

Lessons from Corviale: from the critical factors of Public Housing Plans towards a methodology for urban regeneration

Caterina Francesca Di Giovanni

PhD candidate in Urban Studies

Centre for research and studies in Sociology, ISCTE - Instituto Universitário de Lisboa
Av. Das Forças Armadas -1640-026 - Lisboa, Portugal – cfdgi@iscte-iul.pt

KEYWORDS: Public housing; Housing plans; Urban regeneration; Corviale; Rome

ABSTRACT

This paper is part of Urban Studies PhD research that seeks new approaches of urban regeneration in ongoing interventions in social housing neighbourhoods in Italy and Portugal. Corviale is here taken as case study assessed with a 'zoom-out methodology', that means to expand the analysis from the case study to Rome regarding the construction of the 'public city' and the regeneration of public housing neighbourhoods.

On one hand, Corviale allows comprehension of the critical factors of Public Housing Plan (PEEP) in Rome: large dimensions, massive housing concentration, high execution speed, incapacity of the public management, under-use of the public assets and unfinished services. On the other hand, the interventions featured in the case study display a strategy for the urban regeneration through three points: densification of the existing housing stock; solution to the squatting that does not involve forced evictions; and participation by way of the "Laboratorio di Città Corviale".

The case study sheds light on the past stages of the Italian public housing and recognises a model for urban regeneration of public housing. The research identifies public housing neighbourhoods as an ideal ground of investigation and action to develop new methods of urban planning.

INTRODUCTION

It would be erroneous to assume that the large Italian construction of the 60s-70s solved the problem of housing and that talking about public housing¹ is a long-standing discourse. The public city² has had a major impact on cities and societies and still continues relevant.

In Rome, 180,000 people are living in 77,000 public housing units that can be divided into ATER³ and Municipality (Puccini, 2018a, 2018b). This seems to be a low proportion in comparison with the entire housing stock of the city – almost 1,260,000 (Istat, 2011). However, 77,000 is 1/3 of the rental market of the city, which comprises almost 250,000 units (Puccini, 2018b).

In line with the studies that define public housing as an interesting opportunity to experiment new approaches for urban regeneration (Cognetti & Padovani, 2018; CRESME, 2007; Di Biagi, 2009), this study is guided by two hypotheses contributing towards different readings for theoretical contributions and planning indications.

The first assumption is theoretical-methodological. The study proposes a methodology called ‘zoom-out’, which means starting from the case study to achieve theoretical reflections about intervening in public housing in Rome. In this sense, “the case study represents a clear and well-defined example that provides evidence of the particular phenomenon that the researcher is studying” (Chen, Orum & Paulsen, 2013, p. 81).

“Generalizing from the case study, not from the case(s)”, the study contributes to abstract theory building and to making analytical generalizations “that go beyond the setting for the specific case or experiment that had been studied” (Yin, 2018, p. 38). For example, the famous example of Greenwich Village of New York helped to develop theoretical principles for urban planning (Jacobs, 1961).

The second statement embodies “Lessons from Corviale”, which derives from the empirical experiences carried out for this study and aims to draw lessons for Rome.

The two assumptions define the research question: understanding past critical factors of Public Housing Plans in Rome and at the same time identifying an urban regeneration for public housing neighbourhoods.

Based on the case study methodology, Corviale was selected for two reasons: first, to understand the critical issues of the I Public Housing Plan, which are present in the other neighbourhoods in Rome over the same period in Rome. Second, to develop a

¹ Social housing could be split into public and affordable housing, and the latter term, developed by private actors, is improperly called social housing in Italy (Di Giovanni, 2019). This paper uses the term public housing to refer to the housing stock entirely built and managed by public institutions.

² The public city is a term used in the Italian literature to refer to the housing (as a city inside the city) built in the XX century by public actors to respond to the housing needs of disadvantaged social groups (Di Biagi, 2008: 12).

³ Azienda Territoriale Edilizia Residenziale Pubblica (ATER) is the public institution that builds and manages most of the public housing in Rome.

model of urban regeneration through the ongoing interventions in Corviale and the consideration of the similar issues in public housing neighbourhoods.

On the basis of the interconnection among urban planning and social sciences, the study is supported methodologically by the following:

- i) Bibliographic and archival data from the neighbourhood's and municipal's libraries, from ATER Roma and the interviewees, including thesis already produced about the neighbourhood;
- ii) Semi-structured interviews: Alessandra Montenero, one of the architects of the Fiorentino's design group of Corviale; Guendalina Salimei, architect of the underway project "The Green Kilometer"; and Laura Peretti, architect of the winning project of "Rigenerare Corviale. Look beyond the present", respectively realised on the 26th of June, the 2nd and the 7th of July 2019;
- iii) Informal conversations with *ATER Roma*, *Comitato Inquilini Corviale*, *Laboratorio di Città Corviale*, and local associations in the neighbourhood;
- iv) Secondary sources such as interviews conducted and works produced by other researchers: Montenero's interview in Maracchia (2005) and the master's thesis of Caiazza (2010) as well as the texts published by the interviewed authors (Montenero, 2016, 2017; Salimei, 2018);
- v) Participant observation during the fieldwork period.

The paper is divided into four sections.

The first section introduces the presentation of the case study. Corviale is included in Rome's I Public Housing Plan and is one of the most discussed elements, for being a kilometre-long building and a failed architectural model in the public housing scenario. The second section systematizes the critical issues that are identified in the case of Corviale and linked to other public housing plans and neighbourhoods of the same period. This part extrapolates a series of common critical factors and represents the first zoom-out methodology from Corviale to Rome.

The third section identifies the interventions taking place in Corviale and outlines a methodology based on three main points: i) densification, ii) solve squatting, and iii) participation. It explains how public action is linked to the civil society initiatives, setting off an efficient machine for the success of the interventions.

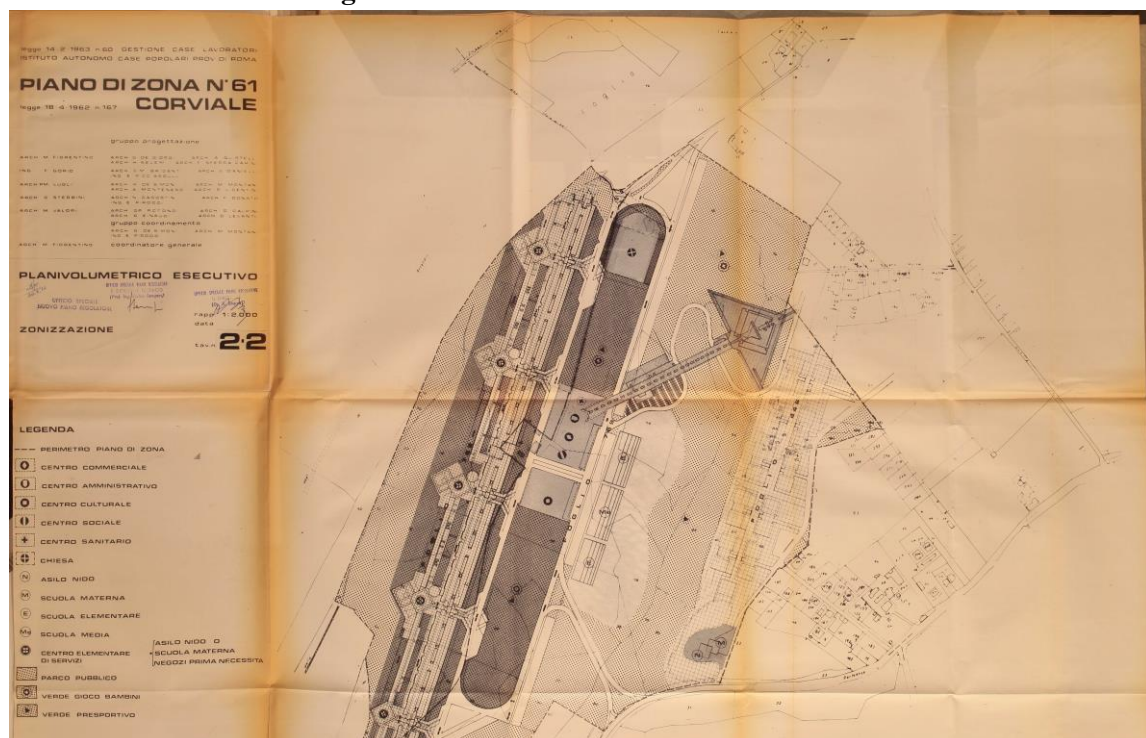
The fourth section includes conclusions that allow for verification of the initial hypothesis and the urban processes, such as institutional actions and other practises. This section ends by arguing that this study could be complemented by other studies to develop efficient urban strategies for regenerating public housing.

CORVIALE

Result of a particular historical context – the “years of lead”⁴ (Del Monaco, 2009, p. 219) – and bound by law n. 167, on 18th April 1962, Corviale is one of the most discussed projects in the history of post-war public housing in Rome and Italy more generally. In particular, Corviale is part of the I PEEP (*Piano di Edilizia Economica e Popolare*) of Rome, which aimed to resolve the post-war housing emergency and that is explored in the next section.

Corviale was located in the south-western suburbs of Rome and was a contemporary to other major public housing plans (e.g. Laurentino and Vigne Nuove). It was approved on 4th April 1975 by the Zone Plan n. 61⁵, which envisioned 8,500 inhabitants.

Figure 1 - Zone Plan n. 61 Corviale



Source: ATER Roma.

⁴ The years of lead span from the end of the 60s to the beginning of the 80s, when housing and job demand was very high. The public institutions responded with significant hiring in the public sector and rapid public housing construction.

⁵ The PEEP provided for the Zone Plans (*Piani di Zona*), which identified areas with public housing and related services and infrastructure. The Zone Plans were the fundamental programming tool for the acquisition of public housing areas.

Table 1 – The principal dates and numbers from Corviale

CORVIALE	
DATES	NUMBERS
1962 L. 167/1962 (PEEP) national law	Residential volume 680,900 m ³
1964 Approval of the PEEP in Rome	Total ATER houses 1.202
1970 First IACP zoning project	Cooperative housing 115,000 m ³
1972 Start of the Fiorentino Group' project	Non-residential volumes 79,250 m ³
1975 Contract and construction	Predicted inhabitants 8,512
1982 First housing assignments	Public equipment 64,450 m ²
1984 Construction of last residential block	Green areas, playgrounds, and sports
1989 (approximately) Free floor is occupied	255,140 m ²
	Parking spaces and streets 66,000 m ²

Source: Author's processing from bibliographic review.

The design was run on by a group of architects⁶ headed by Mario Fiorentino and it was conceived as a complex building that integrated residences and services.

The project is part of a wider discussion of collective housing, in which Le Corbusier's influence is central. According to the data collected, the architectural model comes precisely from two reasons.

First, the choice derived from foreign models of collective house, as Karl-Marx Hof in Vienna or the *unité d'habitations* of Le Corbusier, which evoked the ideological connotations of the phalanstery of Fourier of almost a hundred year ago (Frampton, 2006, p.172). Moreover, the large architectural complex is metaphorically compared to infrastructures: Manfredo Tafuri (2002, p. 156) defines Corviale like “a dam at the threshold of urban development”, and the same Fiorentino (1974) was inspired by the ancient Roman aqueducts. The objective of the territorial dimension was to halt the urban expansion while safeguarding the surrounding countryside and building an integrated complex to contrast the dormitory neighbourhoods built in the 60s:

“The hill and the relative ridge represent for Corviale a bridgehead between the city and the countryside” (Fiorentino, 1974).

⁶ The design group consisted of 23 architects, coordinated by five Roman professionals M. Fiorentino (the main coordinator), F. Gorio, P.M. Lugli, M. Valori, G. Sterbini, to which were added other professionals for the structures and for the installations. In that period, the architects were not chosen by competition but by direct assignment for qualifications or previously valid works.

“It is not just a longer house: it is a 1 km system, highly integrated between services and residences, with distinct vehicular and pedestrian paths”⁷ (Mario Fiorentino, as cited in Del Monaco, 2009, p. 156).

Second, since the intervention had been located far from the urban centres due to the land cost, the architects oriented the proposal towards a self-sufficient solution, integrating residential and services (Riso, 2017).

This was confirmed by Montenero in the interview (26/06/2019), reporting that the architectural model chosen was the result of an internal vote in the design group. The majority wanted a single building organized by “unit of dwelling” (*unite d’habitation*), with porter’s lodges, condominium halls and a non-residential part, like kindergartens on the ground floor, which unfortunately were never realized.

The architectural complex is formed by a one-kilometre long building, a lower parallel body, and a third one placed at 45°. The first building is divided transversely by five vertical elements where the stairwells and elevators are concentrated. These elements identify the five management units called lots.

In the original project, the residential floors were interrupted in the middle by a “free floor” (as called in Fiorentino, 1974) that was dedicated for commercial services. The floor separated different residential types. On the upper floors, the houses are distributed by galleries and accessed through the five main staircases. The lower floors contain in-line houses that are connected by secondary staircases. The two typologies can be identified by the colours around the windows outside: red for the first ones, and blue for the second ones.

Figure 3 - Photos of the façade of Corviale from two perspectives



Source: Author’s photos.

⁷ The author conducted the translations of all present documents, texts, and interviews from Italian to English.

Nevertheless, the services were not made, and the free floor was illegally occupied in the 80s, a few years after the building's construction. The result was a drastic modification to the original project because private homes turned into collective spaces, and a long walkable floor turned into an inaccessible route.

As was confirmed by the associations interviewed, the squatting stimulated the discrepancies between assignees and occupiers for many reasons. First, an illegal business of illegal rents, sublets, or sales was established. Second, the assignees stopped paying rent after witnessing the squatters. Today, almost 80% of tenants do not pay for rent or utilities, all of which are charged to ATER Roma (Del Monaco, 2009, p. 221)

In Maracchia (2005, p. 50), Alessandra Montenero stated that the crucial flaw was “the lack of a strong and decisive role on the part of the administration”. She has pointed out that the choice of a unique building would work if any predictive surveys were carried out, such as door services, social services, premises for productive activities, schools, gardens, etc.): “if the client⁸ cannot guarantee the presence and management of a plurality of services, the project must be aimed at a building that guarantees at least the best housing function” (interview quotes from Montenero's interview).

“The challenge of Corviale is in the way it will be managed, all this experience is made of architecture and management” (Mario Fiorentino, as cited in Piazza & Scopelliti, 2006, p. 10)

Corviale was designed as an experiment: 50% was architecture and the other 50% was management. The management problems emerged in the first years of Corviale, and the lack of public control induced a degeneration of trust between the tenants and inhabitants. Moreover, the public management promised the services at the moment of the construction but instead introduced them over the last 20 years. These services include offices of the XI Rome Municipality, Municipal Police Command, nursery, elementary and middle school, municipal library, cultural centre, and shopping centre. Corviale is thus the result of an unfinished project, “an open work to complete”, a phrase that was coined by the architect Renato Nicolini (1942-2012)⁹ and was immortalized at the entrance of the municipal library of Corviale.

⁸ The client and the manager are the same public institution, namely the IACP (*Istituto Autonomo delle Case Popolari*), which today changed his name to ATER (*Azienda Territoriale Edilizia Residenziale Pubblica*).

⁹ Renato Nicolini was the councilor of culture for the Municipality of Rome in 1976-1985.

THE CRITICAL FACTORS OF THE PUBLIC HOUSING PLAN

However, weak management was not the only critical issue in Corviale. The research indicates that there are several factors also present in the I PEEP in Rome. It is first necessary to provide a brief historical frame of the PEEP.

The PEEP (*Piano di Edilizia Economica e Popolare*), literally translated as the Plan for economic and popular housing (Law n. 167 of 18th April 1962), was a national plan to expropriate areas for public housing construction to address the housing emergency. The PEEP is hence intimately linked with the social and economic reconstruction of the country. The Italian economic recovery in the 1950s and 1960s led to a strong urbanization of the cities and thus a huge demand of houses for the people who came from rural areas. Cities changed rapidly due to urbanization and countless illegal shacks growing in the city (CRESME, 2007, p. 20).

The squatters were regularized some years later, while the public houses had been built nearby so that the services and the infrastructures were used by both.

Figure 4 - The dark grey zones contain the plans for the I PEEP (1 - 2 maps) and II (3 - 4 maps)



Source: Caiazza, 2010, pp. 13-14.

Rome had two PEEP seasons. The first was from 1964 to 1985, and the second one was from 1985 to 2006, when it ended with the closing manoeuvre (Caiazza, 2010). The prevision for the I PEEP was the most utopian in the history of PEEPs. It was approved in 1964 (Decree n. 3266 of 1964) and provided for the construction of 711,909 rooms in 73 public districts.

The I PEEP was part of the General City Plan¹⁰, which imagined an enormous urban expansion and a city for almost 5 million inhabitants. Since the early years, the PEEP reported many implementation-related problems such as expropriation, scarcity of resources, and operational difficulties. For this reason, the legal validity of the plan, which was initially fixed at 18 years, was extended to 10th August 1984 (CRESME, 2007, pp. 96 - 100).

Since 2/3s of the urbanized soil comes from the 60-80s, the construction of the I PEEP contributed to a relevant part of Rome's urban history. One hundred and fourteen zone plans were built within the I and II PEEP; these plans currently represent 7% of the Rome's total urbanized area and 33% of its services (Caiazza, 2010).

The analysis of the case study, a bibliographical study, and experts' interviews, have allowed for the synthesis of some of the Rome I PEEP's critical factors:

Large dimension

The maps above indicate that the zone plans of the I PEEP in Rome have large dimensions that represent large public housing neighbourhoods such as Corviale. They are immediately recognizable, even from an aerial photo, "for their marked extraneousness comparing to the urban context in which they were inserted" (Montenero, 2016). The II PEEP learned from these mistakes and designed smaller areas and widespread settlements in order to have more manageable neighbourhoods. They were planned without excessive concentrations of residential cubature, with a reduced number of inhabitants, and with subsidized and unsubsidized housing.

High execution speed

The I PEEP was executed quickly in an attempt to cope with the housing emergency. It was characterised by rapid completion of the residential part and by the fast design of the detailed plans (*Piani Particolareggiati*) in the General City Plan, which had to include detailed plans for all residential areas (either private or public). However, these plans were hastily designed, conceived as large planimetric and volumetric projects,

¹⁰ The General City Plan of Rome (*Piano Regolatore Generale*) was adopted in 1962 and approved in 1965.

and often did not consider factors such as altimeters, pre-existences, or subsoil. As Montenero stated in the interview of 26/06/2019, the detailed plans were necessary modified by the architects of the projects. Later, during the II PEEP, they started to be designed through a far more careful analysis of the places for inclusion in the General City Plan.

Unfinished projects and non-contemporary of services

One of the problems of the public housing neighbourhoods was that the plans were unfinished, especially those with regard to green spaces and collective equipment (Di Biagi, 2008: 20). According to Caiazza (2010), the services and infrastructure in the PEEPs in Rome were only 59% complete, with reference to the project forecasts. The current infrastructure and services arrived much later than the residential part. The non-contemporaneity of the infrastructures and services demonstrates the enormous slowness of the public body's urbanization. The public body had to go into debt to get the urbanization works because the financing channels for public housing provided to the expropriation of the areas and the housing construction, but that financing did not contemplate the construction of infrastructures or services.

Massive housing concentration

The incompleteness and non-contemporaneity of the infrastructures and services meant that these public housing neighbourhoods could only have residences. These neighbourhoods were away from the services and the city centre, and the condition of "peripherality" (Caudo & Coppola, 2006)¹¹ was increased because people from the same social class were concentrated in the same space and because the negative image of these locations was enhanced.

Inefficiency of public management

Due to the lack of tools to carry out checks and controls, the inefficiency of the client and, simultaneously, the manager (namely IACP) has influenced the realization of interventions. The countless abusive occupations in the public stock indicates, among other things, a disconnect between the needs of the inhabitants and the ability of public bodies to respond. Nowadays, this disconnect is visible in the inadequacy of the houses for the families that is presented in the next section.

¹¹ The authors refer to the emergence of a peripheral condition in Rome, but it is important to note that the concept of the periphery is an argument that is often addressed in urban studies, as well as in public housing.

Under-use of public assets

The population density of the plans of the I PEEP is about 100 inhabitants per hectare, which is incredibly low for a city like Rome, which reaches almost 1,200 ab/ha in some zones. The availability of services and green areas is much higher than what is provided under the Urban Standards law (DM 1444/1968). In Corviale, the services areas are four times higher, and the green areas are nine times higher than what was provided under the Urban Standards' law (Puccini, 2018c). This creates problems because these areas are under-used and supervised by inefficient management, leaving them to degradation and neglect.

Non-coordination among public actions

The PEEP's law (167/1962) was not a financial law for the construction of public housing; it was aimed at identifying the areas for which the municipalities could allocate public housing and allow for land expropriation. The funding came with the law 865/1971, which thus forced many interventions to start much later. Moreover, as Montenero reported in the interview (26/06/2019), some expropriation procedures are still not completed and are full of legal disputes, which pose an unsolved problem for the municipal administration.

THE URBAN REGENERATION OF PUBLIC HOUSING

The troubled life of Corviale involved actors who wanted to break it down and others who introduced laboratories¹² within it to understand the potential of the social capital for its regeneration. From the 2000s onwards, there was renewed interest in Corviale because the municipality of Rome brought a series of services to the area: the job orientation centre, the multi-purpose cultural centre, and a municipal library.

In the last few years, we assisted with a series of public initiatives. The first one is framed in the neighbourhood contract (*Contratto di Quartiere II*, approved by the Lazio Region through deliberations 574 and 922 of 2003), which is currently developing through a project for the requalification of the free floor.

The free floor is now underway after a troubled bureaucratic history. Thanks to extended programmatic work between the public institutions involved – Lazio Region, Rome municipality, and ATER Roma – the intervention aimed to demolish the occupied houses and build new public houses in the free floor to avoid forced evictions.

¹² Some of these are *Laboratorio Territoriale Corviale Roma Ovest* (Martini & Parasacchi, 2004); *Immaginare Corviale* by *Osservatorio Nomade* (Santori & Pietromarchi, 2006); *Corviale accomplished* (Del Monaco, 2009).

This was possible through a phased project and an accompanying re-housing of the families nearby. These programs were managed by ATER and the *Laboratorio di Città Corviale*, seeking adequate solutions for each family¹³.

The new project, called “Green Kilometre”¹⁴, is based on the reading of what exists in Corviale, especially the sense of “proximity” (neighbourhood relation that transforms private spaces as shared) that allowed for the design of collective use of spaces (Salimei, 2018, p. 58).

In 2015, ATER launched an international competition for the urban regeneration of Corviale¹⁵ to modify the ground attack of the building in addition to the internal and external connections. As stated by Peretti in the interview (05/07/2019), the project will make the building becomes permeable because the access points will be increased from 5 to 27, and the “barriers” among the building and surroundings (the basement, the entrances, the street, the parterre of services) will be rethought while creating the missed intermediate dimension of Corviale.

This paper does not intend to exhaustively present on the two projects; instead, it seeks to learn from the case study to find solutions for broader questions. The previous chapter indicated the critical factors of the large public housing plans for the I PEEP. Here, the objective is extrapolating patterns through the analysis of the interventions enunciated for the regeneration of public housing neighbourhoods. It presents a sort of methodology identified by three points: densification, solve squatting, and participation.

Densification

As Salimei stated in the interview (02/07/2019) the new 103 public dwellings built with the “Green Kilometre” will help to insert residual cubature, and, at the same time, to reorganise the inadequate public heritage. This project along with the housing fragmentation plan approved by ATER contribute for responding to the current needs of inhabitants. In fact, in the public plans, the size of the apartments was calculated based on post-war censuses, when families were numerous¹⁶. According to Puccini (2018c), Corviale has 467 houses for six people and 288 houses for up to nine people, but the census indicates that only 19 families needed a house for six people, and only

¹³ For more information see the article by Di Giovanni (forthcoming): *Un chilometro di case. La riqualificazione del quarto piano di Corviale a Roma*. This article will be shortly published in the W1.2 in the proceedings of the SIU Conference of June 2019.

¹⁴ The winner group for the requalification project of the free floor is *T studio*, headed by Guendalina Salimei.

¹⁵ The international competition *Rigenerare Corviale* was won by *Studio Insito*, headed by Laura Peretti.

¹⁶ The size of the apartments was calculated based on Tupini’s law of 1949 and, in the case of Corviale, from the design of the building (1972) to the construction (1982). After decades, it is normal for the composition of families to change.

six families are in houses for up to nine people. These houses result inadequate because families formed by six people currently make up less than 3%. By contrast, more than half of the settled families in Corviale are composed of groups of one or two people. Hence, these actions in Corviale represent an increase of the housing supply in Rome, which is important to resolve the scarcity of public housing stock: there are currently 15,000 families in municipal housing waiting lists (Puccini, 2018b) besides the new housing demands (e.g. impoverished middle class, population aging, job precariousness, changing family's composition). In this framework, a controlled densification could be an effective strategy only if it is viewed as a system of services that converges the various subjects involved instead of an operation that merely seeks to increase the number of houses (CRESME, 2007, p. 296).

Solve squatting

The free floor in Corviale was never completed and was rapidly squatted for housing; almost 130-135 families are now living there. The case study demonstrated that the squatting in Corviale could be resolved through an integrated approach that is, the result of collaboration between different actions and public levels. The solution adopted in Corviale was the accompanied re-housing of the families in nearby locations in a phased project. That solution helped to restore legality and public control, mitigating the conflicts between assignees and occupiers and, more generally, between ATER and inhabitants.

Squatting is a common aspect in public housing due to a scarcity of public stock and inefficient housing policies. Six percent of the public housing stock, or 45,000 dwellings, is occupied. The relevant factors of that figure are the continuing presence of vacant housing; the economic poverty of the social context; the limited collaboration with the authorities responsible for public order; and the long tenure of the public housing contracts, which does not allow the mobility of new users (NOMISMA, 2016).

Participation

The social support of the families in the intervention of the free floor (re-housing of the families, demolishing and built the new houses according to the Green Kilometre's project) is being performed by the *Laboratorio di Città Corviale*, which is a physical laboratory in Corviale that results from cooperation between the Lazio Region and Roma Tre University. The local site is made available by ATER and it is carried out by an agreement between Lazio Region and Roma Tre University.

With regard to the re-housing of the free floor, the laboratory continuously dialogues with the public administration and the inhabitants as an intermediate body to find points of agreement between the parties. The laboratory is thus a third actor that is

necessary to solve the conflict between ATER and inhabitants, seeking to regain the trust between the owner and tenants.

Furthermore, the laboratory is also starting a participatory planning strategy for actions and interventions in the neighbourhood that is relevant for stimulating the civic engagement of the inhabitants, strengthening a channel of dialogue with the administration, and building networks with the association to develop local projects. This last point is particularly interesting since the fieldwork registered the presence of many associations, mostly related to cultural and sporting facilities (*Il Mitreo, Calcio Sociale, Rugby Arvalia, Corviale Domani*). Through a lot of initiatives and actions in the territory, the associations had actively campaigned for the neighbourhood's regeneration before the interventions of the public institutions, displaying a vibrant and dynamic neighbourhood.

CONCLUDING REMARKS

The case study was read in accordance with different scales and diverse points of view to answer the research question: understanding past critical factors of Public Housing Plans and identifying starting points for the urban regeneration.

First, since the local issues derive from the public housing plans in Rome, the case study is framed at a double scale: building and metropolitan. Second, unlike common reading of Corviale, the case study was not presented as a degraded place and a negative symbol, but as positive model that had a strategy for urban regeneration. The more relevant aspects of the presented methodology are as follows:

- Answering some of the critical factors of PEEP (the under-use of stock and public assets);
- Responding to the needs of the families living there;
- Increasing the housing supply for the current housing demands;
- Restoring legality and public control, and mitigating the conflicts between assignees and occupiers;
- Establishing trust between ATER and its inhabitants;
- Allowing the involvement of the inhabitants in the processes;
- Initiating housing policy about the existing housing stock.

Nevertheless, some critical points can be outlined. Addressing squatting without forced evictions is the result of long cooperation between public institutions that lasted for years. The participatory process has the same problem of duration. On the other hand, the densification is not always feasible, depending on the situation (providing feasibility studies considering historical, archaeological, and landscape-related aspects), and should be reviewed not only quantitatively but also qualitatively.

However, an innovative point that links all the aspects of the case was the entrance of a third actor: the university, which allowed for participatory planning practises and for reducing the contrast between the owner and the tenants. The laboratory promotes the third mission of the university besides investigation and teaching, namely to be a bridge between academy and real world. Avoiding the therapeutic obstinacy of learning is an end in itself with the purpose of staying in the field of investigation and starting a collective process of learning that is based on “education-advocacy”. This means that the university provides knowledge and tools for local actors to intervene independently in the processes (Cognetti & Padovani, 2018, pp. 43- 44).

Two more considerations conclude this section. First, the study has displayed some interesting points regarding intervene in the public city, but Corviale is a case that fits in both categories: public housing and periphery. However, not all the public housing is peripheral, and not all the peripheries are public housing; some public houses were built in the early XXth century and now are part of the city centre. Others were built in the last decades and were localized in areas that were not well-connected. Currently, “the return of peripheries” (Indovina, 2015) is also relevant for population increases in the peripheral districts, which is associated with decreases in the central districts (Lelo, Monni & Tomassi, 2016).

The interventions for regenerating peripheries should be designed according to the peculiar characteristics of the case and the relevant context.

Second, since the public city is an immense laboratory for new projects that involve experimentation and action-research, the study does not claim to be the only possible method; it is merely one of the alternatives to contribute to the definition of guidelines for the regeneration of public housing.

More studies, both by analysing similar neighbourhoods and by observing the same issues, could be developed to increase the debate discussed in this paper. In this sense, more researches, from the fields of social sciences linking with urban planning, should support this study in order to identify public housing neighbourhoods no longer as a problem but as a resource for the cities.

ACKNOWLEDGMENTS

The present work stems from the financing of the *Fundação para a Ciência e Tecnologia* (SFRH/BD/130465/2017) addressed for the PhD project in Urban Studies (ISCTE-IUL/FCSH-UNL). Moreover, the research award “AESOP Young Investigator Training Program 2019” allowed collecting data, interviews and reflections with Giovanni Caudo e Mauro Baioni, which kindly hosted me at Roma Tre University for one month. I am also grateful for the precious feedbacks given by my supervisor Rita Cachado, the IJPP editors and the anonymous reviewers.

REFERENCES

Caiazza, L. (2010). *La città pubblica. Il potenziale delle aree di Edilizia Economica e Popolare* (Master's thesis in architecture, Roma Tre University). Retrieved from https://issuu.com/lorenzokai/docs/la_citta_pubblica__tesi_di_laurea__lorenzo_caiazza

Caudo, G. & Coppola, A. (2006). Periferie di cosa? Roma e la condizione periferica. In *Parole Chiave*, 36 (pp. 97-116). Roma, Italy: Carocci

Chen, X., Orum, A. M. & Paulsen, K. E. (2013). Methods and rule for the study of cities. In X. Chen, A. M. Orum & K. E. Paulsen, *Introduction to cities: How place and space shape human experience* (pp. 72- 96). Chichester, UK: Wiley-Blackwell

Cognetti, F. & Padovani, L. (2018). *Perché (ancora) i quartieri pubblici. Un laboratorio di politiche per la casa*. Milano, Italy: Franco Angeli

CRESME (2007). *Abitare la periferia. L'esperienza della 167 a Roma*. Roma, Italy: Camera di Commercio Industria Artigianato e Agricoltura di Roma

Del Monaco, A. I. (Ed.) (2009). *Corviale accomplished*, Roma, Italy: Università La Sapienza

Di Biagi, P. (2008). *La Città pubblica. Edilizia sociale e riqualificazione urbana a Torino*. Torino, Italy: Umberto Allemandi

Di Biagi, P. (Ed.) (2009). *Città pubbliche. Linee guida per la riqualificazione urbana*. Milano, Italy: Bruno Mondadori

Di Giovanni, C. F. (2019). *Social housing in Portugal and Italy: methodological issues and empirical inferences of a comparative study*. Working paper e-CIES, 224, Retrieved from <https://repositorio.iscte-iul.pt/handle/10071/18197>

Di Giovanni, C. F. (forthcoming) Un Chilometro di case. La riqualificazione in corso del quarto piano di Corviale. *Proceedings of SIU Conference, 5-7 June 2019*

Fiorentino, M. (1974). Report attached to the Plane Zone n. 61 “Corviale”

Frampton, K. (2006). *Storia dell'architettura moderna*. Bologna, Italy: Zanichelli

Gennari Santori, F. & Pietromarchi, B. (Eds.) (2006). *Osservatorio nomade. Immaginare Corviale. Pratiche ed estetiche per la città contemporanea*. Milano, Italy: Bruno Mondadori

Indovina, F. (2015) Il ritorno delle periferie. *Archivio di Studi Urbani e Regionali*, 112, 5-10

ISTAT (2011). Housing stock in Rome from the last census [data file]. Retrieved from http://dati-censimentopopolazione.istat.it/Index.aspx?DataSetCode=DICA_ALLOGGI

Jacobs, J. (2009 [1961]). Vita e morte delle grandi città [Original Title: *The Death and Life of Great American Cities*], Torino, Italy: Einaudi

Lelo K., Monni, S. & Tomassi F. (2016, March 24). *Mapparoma7 – Il centro si spopola, le periferie e l'hinterland crescono*. [web log comment]. Retrieved from <https://www.mapparoma.info/mapparoma7-il-centro-si-spopola-le-periferie-e-lhinterland-crescono-2/>

Maracchia F. (2005). Arch. Alessandra Montenero. Conversazione sul quartiere Corviale. In F. Maracchia, *L'area periferica romana: i quartieri di edilizia economica e popolare tra il 1965 e il 1985* (pp. 50-54) (Doctoral dissertation in Urban History, Sapienza University of Rome)

Martini, M. & Parasacchi A. (Eds.) (2004). *Intervista a Corviale. L'esperienza di un laboratorio per lo sviluppo locale e la partecipazione*. Roma: Comune di Roma, Assessorato alle Politiche per le Periferie, per lo Sviluppo Locale e per il Lavoro

Montenero, A. (2016). Tor Bella Monaca: il perché, l'attuazione e il divenire di una grande piano di zona. In M. L. Palumbo (Ed.), *Fare città nella città* (pp. 23-27). Roma, Italy: Aracne

Montenero, A. (2017). *La rigenerazione della periferia romana e la Lr 7/2017*. *Urbanistica Informazioni*, 275-276, 59-61

NOMISMA (2016). *Le occupazioni abusive negli alloggi di Edilizia Residenziale Pubblica*. Report commissioned by FEDERCASA

Piazza, R. & Scopelliti, A. (2006). *Corviale Oggi*. Roma, Italy: Segni Invisibili

Puccini, E. (2018a, February 26). *Quanto sono le case popolari a Roma? Diamo i numeri...* [web log comment]. Retrieved from <https://osservatoriocasaroma.com/2018/02/26/1-2-quante-sono-le-case-popolari-a-roma-diamo-i-numeri/>

Puccini, E. (2018b, April, 12). *La casa e l'emergenza abitativa che non c'è* [web log comment]. Retrieved from https://osservatoriocasaroma.com/2018/04/12/roma-la-casa-e-lemergenza-che-non-ce/#_ftnref4

Puccini, E. (2018c). Verso una politica della casa: aspetti e questioni dell'emergenza abitativa romana. In A. Coppola, G. Punziano (Eds.), *Roma in transizione. Governo, strategie, metabolismi e quadri di vita di una metropoli*, 1 (pp. 275-289). Roma-Milano: Planum Publisher

Riso, V. (2017). Rehousing in Europe: The contemporary city and its emerging post-war housing legacy. The case of the Corviale residential complex in Rome. *Proceedings of Transcrever Summer Lab 2017: Práticas Socio-espaciais nos bairros sociais de Braga* (pp. 35-47). Braga, Portugal: Câmara Municipal de Braga

Rossi, P. (2016). Rigenerare Corviale: Look beyond the Present. *AR - Architetti Roma*, 114, 44-51

Salimei, G. (2018). Chilometro verde al Corviale. The Green Kilometer in Corviale. In *METAMORFOSI. Quaderni di architettura*, 4 (pp. 58-61). Roma, Italy: Lettera Ventidue

Tafuri, M. (2002). *Storia dell'architettura italiana 1944-1985*. Torino, Italy: Einaudi

Yin, R. K. (2018). *Case study Research and Applications. Design and Methods*. London, UK: SAGE

SHORT AUTHOR BIOGRAPHY:

Caterina Francesca Di Giovanni is an architect and a PhD student in Urban Studies at the ISCTE-IUL/FCSH-UNL. Her research is funded by FCT (SFRH/BD/130465/2017) and focuses on integrated interventions in social housing with an interdisciplinary approach. She holds a master's degree in Architecture from University of Palermo and a postgraduate specialization in Urban Planning in Public Administration-City and Land Management at the Sapienza University of Rome.