of green cities would result in the transition to a low-carbon economy (OECD, 2020: 38-39)
through the following implementations:

e) addressing negative agglomeration externalities, such as traffic congestion and air pollution, by reducing the use of private cars through congestion charges and ad hoc regulation that account for specific exemptions, and by improving multi-modal transport, such as active and clean urban mobility;

f) exploitation of the advantages of urban density and urban form (compact or sprawl) through forward looking spatial and land use planning to prioritise climate-resilient and low-carbon urban infrastructure.

g) encouraging more efficient use of resources, and more sustainable consumption and production patterns, notably by promoting circular economy to keep the value of goods and products at their highest, prevent waste generation, reuse and transform waste into resources;

h) stimulating the local economy (i.e. local food production), while rethinking short mile logistics.

 according to OECD (2020: 39-40), a good governance should be on the ground of inclusive and green cities:

i) promoting an agile and flexible model of city governance through innovative collaborative tools, partnerships or contracts that put the interest of local residents at the centre and increase resilience, including inter-municipal and international collaboration and public-private partnerships;

j) co-ordinating responsibilities and resources across levels of government to meet concomitantly placespecific needs, national objectives, and global commitments related to health safety long term objectives, resilience and sustainable development, in an effective and transparent manner;

k) adopting a functional approach at territorial level to policy action based on where people live and work to tailor strategies and public service delivery to the diversity of urban scales;

I) strengthening strategic management and innovation capabilities of local public officials to design and implement integrated and resilient urban strategies fit for complex challenges.

I acknowledge that comparative research across one country and different cities is fraught with complexities and lacunae, such as the condensation of much information and the selection of few bibliographic references for each case study. It is also true that the qualitative interpretation of unfinished redevelopment of former military sites reduces the relevance of summative evaluations.

Nonetheless, this research could be an important step toward developing a comparative analytical framework for the evaluation of all kind of abandoned spaces in relation to the features of inclusive cities, green cities, and good governance.

4. Case study analysis

4.1 The redevelopment projects

This section is dedicated to the barracks-centred walkable catchment and the analysis of projects: the chosen parameters are summed up in Table 1 and successively in a discursive manner along with the functions located within a radius of 400 m.

Assets	Sani barracks	Baggio ware- houses-Parade Ground	Guido Reni barracks	La Marmora barracks			
Plot Size (Gross Floor Area) (m ²) / volume (m ³) / buildings	105,540 (53.930)/ not given / 26	618.075 (23.954) / not given / 38	55,480 (72,000) / 223,827 / 28	19,978 (18,513) / not given / 8			
Époque of building / abandonment / disposal	1860-1861 / 2003 / 2005	1923-1930 / late 1980s / 2005	1916/ late 1980s / 2005	1887-1888 / 2005 / 2005			
Listed buildings	All area	1	None	All area (apart two buildings)			
Community involvement	2008-2009	2014	2014	2017			
Selling to real estate investment fund	12/2013 CDP	07/2016 Invimit	12/2013 CDP	04/2014 CDP			
Date of masterplan / General Master Plan Modification	06/07/2017: Dogma (Bruxelles) / 2008	No masterplan / 2012 and 2019 General Master Plans	24/06/2015: Studio 015 Paola Viganò (Milan) / 2020	29/04/2016 Carlo Ratti Associates (Turin) / 2014			
Occupation	11/2019, 02/2020 protests	2016-2018 homeless	02/2014 protests	04/2014 protests			
2021 Average property prices district and city (€/m ²)	3,000 / 3,100	2,100 / 4,250	4,750 / 3,250	2,850 / 1,800			
New uses	Mix of functions	Area of centrality and urban forestry	City of Science	Co-living, co- making and co- working			
Investment (million €)	110	No info	270	25-30			
Temporary reuse	None	None	2016-2018	2006, 2017, 2020			

Tab.1 Case studies data. Source: Author's elaboration (2021)

The Sani barracks

The 105,540-m² former Sani barracks (Fig.1) is located in the Bolognina working-class neighbourhood in the northern periphery of Bologna at the crossroad of a residential and industrial-tertiary areas, whose average property prices are below the city ones. The barracks-centred walkable catchment shows the presence of a mix of functions (housing, green areas, industries and tertiary activities), with poor space for slow mobility but a good connection with the city centre by bus lines.

After a number of reuse projects proposed in the second half of the 20th century, the barracks abandonment occurred in 2003 (Camerin, 2020: 227-234). The 2008 Structure Plan included the settlement within the so-called "Railway City" urban regeneration plan along with a dozen of post-industrial voids (Evangelisti, 2017), followed by the 2008-2009 *Laboratorio Bolognina Est* participatory process (Sprega, Frixa and Proto, 2018). Then, the selling to CDP fund in 2013 was followed by the 2016-2017 International Urban Design Competition "Progetto Sani"⁸. The new future gross floor area of 53,930 m² would be divided in 47,490 m² for private housing, 3,170 m² for public housing, and 3,270 m² for collective facilities and services (school and neighbourhood services)⁹, connected by the 41,000-m² existing open spaces dedicated to a public park¹⁰. The minimum amount of affordable housing unequivocally demonstrated the exclusive character of the redevelopment in a working-class sector.

⁸ http://www.progettosani.it/?lang=en.

⁹ The total gross floor area –53,930 m²–, would be articulated as follows: 70% for residential functions; 10% for tertiary activities; 7% for commerce; 5% for craft activities; and 4% for both financial and insurance activities.

¹⁰ Despite being a listed area, the winning project by Dogma studio seeks to replace some of the ruins.

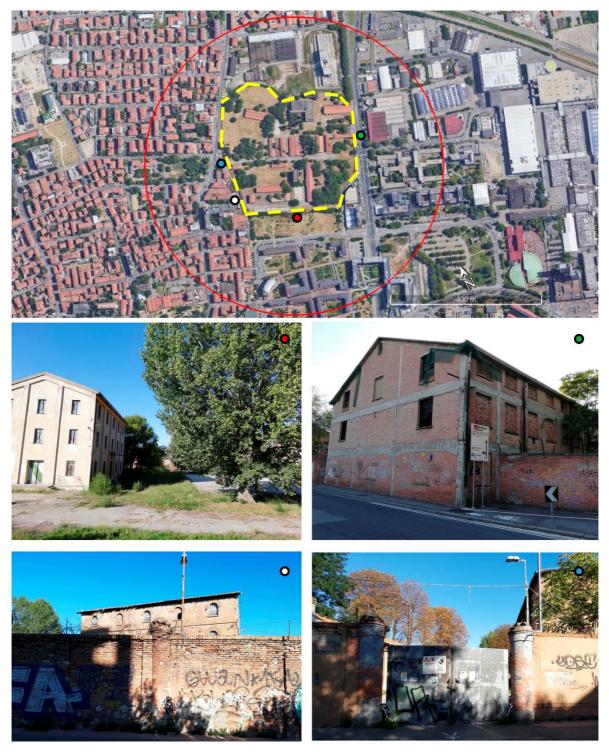


Fig.1 The Sani barracks-centred walkable catchment and photos

Only 10% of the total amount of the housing's surface – set up private and public housing, totalling 50,660 m² – was allocated to house the lower social classes. The local association Xm24 occupied the barracks in late 2019 to protest against the profit-driven approach of the reuse – whose cost will be approximately 100 million \in . No temporary reuse took place in the Sani barracks, but the area will enjoy a new bike lane through the implementation of the 2019 BiciPlan. Eventually, the 2020 Recovery Plan¹¹ does not involve the Sani barracks.

¹¹ http://www.comune.bologna.it/trasporti/servizi/2:3026/3295/; https://www.emiliaromagnanews24.it/recovery-il-comune-di-bologna-fa-un-passo-avanti-sulla-via-della-conoscenza-169333.html

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The Baggio warehouses-Parade Ground

Fig.2 The Baggio warehouses–Parade Ground-centred walkable catchment and photos

The Baggio warehouses–Parade Ground (Fig.2) is located in the western Baggio low-income neighbourhood, whose average property prices district is half of the city one. The barracks-centred walkable catchment shows nearby active military settlements (barracks and hospital) and social housing units, with a good provision of metropolitan system connection, footpaths and car parks. Even so, private car is the primary mode of mobility. Two general master plans affected the barracks redevelopment. The 2012 Territory Government Plan applied a buildability of $0.70 \text{ m}^2/\text{m}^2$ to create a total buildable area of 432,652 m², a half of which for public equipment and public housing, corresponding to 216,326 m². Instead, the half of the former barracks' plot size –

corresponding to 309,037 m² – would be used for public green (Comune di Milano, 2012; Pugliese, 2016). On the basis of the 2014 public participation, the local associations asked for the maintenance of the existing urban morphology and the creation of new "urban forestry" to replace the Parade Ground. The area was sold to Invimit in 2016¹² and immediately occupied by homeless until 2018. Afterwards, the 2030 Milano-Territory Government Plan modified the precedent 2012 Plan by arguably stating that the former military site could be a suitable area to host strategic functions «of public use and/or of public or general interest, also private [...] to increase the functions of excellence and, in general, the global city attractiveness»¹³ (Comune di Milano, 2018: 63) due to its condition of a large urban void, its accessibility, location, and shape. Additionally, the classification of the area in the broader concept of "great urban function" automatically reduced its expected buildability from 0.70 m²/m² to 0.35 m²/m². In late 2019 the Superintendence declared only one building of the Baggio Warehouses worth preserving, so most of the existing urban fabric was demolished. The 2020 Milano Adaptation Strategy Open Streets will foster slow mobility in the former military sites' surroundings¹⁴ and the redevelopment still do not include temporary activities.

The Guido Reni barracks

The Guido Reni barracks (Fig.3) is located in the northern Rome's Flaminio neighbourhood, with mostly preexisting social housing – the former 1960 Olympic Village – and tertiary services within a radius of 400 m. The existing mobility infrastructures favour private cars as the primary mode of mobility within this area, which is plenty of car parks and careless footpaths. Despite this, the access to the city centre is guaranteed by a good tram line connection.

The former barracks is involved in the 2005 "The Neighbourhood of the City of Science-the Urban Project Flaminio" to boost Flaminio's cultural and tourism accessibility through a new cultural district centred on a number of outstanding architectural pieces, i.e. the Auditorium (1994-2003), the MAXII museum (1998-2010), the Music Bridge (2008-2011), and the City of Science to replace the Guido Reni barracks (Rossi, 2020). After the selling of the barracks to CDP fund in 2013, a participatory process took place in 2014 according to the redevelopment project boosted by the 2014-2015 International Urban Design Competition¹⁵. The new gross floor area will be 51,000 m² (72,000 m² of gross usable surface), 14,000 m² of which to be transformed into public spaces, 10,000 m² (27,000 m² of gross usable surface) for the "City of Science", and 27,000 m² will be new private housing development. Therefore, private housing will occupy half of the plot size and is expected to produce 29,000 m² of gross usable surface for homes to sale or rent and 6,000 m² of gross usable surface for rent-controlled and cost-subsidised flats¹⁶. The cost of the urban project will approximately be 270 million \in , while the cost of selling the private areas –residential, commercial, offices, touristic facilities – in the real estate market will fluctuate around 4,800-5,000 \in/m^2 (Nartello, 2015), more than the Flaminio's average property prices (4,750 \in/m^2).

CDP promoted the "Guido Reni District" urban marketing strategy¹⁷ through the action marketing, events and advertising society "Ninetynine" from December 2016 to May 2018 (Delgado-Jiménez, 2018). More than a million people visited the temporary activities, which contributed to create new 287 jobs and generate 30

¹² The area was auctioned in 2018, but failed (https://www.invimit.it/piazza-darmi-a-milano-ferrarese-noi-rilanciam/).

¹³ Translated from Italian to English by the author.

¹⁴ https://www.comune.milano.it/documents/20126/7117896/Open+streets.pdf/d9be0547-1eb0-5abf-410ba8ca97945136?t=1589195741171

¹⁵ http://www.progettoflaminio.it/?lang=en; http://www.urbanistica.comune.roma.it/aree-militari/arremilitari-exstabilim-guido-reni.html

¹⁶ Eventually, 5,000 m² of new gross usable surface will be devoted for each touristic and commercial uses.

¹⁷ http://guidorenidistrict.com/

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million \in of volume business¹⁸. The 2020 Recovery Plan establishes an amount of 60 million \in for a new tram line in the former barracks surroundings¹⁹.

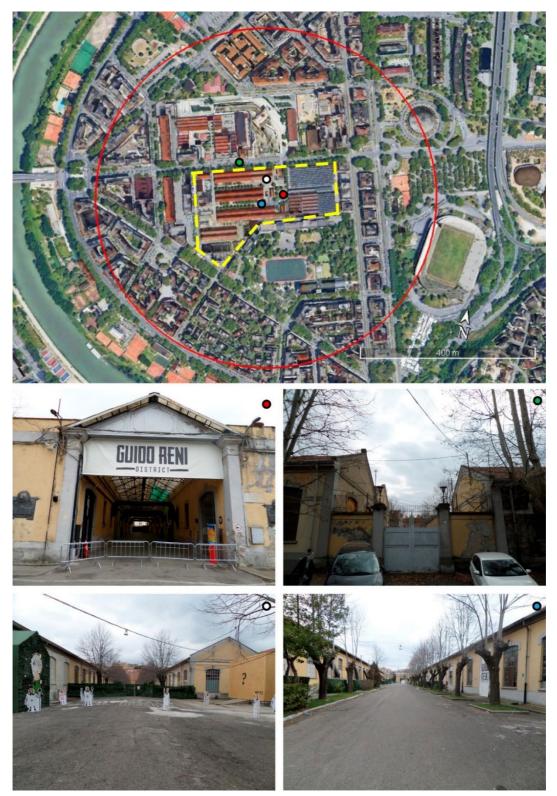
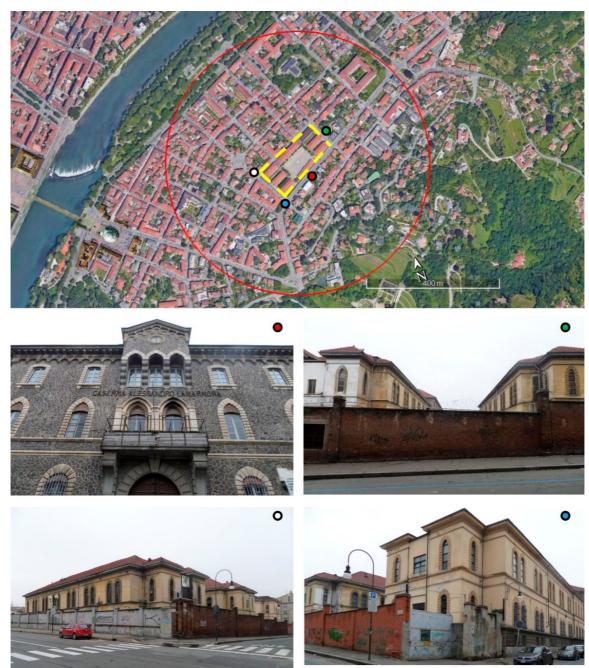


Fig.3 The Guido Reni barracks-centred walkable catchment and photos

¹⁸ https://roma.corriere.it/notizie/cronaca/18_aprile_23/guido-reni-district-chiudeora-lavori-futuro-incerto-1cb5abfa-4657-11e8-9661-d18d4bfcda1f.shtml and https://www.monitorimmobiliare.it/guido-reni-district-dalla-riqualificazionealla-crescita-economica_20177181151

¹⁹ https://www.comune.roma.it/web/it/notizia.page?contentId=NWS652606

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The La Marmora barracks

Fig.4 The La Marmora barracks-centred walkable catchment and photos

The La Marmora barracks (Fig.4) lies in the wealthy neighbourhood of Borgo Po,²⁰ set up by an orthogonal grid scheme generating a diversity of rectangular blocks. The nearby functions are mostly residential, the buildings' ground floors are dedicated to commercial and workshops and the blocks are occupied by mostly private gardens. Although Borgo Po is provided with a functional bus transport system, the existing mobility infrastructures favour private cars as the primary mode of mobility within this area and access to the city centre.

After temporary reuse activities in 2006 for the Olympics volunteers and migrants accommodation, the barracks was sold in 2014 to CDP. The redevelopment project was embedded with the 2014 General Master Plan Modification with the attempt to search for new capital gains (Città di Torino, 2014). The local association

²⁰ The 2021 Average property prices district is 2,850 €/m², while the Turin one is 1,800 €/m².

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"Freed Via Asti" occupied the barracks against the selling to spread cultural activities between April and November 2015. Meanwhile, the masterplan was entrusted by the owner to the architectural firm Carlo Ratti Associates. Under the motto of the so-called "co-living", "co-making" and "co-working", the reuse will equip the former barracks with two main functions for the wealthy: 60% of the gross floor area will be housing (between 120 and 140 units, whose square meterage will range from 20 to 180 m²) and up to 40% of the gross floor area to workplace. The cost is estimated around 25-30 million € and would provide Turin with a new and iconic public space based on the former military central main square within the buildings (Carlo Ratti Associates, 2017). The aim of transforming this open space into the 100-metres-long-and-80-metres-wide rectangular-shaped "Place of Arts" - under which it is argued to build an underground car park - is to create another great *piazza* similar in scope to Vittorio Veneto square, one of the city's most emblematic landmark. Additionally, a public equipment would take place, i.e. the 2,200m²-built-up-area Museum of the Italian Resistance. As the historical events²¹ of the 20th century profoundly affected the barracks, this museum manifests itself as the "price" to pay for launching such profit-oriented urban transformation (Boccalatte, 2018). As occurred in the case of the Guido Reni barracks, also the La Marmora hosted temporary activities related to the incubator for emerging arts named "Paratissima" 22. No interventions related to post-Covid-19 regard the site.

4.2 Are the redevelopments dealing with the inclusive cities, green cities and good governance?

Assets	Inclusion in post- Covid-19 actions	In	Inclusive city			Green city			Governance			Tatal		
		а	b	с	d	е	f	g	h	i	j	k	I	Total
Sani barracks, Bologna	None	0	0	1	2	3	3	3	0	1	1	1	0	15
Baggio warehouses- Parade Ground, Milan	Milan 2020 Adaptation strategy Open Streets	0	0	1	2	3	3	3	0	1	1	1	0	15
Guido Reni barracks, Rome	Recovery Fund Plan: tram line	0	0	1	2	3	3	3	0	1	1	1	0	15
La Marmora barracks, Turin	None	0	0	0	2	3	3	3	0	1	1	1	0	14

This section is dedicated to the relationship between the redevelopments and inclusive cities, green cities and good governance, resumed in Table 2.

Tab.2 Case studies categorisation according to a number of features of the post-Covid-19 city. Legend: 0 - none, 1 - low, 2 - medium, 3 - high

Inclusive cities

The redevelopment of the former military sites does not fit the paradigm of inclusive cities as they do not provide opportunities for all. In fact:

a) The redevelopments are mainly aimed for the wealthy and do not provide any functions for the disadvantaged groups;

b) Nor customised employment or activation programmes are considered in any of the case studies;

²¹ https://www.museotorino.it/view/s/81a5de46dd7d422d8939868c084bde65

²² https://paratissima.it/la-nuova-sede-e-la-caserma-la-marmora-di-via-asti/

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c) None of the projects establish a balanced percentage of social housing: less than 10% of housing of the Sani barracks will be meant for the lower social classes; the Milan's 2030 Plan still do not specify the new functions apart of the urban forestry; the Guido Reni barracks will provide a small percentage of rent-controlled and cost-subsidised; and the redevelopment of the La Marmora barracks does not include any social housing; d) The redevelopments of three case studies will foster the soft mobility due to post-Covid-19 interventions bordering the former military sites: a new bike line affecting the Sani barracks; a tram line between the Music Bridge and Auditorium adjacent to the Guido Reni barracks; and the implementation of Open Streets affecting Forze Armate Street bordering the Baggio warehouses-Parade Ground.

Green cities

The case studies are embedded with measures aimed to build green cities through the following implementations:

e) Walkability is at the centre of the four former barracks redevelopments, and after the pandemic outbreak all the four cities will combine supply-side and demand-side transport management policies;

f) The reuses include new green buildings and spaces to absorb gaseous pollutants and trap particulates, and the production of renewable energy where feasible;

g) Measures as pollution and waste reduction, good indoor environmental air quality, and use of non-toxic, ethical and sustainable materials will be taken in the construction and/or conservative reuse of the buildings;h) Nor the stimulation of the local economy or rethinking short mile logistics are taken into consideration in any of the case studies.

Good governance

Few aspects of good governance have been taken into account to design and implement successful strategies and policies to redevelop the former military voids, in shared responsibility with stakeholders:

i) The memoranda of understanding between City Councils, State Property Agency and Ministry of Defence represents the tool to start the rationalisation of the military presence and the redevelopment into new functions in the four case studies. The Sani barracks in Bologna is included in the so-called "Unitary Territorial Valorization Program" – *Programma Unitario di Valorizzazione Territoriale*, P.U.Va.T. in Italian. The basic principle was the grouping of a critical mass of former military sites in a municipal-scaled urban intervention so as to trigger the private initiative able to finance the redevelopment. Both initiatives established the base for the public-private partnerships, but did not comprehend any residents- and resilience-centred policies;

j) The memoranda of understanding have been signed according to the Italian Laws for the disposal of military real estate assets aimed to both wipe the public debt and enable urban regeneration processes. Despite being publicly spread, there is no commitments related to health issues, resilience and sustainable development;

k) No authentic public participation was carried out in the four case studies as they were procedures to inform citizens of the already established projects. The approach of the participation mostly relied on round tables in which the major stakeholders involved in the redevelopment (i.e., City Council, State Property Agency, Ministry of Defence, architectural firms) informed the citizens but without integrated them into the decision making-process. The top-down approach resulted in local associations' protests against the redevelopment projects in the four study cases and occupation of the Sani, Guido Reni and La Marmora barracks;

I) The City Councils provided specific urban planning guidelines for the redevelopment of former military sites after the memoranda of understanding, mostly through the modification of the existing planning tools. The tasks of design are generally entrusted to private architectural firms through international design competition projects (the Sani and Guido Reni barracks) or the designation by the private owner (the Carlo Ratti Associates chosen by CDP in the case of the La Marmora barracks). Up to date, none of the cases has involved integrated and resilient urban strategies.

5. Discussion

Compiling the findings in Tables 1 and 2 allows to draw a discussion based on the following elements. First, and most important, the redevelopment of high-consuming piece of land require a comprehensive urban scale planning based on a shared medium- or long-term scenario of the territory, but the particularity of the Italian context contributed to inhibit the redevelopment.

On the one hand, as claimed by Palermo & Ponzini (2012), the Italian political and public life and urban-policy making are experimenting a declining phase due to the high turnover of Italy's government since the 2000s (the last crisis was in January 2021; Johnson, 2021). On the other hand, the regulations released since the 1990s focused on public land privatisations and military land was valued in solely financial terms, in spite of the expectation that the disposal of Defence-owned assets should result in public social, economic and environmental benefits (Quarta, 2016). Also, the continuous lack of public resources and the stagnant real estate market since the 2007-2008 crisis (Mattarocci & Cerasoli, 2018) made the high-cost redevelopments economically inviable in the short-term (110, 270 and 25-30 million € for respectively the redevelopment of the Sani, Guido Reni and La Marmora barracks).

Temporary reuses and interventions related to the tactical urbanism may be consequently suitable solutions to proceed with the reuse. Intrinsic factors of the military lands (i.e. physical dimensions, morphology, and locations) are less of a factor than extrinsic circumstances.

Second, as former military settlements are in highly lucrative and desirable locations, their redevelopment is subjected to real estate pressures, huge financial investments and risky endeavours, whose impacts may be speculative. The score of the redevelopment projects in inclusive cities is very low and good governance is low. This is a symptom of the financial approach of the Italian regulation and the urban welfare crisis (Berdini, 2014).

Although the reuses targeted issues of technical, procedural, and financial feasibility, public participation and communication have been mainly meant to inform than to involve citizens. The reuse operations sought high profits from the redevelopments so lower social classes are not the main targets (Brenner, Marcuse & Mayer, 2012). This may cause illegal occupations and protests of the local associations, as it usually happened in the case studies.

At the same time, bad governance in the management of the projects is the result of the neoliberal approach to the disposal of military land aimed to wipe the public debt, but failing to put local residents at the centre of the redevelopment projects (Olmo, 2018). The reuse projects, as a matter of fact, favour territorial-scaled functions, such as the Rome's City of Science and the Turin's Place of Arts. The reuse projects would surely improve quality of life, but they would increase property values pricing out vulnerable residents and drawing in new and wealthier residents (Blok, 2020), such as in the case of the Guido Reni barracks.

Third, the barracks redevelopments are poorly embedded in the measures adopted – or at least foreseeable – for the post-Covid-19. Bearing in mind that the abandonment and disposal took place in the best case more than 15 years ago, the existing urban morphology is decaying and urgently need demolition. The Recovery Fund constitutes an opportunity to reverse the profit-driven approach behind these interventions, but nowadays each project is a done deal. Redevelopments have been thoroughly managed in the pre-Covid-19 phase, but the new functions should have been relied on making cities and human settlements inclusive, safe,

resilient and sustainable, thus being in line with the goal no. 11 "Make cities and human settlements inclusive, safe, resilient and sustainable"²³ from UN Agenda 2030.

Reversing an already ongoing process appear to be quite difficult, but more research is needed to guarantee a better city for everyone, for instance by setting up a database on studies and proposals that include abandoned public-owned assets within the approaches dealing with the pandemic (Fabris et al., 2020).

6. Conclusions

European Commission and Parliament agreed in May 2020 to help succour the economic and social negative effects of the pandemic through the so-called "NextGenerationEU" (European Commission, 2020). Cities across Europe are preparing their proposals to create more inclusive and greener urban environments, but also promoted their own initiatives, such as the Parisian 15-minute city and Barcelonian Superblocks. In this context, urban voids may play a fundamental role for the recovery plan as they can provide a more inclusive, resilient, healthy sustainable, and safer environment in the context of the Covid-19 pandemic and beyond. An aspect worth to study is the way current reuses of abandoned spaces are managed, such as the former military sites in Italy. The barracks redevelopments relied on pre-pandemic situation, but the long-standing abandonment may constitute an opportunity to rethink new locally-centred functions.

The lessons learned of this piece of paper are the following. The analytical matrix can be applied to compare the redevelopment of former military sites and other types of voids across different cities and countries. Nevertheless, more research is required to assess the suitability of this approach for a broader range of cases and address its limitations. For instance, this study has examined a small number of cases with a limited sample of types before the outbreak of pandemic.

The analysis was based on four variables of inclusive cities, green cities and good governance provided by a specific report. Results might be different while taking into consideration other inquiries, former military sites located in rural environment, and international cases.

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References

Adisson, F. & Artioli, F. (2020). Four types of urban austerity: Public land privatisations in French and Italian cities. *Urban Studies*, *57*(1), 75-92. https://doi.org/10.1177/0042098019827517

Alexandri, G. & Janoschka, M. (2020). Post-pandemic' transnational gentrifications: A critical outlook. *Urban Studies*, *57* (15), 3202-3214. https://doi.org/10.1177/0042098020946453

Artioli, F. (2012). *Public Real Estate between administrative reforms and financial constraints. A comparative analysis of the re-use of military assets in Italy and France.* Retrieved from: https://hal-sciencespo.archives-ouvertes.fr/hal-01070344/document

Ashley, A.J. & Touchton, M. (2016). Reconceiving Military Base Redevelopment: Land Use on Mothballed U.S. Bases. *Urban Affairs Review*, *52* (3), 391-420. https://doi.org/10.1177/1078087414568028

Bagaeen, S. & Clarke, C. (Eds.) (2016). Sustainable Regeneration of Former Military Sites. London-New York: Routledge

²³ https://sdgs.un.org/goals/goal11.

^{241 -} TeMA Journal of Land Use Mobility and Environment 2 (2021)

Balletto, G., Ladu, M., Milesi, A. & Borruso, G. (2021). A Methodological Approach on Disused Public Properties in the 15-Minute City Perspective. *Sustainability*, *13* (2), 593. https://doi.org/10.3390/su13020593

Batty, M. (2020). The Coronavirus crisis: What will the post-pandemic city look like? *Environment and Planning B: Urban Analytics and City Science*, 47(4), 547-552. https://doi.org/10.1177/2399808320926912

Berdini, P. (2014). Le città fallite. I grandi comuni italiani e la crisi del welfare urbano. Roma: Donzelli

Blok, A. (2020). Urban green gentrification in an unequal world of climate change. *Urban Studies*, *57* (14), 2803-2816. https://doi.org/10.1177/0042098019891050

BICC (1997). Study on the Re-use of Former Military Lands. Bonn: Bonn International Center for Conversion

Boccalatte, P.E. (2018). "Occuparsi" della storia. L'esperienza della caserma di via Asti a Torino. *Clionet. Per un senso del tempo e dei luoghi, 2*. Retrieved from: https://rivista.clionet.it/vol2/societa-e-cultura/spazi_comuni/boccalatte-occuparsi-della-storia

Brenner, N., Marcuse, P. & Mayer, M. (Eds.) (2012). *Cities for People, not for Profit. Critical Urban Theory and the Right to the City.* London-New York: Routledge

Brzozska, M., Kingma, K. & Wulf, H. (1995). *Demilitarization and Conversion. Conversion of military structures*. Bonn: Bonn International Center for Conversion

Camerin, F. (2020). The role of the great property in the European city-making process in the last third of the 20th century. Military property as reference / El papel de la gran propiedad en el proceso de construcción de la ciudad europea durante el último tercio del siglo xx. Las propiedades militares como referente. PhD thesis. Valladolid-Weimar: UVA-BUW

Camerin, F. & Gastaldi, F. (2018a). Italian military real estate assets re-use issues and opportunities in three capital cities. *Land Use Policy*, *78*, 672-681. https://doi.org/10.1016/j.landusepol.2018.07.028

Camerin, F. & Gastaldi, F. (2018b). Il ruolo dei fondi di investimento immobiliare nella riconversione del patrimonio immobiliare pubblico in Italia. *Working papers. Rivista online di Urban@it, 2,* 1-13

Capasso, S., & Mazzeo, G. (2020). Health emergency and economic and territorial implications. First considerations. *TeMA* - Journal of Land Use, Mobility and Environment, 45-58. https://doi.org/10.6092/1970-9870/6866

Carlo Ratti Associates (2017). *Caserma La Marmora via Asti. Concept design*. Retrieved from: http://www.urbancenter.to.it/wp-content/uploads/2017/03/CRA_CLM-Presentazione-2.pdf

Città di Torino (2014). Variante al P.R.G. in accordo di programma A52. Caserme Cesare di Saluzzo, La Marmora e De Sonnaz. Retrieved from: http://geoportale.comune.torino.it/web/sites/default/files/mediafiles/allA4_relazione_illustrativa_ generale.pdf

Cocroft, W.D., Thomas, R.C. & Barnwell, P.S. (2005). *Cold War: Building for nuclear confrontation 1946-1989.* London: English Heritage

Comune di Milano (2012). *Piano di Governo del Territorio. Documento di Piano. Allegato 3 "Schede di indirizzo per l'assetto del territorio" e tabella dati quantitativi.* Retrieved from: http://download.comune.milano.it/12_02_2015/692e469d-a83e-4709-9fda-26893a64760e.pdf

Comune di Milano (2018). *Piano di Governo del Territorio. Documento di piano Milano 2030 Visione, Costruzione, Strategie, Spazi Relazione Generale*. Retrieved from: http://allegati.comune.milano.it/territorio/20181029_PGT_Giunta_Def/01_ Documento_Piano/01DP_Relazione_Generale.pdf

Corte dei Conti (2017). Relazione concernente 'La dismissione e la permuta di immobili in uso all'amministrazione della Difesa (2003-2016). Retrieved from: www.camera.it/temiap/allegati/2017/07/20/OCD177-3000.pdf

Delgado-Jiménez, A. (2018). La transformación urbana del área de Progetto Flaminio en Roma: del abandono del establecimiento militar y el concurso para la Ciudad de la Ciencia al actual Distrito Guido Reni. In J. Monclús & C. Diez (Eds.). *Ciudad y formas urbanas. Vol. 5. Formas urbanas, planeamiento, proyecto urbano*, 121-132, Zaragoza: Universidad de Zaragoza

European Commission (2020), *Recovery Plan for Europe*. Retrieved from: https://ec.europa.eu/info/strategy/recovery-plan-europe_en

Evangelisti, F. (2017). *Bolognina aree in trasformazione*. Retrieved from: http://www.comune.bologna.it/media/files/bolognina_trasformazioni_lug2017_def.pdf

Fabris, L.M.F., Camerin, F., Semprebon, G. & Balzarotti, R.M. (2020). New Healthy Settlements Responding to Pandemic Outbreaks: Approaches from (and for) the Global City. *The Plan Journal*, *5*(2), 385-406. https://doi.org/10.15274/tpj.2020.05.02.4

Fenu, N. (2021). Bicycle and urban design. A lesson from Covid-19. *TeMA - Journal of Land Use, Mobility and Environment, 14* (1), 69-92. https://doi.org/10.6092/1970-9870/7716

Gaglione, F. (2020). Strategies and guidelines for urban sustainability: the explosion of micromobility from Covid-19. *TeMA* - *Journal of Land Use, Mobility and Environment, 13* (3), 465-470. https://doi.org/10.6092/1970-9870/7241

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Garcia, A. & Lydon, M. (2012). *Tactical Urbanism. Short-term Action for Long-term Change.* New York: The Street Plans Collaborative

Guida, C. (2020). After recovery: new urban emergencies. *TeMA - Journal of Land Use, Mobility and Environment, 13* (3), 459-463. https://doi.org/10.6092/1970-9870/7178

Havlick, D.G. (2014). Opportunistic conservation at former military sites in the United States. *Progress in Physical Geography: Earth and Environment*, *38* (3), 271-285. https://doi.org/10.1177/0309133314522281

Johnson, M. (2021). Italy calls on 'Super Mario' as political crisis deepens. *Financial Times*. Retrieved from: https://www.ft.com/content/e19d5962-3b35-4b7e-a6d6-46c87bd80174

Lotz-Coll, S. (2019). The Military Brownfields, an Opportunity for the Urban Redevelopment of Small Mountain Towns? *Journal of Alpine Research. Revue de géographie alpine, 107*(1). https://doi.org/10.4000/rga.5198

Mattarocci, G. & Cerasoli, M. (Eds.) (2018). Rigenerazione urbana e mercato immobiliare. Roma: RomaTre

Municipio 7 (2017). *ATU 8 A – Ambiti di trasformazione urbana – Area Piazza d'Armi – Proposta del Consiglio di Municipio 7*. Retrieved from: http://lorenzoboati.it/wp-content/uploads/2017/05/Delibera-Municipio-7-Piazza-dArmi-29-maggio-2017.pdf

Nartello, F. (2015). Roma, 270 milioni di investimento per realizzare la Città della Scienza di fronte al Maxxi. *Edilizia e Territorio. Quotidiano del Sole 24 Ore*

OECD (2020). *Policy Responses to Coronavirus (Covid-19). Cities policy responses*. Retrieved from: http://www.oecd.org/coronavirus/policy-responses/cities-policy-responses-fd1053ff/

Olmo, C. (2018). Città e democrazia. Roma: Donzelli

Paukštys, B., Fonnum, F., Zeeb, B.A. & Reimer, K.J. (1998). *Environmental contamination and remediation practices at former and present military bases.* Dordrecht: Springer

Quarta, A. (2016). La riconversione delle caserme dismesse e nuovi paradigmi per la proprietà pubblica. *Rivista critica del diritto privato, 34* (4), 609-624

Palermo, P.C. & Ponzini, D. (2012). At the Crossroads between Urban Planning and Urban Design: Critical Lessons from Three Italian Case Studies. *Planning Theory and Practice*, *13* (3), 1-16. https://doi.org/10.1080/14649357.2012.701661

Paloyo, A.R., Vance, C. & Vorell, M. (2010). The regional economic effects of military base realignments and closures in Germany. *Defence and Peace Economics*, 21 (5-6), 567-579. https://doi.org/10.1080/10242694.2010.524778

Ponzini, D. (2008). Public real estate appreciation as a local development opportunity. Urbanistica, 136, 87-94

Ponzini, D. & Vani, M. (2014). Planning for military real estate conversion: collaborative practices and urban redevelopment projects in two Italian cities. *Urban Research & Practice*, 7(1), 56-73. https://doi.org/10.1080/17535069.2014.885743

Pugliese, R. (Ed.) (2016). *Progetti per la Piazza d'Armi. Il sistema delle caserme milanesi. Architettura e riqualificazione urbana*. Santarcangelo di Romagna: Maggioli

Rossi, P.O. (Ed.) (2020). Flaminio Distretto Culturale di Roma. Analisi e strategie di progetto. Macerata: Quodlibet

Sprega, D., Frixa, E. & Proto, D. (2018). Identità, conflitti e riqualificazione: i processi partecipativi nel quartiere Bolognina a Bologna. *Geotema*, 56: 130-136

Urban Center Metropolitano (2017a). Istruttoria di progetto. Torino: UCM

Urban Center Metropolitano (2017b). Si parla di Caserma via Asti 22. Report Incontro. Torino: UCM

Van Driesche, J. & Lane, M. (2002). Conservation through conversation: collaborative planning for reuse of a former military property in Sauk County, Wisconsin, USA. *Planning Theory and Practice*, *3* (2), 133-153. https://doi.org/10.1080/14649350220150062

Image Sources

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