

What architecture for the middle-class?

On the cover of this Spring 2022 Special Issue of *Cidades, Comunidades e Territórios*, we find a picture of a billboard that reads: *What architecture for the middle-class?*¹ Throughout June 2021, this was one out of four question-like provocations placed nearby University Institute of Lisbon (Iscte). Under the R&D project “Middle-Class Mass Housing (MCMH) in Europe, Africa and Asia”², Iscte hosted the related International Conference “Optimistic Suburbia 2 – Middle-Class Mass Housing Complexes” (16-18 June 2021)³. Other questions were posed, not only on the billboards but also in two of the most read Portuguese newspapers a few days before the Conference to which this Special Issue refers. A short film, or teaser⁴, disclosed online also addressed these issues: *Who was the architect who designed your apartment? Is a building worse than a house? Are the peripheries dormitories for the middle-class?* These propositions catalysed some of the subsequent discussion on the case studies of MCMH project – shown and debated during the Conference. The international contribution nevertheless reached far more subsidiary debates under the MCMH ‘umbrella’ topic. This Special Issue is a small sample of the work produced by a few researchers⁵ who participated with their specific expertise. It can be rightly said that it is a true sample. At the Conference, there were 11 presenting sessions, from which 6 are represented in this Issue in odd numbers: sessions 1, 3, 5, 7 and 11 all have one article. Thus, the texts constitute good examples of the prepared and discussed work.

Tatiana Knoroz, this issue’s first author, participated in session 1, chaired by Gaia Caramellino and Filippo De Pieri. This session was entitled “Writing the History of Post-war Housing Complexes and Neighbourhoods. A Take on Research Strategies and Methodologies”. Knoroz, in her article “Devicology: Expanding fieldwork possibilities for architectural observations in inhabited interiors. The case of Japanese post-war mass housing”, introduces us to the Japanese *danchi* (Japanese mass housing from the 1960s), namely its interiors. *Devicology* (in homage to Wajiro Kon’s “Modernology”) is the key word that Knoroz proposes for her methodological analysis of this typology. Based on her personal knowledge of the Russian *Khrushchyovka* – a low-cost, concrete-panelled or brick three- to five-storied residential building which was common in the Soviet Union in the early 1960s –, Knoroz takes on a research strategy based on tow fieldtrips and local survey to *Wakamiya danchi*, Japan. With the *danchi* history as background, Tatiana analyses today’s *Wakamiya* living standards, making a thorough examination of the objects and interior occupation of some spaces. Surprisingly, Tatiana comes across what she calls a “fieldwork problem”, namely the fact that the inhabitants are currently resigned to their modes of living. In conclusion, Tatiana presents “Devicology as a method for categorisation and analysis of interior photographical data and other field observations, bypassing the at times subjective and inconsistent nature of verbal information collected during interviews.”

Eveline Althaus and Liv Christensen present the following article, “Community centres in increasingly diverse neighbourhoods: policies and practices of community building in post-war housing estates in Switzerland”, developed for session 3. This session, coordinated by Marie Glaser and Ellen Braae, discussed “Publicness in

¹ In Portuguese: “Que arquitetura para a classe-média?”

² Principal Investigator Ana Vaz Milheiro, Co-Principal Investigator Inês Lima Rodrigues, funded by the Foundation for Science and Technology, Portugal (PTDC/ART-DAQ/30594/2017).

³ See <https://www.optimisticsuburbia2.com/>. A first Optimistic Suburbia Conference was held at the same institution on 20-22 May 2015. See <https://optimisticsuburbia.wixsite.com/ingles>.

⁴ See <https://www.youtube.com/watch?v=9KpiYSUGoNE&t=1s>

⁵ From a total of 137 participants, 61 came to Lisbon to engage in face-to-face Conference activities. The Conference had a hybrid format since 2021 was a yet pandemic year.

middle-class large housing complexes as a new way to examine the premises of cultural encounters and social integration". In their text, Althaus and Christensen address the issue of buildings' occupancy change over time and the challenges this phenomenon entails. The specific research presented here is based on a larger investigation which focuses on two housing estates in Switzerland that evoke the country's post-war constructions boom: the *Telli*, in Aarau, and the *Tscharnergut*, in Bern. These two examples were meticulously studied based on "document analysis of policy relevant papers, field observations, mapping and in-depth interviews with various local stakeholders". The text is firstly framed by a historical contextualization which refers to the estates' original plans (going back to half a century before) and their present ill reputation. Then, within several points, it presents a set of "policies and practices of community building and the role of community centres" comparing it to the case studies. The conclusion offers an overall synthesis of the authors' view on community building, with assertions like: "Today, city authorities and property owners in *Telli* and *Tscharnergut* recognise that the long-term commitment of the community centres creates considerable added value to the neighbourhoods and the properties."

Nicole De Togni is this Special Issue's next author, with her article "The tool of planning agreements: Milan at the core of an underexplored reading of the post-war Italian cities between the public and private sectors". This text was the basis of her presentation in session 5, chaired by Filipa Fiúza, named "Middle-Class Mass Housing: public/private joint-ventures". De Togni presents a text about the Italian so-called planning agreements: "long-standing arrangements between the public administration and public or private actors, aiming at organizing and disciplining expertise and goods for planning purposes" that were originally officious but legally validated in 1967. These agreements, which emerged from the post-war period, are analysed as "underexplored tools of Italian planning", offering a "privileged lens to observe tools and practices, professional and administrative networks, demands for social emancipation and renewal of planning processes, at the centre of a complex system of actors, habits, disciplinary and critical positions". The city of Milan – the "fastest growing real estate market in Italy" – is particularly observed, framing the presented case of *Piazza della Repubblica* tower, an upper-middle-class mixed residential and office building constructed in the city centre by Giovanni Muzio. Here, the planning agreement is applied and, though criticized (namely by Gian Antonio Bernasconi in *Casabella*, in 1969), comes to life, proposing "a new reading of planning agreements as a source for architectural and planning research".

Audrey Courbebaisse and Gérald Ledent also examine a planning tool for a reference European city. In their article "From an imagined community to genuine communities: Birth and development of Etrimo Apartment Buildings in Brussels, 1950–2020", presented in Laurence Heindryckx and Tom Broes' session 7 – "The Imagined Community of Middle-Class Mass Housing" – the authors delve into the role of the real estate developer Etrimo (*Société d'études et de réalisations immobilières*), in building an idealised community of inhabitants – in this case by Jean-Florian Collin, the company's founder, who stands out among his peers. They begin by explaining the origins of this venture, the programme (originally designated for middle-class returnees from the Congo), the associated numbers (14 000 dwellings), and other contextualising factors, and then define three case studies. The body of the text is based on "qualitative research, conducted at the crossroads where architecture meets the social sciences". Based on an analysis of archival material, notably commercial brochures, but also interviews and on-site observations, Courbebaisse and Ledent embark on a comparative study of Collin's "idealistic notion of the nuclear family" (as a "sum of individuals") and today's "genuine communities", acknowledging the recognition of an "Etrimo identity", which includes, as characteristics, peaceful outdoor spaces and lively common (indoor) rooms. Thus the "capacity of Etrimo (...) to build and support a community of inhabitants" is inferred.

Carlos Machado e Moura is the following author, who presented his work at session 9, chaired by Maria Rita Pais, with the title "Inhabiting Suburbia: art (registers) of living". In this issue of *Cidades*, his article "What makes mass housing representations so different, so appealing? The French grands ensembles in comic-strip form" proposes to address architecture not as a scenario, but as a narrative object, subject to "imageries and representations". His text explains how in France, the "country of *bande dessinée* and the crisis of the *banlieues*", the practice of comics developed most vigorously, especially during a period in which the *grands ensembles*, which were in good condition in the first place, began to suffer a pronounced decadence. From the 1973 oil crisis on, those that stood designated to the middle-class dealt with the effort to mix diverse ethnicities (*mixité*) and were occupied by social housing (which gave rise to the *banlieues*). In an enlightening text, the author affirms that "finally, in the 1980s, these neighbourhoods faced a deep crisis, becoming subject to social segregation" and that, from the 1970s until

today, comics have mirrored this growing transformation. Thus, although its title is borrowed from the English pop artist Richard Hamilton's 1956 work "Just what is it that makes today's home's so different, so appealing?", the real 'appeal' here are the impressive images that the text presents, particularly those of the "humour and mockery", the "overcharge", the "dramatic scenes loaded with brutality and gore". As "portrait(s) of social reality", comics depict the "life in (...) problematic suburb(s)". Having said this, we believe there is some optimism in Machado e Moura's words when, citing Darryl Chen, he says "dystopic worlds always proved to be more productive than any utopian urban systems".

Diego Inglez de Souza offers us "The history of the Cité Balzac and the vicious circle of social housing", an investigation the author presented in Alessandra Como and Luisa Smeragliuolo Perrotta's session 11, named "Demolition vs Renovation: an open question with regard to Middle-Class Mass Housing in the contemporary city". Souza begins by introducing us to *Cité Balzac*, "a housing complex built in the 1960s in Vitry-sur-Seine, an emblematic 'red suburb' in the south of Paris", posing the hypothesis that this particular *grand ensemble* describes "a perfect cycle, showing the limits and contradictions of social housing as a modern utopia, its crisis and contemporary conditions". Therefore, this text accesses both a historical survey (that contemplates the modernist doctrine), and a research question that relates to the current housing status. Originally designed for the middle-class, "after some years of pacific coexistence (...), the white and French (...) started to leave the complex", which was possible because of the "accumulated savings" during the *Trente Glorieuses*. Discrimination and bias occupied the blocks, creating the so-called "vicious circle of social housing".

Alberto Reaes Pinto's essay on prefabrication comes in the sequence of the six papers selected from the odd sessions of the "Optimistic Suburbia 2" Conference. "Total heavy prefabrication: Santo António dos Cavaleiros (SAC) and Quinta do Morgado (QM). Overview of the building process, exterior panel pathologies and a study for their rehabilitation" addresses the most original construction problem posed in Portugal in the 1960s. Reaes Pinto, invited to the Conference by João Cardim, and also a special guest of this Spring Issue, presents in this text a brief explanation of the technical aspects and a retrospective balance of the positive and negative aspects of the application of the different prefabrication possibilities through shared images and data on two cases that he personally supervised in the metropolitan area of Lisbon, Portugal (both built by the company ICESA). The relationship between the post-war Central European period and the same period in the Portuguese context (namely the 1960s) in terms of housing demands should be noted; the neutral countries also 'rebuilt' their economy, with widespread technological development. The author even considers that the period up to the 1973 oil crisis was a "period of quantity", i.e. of massification, contrasting with a "period of quality", from 1974 onwards, when "with a reduction of the building shortage, the building site became smaller, with fewer dwellings and greater complexity in terms of the organisation of space".

This construction duality pre- and post-1973 crisis is intriguing. While, for prefabrication, the 1980s meant the opening to a greater qualification, for the larger-scale projects carried out *in situ*, this period implied a greater decline. This contradiction becomes visible if we confront all articles of this Special Issue. On the other hand, there is no doubt that all of them – whose case studies originate in Japan, Switzerland, Italy, Belgium, France or Portugal – share references of great significance. First, the theme of post-war housing; but also the idea of the inhabitant and part of a social class. In our memory, the question remains: *What architecture for the middle-class?* to which we may add: *Who is the inhabitant of a certain dwelling? What does he aspire to?* Several articles have tried to understand what communities are like today – both from a disciplinary point of view (by analysing studies) and from an empirical point of view (through comics, e.g.). Indeed, *media* are fundamental for fostering the debate. The day we write this, the *Washington Post* informs that "Once an affluent suburb, Moshchun is now an emblem of Ukrainian resistance"⁶. We want to sustain a spirit of optimism, of resistance. So let us remind ourselves of the title of this Conference – "Optimistic Suburbia" – and keep in mind that all optimism requires a certain amount of effort. However diverse the contexts, the case studies, the methodological approaches, the points of view, this Special Issue is one story – the story of a war reconstruction. Let us remember that this is not a time for celebration.

⁶ Article by Sudarsan Raghavan, Jon Gerberg and Heidi Levine. See <https://www.washingtonpost.com/world/2022/03/30/ukraine-frontline-town-military-routs-russians/>

But the time will come for new *Trente Glorieuses*, and then we will need the sensibility of the authors presented here.

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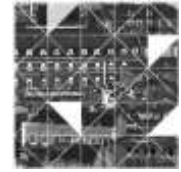
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Devicology: Expanding fieldwork possibilities for architectural observations in inhabited interiors. The case of Japanese post-war mass housing

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Abstract

Japanese mass housing from the 1960s has a colloquial nickname — *danchi*, which can be translated as “common land.” Originally celebrated by the public as a highly desirable living environment, *danchi* are now becoming a source of problems for the government. After briefly introducing the reader to the history of *danchi*, this paper will turn to investigate the interior lives of their current residents who stay hidden from the media attention behind dilapidating concrete walls and layers of social stigma. This work will attempt to propose a practical methodology on how to collect and interpret ethnographic materials from the apartment visits in relation to factual architectural knowledge. The data collected during the visits became the most controversial part of this research: in the spotlight is the abnormal inability of *danchi* residents to verbally admit their unsatisfactory living conditions that arises from the Japanese cultural characteristic of *gaman*, roughly translated as “perseverance”. Despite dire living conditions, clearly depressed inhabitants keep repeating that they cannot imagine living a better life. Balancing on the edge between ethnography and architecture, an innovative interior analysis method named “Devicology” (in homage to Wajiro Kon’s “*Modernology*”) can help us look beyond these modest replies by detecting “devices” — intricate systems of unconventionally used furniture and smaller, less permanent objects, that are unconsciously assembled by the residents. These visually chaotic yet surprisingly functional structures are the only tool of the current dwellers to negotiate with the restricting standard apartment plans that were originally designed for a very different sector of the Japanese population. Beginning as an examination of behaviour patterns in a single apartment, Devicology has the potential to become a study of the collective unconsciousness of different people stuck in the same conditions with the same set of rules.

Keywords: Japan, social housing, post-war mass housing interiors.

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Introduction

Japan is portrayed as a country where ancient temples and ladies in kimono elegantly coexist with cutting-edge technologies and cyberpunk-inspired cityscapes. While you can easily experience that in Tokyo's central neighbourhoods, everyday life for the rest of Japan is still full of twentieth-century artefacts, that don't fit into any of the above-mentioned extremities. A suburban train ride out of any big city is bound to transport you into a vast fabric of faceless low-rise residential areas, occasionally torn apart by unmistakable silhouettes of multi-story modernist mass housing estates built between the 1950s and 1970s, with monotonous concrete slabs sometimes arranged into small satellite cities. Despite active demolitions started in the 1990s throughout Japan, there are still hundreds of New Towns and smaller-scale districts commonly nicknamed as "*danchi*", literally "common land". While there's nothing unusual about their simple concrete grey exteriors with rows of aluminium windows and narrow balconies, they differ from their Western prototypes by *tatami* mats squeezed into minimal-space interiors and more secretive residents who avoid complaining about the harsh living conditions (Knoroz, 2020).

This research first started as an attempt at documenting the history and current state of one *danchi* district in Ibaraki Prefecture and proposing a participatory regeneration project for its outdated interiors. However, after the first round of fieldwork, it turned out that the tenants' testimonies could not be relied upon for architectural solution generation: a dozen *danchi* residents affirmed that they did not want any changes to their living environment at all. As an architect, I could see problems with both the buildings' technical characteristics (no elevators, no heating or cooling systems, poor plumbing, sound and heat insulation, mould, etc.) and incompatibilities between the original interior plans and lifestyles of the new demographics of residents, but cultural codes inherent to Japanese society prevented the interviewees to verbally admit these apparent shortcomings. The research focus thus shifted to developing a new multidisciplinary methodology for a comprehensive assessment of apartment quality through direct observation without fully relying on the subjective opinions of residents.

1. *Danchi* and their current state

1.1. The origins of *danchi*

There are two main types of *danchi* in Japan depending on the managing organisation. The first part belongs to the semi-public Urban Renaissance Agency, is mostly well-maintained and offers small yet affordable apartments in well-developed suburban areas for monthly rent appropriate to lower-middle tier income tenants. The second part, Publicly-Operated *danchi*, is managed by local governments and is often located further away from urban infrastructure. Many of these neighbourhoods lack funding, are rapidly dilapidating, and obtained a public image of "problematic" neighbourhoods because they act as the only social housing option in the country for financially disadvantaged families since the 1960s. Originally all *danchi* were designed as a transitional step in a "housing ladder" that was meant to produce and secure an affluent middle class in the Japanese population: by moving from the extended family traditional house into a small yet functional and modernised apartment young families could save up money, and finally purchase their own detached house (Nishiyama, 1989; Shinozawa and Yoshinaga, 2017). *Danchi* were conceived as the main engine of converting most of the Japanese population into middle-class families with stable jobs and predictable consumption habits (Neitzel, 2016).

The mass conversion into a self-sustaining homeowner middle-class was promoted to liberate the Japanese government from welfare procurement obligations (Izuhara, 2000; Uchida, 2002), but this goal was never fully accomplished. After the Japanese economic bubble burst in 1991, nationwide employment and income plummeted. As a result, many subsidised *danchi* residents lost the financial ability to move out and remained locked in ageing rental apartments for life. At the same time, new low-income tenants flocked into *danchi* as they became the only housing option available for disadvantaged tenants with no savings. The majority of state-subsidised rental *danchi* residents are now single elderly people, single-parent families, immigrants from other parts of Asia, and

representatives of traditionally alienated social classes: funeral services workers, former criminals, and credit debtors (Murakami, 2018; Ōshima, 2018; Yasuda, 2019).

1.2. Author's background and motivation

Born and raised in a minimal post-war *khrushchevka* apartment in the industrial suburbs of Moscow, Russia, I got first involved into post-war multi-story mass housing research as an undergraduate architecture student at Politecnico di Milano in Italy. This is where I was introduced to the concept of micro-scale research of post-war mass housing, featuring fieldwork with apartment visits, interior surveys and interviews with inhabitants about the history of their stay (for example, see Caramellino and De Pieri, 2019). At the end of the undergraduate course, I was trained to apply this research method to propose solutions for post-war mass housing interior regeneration projects. In Milan, finding people to interview and getting inside an apartment in mass housing blocks from the 1960s was relatively easy. Most of the inhabitants we met outside these buildings were middle class homeowners, who found talking to foreign architecture students about their life comfortable and even entertaining. Being fluent in Italian was necessary to start most conversations, but after our project goals and intentions became clear to the interviewees, it was easy to go through the list of prepared questions and understand most replies even for students, who haven't mastered the language well yet. After agreeing to let us see their apartments, some people visibly enjoyed showcasing their furnishings and decorations and were eager to share details of their personal housing history. Moreover, no interviewee ever failed to complain about things they didn't like or wanted to improve in their apartment or housing block, which was a valuable source of information for us to conceptualize our study renovation projects. Just a couple of days of fieldwork we would leave us with a long list of tips and suggestions. Using all the fieldwork data, we would compile detailed 1:25 plans and sections of the visited units, functional diagrams showing family members' usual movements, daily schedules and activities and map reported spatial or temporal conflicts (see Bricocoli et al., 2019; Bricocoli et al., 2020). The purpose of the design studio was to bridge the gaps between the "messiness" with the fluid variety of real inhabitants' lifestyles, and the top-down standardization of modernist housing units. While the resulting personalized designs became certainly less appropriate for a generic dweller, it was rewarding to incorporate the real inhabitants' opinions and some peculiarities of their lifestyles into design process without always trying to "guess" what's best for everyone from a fully top-down position that we had to take on during design studios before.

As a person with an experience of living in a Russian *khrushchevka*, however, I felt that many things in our fieldwork were highly dependent on local culture and therefore often overlooked by all the European participants when analysing the data: the above-average social status of the apartments' occupants, their approachability, the way they openly talked about their lifestyles etc. It was undoubtedly different from what one would encounter through the same fieldwork procedure in post-war mass housing in post-Soviet or Asian countries, for example, where the method would have to be altered to get data in a similar project.

2. Fieldwork process

2.1. *Danchi* fieldwork challenges

When I started master's thesis research in Tokyo, Japan, in 2018, I decided to continue research of post-war mass housing there as striking visual similarities between Japanese *danchi* and Soviet *khrushchevkas* got me more and more curious every time I passed by one of the districts. I was especially eager to apply micro-scale research method to test its effectiveness in a drastically different cultural setting outside of the Western context. After obtaining an intermediate level of conversational Japanese, I set out for my first set of fieldwork trips in Tokyo suburbs.

My plan was making day trips to both the UR and the municipally-subsidized *danchi* in Tokyo and Chiba prefectures and stopping locals for short talks in the hopes someone would be willing to participate in a longer

interview and show their unit. Since the UR housing is less of a grey area in the contemporary Japanese media due to active renovations and higher financial requirements for tenants, I tried to go more often in the Publicly-Operated *danchi*, municipally-subsidized social housing with lower budgets, that become target setting of horror movies and urban legends nowadays. Compared to Italian and Soviet post-war mass housing examples I've visited before, these *danchi* are inhabited by more financially disadvantaged people, are predominantly rented, and often very stigmatized.

Together with my non-fluent Japanese at the time, in suburban areas where foreigners are a rare sight, my Caucasian looks became a big shock to many passers-by. Another obstacle was the high percentage of elderly tenants, that made *danchi* quieter and more deserted than surrounding low-rise neighborhoods, with barely any social activity visible outside the buildings. Some people were alarmed enough already when they saw me approaching, cutting me off as soon as they could, while others reluctantly continued the conversation without opening up much about their living environment.

This lack of progress pushed me to search for more housing-related fieldwork methods applicable to Japanese urban context.

2.3. Literature survey

Japan has a rich tradition of architectural fieldwork beginning in the twentieth century. Wajiro Kon (1888–1973), a professor of architecture at Waseda University in Tokyo, is considered the pioneer of fieldwork in urban studies and architecture in Japan. Kon became widely known for his hand-drawn surveys of material culture of the 1920s Japan. His career began by documenting Japanese farmhouses, but in 1923 he started redrawing improvised shelters built by people who had lost their homes to the Great Kanto Earthquake. From that moment on, Kon's choice of studied objects became more unusual: he became interested in the process of Japan's transformation into a modern country and started carefully observing ordinary people's lifestyles and behaviour – both inside their houses and in the streets (Kon, 1930). Kon didn't devise any analysis strategy for the results of his surveys, but the sketches of the vernacular and seemingly mundane details of everyday urban life that were published in his *Modernology* book (1930) spurred a long-lasting enthusiasm of younger architects to study urban life from a similar angle. Kon's legacy was continued within the activities of the "Street Observation Society" (Akasegawa et al., 1986; Daniell, 2012) which humorously surveyed peculiar designs of urban "artifacts", such as manhole covers or fences, and is now manifested in more practical *Atelier Bow-Wow's Behaviorology* — a study of a relationship between contemporary "architecture without architects" in Tokyo and various human needs that it was created to answer (Kuroda and Kaijima, 2001; Atelier Bow-Wow, 2002). Although these surveys study various urban structures from a de-personalized "outside" perspective to facilitate architectural design applications and do not consider the arrangement of individual domestic spaces, they allow to discover micro-scale creativity of human adaptation to the limits of the environment through an architectural lens without relying on verbal sources. This focus on the relationship between the human needs and the spatial limits of the environment is crucial also when studying standard units in post-war mass housing projects.

However, the majority of architecture-related fieldwork attempts that has been done in Japanese *danchi* up until now does not implement home visits and inhabited interiors' surveys. *Danchi* are usually researched by the local governments and the above-mentioned Urban Renaissance Agency or UR (for example, see Kinoshita et al., 2019) with the goal of a renovation in mind. Their data collection is usually done outside the buildings with the help of standardized questionnaires and interviews with the housing experts, most likely because getting inside the apartments is too time consuming.

A notable exception is Ayaka Yasuda's fieldwork in an UR-managed high-rise *danchi* building in central Tokyo (Yasuda and Nobuaki, 2000; Yasuda, 2002). This particular building is popular among middle-class renters because of its prime location: moving in 2021, one would pay around 100,000 yen (1000 USD) for a 2DK apartment. Yasuda, who grew up in *danchi* herself, succeeded in 65 door-to-door visits and took around 3000 photographs (mostly wide-angle) during the short apartment visits. With UR not imposing as many restrictions on

interior changes as Publicly-Operated *danchi*, the units can be significantly altered by their inhabitants. By comparing the photographs and the floor plans and elevations that included most of the furniture, she developed the concept of “second wall”, that describes the tendency of *danchi* inhabitants to compile rows of household objects that often follow the original walls, but sometimes create new walls in-between to increase privacy between the family members.

Yasuda argues that with the decrease in the age of the eldest woman in the household, these “second walls” get lower and more open in an attempt to “display” the belongings, more than to store them away in closets. While the theory doesn’t provide hints for renovation strategies, it highlights the inherently different mode of living in small-size rental apartments as opposed to permanently-owned homes. It seemed like a great direction to follow with my fieldwork, but being a foreigner and working with much more stigmatized neighborhoods, getting so many case studies seemed close to impossible.

Looking into the history of Japanese housing-related fieldwork endeavours lead by foreign researchers, there are two works that need to be mentioned. First is Ann Waswo’s *Housing in Post-war Japan – A Social History* (2002). Waswo explores dwelling experiences of a Japanese woman that lived in several mass housing typologies after the war. Based on the interviews and re-drawings of the subject’s previous apartments from memory, the book is rich with architectural materials and historical data but does not feature an actual house visit, which clearly needs a different survey method. On the other hand, *The Japanese House: Material Culture in the Modern Home* (2010) by Inge Daniels is written based on the author’s home stays with several Japanese middle-class families (mostly in detached houses) for prolonged periods. Daniels documented their lifestyles with friendly unscripted interviews and detailed photographs. She analysed these data not as a formally trained architect, but as a social anthropologist, connecting her findings about domestic trivia to historical, cultural, and religious tendencies. This type of analysis is also difficult to apply to an architectural renovation project, but Daniel’s and Yasuda’s emphasis on interior photography of domestic material culture rather than on quotations of the interviews in their research became an important inspiration for me, since it allows for visual information to be obtained regardless of the verbal communication barriers.

2.4. Data collection

For my own fieldwork, I decided to use a mix of the above-mentioned approaches to collect data. From Daniel’s method, I adopted friendly unscripted natural conversations with the interviewees by collaborating with a Japanese interpreter, and almost excessive photographic documentation of their apartments, not sparing any seemingly mundane details that were similarly meaningful for Wajiro Kon, Atelier Bow-Wow and Yasuda. Still, to make the results useful for a renovation strategy generation despite a smaller number of case studies I was envisioning to get, I made sure to rely on the interviews as much as I could and ask classic questions such as “What would you like to improve in your unit?” or “Is there anything that you don’t find convenient here?” that worked so well during my study projects in Italy.

During my fieldwork trips in December 2018 (three days) and March 2019 (five days) to Wakamiya *Danchi*, I collected a vast variety of data. After securing several local contacts I managed to carry out four apartment visits, shooting hours of video interviews and hundreds of photographs depicting interiors and residents’ lifestyles. The observed reality turned out to be much more complex than the limited amount of “clean” historical materials that I studied for a preparatory analysis or saw in the published fieldwork results of the other researchers. The data was not immediately relevant to architectural concerns, but it was clear that valuable conclusions could be derived through appropriate analysis techniques. How does one define what is important and what is noise in fieldwork materials for architectural matters?

2.5. Case study

Wakamiya *Danchi* consists of 33 buildings, constructed in the period from 1969 until 1973 (Ibaraki Housing Bureau Archive, 1969; Mito Maps, 1965 - 1975). Like most *danchi* built after the late 1960s, it is located very far from urban centres. Although the plot is in direct proximity to the Joban train line, leading to Ueno station in Tokyo, the closest station, Mito, is only reachable by a 20-minute bus ride. A one-way trip to Tokyo can take up to three hours, so the district was mainly developed to house people working locally, especially those who were employed in nearby factories such as Hitachi (Yoshimura, 2018).

At the first glance, this *danchi* looks isolated and almost abandoned: there are barely any people outside any time of the day, the asphalted car parking spaces densely surrounding every building have an average 15% occupancy at best. Several buildings showed signs of structural and material dilapidation, with exterior finishing cracked and covered in fungus, many windows on the 4th and 5th floors didn't have curtains or any other sign of human habitation – later the municipal official in charge of the neighbourhood confirmed that over 20 percent of units in Wakamiya are vacant (Wakamiya community meeting, 2018).

There are three typologies of buildings that differ in interior plans and therefore facade compositions: first contains 2DK (two rooms plus dining-kitchen), second contains 3DK (three rooms plus dining kitchen) with 3, 4 and 6-*tatami* rooms per unit and the last has bigger 3DK with 4-*tatami* plus two 6-*tatami* rooms. Out of 33 buildings only five are built with this typology and just six contain the smaller 2DK; the most common one was a 41-square-meter 3DK, so in my fieldwork I focused on this typology. These plans allow to take out the partition sliding doors between the rooms and transform the original design into a semi-open space plan, but a lot of tenants avoid doing so because of inefficient building insulation (Wakamiya community meeting, Endo, Kimura, 2018), so to save on air conditioning and heating costs they usually maintain the appropriate temperature in the smallest closed room for living.

Most of the first wave residents from the 1970s left the place after buying a house (Yoshimura, 2018), and now Wakamiya's demographic situation is far from the originally intended. The inhabitants I met and heard about during my two field trips fall into three main categories: elderly singles or couples who didn't have a chance to move out before they retired, elderly singles who moved in after being unable to secure a house or find a reasonable renting opportunity after the economic crash in 1991, and single parents with kids who moved in recently with the help of the regional social housing programs. As a consequence of Japanese housing policies since 1950, currently most of the Japanese rental housing is only available for students, working singles or couples with a maximum of one child both in terms of square meters provided and financial eligibility requirements, therefore municipally-subsidized *danchi* are the only affordable rental opportunity for the excluded social classes (Hirayama, 2007; Izuhara, 2000).

2.6. Fieldwork problem

My initial research question was how to regenerate the inhabited interiors in *danchi*, taking into account the needs of the current residents. The unexpected problem that I encountered during my interviews is that people living in Wakamiya and other *danchi* were not able to express their needs concisely within an architectural context. It was impossible to demonstrate any living environment shortcomings using the residents' testimonies since everyone kept repeating: "I got used to it" or "We have everything we need here" (Wakamiya community meeting, 2018). I first realized this tendency during the interviews at the Wakamiya *Danchi* monthly community meeting with nine long-time residents. At the beginning of the meeting, I explained that I was doing a study project on *danchi* regeneration and that I needed their opinion about any possible improvements that could be made. I was constructing my questions from the point of view of an architect, who needed to understand the situation in the neighbourhood and see if there are any problems in the buildings and interiors. It turned out that straightforward questions of such character couldn't get *danchi* residents to open up about their personal problems.

– What do you like about this neighbourhood?

(Elderly woman): There are plenty of good things here. The green areas are beautiful. We all get along really well and help each other. Life is simple here.

– What is your apartment like? Do you have your own room?

(Elderly woman): My room is four-and-a-half *tatami* big.

(Elderly man): It sure is simple to live there.

(Elderly woman): Four-and-a-half *tatami* is enough, right?

– What about the kitchen?

(Elderly woman): It is small as well. Anyway, we all... Although it is small...

(Elderly man): (cuts in) It is compact and convenient.

(Elderly woman): I mean you can sit anywhere and have everything there at hand. I am quite old already, actually. When we just got married, our parents would come to visit us. They used to live in a big country house, so... How to put it. They complained about how cramped it was. And never stayed long. But the place gets convenient as long as you get used to it. It is nice. (Wakamiya Community Meeting, 2018)

Figure 1. Hitoshi's apartment, December 2018



Figure 2. Hitoshi's apartment, kitchen, December 2018

It took one hour to get to the point where we could discuss the first inconvenience: the insufficient number of electric plugs in every unit. Even such obvious issues as the absence of elevators and sinks in the bathrooms could only be raised at the end of the interview when I transformed the conversation from factual statement dimension to a game-like ‘daydreaming’ by switching the focus from the real *danchi* life to a ‘what if’ plane in an indirect manner. When I mentioned that some local kids on the street told me they wish they had a game arcade in the neighbourhood, everyone laughed light-heartedly at the absurdity of an image of a lit-up entertainment centre standing in the middle of deserted Wakamiya. This thought provided some distance from interviewees’ rootedness in everyday life reality, and they started to open up to previously “unreal” possibilities and use their imagination more freely, although all of their playful propositions mainly concerned the outdoors facilities. Until the end of the interview, I couldn’t get the residents to properly start talking about their opinions on the interiors of the apartments without them being too modest and careful.

My first assumption was that their limited responses were conditioned by a group interview setting, where the residents had to speak in front of each other in a formal atmosphere and were afraid to be judged as unduly negative, picky, or ungrateful for the opportunity to live in state-subsidized housing. The strive to maintain a good public image and conform to the community’s expectations shouldn’t be underestimated in the Japanese context, so when I started individual apartment visits, I asked the interpreter to talk in the most casual and friendly manner possible, avoiding stating any affiliations or business cards exchange. I also made a point to explain that the recordings will only be used for academic purposes in English language media. However, face-to-face interviews didn’t prove to be more informative than my talks at the community meeting. The “daydreaming” question strategy did not work in individual conversations: the four tenants I visited told me they were generally satisfied with their apartments, even though what I observed suggested otherwise. Elderly widow Endo and retired hospital guard Kimura, for example, kept repeating that they got used to everything even when asked to “imagine their ideal home”. Phrases like “It is better to just get used to it” and “We can’t make any changes because it’s not allowed” (Endo, Kimura, 2018) were the main way of answering all my questions concerning the interiors.

– Have you ever wanted to improve your apartment in some way?

(Kimura): My apartment??

– Yes, for example, removing some walls or having more space or furniture in a certain room?

(Kimura): This is a rental unit, so I can't do that.

– But if it wasn't, what would you do?

(Kimura): I don't know, probably nothing much.

– What about the bathroom? Has it been already separated from the toilet by the prefectural workers?

(Kimura): Ah, not yet. Yes, I don't like that you can see the toilet from the bathtub. I wish they could be separated. That's all. There is nothing else I need.

Despite this common tendency, there were still some people who admitted they wanted minor changes: more electric plugs (Wakamiya community meeting, 2018), an air-conditioning unit in a certain room (Wakamiya community meeting, Akane, 2018) or to have hot water in the kitchen sink (Akane, 2018). These technical issues should be normally solved by civil engineers rather than architects and interior planners, so I couldn't go through with my project just with this information. However, inside the rooms, one sees cramped, dark spaces, the inadequacies of the original planning in relation to the lifestyles of elderly people, an obvious lack of planned storage due to original short-term rental policies, and the lack of privacy between family members compared to an average Japanese mass market apartment. Yet it is not possible to demonstrate the need for renovation using the statements of the residents alone, because they have difficulty distancing themselves from their living environment.

It was clear that such responses were a classic example of *gaman*, or noble perseverance, which is considered to be a necessary virtue by most Japanese people, especially the older generation (Moeran, 1984). They never see anyone openly complaining about personal living conditions, so it gets hard for them to imagine a better life and even harder to talk about it out loud. Experiencing this cultural code first-hand pushed me to reconsider my initial interview-centred approach to fieldwork data; there were plenty of videos and photographs that could become more informative than the verbal testimonies.

3. Method

3.1. Focusing on the visual

Since I could not rely on statements from my interviewees, I had to use the visual information from the apartment visits as much as possible. I started redrawing the unit plans in detail and during that process, I had to constantly refer to the photographs I took during the visits. Making sure to pay particular attention to the reality of the everyday life of the inhabitants, apart from the furniture, I included their smaller personal belongings in the plans. The more I studied the photographs from the apartments, the more I realised that some of these seemingly unimportant details were crucial to understanding the incompatibility of the original design with the current tenants' lifestyle patterns.

Every surveyed apartment had some unusual systems of impermanent objects that could not be described as a single piece of conventionally used furniture. It could be a combination of several elements of different scales and origins put together by the inhabitant that imitated typologies of certain store-bought furniture: bookshelves made from cardboard, DIY bed and stools built from pieces of cheap wood, bathroom platforms made from concrete blocks and foam boards. These systems of objects seemed to be put together by their users in an intuitive manner, sometimes almost accidentally, but their essential trait was the fact of resolving inconsistencies between the original plan and residents' needs. Reflecting on their functional nature, I named these structures "devices".

Figure 3. Endo's apartment, kitchen, December 2018



Figure 4. Endo's apartment, entrance, December 2018



3.2. Devicology

The first step for developing Devicology was identifying, redrawing, and counting unconventional furniture in the studied apartments.

Figure 5. Taxonomy of devices

I categorised these devices first according to their functional and formal aspects, with six main categories formed: *Genkan*² Shapers, Kitchen Islands, Technotowers, Sorting Towers, Hanging Systems, and Platforms. These categories were too broad to explain some particular individual cases. For example, an elderly man using an ordinary dining table exclusively as a cooking surface and stand for kitchen appliances and a single mother setting up a school desk for the same function did not fit into my initial Kitchen Island category, that assumed a cupboard or some other closed volume with storage possibilities as a base. Therefore, each category was further divided into two to three subgroups. These subgroups reflect differing grades of flexibility, defined as the possibility of the devices to be partially transformed or moved to a different place. From these categories and subgroups, a table was constructed and is shown in Figure 5.

To facilitate the reading of the table, I assigned a letter from the corresponding functional category (G for Genkan Shapers, K for Kitchen Islands, etc.) and a number of the corresponding flexibility group (one for rigid, two for

² *Genkan* is an entrance pit usually positioned lower than the rest of the Japanese home, marking a boundary between the inside and outside with a step. Due to concrete construction and minimal budgets, *Genkans* in Wakamiya *danchi* are less than 5cm deep, which is unusually shallow for traditional Japanese houses

flexible, three for extra flexible) to add to the name of every type for more efficient use in the graphs later. In the list below you can find the details for every category and type from the table.

- Genkan Shapers: shoe-storing devices separating the entrance and the kitchen, providing shoe storage in the context of the small original entrance size and hiding the uncomfortable proximity of the entrance door to the kitchen.

Type G1 – Entrance Blocks, cupboard- or shelf-based (group 1, rigid); Type G2 – Entrance Racks, light frame-based (group 2, flexible).

- Kitchen Islands: additional volumes in the kitchen, providing more surfaces for cooking and accommodating kitchen appliances on the same level as the original kitchen surface.

Type K1 – Cupboard Islands, cupboard- or shelf-based (group 1, rigid); Type K2 – Cooking Islands, table- or desk-based (group 2, flexible).

- Technotowers: vertical structures containing working appliances, minimizing space occupied by bulky technology and keeping an easy access to all the appliances.³

Type T1 – Fridge Towers, fridge-based (group 1, rigid); Type T2 – Technoracks, light frame-based (group 2, flexible).

- Sorting Towers: vertical structures containing storing personal belongings, saving *tatami* from the possibility of damage by heavy Western furniture, maximizing storage, relieving planning stress caused by the absence of apartment ownership and certainty about the future.

Type S1 – Sorting Blocks, cupboard- or shelf-based (group 1, rigid); Type S2 – Sorting Racks, light frame-based (group 2, flexible); Type S3 – Free Stacks, arranged without base structure (group 3, extra flexible).

- Hanging Systems: suspended structures of varying shapes, maximizing easy-access storage and space for laundry drying and sometimes achieving porous separation between living spaces.

Type H1 – Grids, lattice-based (group 1, rigid); Type H2 – Pole Systems, stick-based (group 2, flexible); Type H3 – Hooks, attachment to an existing structure (group 3, extra flexible).

- Platforms: horizontal podium-like structures, solving various shortcomings of the original design, especially connected to elderly tenants' needs.

Type P1 – Levelling Platforms, usually based on wooden structures (group 1, rigid); Type P2 – Stepping Platforms, floor-raising (group 2, flexible); Type P3 – Sorting Platforms, ceiling lintel-based (group 3, extra flexible).

Genkan Shapers and Kitchen Islands are room-specific and could only be found at the entrance and in the kitchen respectively, while the other four categories can be found anywhere in the apartment. It is important to mention that both form and function were considered to define the categories. For example, the main function of Hanging Systems and Sorting Towers is storing personal belongings without occupying too much of the floor area, but the formal characteristics of Hanging Systems can allow them to perform as space-dividing screens as well.

Putting together the six categories and the three groups, fifteen types of devices could be identified. Group three is the highest level of transformational freedom. For the first three “bulkier” functional categories no examples could be found which fit into the extra flexible (3) subgroup. This relative lack of flexibility is attributed to the size of the devices as well as their particular purposes being defined by their spatial location, i.e.: Genkan Shapers must be close to the entrance of the apartment, and kitchen islands are in close proximity to the kitchen.

³ The lack of kitchen space in *danchi* is caused by the drastic increase in home cooking appliances in the mass consumption market since the times of the original design, so this category could be found in all four case studies.

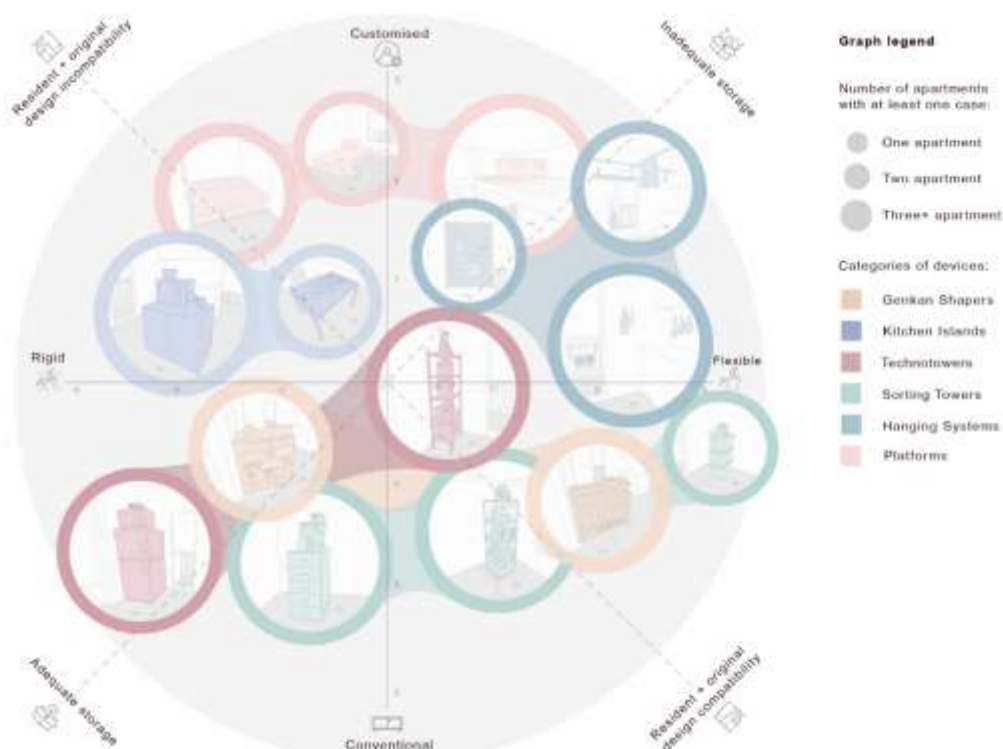
Flexibility plays a crucial role in devices: all of the four surveyed apartments were rented, so their tenants had a “temporary stay” mentality and tried to avoid placing bulky furniture in their rooms. In the interviews, several people mentioned nervously that if they damaged the walls or the *tatami* mats, they would be held responsible by the municipality. This fear pushed the residents to make sure that they will be able to transport or dispose of their furniture easily without leaving any visible traces in their unit if they happen to move out someday.

The most characteristic values of the *danchi* devices are the grade of their flexibility and their level of customisation. Not all devices are entirely customised structures – some are intentionally misused conventional furniture or partly consist of it. The amount of effort required to create a fully customized device such as a DIY bed frame (Type P1) or a breezeblock bathroom platform (Type P2) is high, which can highlight the utmost necessity of such interventions on the part of the tenants and therefore, the severity of the underlying problem that they were trying to solve with a device. The more heavily customised the devices, the more obstacles encountered in the original design. The greater the intended flexibility, the greater the struggle with storage inadequacy and the transitional mentality.

Every device type received a rating in the interval between 3 and -3 for both the customisation and the flexibility axis and was marked on the graph (figure 6). The rating domain is chosen for the sake of simplicity which would help the methodology be more consistent between observers. The values I assigned to each device type depend on my subjective evaluation, but I assume the device types’ visual relationship on the graph should look similar for a chosen apartment typology even if other architects assign the values. In any case, it is enough to use the same values as a starting point for all future calculations for case studies with the same typical plan. The final goal is to see a qualitative pattern for evaluation, not a precise number on the graph.

The upper left quadrant of the resulting graph contains devices that are very inflexible (bulky) and very customised (fully hand-made) at the same time, intended to resolve some serious incompatibility of the user’s needs and the original design. The upper right quadrant with more flexibility and the same amount of customisation has devices that are mainly solutions to a severe lack of storage space. If we add two diagonal axes that reflect this pattern and refer to them in the future graphs, we can find out the relationship of various devices and their amount with the apartment/lifestyle compatibility and storage requirements.

Figure 6. Devices’ customisation/flexibility graph

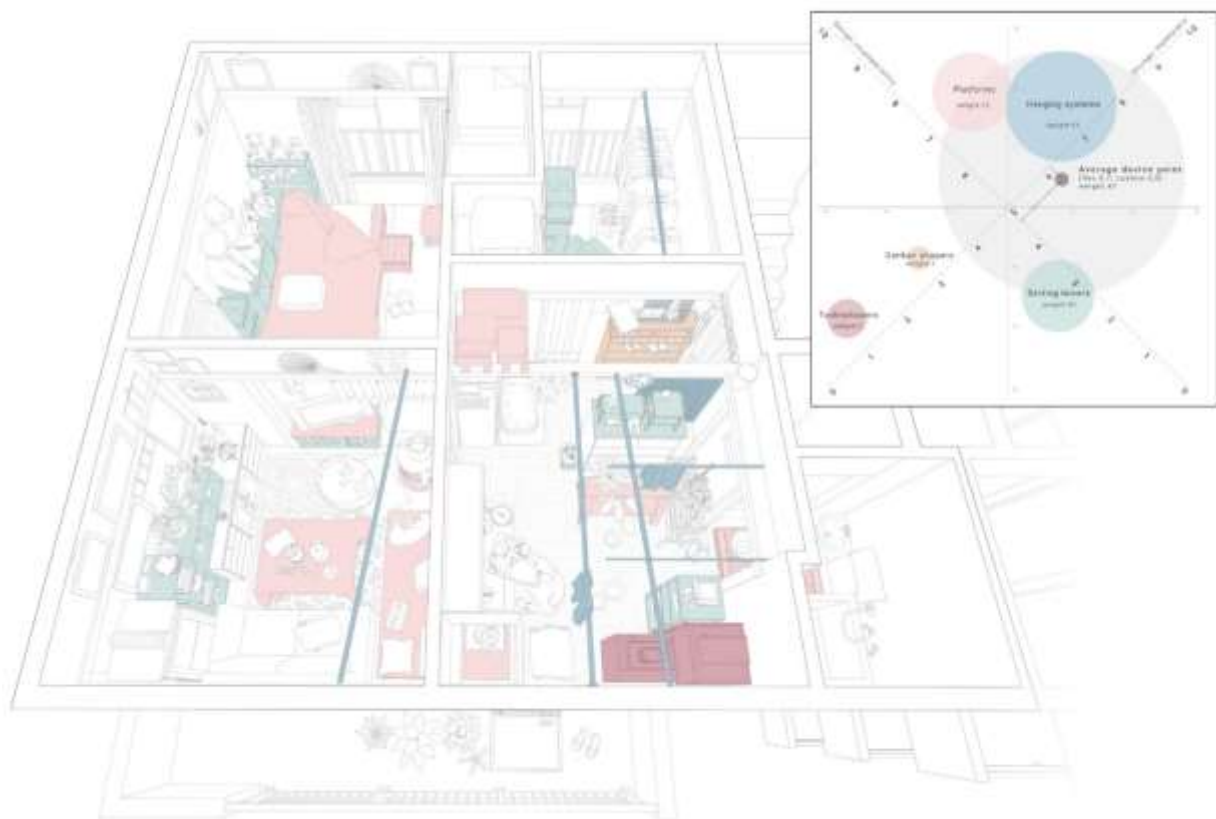


3.3. Application example

Let's take a particular case study and apply the method. I chose an apartment of an elderly woman in Wakamiya as it contained a large number of devices and left an impression that it wasn't a comfortable living environment, but the tenant said she didn't want to change or add anything because she "got used to it a long time ago".

There are 47 devices of five different categories that could be found in my photographs of the apartment. It was impossible to mark all those devices on a plan: many of them are located above the section height or turn out too small when drawn in projection. I had to develop a sectioned perspective of the apartment to properly illustrate the situation (figure 7). Taking the initial value graph (figure 6) and adapting it to this particular case study, we can notice that the biggest accumulation of devices is gathered around the upper right quadrant (figure 7). We should calculate the weighted arithmetic mean⁴ for every functional category having more than one type represented on the graph. The ordinary arithmetic mean cannot be used for this graph, since some points contribute more to the final average because of the difference in number of devices found for every type. Applying the formula, to calculate the x-coordinate (flexibility coordinate) of an average point on the graph for Sorting Towers we sum the products of x-coordinates of every point corresponding to every type (S1, S2, S3) and their weight (the number of devices per each type) and divide this sum by the total number of devices in each category. This procedure will be the same for y-coordinates (customization coordinates).

Figure 7. Case study: sectioned perspective and applied device graph



After the weighted average points for every category are found, we can calculate the weighted arithmetic mean for the entire graph by applying the same formula to the already found average points of every category. The average device point's location is in the upper right quadrant, which shows that the inhabitant of this apartment tends to

⁴ See the basic formula at https://en.wikipedia.org/wiki/Weighted_arithmetic_mean

have a significant problem with storage space: the projection on storage axis gives us 6,1 out of 10 total points for storage inadequacy, 10 points being the worst case possible within this grading system. We got a lower number on the design incompatibility axis – 4,6 out of 10, but we must keep in mind a big number of platforms present in this case study (twelve in total) that, because of their purposes and bulkiness, are a strong sign of the original design and tenant's lifestyle incompatibility, so it is important to have all the categories' weights mapped on the final graph not to lose this information.

The elderly woman from this case study might not have enough architectural experience to envision how her apartment could be improved on her own but the nature and the amount of her subconscious device-like creations tell us that she could benefit from a storage redesign and several compatibility fixes. Moreover, the visual information from the perspective drawing shows that the kitchen has the biggest accumulation of devices and thus should be the top priority for a renovation.

4. Conclusion

The avoidance of complaints among post-war mass housing residents can look like an issue specific to Japan, but interviews in Europe can get similarly difficult because not everyone can objectively value their home from a planner's perspective. Ordinary people perceive their living spaces as a given, rarely questioning their architectural potential and are not used to specific vocabulary and ways of thinking common to professionals dealing with housing. This might be the reason why not many architects engage in fieldwork for mass housing projects: inhabitants cannot provide them with the verbal information they can rely on directly and there are no existing guidelines on how non-interview-based ethnographic research can be effectively used for architectural purposes.

We present Devicology as a method for categorisation and analysis of interior photographic data and other field observations, bypassing the at times subjective and inconsistent nature of verbal information collected during interviews. Devicology attempts to analyse the nature of devices as an observational tool in order to arrive at empirical conclusions regarding the living conditions of the mass housing tenants and identify some shortfalls of standardised apartment plans in post-war social housing. The primary assumption of Devicology is that the motivation for devices' creation seems to originate from the wish to replace heavier and more expensive conventional furniture with lighter and cheaper alternatives in a limiting spatial and temporal situation, so a high number of devices in a dwelling can be considered symptomatic of the user's disadvantageous housing situation.

The method relies on categorisation of devices into six distinct categories. Individual devices are then plotted against flexibility and customisation axes. Since the process partly depends on the bias of the architect who places devices on the axes, it is important to be consistent with the values and perform many experimental surveys before implementing the method. Ideally, a longer fieldwork process with more case studies should enrich the Devicology taxonomy and uncover more behavioral meaning behind devices through active participation of the residents in the research. After that independent teams of specialists together with the residents should take a set of the same typology *danchi* apartments and assign their own initial values within a chosen domain to all devices and proceed with the calculations described in 2.6 for every case study. Then the teams would compare the results, see whether they show similar patterns or not and decide on a stabilized set of values to be used in the future. In order to define which values of the two diagonal axes are critical and show the need for renovation, the same research should be repeated on a set of well-designed newer commercial apartments with a higher number of square meters per person and more freedom to change the environment. However, its strength is that the single data unit is not an individual apartment, but a single device, therefore, the technique is scalable and has a potential for a holistic application: the evaluation can be carried out for one apartment, but also for one *danchi* building or for an entire neighbourhood or New Town, showing the extent of a problem on different levels.

Of course, as this Devicology evaluation is limited to two broad domains of storage and generic design compatibility, it should not be used as the only data to devise a renovation concept. In the future, it will be crucial to let the ingenuity of residents' devices be recognized by their creators and implemented in a participatory design process.

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Interviews (some names are altered to protect privacy of the participants)

Former Wakamiya tenant Yoshimura, December 2018.

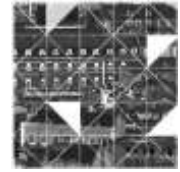
Wakamiya tenant Akane, December 2018.

Wakamiya tenant Endo, December 2018, March 2019.

Wakamiya tenant Kimura, December 2018, March 2019.

Wakamiya Monthly Community Meeting (group interview), December 2018.

CIDADES, Comunidades e Territórios



Community centres in increasingly diverse neighbourhoods: policies and practices of community building in post-war housing estates in Switzerland

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Abstract

This paper uses research conducted in Swiss post-war high-rise estates to focus on policies and practices of community building in neighbourhoods with an increasingly diverse population. Initially, the estates were mainly populated by Swiss and Southern European lower to middle income families, but latterly the household structures have become very heterogeneous with residents coming from all over the world. The planning and development policies of the estates are based on specific ideas about creating a community, which are still evident in the building and management of community centres but also in various facilities for common use (playgrounds, football and sport fields, community rooms and kitchens, libraries, petting zoos, cafés, crafts rooms, etc.). The community centres, along with community work, are key to encouraging encounters, connecting people and activating cultural life in the neighbourhoods and have played a pioneering role far beyond the boundaries of their respective estates. However, individualisation and pluralisation processes, the aging of the facilities and built structures, and economic pressures pose challenges for the community centres. The current Covid-19 crisis reinforces these challenges by limiting and impeding cultural activities and direct (physical) social encounters. The paper analyses the potential and the challenges of community building in the context of growing diversity among residents, and acknowledges what we can learn from these experiences when thinking about creating and strengthening communities in a multi-faceted world today.

Keywords: community building, collective spaces, high-rise housing estates, local initiatives, post-war Switzerland.

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1. Introduction

This paper is based on research carried out within a larger international research project³. The research was conducted in two high-rise estates in Switzerland built between the late 1950s and the 1970s – Telli in Aarau, and Tscharnergut in Bern. Although both housing complexes are recognised in architectural historical discourses as pioneering and important built legacies of the post-war construction boom in Switzerland (Huber and Uldry, 2009; Zeller, 1994), among the general public they suffer from a negative reputation (see chapter 2 on context). In Aarau and Bern the estates are often colloquially described by pejorative names such as “the dam walls”, “the rabbit hutches” or even “ghettos” (Althaus, 2018, p. 257; Bäschlin, 1998, p. 197). However, contrary to the widespread and stigmatising stereotypes that go along with these labels, residents generally emphasise the quality of life in the estates and identify highly with their neighbourhoods (cf. *ibid.*). This discrepancy between negative outside and positive inside views has also been documented for other large-scale estates of the post-war period (cf. Harnack and Stollmann, 2017; Furter & Schoeck, 2013; IBA, 2012). These positive internal perceptions are due to – as the analysis of interviews with residents suggests – both the people who take care of the various collective places and facilities on site (residents, caretakers, housing management); and the important role of community initiatives and community centres for collective issues.

This paper therefore takes a closer look at the community structures in these settings and discusses the questions: Which ideas and planning policies have influenced community building and the construction of community centres in the two estates? How are practices of community building applied by the community centres in these settings – and on which foundations are they based? And how does community building face the challenges and potentials regarding socio-demographic diversification of the neighbourhoods today?

The paper is structured as follows: After an outline of the research approach and methods applied, the two cases are introduced and contextualised within the wider history of large-scale housing estates from the post-war construction boom in Switzerland. The focus then shifts to policies and practices of community building in these settings with regards to the three questions mentioned above.

2. Research approach and methods

To engage in critical reflection on the role of community building in shaping housing estates across time, it is prudent to disentangle the community building objectives inscribed in initial social and physical arrangements from the ways in which actors cope with them in the present. For this purpose, we draw on an anthropology of policy (Shore et al., 2011), by considering policies as regulatory instruments that create or consolidate social, semantic and physical spaces on the one hand, and everyday practices on the other. Analysing policies and practices with regards to community building in the physical and social realm of a large-scale housing estate means looking closely at the ways in which architects, planners, owners and local authorities envision(ed) sociality and its material manifestation in collective spaces on site. In parallel it also requires consideration of the diverse practices of community workers and residents, who promote encounters and social and cultural activities in the neighbourhoods.

In order to capture these different perspectives, the study employs a qualitative, multi-method case study approach to examine each neighbourhood in a context-specific setting, while also assessing generalisations that extend across both neighbourhoods. We used document analysis of policy relevant papers, field observations, mapping and in-depth interviews with various local stakeholders, in order to include a wide range of perspectives and to obtain a rich and nuanced picture of the community structures. Data collection in the two case studies took place between October 2019 and September 2021. In this period, 60 qualitative interviews were conducted with a total of 69 participants, each of whom belongs to one of the following groups of actors who influence or participate in local community life on site: 1) local authorities, 2) property owners and property managers, 3) caretakers, 4) representatives of community centres, neighbourhood associations and local schools, and 5) residents. The sample

³ Funding details available at the end of the article.

of residents was selected to maximise the diversity of interviewees in terms of age, gender and country of origin. The interviews were based on interview guides. Furthermore, to include childrens' perspectives, a film project, letter campaign and photo documentation were carried out with the pupils of local schools. Data analysis largely followed the grounded theory approach, with the simultaneous collection and analysis of data (cf. Corbin & Strauss, 1990). At the time of writing, the research project is in the final phase of data analysis, wrapping up findings for publication. The project will be completed in October 2022.

3. Research context: post-war high-rise estates in Switzerland

In post-war Switzerland, large-scale housing complexes were constructed as a response to a severe lack of affordable housing in relation to the economic boom at the time. From the 1950s through to the oil crisis of 1973, the population of Switzerland grew by 1.3 million people (or 26 %) (BfS, 2014, p. 1), due to increased birth rates and labour migration, especially from Southern and South Eastern European countries. This rapid population growth led to housing shortages, especially in urban and suburban areas where there were more job opportunities, which in turn led to internal migration from rural areas. The quantitative increase of the construction boom was impressive: more than a quarter of the existing buildings in Switzerland were erected in the twenty years that fell between 1950 and 1970 (ibid.) – with increasingly dense and high-rise structures being produced from the mid-1960s until the early 1970s (Koch 1992, 197). Building processes were rationalised and industrialised prefabrication was widely applied, pushed forward by a strong belief in progress and technological innovation at the time. Concurrently, similar developments and the construction of large-scale housing estates were taking place in many other European countries in order to create affordable housing for working and low- to middle- income families (cf. Baldwin Hess et al. 2018). Unlike neighbouring countries, Switzerland was not affected by the destruction of World War II and cities and facilities remained intact. This meant that the new housing developments were primarily concentrated on land available in the outskirts and suburban areas. Due to the Swiss federalist political system, the housing constructions were not driven by overarching government-led policies but by local planning and often by private general contractors (Furter & Schoeck 2013, 11f). Between 1945 and 1974 incomes in Switzerland increased by 230% (Müller, Woitek 2012, 99) – a development which went along with the expansion of the welfare state and prosperity for broad sections of the population. This also led to an increase in living comfort. The newly built apartments in the large-scale housing estates provided modern living standards and were advertised as the ideal living space for the nuclear family and people with modern lifestyles (Althaus 2018, 101ff).

With the oil crisis of 1973 and the emerging critical voice of the ecological movement, however, public opinion changed. With the economic recession, 8% of all jobs in Switzerland were cut (Hitz et al. 1995, 52). Many migrant workers from southern and south eastern European countries – who had significantly contributed to the construction of the newly built environment and infrastructure – were sent back to their countries of origin and the population and cities did not grow as predicted. Large-scale housing construction came under fire as a symbol of the failed radicalism of the limitless belief in growth and was subsequently widely and effectively rejected. This rejection continues to affect the public perception and negative reputation of this built heritage up to today (Schnell 2013, p.194; Althaus 2018, p.111). In the 1980s and 1990s, the first construction defects of the buildings, which were often built in a short period of time with partly new building materials, started to become visible and the estates started to lose value. The marginalisation of the estates was partly underlined by the trend towards dwelling in city centres, and by a concentration of low-income migrants' households among the population (Althaus & Glaser, 2015, p. 246).

Tscharnergut, Bern

Tscharnergut, a 125,000 m² estate is located in the Western part of Bern, was constructed between 1958 and 1966, and was the first major housing complex in Bern and one of the first in Switzerland. It was built by a collective of seven architects led by Hans & Gret Reinhard. Today, the estate comprises 1182 flats and houses 2600 residents.

The decisive factor for the planning of Tscharnergut was an acute housing shortage, which led to a demand for political action to promote affordable housing on a plot of land in the outskirts, purchased by the city of Bern in 1949. For this, in 1955 the city of Bern leased the site to several non-profit housing companies. The owners consist of two housing cooperatives (FAMBAU, Baugenossenschaft Brünnen-Eichholz), a labour union (Stiftung UNIA) and the pension fund of the City of Bern. Furthermore, a row of low-rise buildings in the middle of the estate belongs to private homeowners. Private ownership was consciously incorporated in order to include higher income families in the estate. From the outset, the City of Bern has been responsible for the upkeep of the school, kindergarten and day-care centre in Tscharnergut along with the green outdoor spaces. The different property owners are tied together through a public company, the Tscharnergut Immobilien AG – TIAG, which is responsible for the construction, maintenance and renewal of all common buildings and facilities of the neighbourhood.

Tscharnergut's urban design is clearly structured with five high-rise buildings, eight slab-type houses and two rows of single-family houses. This mixed construction method, with the alternation of high and low, large and small buildings, was intended to prevent a "monotonous" appearance and, additionally, create large and clearly structured exterior spaces between the residential buildings. The team of architects behind the planning of Tscharnergut had a concept that was unusual in Bern at the time: a dense overall neighbourhood development with a strong social imprint and a community-promoting structure (Steiger, 1963, pp. 7–9). For this, a variety of facilities and collective spaces for playing, meeting, sports and leisure activities have been included in the estate, together also with a little shopping centre, a prominent neighbourhood square and a restaurant. The community centre which was planned with the estate, is the first of its kind in Switzerland and played a pioneering role for the formation of future community centres, not only in Bern but also other places in Switzerland, such as Telli in Aarau.

Figure 1. Aerial photo of the Tscharnergut estate 1:1000



Source: © swisstopo (BA19081)

Figure 2. Tscharnergut comprises a mixture of high-rise buildings and slab houses with large green areas in between



Source: © Architekturbibliothek Hochschule Luzern

Figure 3. Aerial photo of the Telli housing estate 1:1000



Source: © swisstopo (BA19081)

Figure 4. Telli consists of four extended high-rise blocks in green surroundings



Source: © AXA

Telli, Aarau

Five years after the completion of Tscharnergut, Telli, one of the largest housing estates in Switzerland, was built in the outskirts of the small town, Aarau. Construction took place in four stages between 1971 and 1991. Telli encompasses four extended high-rise blocks in a green area and is very prominent in the small town, which is characterised by an old city centre and mainly smaller buildings. Today, around 2000 people live in the 1258 flats, constituting around 10% of the city's entire population. Similar to Tscharnergut, the aim of the developers was not simply to build many affordable flats, but to create an "integrated neighbourhood" with diverse infrastructure and collective spaces, such as a shopping centre with a restaurant, playgrounds and sports fields, as well as a school, a kindergarten and childcare facilities. The construction of Telli's community centre was also already part of the architectural competition's criteria and the planning team visited existing community centres in Switzerland (such as those in Tscharnergut and Le Lignon in Geneva) (Althaus, 2018, p. 219).

Telli has a very complex ownership structure. Under the lead of the City of Aarau, initially four land owners organised an architectural competition and worked out a property owners' contract. The ownership diversified

after the general contractor Horta AG – who was one of the land owners and also the developer of the estate – went bankrupt after the oil crisis. The two middle blocks went into the possession of a pension fund of a large insurance company (AXA Winterthur). The first and the last block are owned by several institutional investors, but partially also by the municipality of Aarau (Ortsbürgergemeinde) and a housing cooperative for the elderly. More than a fifth of the flats in the blocks belong to private homeowners. The property owners' contract regulates the construction, management and maintenance of the common facilities. The owners are responsible for the outside spaces in their parcel of land. In 2006, the City council of Aarau initiated the property owners' forum "Mittlere Telli" in response to tensions that arose within a neighbourhood development programme. The purpose of the property owners' forum is to coordinate and negotiate the maintenance and renewal of the common infrastructure and to discuss overarching tasks and interests of the estate. The meetings of the forum take place twice a year and are chaired by the City Mayor of Aarau.

Socio-demographic diversity

Whereas, initially, mainly low to middle income, Swiss and Southern European families moved in the estates, over time the heterogeneous socio-demographic composition has continued to diversify (cf. Bäschlin 1998, 207f; Althaus 2018, 226ff). The current population is very international, a reflection of increasing global migration flows into Switzerland. Among the 2000 residents in Telli, there are fifty-five different nationalities, making up 32% of all residents (compared to the city of Aarau's average of 21%) (Stadt Aarau, 2021). In Tscharnergut, 42% of the 2600 residents do not have a Swiss passport, which is significantly higher than the city of Bern's average of 24% (Stadt Bern, 2021). Due largely to the occupancy policies, no concentration of a single national, regional or ethnic group can be observed. Furthermore, binational couples and families are widespread, which illustrates that the migrant populations do not exclusively live in separate groups according to their nationality.

Whereas initially the estates were in large part populated by families with children, both estates today have an above-average number of senior citizens, many of whom have lived there for many years. This is particularly striking in Tscharnergut, where nearly 38% of residents are 65 years or older, compared to Bern's average of 22% (Stadt Bern, 2018), in Telli nearly 29% of residents are over 65, compared to the average of 17% in Aarau (Stadt Aarau, 2021).

4. Policies and practices of community building and the role of community centres

From the beginning up to present day, collective structures and measures to implement community building are part of the estates' planning and development policies.

Planning policies

Both Telli and Tscharnergut's urban architecture is rooted in post-war neighbourhood planning ideas, most of those themselves stemming from visions conceived half a century previously. The central concept is the idea of being able to influence social interactions and community life among residents through the physical arrangement of the neighbourhood (Patricios, 2002). Especially influential in the urban planning discourse in the Swiss context of the 1950s and 1960s has been the concept of the structured and dispersed city ("gegliederte und aufgelockerte Stadt" – Göderitz, Rainer and Hoffmann, 1957) which – influenced not only by the modernist guiding principles disseminated by CIAM in the 1920s and 1930s but also by earlier ideas of the garden city and housing reformers – proposed a separation and ordering of functions, putting the emphasis on the creation of healthy neighbourhoods for housing (cf. Sulzer, 1989, p. 41 for Tscharnergut; Fuchs & Hanak, 1998, p. 131 for Telli). The structural form of large-scale housing estates has also been influenced by Le Corbusier's urban planning idea of the *Unité d'habitation* as a free-standing large-scale form for housing with integrated facilities and surrounded by green space (ibid.; Kraft, 2011, p. 52; Gysi et al. 1988, p.183). Both housing estates have been planned and built as

overall neighbourhood developments in the outskirts of the cities with large green spaces between the blocks and with not only the infrastructure needed for daily life but also with various community structures. The entire area of both housing estates is traffic-free and intersected only by pedestrian and bicycle paths.

Planning policies in both developments were based on the goal of building affordable housing for broad sections of the population from lower to middle income households. Over the years Telli expanded their target market to encompass also more expensive flats, whereas Tscharnergut focused on lower-priced flats. This is primarily due to the ownership structure: housing cooperatives and non-profit organisations dominate Tscharnergut, whereas Telli has a mixed, but mainly profit-oriented ownership. Both estates provide mainly rental homes but also allow for some homeownership. In Tscharnergut, about 70% of the flats are 3.5 rooms (two bedrooms), which were intended to be standard family flats. Compared to this, the architects in Telli aimed for a larger variety of sizes of flats to ensure a broad housing supply and social mix, with flats ranging from 1.5 (studio flat with kitchen) to 5.5 (four bedrooms) rooms.

When Tscharnergut and Telli were planned and built, the main emphasis was on the need to create housing for families with children (cf. Bäschlin 2004, p.35f; Althaus, 2018, p.221). This translates most visibly into space through provision of common outdoor facilities, including playgrounds, petting zoos, paddling pools, sport and picnic/ barbecue areas which can be found in both estates. Schools and kindergartens are located on site within a short walking distance from the flats, without the children having to cross any streets.

Community centres as integral part of neighbourhood planning

The initiative for the community centre in Tscharnergut, the first of its kind in Switzerland, came from the leading architects Gret and Hans Reinhard, who persuaded the responsible authorities and political decision-makers to support the project. The Reinhardts were an architect couple who from the 1950s until the 1970s had a decisive influence on the construction of large non-profit/ social housing estates in Bern. Inspired by existing examples in the Netherlands, Sweden and Finland, they were convinced that social/ mass housing with its severe restrictions on apartment size and construction costs had to be compulsorily supplemented with public and semi-public spaces – to balance out the narrowness of the individual apartments and promote community life in the neighbourhood (Bäschlin, 2004, p. 41). Therefore, when the city authorities approached the planners with the demand to use the land more intensively and increase the number of apartments and floors, the architects in return demanded that the city build a community centre. Their main argument for the community structures centred on the importance of creating spaces for leisure activities where people could meet and get to know each other. Ultimately, the architects' intention was to create acceptance and make it easier for the future population to live in such a large-scale structure – which was a complete novelty in Bern at that time. They were able to convince the city and municipality council (cities' executive and legislative) to finance this endeavour. When the city council of Bern (executive) approved and finalised the project, it took up the points by the Reinhardts and argued in particular with regards to the increased importance of providing structures for “meaningful leisure time” (ibid., 45). This can be understood within the post-war context, which also went along with transformations in the labour market (such as the introduction of shorter working hours and the five-day week in many areas) that led to more time for leisure.

In Telli, which was planned ten years later and based on Tscharnergut's experiences, the initiative came from the four initial property owners. In 1969 the municipal assembly (meetings in which all citizens decide on local political initiatives) agreed to change the zone plan accordingly in order to enable the construction. During the planning process, a group of five sponsors emerged to fund the community centre: two institutional land owners, the city and municipality of Aarau and the reformed and catholic churches. The parishes played an important role in the construction and financing of the community centre in Telli – as they consciously decided not to build new churches but rather join forces ecumenically and use a common and neutral location for social activities in the newly built heterogeneous neighbourhood (Besmer and Bischofberger 2012, 12).

In Telli, the developers referred more explicitly to possible or presumed negative outcomes of mass housing, which made community structures imperative in their view. At the construction ceremony of the community centre the

representative property owner and developer from Horta AG reinforced this attitude, stating: “According to experience, life in such large housing structures takes place in isolated anonymity and ends in loneliness. It is necessary to counteract this unsatisfactory state of affairs, to promote interpersonal relationships and contacts, to bring people of all generations together across religious, economic and political barriers, to bring them joy and to shape their leisure time in a meaningful and educational way. This is the objective for the creation of this community centre” (quoted from Besmer & Bischofberger, 2012, p.13). In short, a negative outcome of the newly built superstructures – especially with regards to anonymity and loneliness – was to be countered by the governance of community through recreational facilities (Althaus, 2018, p.413).

Both community centres offer rooms for communal use and have multi-purpose, leisure and meeting rooms, a disco and a café. Tscharnergut was planned with a crafts and wood workshop, a sports hall and a library, Telli with a communal kitchen and the Swiss version of a bowling hall (*Kegelbahn*). From the first days up to present day, the community centres have been led by professional community workers who are in charge of running the centres but also of building and strengthening neighbourhood networks. Community work in general is directed to create and strengthen social relations and empower individuals and groups of people to get involved, help each other or effect change in a neighbourhood (Kelly & Sewell, 1988).

From promoting meaningful leisure activities to enabling local initiatives

At the beginning of the last century sociologist Ferdinand Tönnies stated that “community”, in contrast to “society”, is characterised by social cohesion, and associated it with the rural life and interdependence of a pre-industrial village (Tönnies, 1912, p. 17). This concept is still influential today, as community is generally equated with social interconnectedness, solidarity, conviviality and knowledge of each other on a smaller scale (cf. Ciemiega, 2021). Community building policies in both estates have been based on these theoretically founded normative idea(l)s. To this effect, the community centre Tscharnergut was initially charged by the cities’ authorities to also take on an “educational” role, highlighting the importance of creating “meaningful” leisure activities. Giving space to mutual support among residents (e.g. for childcare), to handicrafts and repair workshops, to reading (library) and various further training opportunities (such as language courses), along with meetings of clubs and associations, was intended to counteract “questionable” behaviour (such as watching too much TV, which in the (early) 1960s was a novelty in many households) and to involve residents in “valuable” activities (Bäschlin, 2004, p. 45).

The Tscharnergut centre was built up and led for more than two decades by a pioneering manager who pursued a progressive approach of community work, which he himself had experienced in the Netherlands. This approach focused on supporting and empowering residents to actively implement their own concerns and projects. In this, for him the promotion of encounters and the creation of a good atmosphere were key, along with public relations work to counter negative images of the estate in a citywide context (cf. Uehlinger, 2011, p. 113). A collaborator of his remembers in the interview for this study: “He distinguished himself until his old age by his openness, he was very solution-oriented. Once in the 1970s for example there was a situation in which many older people complained about the noise from youth discos organised by youngsters in the community centre. He suggested that a part of the proceeds from the parties went towards discounted train tickets for Tscharnergut residents. The complaints then disappeared within a very short time” (Interview OW, 02.12.2020).

From the early years onwards, office help, social work trainees and many volunteers were included on the team to support and organise the manifold activities that emerged. Some of the Tscharnergut centre’s activities have been there for decades and continue to exist, with examples including the wood workshop (with open workplaces for a broad public and sheltered employment) or the café with meals for lunch. Other activities are project-based and change over time. In these regards, community work in Tscharnergut is still dedicated to the initial approach “to help people to help themselves” by encouraging and supporting local initiatives from residents. In 2020 for example, a project for neighbourhood help for older tamil people in Tscharnergut was been initiated by a resident. She states: “Older people often need support, especially the ones whose family members live in Sri Lanka or other countries. I was able to get this project off the ground thanks to the support of the community centre” (interview

NM, 15.03.2021). As the current director of the community centre states in the interview: “Participation and collaboration are key. People have to have the feeling that they have a say and are invited to do and move things. The most important thing is that residents perceive this as their centre in which they can realise their ideas – that’s why it is so changeable” (Interview OW, 02.12.2020). In addition to the freedom of agency and the joy of experimentation, this requires flexibility, openness, social skills and the acceptance that not every project will succeed or be long term. What is offered is always highly dependent on the demand as well as the emergence of local initiatives and the commitment of individual people.

The educational approach has, also from the point of view of the cities’ authorities, increasingly shifted to an enabling approach by putting accessibility and participation at the top of the list. A city representative states: “One of our legislative goals is to be a city of participation and to consistently promote citizens’ participation in public spaces as well as request it in urban planning and site developments. (...) Community organisations such as in Tscharnergut play a crucial role in these regards also because they are used to work with this approach for decades and have a strong local networking effect between very different people and stakeholders” (from focus group with representatives from social planning and housing administration of Bern, 19.03.2021).

Figure 5. Petting zoo in Tscharnergut, an example of the variety of collective spaces integrated into the housing estates



Source: © Archiv Quartierzentrum Tscharnergut

Figure 6. Original drawings of Telli show how the architects envisioned people in the housing estate



Source: © Marti & Kast Architekten und Planer, gta Archiv, ETH Zürich.

Promoting participation and working with volunteers

The community centre in the Telli estate was conceptualised in a similar fashion to the one in Tscharnergut. As in Tscharnergut, the community centre Telli is dedicated to community work, coordinating and organising, with the help of voluntary residents, a neighbourhood help network; leisure activities; as well as markets and events on site. Furthermore, the community centre runs a recreational meeting and leisure place for children, operates the mini-golf course, holds regular meeting events and organises a home meal service for older residents.

As in Tscharnergut, the majority of projects are volunteer based. Community building activities depend on residents who use and participate in them, or who set up and organise activities in their spare time. Finding volunteers however is challenging; in interviews, old residents recall that housewives played a crucial role in establishing community life and performing voluntary work in the early years of the estates. Women today tend to be engaged and busy in paid employment and in household and family duties, have less time for volunteering. Community work also has to adapt to the fact that few people today want to commit to long-term engagements and instead welcome short and flexible volunteer assignments. “The responses to many calls for participation for which one has to commit, are very small. Reliability is a big issue. Many want to participate but then don’t have the stamina” (Interview HT, responsible for neighbourhood association Telli, 19.07.2021). Nonetheless, the community building activities continue to work mainly on a volunteer basis and currently still find people for longer-term commitments – many of whom are retired. The community centre in Telli, for example, currently relies on a pool of about 50 volunteers (Interview AF, director community centre Telli, 17.03.21). An older resident who moved to Telli with her partner two years ago reports: “If you are new, there are many ways and it is easy to get involved through the community centre. You can participate, but you don’t have to. They are always happy to have volunteers. I am active in delivering meals for the home meal service and through that I’ve got to know so many people in the neighbourhood” (Interview AS 07.05.20). Similar positive attitudes can be observed in the

interviews with residents in both estates. For some, the community structures are more important, which is especially the case for older people and families, which are also the main target groups of the centres (see chapter 4). For others however – especially for working persons without children and for younger adults – the community centres are often quite far away from their everyday realities and many of them never or hardly ever visit them. Neither in Telli nor in Tscharnergut did anyone question their *raison d'être* during the interviews.

Figure 7. The community centre in Tscharnergut has been key in promoting social encounters since the very beginning



Source: © Archive QZ Tscharnergut

Figure 8. The open bookcase installed by the community centre in Telli offers titles in many different languages and is a gathering place in the neighbourhood



Source: © Gemeinschaftszentrum Telli

Importance of professional structures and financial models

The type and intensity of community work depends not only on the institutional mandate, but also on the professional background and scope of the responsible director of the community centre. Management has changed in Telli five times since its opening in 1974, whereas there has only been one change in Tscharnergut since the early 1960s. Community work and participation was a leading working principle for the first director in Telli (in the 1970s) and the two most recent directors (since the mid-2000s). In the interim period there was a time when the community centre solely focused on the management and renting out of the rooms and communal spaces (Besmer & Bischofberger, 2012, p. 40). In both estates, leadership of the community centres comes with a powerful position in the social interrelations of the neighbourhood. The directors, as key figures, play an important role in linking networks and people – and by doing so also get things moving (or not). A change in this position is therefore always a critical moment as it is highly dependent on the personality, awareness and leadership practices applied. No less important are the staff members, who are key to laterally influencing the functioning of the centres.

To make the operation of a community centre successful, financing needs to be assured on a longer-term basis. Both community centres are (since the beginning) partly financed by the two cities (in Telli also by the Reformed and Catholic Churches) within the framework of multi-year service contracts which guarantee employees' salaries. However, this funding is not enough for the operation of the centres and is not set in stone. The community centres must also regularly demonstrate their performance and, in case of political change, are at risk of being affected by public austerity measures. Therefore, independent income from room rentals and the above-mentioned activities are also crucial sources of funding. In Tscharnergut, a central achievement was the “tenant franc”, introduced with the first occupancy of tenants, where one franc of the monthly rent from each flat went directly to the community centre via the property management companies. This contribution still remains, although it has risen to 5 francs per household per month. In return, residents can rent rooms in the centre for half the standard price.

Importance of relations with property owners

The community centres are not directly funded by the property owners of the estates and therefore also don't have a mandate from them. However, in order to be able to maintain community structures in the long term, it is essential that community organisations and property owners' representatives talk to and respect each other. The directors of both community centres are in regular contact with the property owners' associations and advocate for social and community-related issues of the estates: in Telli as a participant member of the property owners' forum meetings, in Tscharnergut in informal meetings but also for an annual walk through the estate, organised by the property owners' company TIAG. In both cases, participants provide information and discuss necessary measures for the maintenance and renewal of the common infrastructure and buildings. As the director of the Tscharnergut community centre explains: “It took many years of relationship work before we were invited and allowed to have our say. Good contact with the owners is crucial, because that way we can also inform them about planned events and projects and ask for support for collective concerns where it is needed (...) they are usually generous and uncomplicated. Especially in the last year, when we had major financial shortfalls due to Covid 19, TIAG approached us on their own initiative and accommodated us financially” (Interview OW, 02.12.2020). In Tscharnergut, the situation is facilitated by the fact that the owners are non-profit oriented building societies and share similar values. The head of TIAG states: “When people have new ideas or wishes for the estate, they usually go to the community centre. Once a month, I meet with the centre's director for lunch and then take up such points. Community work also tackles social problems as far as it can and is allowed to. This also helps us” (Interview PA, 20.04.20). If this key figure were to have short-term profit for shareholders as its main goal and lacked understanding for social issues or failed to facilitate communications between the social and real estate sides, the situation for the community structures in the estate would probably be very difficult.

5. Potentials and challenges of community building in diverse neighbourhoods

As immigration has increased into Switzerland, long-term residents have aged and lifestyles have diversified. This means that community building, as it was conceptualised initially, is faced with new opportunities and challenges. In today's postmodern society, community building has to take into consideration the fluid and porous nature of group membership (Delanty, 2018) and hence also recognise that communities rarely exist as singular entities but are interwoven or intersecting and are characterised by different kinds of relations at the same time, be they lifestyle or interest-based, grounded in particular places, diasporic, activist or other (James, 2006; James et al., 2012).

The interview analysis reveals that the estates' key community actors mainly consider migration-related diversity an enrichment and in interviews most residents also highlight the horizon-expanding qualities of living among people from a variety of different backgrounds. To some extent, the "multiculturality" is part of the self-image of the residents and is often highlighted as a positive distinguishing feature of the housing estate. However, especially among some older long-term residents who for many years were not used to having neighbours from completely other cultural backgrounds, prejudices, especially against people with other phenotypes or who originate from the global South, prevail. This, however can't be generalised for the whole age group, as interview material reveals that many older residents also have open attitudes towards migration-related diversity.

Community building within recognition struggles of post-migrant neighbourhoods

Community building measures in these settings therefore always take place in social networks in which there are tensions that must be dealt with, as some actors show openness to diversity and people with migration biographies – and others reject these values, often also incited by right-wing populist political currents in society (in contradiction to internationally oriented currents).

These tensions can also be seen as part of local recognition struggles in a "post-migrant" neighbourhood. The concept of "post-migrant societies" has been widely discussed in new critical migration research and refers to a situation after migration, not only for the migrants themselves, but also for the negotiation process in society. This not only comes with claims for participation and equal rights for migrants, but also with acknowledging migration as a reality in which people with migration biographies constitute part of society and the public sphere (see e.g. Foroutan, 2019; Yildiz, 2015). With regards to post-migrant neighbourhoods of post-war large-scale housing estates, these public spheres manifest themselves in very different ways, whether by emphasising, producing or problematising differences, or by bridging them and acknowledging inclusion and commonality within or despite of diversity (Althaus, 2018, p. 414).

In both of the two high-rise estates, the community centres partly address the migration-related diversity of the population with the aim to either support self-organised migrant networks or to overcome stereotypes and bring people from different backgrounds closer together. For example, for several years the community centre at Telli organised "tandems" in which newcomers were welcomed in their mother tongue by long-time residents. Furthermore, community work advocated for equal representation of migrants in the neighbourhood association and has played a decisive role in changing the annual neighbourhood festival from a "traditional Swiss" programme into an event that celebrates diversity. Both community centres also rent out their rooms to migrants or diverse groups and support cultural initiatives. In Tscharnergut, the community centre has been involved in a number of overarching integration projects in the larger district and just last year decided to offer rooms to a young activist group that is advocating for the rights and inclusion of migrants with no legal residence status in Bern.

Celebrating diversity with essentialist views of "other cultures"

In most community building measures migration-related diversity is addressed regarding the idea of giving space and representation opportunities to "different cultural groups". As an example, the head of the neighbourhood association Telli who co-organises the cultural festival in Telli explains: "What really works well at the festival are the market stalls of the cultures, where groups of the same cultural background make and sell their food –

Tamil, Thai, Vietnamese, Ecuadorian, Bolivian, Mexican, Kurdish, etc. The groups like to come and it's a great atmosphere. But there are some Swiss people who grumble and say 'I just want my French fries – why don't you have these?'. I then tell them that they should try something different. Some do it and others complain or insult us. But we have been resistant to this narrow-minded criticism for years" (Interview HT, 19.07.2021). In this example, community building measures that open up for "other cultures" do so in confrontation with people in the neighbourhoods who reject cultural diversity. However, the community workers often don't question that by celebrating the peculiarities of a supposed "original culture" for consumption, they also view these cultures in an essentialist and one-sided way.

This view is in part also supported by the demands of migrants' groups regarding the use and rental of rooms of the community structures, as this interview excerpt of a responsible from the community centre Tscharnergut illustrates: "The cultural groups come to our centre in waves. At the moment Tamil groups are often here, preparing for their new years' festivities in February. And at the moment there is also a group of young Eritrean men who meet daily at the centre. For a while we had a Turkish group who wanted their own room to celebrate their traditions, but after a while they have disbanded due to low demand" (Interview BS, 02.12.2020).

Interviews and projects with children from the neighbourhoods' schools reveal that for younger people and children that grow up in the housing estates, migration-specific diversity is a social reality, towards which they have a very light-hearted approach. The film project, in which we accompanied a school class of 10 to 12-year olds once a week for 2,5 months, exploring their neighbourhood from different angles, shows that migration-related diversity is also the norm within many family structures – a norm that the kids do not problematise and in which they also stand confidently⁴. In conversations most children highlighted that they are aware of and appreciate the migration-related diversity in their neighbourhood but that they would not like to be addressed in particular with regards to their or their parents' origins but rather just as what they are, kids like all others. In these regards, their narratives are far away from the essentialist attributions described above.

Adapting to needs and socio-demographic changes

According to their mandate, community work in both estates is required to create socio-cultural programmes that appeal to as many residents as possible. In both community centres, most activities are either aimed at broad sections of the population regardless of a person's origin or they are aimed at specific target groups. Two groups – families with children and older people – stand out in particular, since people in both of these life phases tend to spend quite a lot of time in their living environment and can benefit from supportive neighbourhood networks. The prioritisation of activities of the community centres for these groups has, however, also adapted to socio-demographic changes over time.

In the early 1960s, housing in Tscharnergut was primarily offered to families with children. When the children became teenagers, a number of recreational activities and meeting places for young people were introduced (Bäschlin, 2004). While most of the children from these initial families left the estate many years ago, their parents have largely remained. This demographic ageing – with two out of five residents being over 65 years old – is also reflected in the community centre's current activities, with a strong focus on older people with events such as "senior dance" and card game evenings. Various activities for families are often project-based or on an annually recurring basis. In Telli, which over the years has undergone a greater fluctuation of residents (Althaus 2018, p.226), population ageing can also be observed, albeit on a less pronounced scale. Apart from various programmes for the elderly, the Telli community centre has therefore a stronger focus on families, supporting foreign-speaking and working parents with activities such as running a children's club in the afternoons, pre-school childcare, and introducing toddlers to German language and Swiss German dialect through play.

In both estates, community work over the years has adapted – and is constantly adapting – to people's changing needs in the neighbourhoods. The importance and effects of this flexibility and openness to change can also be observed in the current Covid-19 pandemic, in which cultural activities and direct (physical) social encounters in

⁴ See <https://vimeo.com/534774760>.

public have been impeded for months. Between March 2020 and May 2021 both community centres had to partially close (and twice completely), which resulted in a sharp decline in the number of visitors and income. Thanks to the existing service contracts, the employees did not lose their jobs.

At the same time, initiatives of mutual support among neighbours emerged during the crisis. In Telli and Tscharnergut, the already existing longstanding neighbourhood networks and especially the activities of community work have turned out to be key in organising and coordinating neighbourhood help during the pandemic lockdowns, and have provided shopping assistance and home meal delivery services by younger adults for older residents. The trust that has been built up over many years, and the fact that there is a reliable contact point in the neighbourhood with key people who residents know personally, was decisive in ensuring that this offer was also actively used by many older adults. The Tscharnergut's coordination hub for neighbourhood help has also been profiled in newspapers as exemplary, especially because of its accessibility for risk groups who are not digitally savvy, providing the option of analogue access to help via a phone number and on-site presence (e.g. Streit, 2020).

Figure 9. Neighbourhood party 2019, one of many events initiated by the community centre



Source: © QZ Tscharnergut

Figure 10. Annual market day in Telli organised by the community centre



Source: © GZ Telli

6. Conclusion

From the beginning up to the present, community building measures and facilities are part of the planning and development policies of the two housing complexes, evidenced by the community centres and the fact that community workers have been employed since the occupation of the first flats. Both community centres have been pioneers in their urban contexts. They owe their existence to their mandate to counter possible or presumed risks of anonymity, isolation and social problems of mass housing with the creation of lively neighbourhoods. Community building therefore also grew up with specific values and norms, which continue to exist today, equating community with social cohesion, interconnectedness and solidarity. This understanding was also based on conceptualisations, broadly accepted in urban planning and sociology at the time, that new large-scale urban structures had to be designed as neighbourhoods with community structures.

Community building in Tscharnergut and Telli was initially propagated through a top-down approach by planners and authorities. However, the community centres do not operate solely from a top-down approach, as in both cases the guiding principles of community work is based on the idea of empowerment, encouraging and including residents for bottom-up participation. Therefore, in practice, community building measures at the centres work in a double-loop way, alternating top-down and bottom-up moments. Top-down with regards to offers and services they provide to the neighbourhoods and bottom-up with regards to encouraging and letting people realise their own ideas and projects. The intention of this approach has always been to let a lively neighbourhood life evolve and to provide attractive options for leisure and conviviality, initially with an educational, and subsequently with a more enabling approach.

Learning to deal with diversity

A main driver of community work has always been to establish relations and enable people to get to know and help each other. This has been challenged with growing diversity and socio-demographic changes. Moving away from the idea of a community as a singular unity and acknowledging the dynamic, fluid or porous character of a multitude of local coexisting, overlapping and interconnected communities or sociospheres, would require the community centres to learn and adapt their programmes and services accordingly.

In practice, the community centres often are not at this point, yet. With regards to migration-related diversity it can be observed that the approaches of community work often highlight the “multicultural” character of the neighbourhoods and implicitly go along with essentialist understandings of “other cultures” (e.g. by focusing on the gastronomic delicacies or specific dances of these “other cultures”). As such, they are aimed less at the transcultural experiences and practices of people with migration biographies in the estates but rather contribute to (re-)producing and reinforcing cultural differences. In our view, community work could greatly profit from moving beyond such essentialist cultural ideas, and fully acknowledging the complexity of post-migrant realities and the diversity within migrant communities. The practices of community work, however, can also be understood within the broader framework of tensions that go along with struggles for acknowledgment in post-migrant societies, standing up against voices and populist movements who reject migration-related diversity in general. At the same time, it is also crucial that community building is aware of social inequalities and the importance of language and language-barriers by making access as low-threshold and simple as possible.

Different and similar experiences

In comparing Tscharnergut und Telli, it becomes clear that not all experiences of Swiss post-war large-scale housing estates are the same. It becomes evident, for instance, that the housing and ownership mix influences community building. Tscharnergut has a high proportion of long-term residents and an ageing population, due to the high volume of 3.5 room flats and very low rent, while Telli has a more diverse resident population in terms of income structure, including home ownership, as well as a larger generational mix with the availability of more large flats. Community work in both cases is adapting to these socio-demographic realities. For example, by

moving from a main focus on children and young people to older adults in Tscharnergut, or by supporting foreign-speaking families and including older people in various projects in Telli.

Importance of key persons and material conditions

The presence and personality of community workers are crucial establishing trust and motivating volunteers to get involved, making it attractive to them by creating light-hearted and positive experiences. Especially in contexts in which network-building can be demanding, this requires people that have the social skills, dedication and solution-oriented thinking to establish relations, and to moderate in case of difficulties or conflicts. Key people are needed who take on a position of advocacy for the estates in a citywide context (towards authorities and in public relations), but also to take a position for social and community issues *vis-à-vis* the property owners, emphasising the importance of maintenance and care of the shared and community spaces.

Community building in this sense requires not only the material and financial conditions to strive and collective spaces and facilities, but also professional structures such as community centres with secure and broadly-based financing, ideally combining public service contracts from cities with user generated income in order to assure a long-term success. In times of austerity policies, social and community related issues are vulnerable to cost-cutting measures. The community centres in both estates have not suffered from any public financial cuts (yet) and also thanks to the support of their sponsorships survived the financial losses resulting from the closures during the Covid-19 crisis. This supportive attitude depends on door-opening people in power positions, too. With political changes and changes of positions, circumstances might also change in future.

Today, city authorities and property owners in Telli and Tscharnergut recognise that the long-term commitment of the community centres creates considerable added value to the neighbourhoods and the properties. In interviews they point out the community centres' importance especially with regard to challenges of the neighbourhoods resulting from demographic ageing and the migration-related diversity – and the potential that lies in the participatory approaches of community building (which they also more and more value or start to include in their agendas). As long as this support is there, community centres work and will continue to do so. By acknowledging/ learning to deal with and/ or “normalising” diversity, they can contribute to making neighbourhoods more inclusive, without (too much) social control and constrictions.

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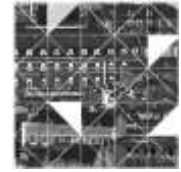
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CIDADES, Comunidades e Territórios



The tool of planning agreements: Milan at the core of an underexplored reading of the post-war Italian cities between the public and private sectors

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Abstract

The canonical planning and historiographical perspectives concerning the Italian cities in the second post-war period describe their complex modernization and expansion process mainly due to linear sequences of planning acts and policies. The public housing estates, their models, strategies, and agents are the consolidated interpretative categories to address the Italian boom.

The paper aims to question this understanding of the role played by the public powers facing the planning agreements as underexplored tools of Italian planning. Their original interpretation in connection with the post-war Italian planning legislation and the tools of the City and Detailed Plans opens to a nuanced history in the relationship between the public and private sectors, and the practices in the central and expansion areas of the post-war cities.

In the Italian legislative context, planning agreements are long-standing arrangements between the public administration and public or private actors, aiming at organizing and disciplining expertise and goods for planning purposes. Mainly interpreted as technical measures to overcome the City Plans constraints in the expansion areas, they rather reflect a stratified experience of punctual negotiation throughout the city, offering a privileged lens to observe tools and practices, professional and administrative networks, demands for social emancipation and renewal of planning processes, at the centre of a complex system of actors, habits, disciplinary and critical positions, leading to a reinterpretation of cultural and professional backgrounds and of social and negotiation processes, which is crucial for a complex reading of the post-war Italian cities.

In the second post-war period, the city of Milan offers a significant framework to observe the use and critical understanding of this tool, being at the core of the disciplinary debate and professional expectations of the 1950s and 60s. The meaningful case study of Piazza della Repubblica tower, one of the best-known post-war projects by the architect Giovanni Muzio, is provided.

Keywords: Planning agreements, negotiation, Italy, Milan, Muzio.

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Questioning the canonical perspectives on the post-war Italian cities

The canonical planning and historiographical perspectives concerning the Italian cities in the second post-war period describe their complex and layered process of modernization, growth, and expansion mainly as the result of linear series of planning acts and policies. Consolidated interpretative accounts include a city planning reading through the sequence of City Plans (Oliva, 2022; Morandi, 2007), as well as an urban history centred on the notion of the public city (Infussi, 2011); the public housing estates – and the leading national programmes they have been generated by – are the main objects of the historiography (Di Biagi, 2001; Irace, 2008), together with iconic private interventions linked with experimental solutions and outstanding clients which are widely described but not as extensively diffused.

The article aims at questioning this understanding of the role played by the public powers, discussing their relationship with the private actors in the articulation of the urban landscape. The reading of the administrative documents of planning agreements through the methodological lens of micro-history calls for a reconsideration of the prominent role of state and municipal entities and of the central planning legislation (Revel, 1989). It opens to an interpretation of the architectural and planning history of post-war Italian cities that is neither linear nor merely technical; it unveils a nuanced relationship between public and private sectors, originating a variety and stratification of urban objects, resulting from a plurality of policies and cultural, disciplinary, administrative, and professional positions that produced a significant part of the post-war built stock, overlooked mainly as a product of low-quality and quantitatively oriented private estate processes in the peripheries (Caramellino & De Togni, 2022).

Planning agreements: a profile of the tool

In the Italian legislative context, planning agreements are long-standing arrangements between the public administration and public or private actors, aiming at organizing and disciplining expertise and goods for planning purposes, through which the involved operators define the mutual obligations.

Used since the end of the nineteenth century, these agreements remained confusing tools until the amendments introduced in 1967 by the integration (Law n.765/1967) to the national Planning Law of 1942, which formally legitimised their existence for the first time.

Their use until then had been discussed mainly from the point of view of jurisprudence and administrative law: several bibliographical sources (D'Elia, 1968; Mazzarelli, 1975, 1976, 1979; Marocco & Picco, 1978; Centofanti, Centofanti, & Favagrossa, 2012) testify to the clear pre-eminence of an analytical and critical approach giving rise to a debate centred on the definition of the authoritative or consensual nature and the implementation possibilities of the instrument rather than on its role in the construction of the city, intending to trace its profile and application boundaries in the absence of a precise definition from the legislative point of view.

The legislative and planning discussion on the subject has always seen the defence of private initiative and the protection of public interests in confrontation, centring on the issue of the legitimacy of recurring to private legal acts for purposes of public relevance. In fact, agreements were often contracts based on the civil law principle of the exchange of services, in some cases leading to direct gains for the private parties even though they were based on the public importance of the operations: until the end of the 19th century – when there was not a clear separation between public and private law sectors in the administrative activities yet – no problems of legitimacy emerged; in the first fifteen years of the 20th century, in the context of a policy of greater control over speculation, the regulatory and programmatic aspects were accentuated, and the explicit reference to the relationship with the City Plan became widespread; between 1915 and the 1930s, in a phase of rapid and disorderly urbanization and of a strong need for private intervention by the public sector, the direct link between conventions and regulatory plans,

which in the meantime had increased their programmatic content, often disappeared (Mazzarelli, 1975, 1976, 1979; Erba, 1978).

With the Planning Law 1150/1942 – the first effective national regulation of the sector – the role of private parties in the implementation of planning tools was finally regulated. Still, it was only with the amendments introduced by the Law 765/1967 that we began to speak explicitly of planning agreements including them in the public discipline of building and planning activities: they are framed as the required tool for municipalities to issue building authorizations in the absence of a Detailed Plan, for allotment and building proposals in conformity with the provisions of the City Plan. With the legislative reforms that followed from the 1960s onwards, the doctrine and jurisprudence of agreements became more easily framed among the urban planning instruments, with allotment and public housing agreements.

In the 1950s and 1960s, during the period of reconstruction, at first, followed by further building and economic boom, the widespread recourse to agreements in place of the Detailed Plans – which were the regular tools foreseen by the General City Plan to define its implementation details, area by area – had particularly significant effects, albeit with different outcomes, on the development and expansion of Italian cities. Agreements broke in the urban planning debate, being increasingly interpreted as a tool of speculation and alteration of planning policies by private actors (Boatti, 1986; Canevari, 1986; Campos Venuti, 1986a, 1986b; Campos Venuti & Oliva, 1993) to overcome the complexity of the procedures and the limits foreseen in the post-war City Plans. The relationship between agreements and City Plans was questioned, in the framework of a functional approach to the spatial disciplines based on the faith in a linear and continuous growth of the city, particularly concerning the construction of the expansion areas.

More recent research initiatives, deepening the historiographical analysis and addressing a significant number of planning agreements' documents (De Togni, 2015) while considering the impact of negotiation processes on the built city (Zanfi, 2013), investigate instead how planning agreements reflect a stratified experience of punctual negotiation, offering a privileged lens to observe tools and practices, professional and administrative networks, demands for social emancipation and renewal of planning processes, at the centre of a complex system of actors, habits, disciplinary and critical positions. They often facilitated the implementation of the City Plans through direct and friendly execution, defining building density constraints, distances, green areas, welfare infrastructures, and services before the introduction of standards. From the perspective of micro-history, they question the more immediate and intuitive notions linked to a linear reading of the planning process, which are not necessarily appropriate to describe the complexity of the urban landscape structuring.

Precisely because they have long been instruments that were not clearly framed by legislation, they offer an interesting insight into the economic and political power relations between the public and the private sector and the interweaving of entrepreneurial strategies, design cultures, and regulation, administrative and bureaucratic organization. They can lead to a reinterpretation of cultural and professional backgrounds and social and negotiation processes, which is crucial for a complex reading of the post-war Italian cities.

Milan: the economic capital of Italy at the core of the post-war debate on planning agreements

The post-World War II period in Italy was characterized by an intense debate on the objectives, limits, and tools of architecture and planning, which shaped the reconstruction and expansion of cities and influenced their representation and perception. The building sector and the land market became crucial in the national development (Bianchetti, 1993; Piccinato, 2010), confronted with unprecedented quantities and rhythms, and at the same time intercepting the aspirations of the professionals in the sector for a quality reconstruction and a renewal of the discipline in a modern sense (Rogers, 1946; Mioni, Negri & Zaninelli, 1994; Zucconi, 1998).

Milan was in that period the fastest growing real estate market in Italy, thanks to a strong demand linked to internal migration towards the country's economic capital. In particular, a middle class of office workers and professionals

emerged, attracted by the strengthening of the commercial, financial, and management pole, calling for renewed forms and typologies to respond to a precise demand for quality and services, which codified a series of housing models that would influence the following decades (Petrillo, 1992; Irace, 1996; Lanzani, 1996; Foot, 2001; Zanfi, 2013).

From the end of the War, Milan also embodied the great expectations associated with the first implementation in a large city of the new 1942 Planning Law, which defined the instrument of the General City Plan and made it compulsory throughout the country. The Milanese General City Plan of 1953 was the main occasion for the discussion of the new planning tools (Barbiano di Belgiojoso, 1955; Bottoni, 1955, 1956; Edallo, 1955, 1956; Albini et al, 1956; Astengo, 1956; Piccinato, 1956). Over two decades, the broad historical-critical debate on its genesis and consequences constituted the origin of a historiographic position that over time has reduced the significance and relevance of planning agreements to a simple instrument of speculation and disruption of planning policies, in “an entirely private plan conceived according to the needs of the real estate regime” (Boatti, 1986, p. 43), giving rise to and consolidating a vision of the city as an exemplary case of the failure of modern planning ideals and the triumph of speculation (Tintori, 1958; Vercelloni, 1961; Portoghesi & Vercelloni, 1969; Vercelloni, 1969; Graziosi & Viganò, 1970; Patetta, 1973; Tortoreto, 1977; Zucconi, 1993) without adequately verifying the actual conditions of application in the period under study and the real consequences. By relating the main findings in the literature with the disciplinary and regulatory context in which they were produced, the influence of the post-war features of agreements emerges on evaluations that are then extended to other periods and regulatory contexts: we can, for example, see how the critical position linked to the preliminary agreements introduced by the Law 765/1967 and its widespread use as a means of negotiation in the private implementation of the following decade influenced the consideration of the instrument as a whole (De Togni, 2017).

For these reasons of political and disciplinary relevance, Milan has thus become the main case study for the planning literature focusing on the use of planning agreements in the development of post-war Italian cities (Balducci, 1984; Oliva, 2002; Gaeta, 2007; Zanfi, 2013). The main contributions interweave the theme with broader issues relating to the limits and potential of the urban planning discipline and the criticality of the professional world, and mainly deal with the topic in relation to the expansion of the city, inside and outside the municipal boundaries. A reading of the agreements insisting on the historic central area of Milan (De Togni, 2014) question a disciplinary focus that has so far given relevance to agreements mainly as instruments for the construction of the peripheral city, suggesting at the same time a use of the source as a key to reading architectural and urban projects that can be extended to the “ordinary landscape” (Caramellino & Sotgia, 2014; Caramellino & De Pieri, 2015) of Italian cities. Observing the city through this source allows for close observation of the forms of construction of the urban landscape, particularly concerning the intertwining of entrepreneurial strategies, design cultures, the residential desires and imaginaries of emerging social classes, and administrative and bureaucratic regulation and organization.

Four years of negotiation: the micro-history of Piazza della Repubblica tower

This paragraph reconstructs the negotiation concerning the construction of the Piazza della Repubblica tower² in Milan, a mixed residential and office building for the upper-middle class in the centre of the city and one of the best-known post-war projects by the architect Giovanni Muzio.

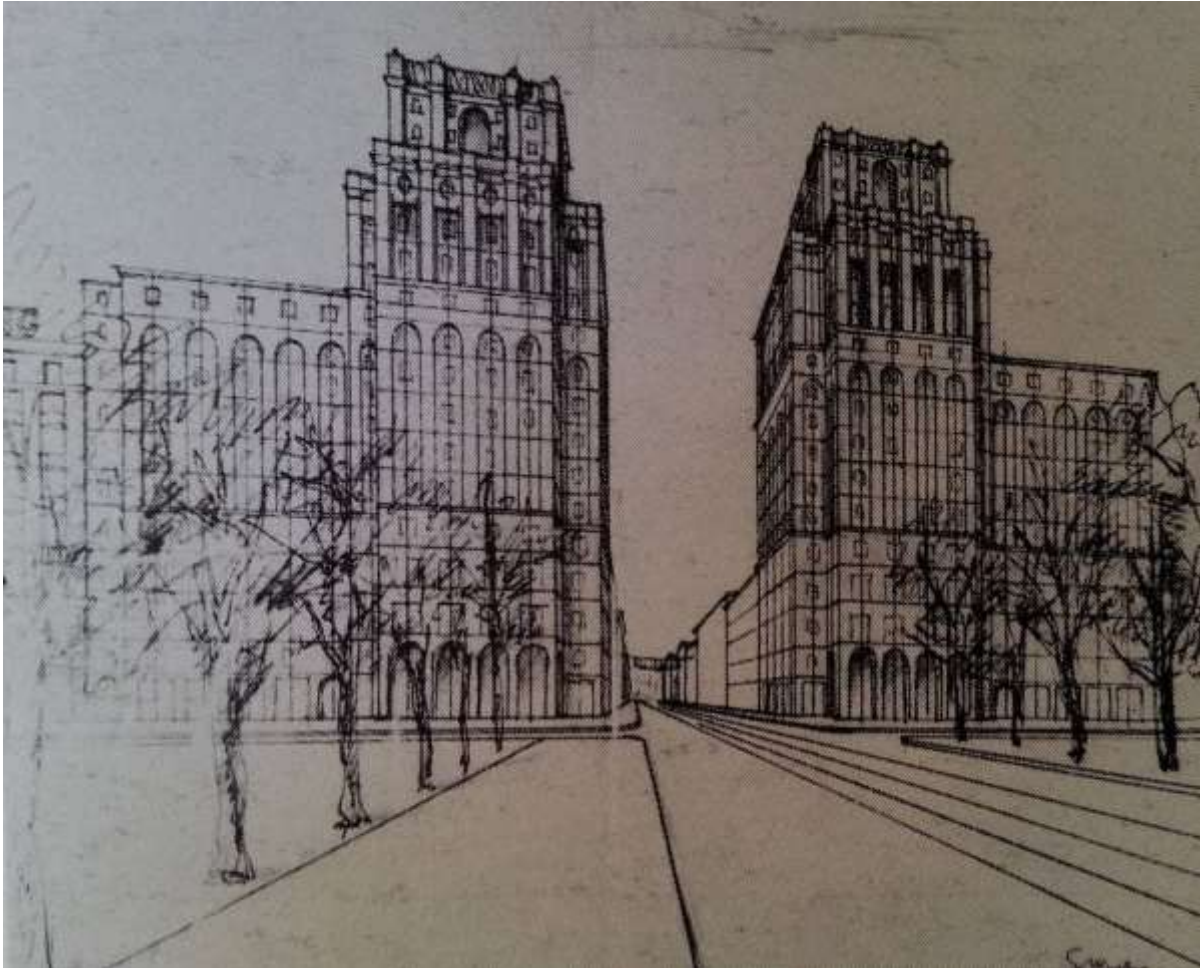
This micro-analytical reading aims to highlight possible links between planning agreements as sources, the processes they describe and neglected horizons in the political and institutional history of planning, applying some methodologies typical of micro-history (Lombardini, Raggio & Torre, 1986).

The case study area is the object of a Detailed Plan, implementing the general City Plan of 1953. The project envisaged a symmetrical arrangement of the headers of Via Turati on Piazza della Repubblica, through the

² The documentation on this case can be found in Comune di Milano, Archivio del Servizio Gestione Pianificazione Generale e Organizzazione Dati Urbani, folder number 14391.

construction of two similar tower blocks, consistent with a preliminary idea of Giovanni Muzio, who in 1924 had already proposed a solution with two identical symmetrical towers for the opening of the street towards the square (Figure 1).

Figure 1. Giovanni Muzio, Studio per i due grattacieli di piazzale Fiume, 1924



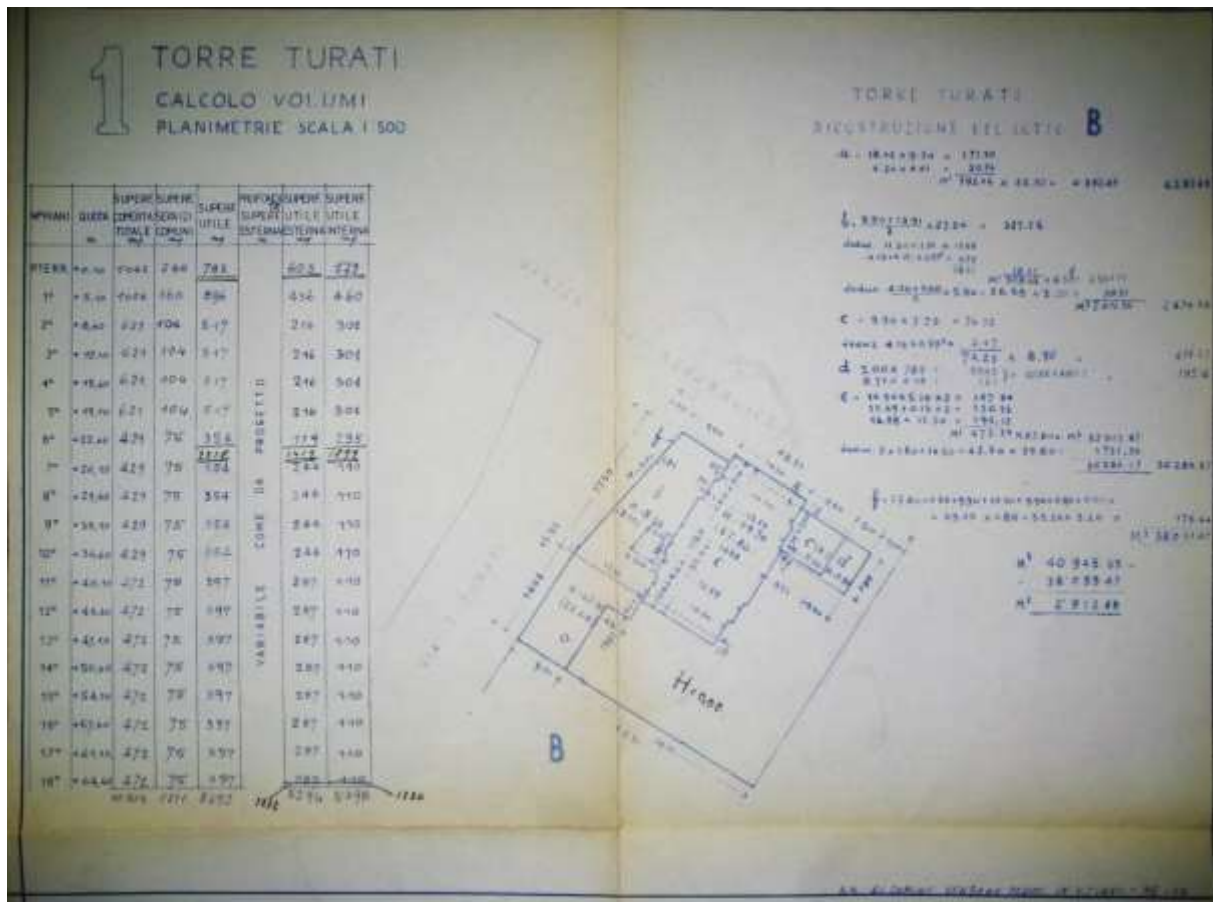
Source: Irace, 1994, p. 184.

The first detailed project by Studio Muzio and the developer Reale Compagnia Italiana S.p.a. was presented in 1963. It became the subject of lengthy negotiations with the public administration that continued until 1967. The project did not respect the symmetry with the west header (the skyscraper built by Società Albergo Parco in Via Turati 29, already completed), nor the general layout indications despite its adaptability, nor the maximum height set at 60.80 metres.

While the change in plan and volume is not considered substantial, an assessment of the volumetric balance established for the two ends is necessary – exceeding the maximum height being difficult to accept. The proposal then further derogates from the Detailed Plan provisions by reducing the length of the internal body and forming a simple body along the whole southwest boundary. Still, these variations are considered secondary to the problem of excess volume, highlighting the fact that typological issues were not at the centre of the normative interests of the administration.

When the company was asked to revise the project, new drawings were shortly presented (Figure 2), adapting to the envisaged volumes, thus overcoming the exceptions raised by the Town Planning Office. The revision proposed a complex consisting of a nineteen-story tower building resting on a slab and a five-story body completing the front towards Via Turati (Figure 3). The hexagonal plan envisaged by the Detailed Plan, as carried out for the building at the west end (Figure 4), is modified in a stepped layout tapering towards the north and south fronts. In correspondence with these two façades, a gradual overhang reaches its maximum projection on the tenth floor, corresponding to the flat levels. The tower is defined at the top by a roof that encloses the technical volumes and reaches a maximum height of 75 metres, demonstrating that the real problem in the original project was exceeding the volume and not the maximum height or the changes to the symmetrical layout.

Figure 2. Tavola 1: “Torre Turati – Calcolo Volumi – Planimetrie scala 1:500”



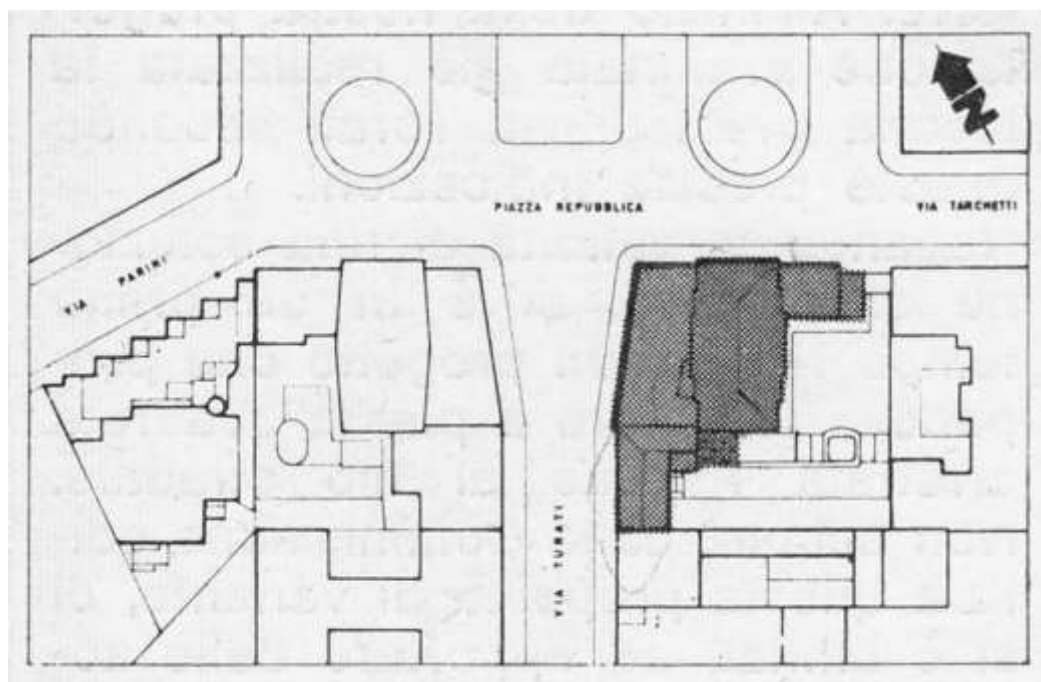
Source: Comune di Milano, Archivio del Servizio Gestione Pianificazione Generale e Organizzazione Dati Urbani, folder number 14391.

Figure 3. Similar cut for the images of the complex in the pages of *Casabella in 1969* and *Milano. Un secolo di architettura milanese dal Cordusio alla Bicocca in 2001*



Source: Bernasconi, 1969; Gramigna & Mazza, 2001.

Figure 4. Layout of the two headers compared on the pages of *Casabella*



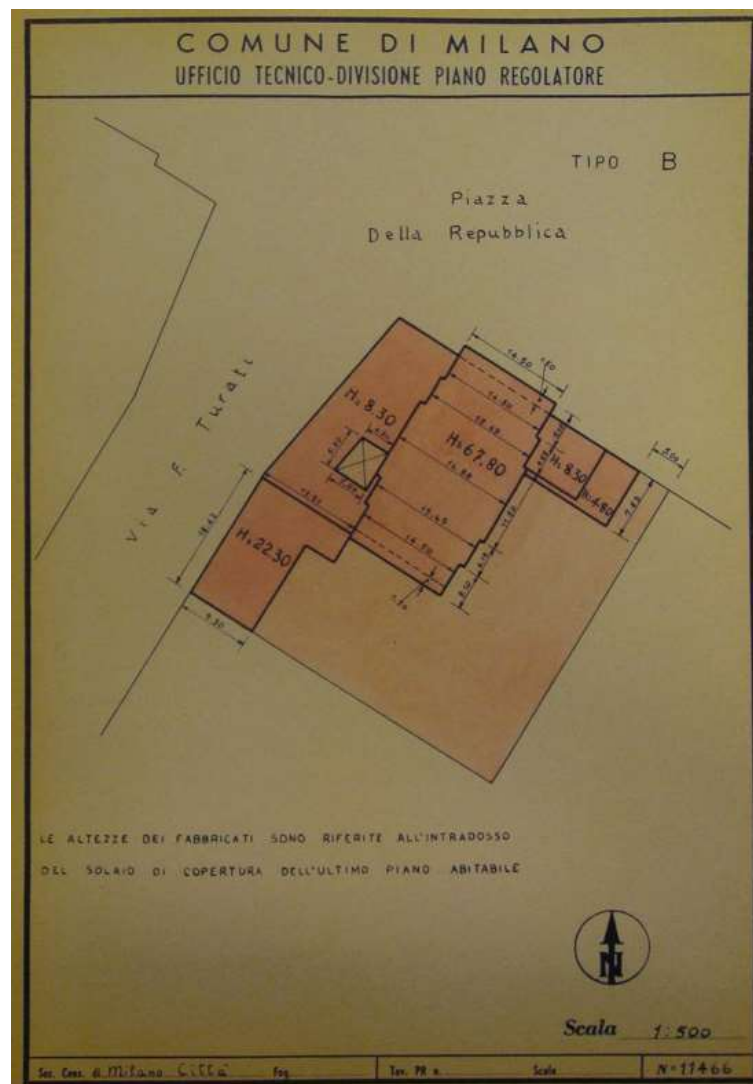
Note: In grey, the building designed by Muzio as built according to the modified 1963 project in compliance with the plan and volume layout approved by the Building Commission (Figure 5).

Source: Bernasconi, 1969.

The revised project, thus respecting the maximum volume but with significant changes to the plan and volumes of the Detailed Plan, obtained the favourable opinion of the Building Commission. A proposal for an agreement was drawn up, including a plan and volume scheme approved by the Building Commission (Figure 5), which was repeatedly discussed between the parties and made official in 1967. The negotiation, including multiple and even minute aspects of the architectural intervention and discussing typological and technical aspects questioning even the provisions of the Detailed Plans, was concluded just before the 1967 legislation restricted and normed the use of planning agreements as preliminary authorization for allotments plan in the absence of the expected dedicated planning instruments.

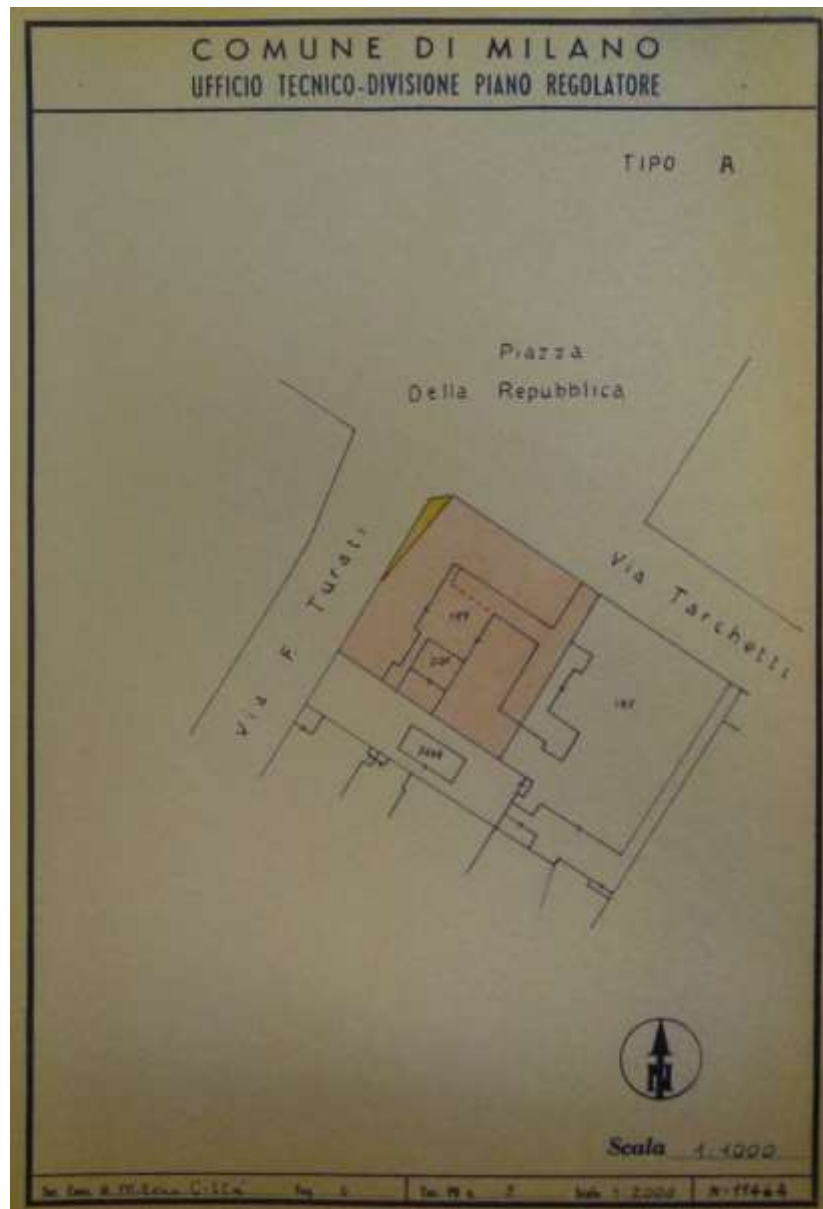
The agreement states that no rooms or living spaces are allowed above the building heights (article 3), that “the technical volumes must be included and architecturally resolved in one floor above the height of the last living floor” (article 2), and that “the unity and harmony of the architecture of the two towers facing Piazza della Repubblica is particularly required” (article 7). The agreement also provides for the developer to transfer to the Municipality a portion of approximately 50 square metres of its own land, which is located in the roadway (Figure 6). The transfer is free of charge as it is intended to cover the contributions to the Regulatory Plan partially, even before the free provision of land needed for primary urbanization works was regulated by the Law n.765/1967.

Figure 5. Layout approved by the Building Commission and attached to the proposal for the agreement



Source: Comune di Milano, Archivio del Servizio Gestione Pianificazione Generale e Organizzazione Dati Urbani, folder number 14391, act 146070/3761 P.R. 1961.

Figure 6. Scheme approved by the Building Commission and attached to the proposal for the agreement



Note: In yellow, the area to be transferred to the Municipality.

Source: Comune di Milano, Archivio del Servizio Gestione Pianificazione Generale e Organizzazione Dati Urbani, folder number 14391, act 146070/3761 P.R. 1961.

It is interesting to note that the publications (Bernasconi, 1969; Muratore et al., 1988; Gramigna & Mazza, 2001) devoted to the building make rather misleading references to the limits imposed by the Plan and the ensuing negotiations³, which nevertheless left ample room for derogation in the evolution of the project. On the pages of Casabella in 1969, Gian Antonio Bernasconi opened his column presenting the project critically, pointing out that the tower was born with an underlying flaw due to the poor quality of the Detailed Plan, and that the layout of the two symmetrical towers meant “referring to sad languages that have fortunately expired, and jeopardising the

³ Bernasconi, 1969, pp. 22-27, is a monographic article describing the construction. The reference to the limits set by the detailed plan is also present in Muratore et al., 1988, p. 165. Another file can be found in Gramigna & Mazza, 2001, p. 388, while Irace, 1994 (pp. 183-184) describes the design prodromes for the header of Via Turati by Giovanni Muzio himself. The translation of the following quotations is by the author.

specific outcome of the individual buildings”. He goes on emphasising how the Muzio architects, “well aware of this danger (...) tried to force the building commission to adopt a more evolved solution; not succeeding, they segmented and fragmented as much as possible (...) the stereotomy within which they were forced to act”. In the following descriptive notes (Muzio & Muzio, 1969), the architects reiterate how their first proposal, based on a square base set back from the street level, was not accepted by the Building Commission and how they were required to limit themselves to changes in volume following the plan. The same position is adopted in the file on the building published almost twenty years later in *Guida all'architettura moderna: Italia. Gli ultimi trent'anni*, which takes from Casabella not only the critical approach but also the iconographic apparatus. It mentions “the tricks and ploys adopted to overcome the limits of the Detailed Plan” and the square plan project “rejected by the municipality”, without any mention of the fact that the volume was exceeded and that final approval was given to a project that was in any case an exception to the provisions of the Plan.

Evidently, the emphasis given to the comments on the volumetric approach in the administrative acts and articles is quite different: in the first case, it is clearly stated that the main problem of the presented proposal is not so much the variation with respect to the planned symmetry of the headers or any typological aspect, but the exceeding of the maximum volumetry allowed both on the area as a whole and on the single lot, while the report by the designers and the presentation of the building in Casabella, clearly taken up in the Guide, suggest that the potential of the original project has been inhibited by the scheme of the Detailed Plan and by the obstinacy in pursuing the rigid symmetrical approach.

The ‘educated professionals’ at the service of the private sector, which found in Milan in the 20th century a privileged field of expression, are not directly involved in many agreements, and in the cases where this happens, they do not seem to play a particularly significant role in the negotiation, remaining almost invisible compared to the professional potential. On the other hand, the notoriety of the designers can take on a certain relevance in communicating their design intentions, arriving at a rather free interpretation of the administrative process and its limitations, as happened on the pages of Casabella, and also influencing subsequent critical and historiographical positions and the public perception of the relationship between design, the urban environment and regulatory positions.

The agreement, and the preparatory documents collected in the Archives of the General Planning Management and Urban Data Organization Service, thus constitute a unique and overlooked source of information on the negotiation between public and private actors, of a bureaucratic-administrative nature but certainly not without consequences on architectural projects and urban settings. They allow us to observe administrative nuances and design strategies that have never been dealt with, even in cases such as the ones of iconic buildings that have been studied extensively; on the other hand, they show how in these cases the added value of the proposals of the most famous and established professionals of the time had no relevance from the bureaucratic and authorization point of view.

The case of Piazza della Repubblica tower discusses the formalization of linear planning processes, incorporating underexplored actors, forms, and practices of implementation in the historical analysis, defining them through a dynamic composition of different perspectives and suggesting a tension towards plural contexts in which the circulation from the micro- to the macro-analytical level is possible (Revel, 1996). It exemplifies how the documentation collected in the agreements folders can open up new perspectives of analysis of the planning processes – highlighted in their negotiated nature – and in relation to the design processes, offering the opportunity to acquire interesting and unpublished details also concerning well-known cases and buildings that have already been historicized, allowing for a series of close observations that can interfere with large established narratives.

Conclusions

The reading of planning agreements as tools at the centre of a complex system of actors, customs of use, and disciplinary positions that well represent the daily making of the modern and contemporary city allows to discuss a consolidated interpretative framework, redefining its premises and underlining the limits of a reading of the

agreements as mere instruments for the adulteration of planning policies. A first historiographical reflection suggests the overcoming of a history of the city centred on the realization of the plan forecasts and on accounts that show their fragility and instrumentality in a direct comparison with the documentary sources, opening to an exploration of the planning agreements as an opportunity for dialogue and confrontation between the actors involved in the material construction of the city. It can be placed in the perspective of an urban history based on a close observation of the forms of the urban landscape, where the protagonists actively interact with space, its construction, and its organization; it is part of an interpretation of the post-World War II city as urban setting that is born consistently from negotiation processes and not only from the direct implementation of purely prescriptive planning devices, while stressing that the very instruments of the plan demonstrate an ability to guide processes and define the possible limits of negotiations; it results from a micro-historical approach involving both the tools of analysis and the narrative strategies, exploring non-traditional sources shedding light on the processes and phenomena they incorporate, capturing recurring configurations in a documentary series linked to a specific context.

This reading is made more complex by the specific framework – characterized by a disciplinary moment in which the confidence in a new planning instrument that could frame the entire planning and implementation process was high – and the Milanese context, rich in expectations. These are the assumptions of a critical reading so strongly based on the notion of altered or failed Plan, promoted in fact by a professional world tied to a rather rigid and all-encompassing idea of Plan, which would have needed a more complex implementation also through negotiation tools.

Therefore, a new reading of planning agreements as a source for architectural and planning research is proposed. They can be analyzed as catalysts of the relations between public and private law and powers, a moment of unprecedented interaction between traditional and emerging actors (clients, professionals, administration, building companies, real estate developers) leading to a complex understanding of the layering of regulations, administrative and bureaucratic organization, entrepreneurial strategies, design cultures and inhabitants' imageries.

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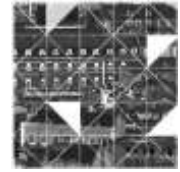
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CIDADES, Comunidades e Territórios



From an imagined community to genuine communities: Birth and development of Etrimo Apartment Buildings in Brussels, 1950–2020

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Abstract

Using an analysis of apartment buildings built in Brussels by the real estate developer Etrimo between 1950 and 1970, we investigate the ability of collective housing to build and support an inhabitants' community.

After World War II, Etrimo took advantage of the poor state of existing housing stock and the return of Belgian families from Congo to intensify its production of apartment buildings for aspiring middle-class homeowners. These buildings consisted of repeated, identical three-room dwellings offering all modern comforts for the nuclear family of the thirty-year post-war boom. The portrait of this family, reflected in various commercial brochures and the 14,000 dwellings built in Brussels by the private developer, suggests a relatively homogeneous middle class. How did this imagined, abstract community materialise?

First, we present how the juxtaposition of identical households may or may not have produced a homogenous community at the project's different spatial scales. This analysis is based on primary sources at our disposal: sales brochures, Etrimo advertisement posters, writings by the company's founder Jean-François Collin on the legal and financial set-up of his business, plans of the housing units and complexes.

Second, on the basis of interviews with inhabitants and on-site observations of living practices in the collective spaces of the housing estates, we highlight the model Etrimo housing estates offers contemporary society for new ways of living together.

Keywords: Etrimo, collective housing, home ownership, inhabitants' community, Brussels.

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1. Introduction

Brussels housing in the 1950s was characterised by overwhelming support for public collective housing policies. Two laws addressed the housing shortage following World War II: de Taye (1948 and 1953) and Brunfaut (1949). While the latter supported public housing, the first promoted home ownership. Eventually, de Taye would have the greater impact in Brussels, as housing development was essentially a matter of private initiative (Broes, Dehaene, 2016). In this context, the de Taye laws (1948 and 1953) not only allowed acquisition subsidies for the middle classes, but also led to massive reorganisation operations in working-class neighbourhoods or in Brussels' 20th century outskirts, through the sale of large properties for the construction of high-rise modernist buildings (Leloutre, 2020). Among the actors who left their mark on the urbanisation of Brussels' second belt, two private developers stand out: Jean-Florian Collin (Etrimo) and François Amelinckx (Entreprises Amelinckx). "Although Etrimo and Amelinckx were brothers-in-arms in the Belgian real estate business, Collin may be characterised as the real pioneer" with the creation of his first company as early as 1935 (Broes, Dehaene, 2016). With 14,000 dwellings built in Brussels alone, Etrimo left its mark on housing in terms of quantity but also on the Brussels subconscious, with its "exceptionally homogeneous" products (Ledent, 2014).

From its creation in 1935 through to the 1950s, Etrimo (Société d'études et de réalisations immobilières) built apartment buildings for Brussels' wealthy. From the 1960s onwards, it specialised in providing the middle classes access to property, with the construction of larger housing estates on the outskirts of several large Belgian cities, Brussels in particular. In order to implement these estates, the company sought to purchase large land plots. In Brussels, such plots were still available in the city's second belt. These were large landholdings (Château de Rivieren in Ganshoren, Château Lambeau in Woluwé-St-Pierre, etc.) but also former industrial sites or fallow land (sand quarries in Woluwé-St-Lambert, flooded marsh areas along the Biestebroek wharf in Anderlecht, the Pécherries Royales watercress beds and vegetable gardens on the Watermaalbeek in Watermaal-Boisfort, etc.). In the absence of legislation on height or density, Etrimo set the tone by negotiating directly with municipalities (Ledent, 2014). Interestingly, a new category of people were targeted by this urbanisation of Brussels' second belt. Indeed, these private developments were intended for the middle class, among whom many were families returning from Congo, a former Belgian colony.

In this paper, we address the capacity of this category of people to generate inhabitant communities, as well as the potential of Etrimo's collective estates to support these communities. Through what tangible and intangible means can a community be imagined, formed, and sustained, and how does that help us conceive and design communities in the future?

This question was applied to three case studies, Etrimo buildings dating to between 1964 and 1968 in Brussels (figure 1): Parc Albert in Ganshoren, Parc de la Héronnière et Beaulieu in Auderghem, and Parc Schuman in Woluwé-Saint-Lambert. These large housing estates share several features: a location in the city's second belt, proximity to schools and shops, repetitive spatial organisation on the theme of isolated "buildings in a park", and a majority of owner-occupants. They were chosen because of the availability of iconographic material (Ledent, 2014) and the possibility for interacting with original inhabitants.

Figure 1. The three case studies in Ganshoren, Auderghem, and Woluwé-Saint-Lambert

Source: Audrey Courbebaisse, 2021.

The research methodology consists of qualitative research undertaken at the crossroads where architecture meets the social sciences. From an architectural point of view, the Etrimo estates were studied by means of a spatial analysis of two types of elements: archive material (e.g., commercial brochures³, Collin's writings⁴) and drawings of the existing situation (redrawn mass and floor plans, sections, etc.).

From a social point of view, the projects were visited in depth several times, which allowed us to make in-field observations as well as conduct 25 interviews with inhabitants (figure 2), caretakers, and several pharmacists working in the three studied buildings. The questions were structured according to several hypotheses of potential levers (spatial and social) that could enhance the creation of a community: residential trajectory, social dynamics, spatial dispositions, maintenance and management of the building and development, landscape amenities, and, finally, the large community formed by all the buildings built by Etrimo. The respondents were between 37 and 98 years old. Fifteen of the 25 were owner-occupants, seven were caretakers occupying the ground-floor lodge, and three were pharmacists working on the ground floor of the building. Although the population is gradually changing and many of the previous residents had already left or died, we were able to meet two households who bought off-plan in the 1960s. Most of the people we met had arrived between 1982 and 1999, illustrating a pivotal period of household renewal. Only five households that arrived from the 2000s onwards were interviewed, including only four persons who are still working. This can be explained in part by the timing of our visits (weekdays during working hours).

In order to highlight the spaces that can support an inhabitant community, we mapped the spatial practices of each interviewee on an axonometric drawing of each site (figure 3a and b).

³ The exhibition catalogues "Un appartement. Des raisons de l'achat d'un appartement", "Comment devenir propriétaire Etrimo", 1963, "Parc Breughel", 1965, as well as sales brochures from the collection of Pol Mertens, former Etrimo administrator.

⁴ Collin J.-F., "L'épargne immobilière et sa fonction sociale", Paris: Librairie générale de droit et de jurisprudence, 1938; Collin J.-F., "De l'évolution de l'habitation en fonction de la civilisation domestique", *Bâtir*, vol. 36, January 1936; Collin J.-F., "L'Europe des provinces, essai politique", Bruxelles: éditions de la revue Terre d'Europe, 1968.

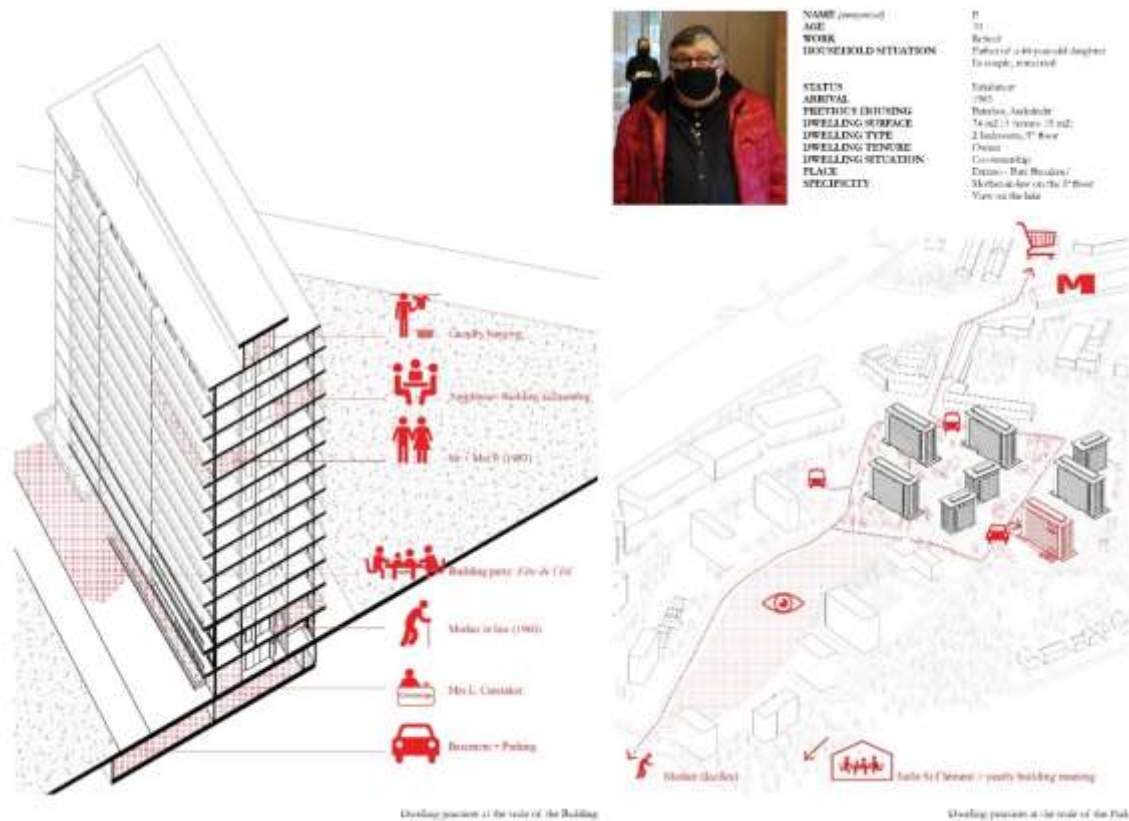
Figure 2. Table of the 25 interviewees

	Location	Identity	Flat	Floor	Arrival	Purchase	Situation	Age	Statut	1st purchase
1	Ganshoren	Mr. P	—	RDC	—	—	—	54	owner	—
2	Ganshoren	Mrs N	T3	R+2	—	2010	alone	52	owner	yes
3	Ganshoren	Mr. C	T3	—	1991	—	couple	75	tenant	—
4	Ganshoren	Mrs C	T2	RDC	2019	—	alone	50	tenant	—
5	Ganshoren	Mrs V	T3	R+12	—	1968	alone	98	owner	yes
6	Ganshoren	Mrs G	T3	R+1	—	1988	couple	82	owner	yes
7	Ganshoren	Mrs B	T4	R+10	1972	1995	alone	70	owner	yes
8	Ganshoren	Mrs G	T3	R+10	—	2006	alone	75	owner	yes
9	Ganshoren	Mrs D	T2	R+2	—	1966	couple	79	owner	yes
10	Auderghem	Mrs L	T3	RDC	1985	—	alone	65	tenant	—
11	Auderghem	Mrs P	T3	R+9	—	1982	couple	68	owner	yes
12	Auderghem	Mr. P	T3	R+9	?	1980	couple	70	owner	yes
13	Auderghem	Mr C	T5	R+10	1983	1985	couple	73	owner	yes
14	Auderghem	Mrs M	T3	R+4	—	1993	alone	65	owner	no
15	Auderghem	Mrs J	T4	R+8	—	2020	alone + 2 child.	37	owner	yes
16	Auderghem	Mrs M	T3	RDC	1994	—	couple	49	tenant	—
17	Auderghem	Mrs T	T3	R+4	—	1995	alone	75	owner	no
18	Woluwé	Mrs D	T3	RDC	1997	—	couple / child	60	tenant	—
19	Woluwé	Mrs M	—	RDC	2017	—	—	35	owner	yes
20	Woluwé	Mrs I	T3	RDC	1996	—	couple	62	tenant	—
21	Woluwé	Mrs R	T3	R+8	—	1995	alone	79	owner	yes
22	Woluwé	Mrs S	T3	R+1	—	1983	alone	86	owner	yes
23	Woluwé	Mrs T	T3	RDC	—	1996	alone	70	tenant	—
24	Woluwé	Mrs V	T2	R+10	1976	1999	alone	59	tenant	yes
25	Woluwé	Mrs F	—	RDC	1983	—	—	64	—	—

	Caretaker
	Pharmacist
	Inhabitant

Source: Audrey Courbebaisse, 2021.

Figure 3A and 3B. Drawn survey of spatial practices (a) at the scale of the building – (b) at the scale of the park



Source: Gérald Ledent, 2021.

This paper presents our research results in two stages. Each stage sets Etrimo's intentions (what was designed) against present conditions (what happened). To study the initial intentions, we based our research on the primary sources at our disposal: sales brochures, Etrimo advertising posters, writings by Jean-François Collin on the legal and financial set-up of his business, plans of the housing units and estates. The analysis of present conditions relied on interviews with the inhabitants and *in situ* observations of living practices in the housing estates' collective spaces.

The first stage investigates the individual level. How did Etrimo intend to urbanise the nuclear family, at the heart of the company's projects? What today has become of this family and the environment that was intended for it? Second, we examine in what ways Etrimo positioned this family in a collective framework, whether through tangible or intangible devices, and how current representations and practices have engendered not one but many social and spatial communities.

2. Living in an Apartment

2.1 The Notion of the Nuclear Family

"In any case, whether it is the responsibility of the individual or the community, it must be borne in mind that it is the individual who pays; for it must be said and repeated that the community is only the sum of the individuals." (Collin, 1968)

According to Jean-Florian Collin in *L'Europe des Nations* (1968), Etrimo's imagined community was built as a sum of individualities. The basic individual was "a new man, an intelligent average man". The question of repetition is interesting because identifying the repeated element allows us to establish a series and thus the imagined community of people.

A. The Nuclear Family

One of these features is the nuclear family, which was organised around "a new kind of man", a man produced by the industrial world. Collin believed that the nuclear family was at the centre of society. "In 1967, a man produces so much that he is able to own a car (his first concern), household comforts, a house, social security, and then a pension". Etrimo was thus interested in workers' gentrification, as opposed to the bourgeois proletarianisation advocated by Karl Marx. This vision underpins Collin's liberal views. He was a prominent member of the PLP, Belgium's liberal party, in the 1960s. His was a typical post-war understanding of the family: a man going off to work and a woman working in the home. Middle-class family housing was organised around this scheme. Accordingly, Etrimo's typical flat was designed for a couple with one, two, or three children. Parents were between 30 and 40 years old.

B. The Domestic Role of Women

Within this family, women were the guardians of domesticity. In Etrimo's view, apartments were designed in every detail to lighten housewives' burdens. In a letter specially addressed to them, Collin writes: "Madame: housing issues are essentially feminine (...) Many shops have been established at the base of the buildings". We can imagine this was addressed to a housewife who did not drive. "The flats in Parc Beaulieu will delight you, as they are rational, modern and elegant. Designed to the last detail to make life easier for the housewife" (Etrimo, 1965).

Collin appealed to the creative instincts of the housewife: "a very large living room, extended by a generous terrace, will allow your good taste and creative imagination to express themselves freely". At the time, interior decoration and lifestyle magazines were gaining popularity. The French magazines *Marie Claire* in 1937, *Elle* in 1945, or special issues such as the 1951 issue of the magazine *Science et vie*, were specifically dedicated to the home. It should be noted that Etrimo flats were sold off-plan, with the possibility to adjust each dwelling (figure 4). For instance, in Ganshoren, a private staircase was installed to link the pharmacy to the pharmacists' flat on the first floor. The finishes also varied according to the clients' wishes and finances. Floor coverings, wall coverings, kitchen equipment, and terrace awnings were sold as options.

Figure 4. Collin appealed to the housewife's creative instinct by making the apartments adjustable

Source: Etrimo (1963, pp. 91, 41).

C. Homeownership as a Means to Emancipate Families

Collin strongly believed that homeownership could emancipate these families. Another important idea for Etrimo was therefore the value of work and savings. Work should enable leisure time. Additionally, to complete his economic transformation, the new man must become a “wealthy man”. That is why the question of savings was so central to Etrimo’s strategy. Collin set up a savings system allowing access to property for as many people as possible, according to their salaries. In Collin’s mind, property was the basis for happiness.

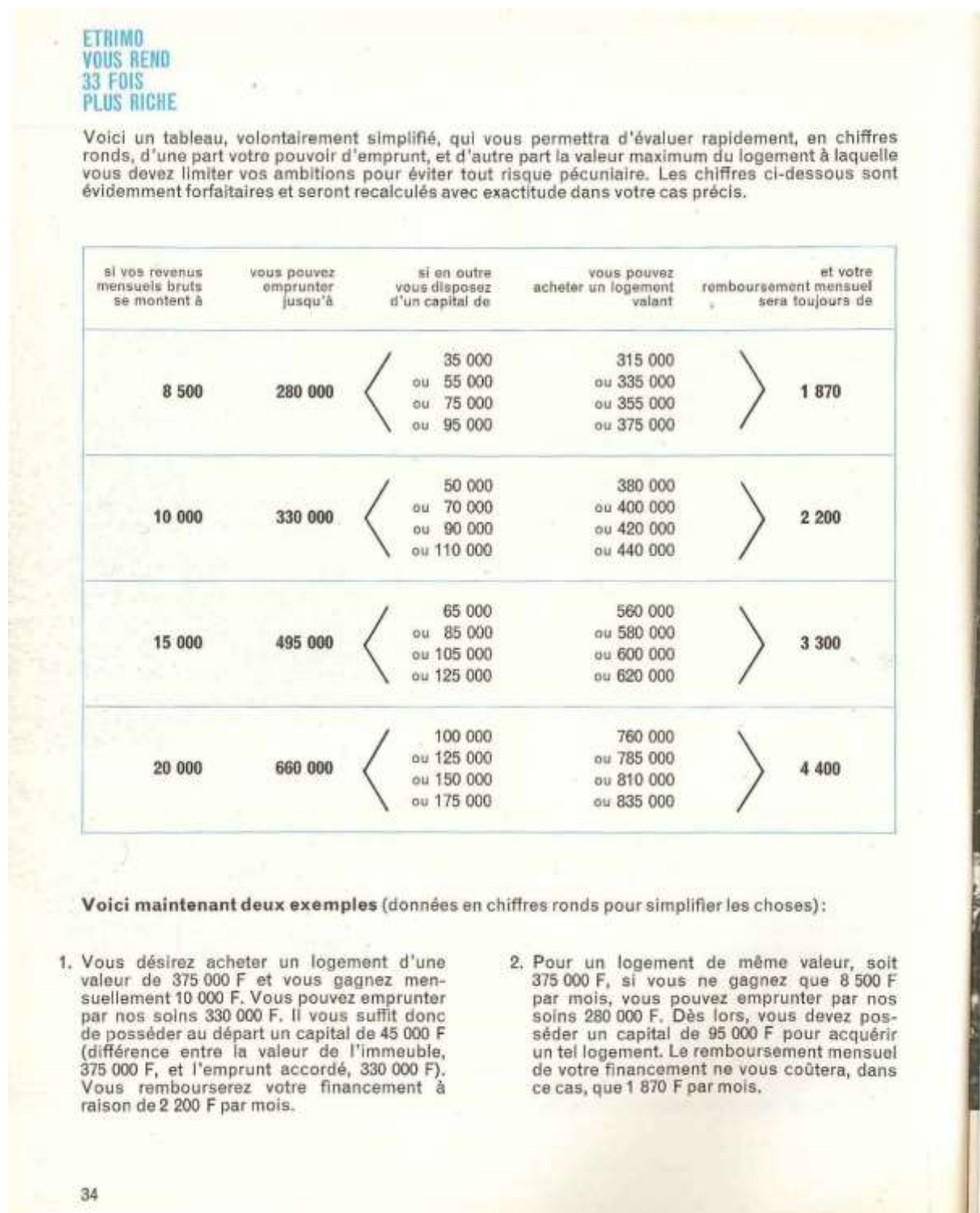
A new civilisation, the “civilisation of urbanism”, corresponded to the new man. This was to bring two things to men: “To move in a harmonious environment and to be owner of his own home”. This evolution was both an economic transformation and a social promotion.

Etrimo’s housing corresponded to households earning between 6,000 and 20,000 francs⁵ per month. Etrimo imagined four economic classes, one “modest”, another “middle”, one “luxurious”, and finally one “grandly luxurious”. One of the company’s brochures states that, in 1966, “of the first 146 buyers of our social buildings: 20% earn between 6,000 and 10,000 francs per month, 16% earn between 10,000 and 12,000 francs per month, 33% earn between 12,000 and 15,000 francs per month and finally, 31% earn more than 15,000 per month” (figure 5). This salary range was extensive enough to include labourers, employees, and management. The average cost of a flat was about 400,000 francs⁶, which represented two years’ earnings. The repayment of the balance was equivalent to a monthly rent, with the difference that at the end of the term, the householder owned his dwelling.

⁵ Approximately 807 to 2,691€/month. Consumer price index was 18.42/100 in 1966 (2010=100). Conversion at the rate of 1 € to 40.34 francs. Source: <https://perspective.usherbrooke.ca/bilan/servlet/BMTendanceStatPays/?codeStat=FP.CPI.TOTL&codePays=BEL&codeTheme=2>

⁶ Which corresponds to approximately 50,883 euros.

Figure 5. The cost of a flat depending on salary and savings



Source: Etrimo (1963, p. 34).

2.2 Ageing and new family trajectories

Time has passed and Etrimo's initial residents have aged or passed away. Some have gradually built networks of familial solidarity within the estates. New residents move in for motives that differ largely from those of the initial residents.

A. An ageing modern family

Among the older generation of inhabitants, we met families who arrived in the 1960s and others who arrived later, in the 1980s and 1990s. Both belong to the same “generation of a modern family” and form a separate group on the estate. What brings them together is their ages rather than their arrival dates. They usually share a common vision of life and are of a similar generation, as opposed to the younger, more recently arrived households. Some of them even socialise outside the building. There is a great deal of solidarity and mutual aid among this community.

“My neighbour is Greek and she's a friend. We've been on trips together, to Paris, to London, and when there's something going on, we do everything together too. But for the rest, sometimes we don't see each other for three weeks, because that's what we said from the start, not all the time together, because it doesn't last. Three weeks sometimes (...) And then she comes to ring or I go to ring, Are you still alive?”

Woluwé, Mrs R, 79 years old, arrived 1995

“I said to myself, I know everything by heart, all the people of my age or a little younger or older, so I stay (...) I have a lady here above, I saw her again today. She is 90 years old, she is still fine. She doesn't walk any more, she's at home all day, so every evening or twice a week, I go to her house to have a little chat, a drink to pass the afternoon.”

Ganshoren, Mrs S, 80 years old, arrived 1990

B. Time-forged bonds

Over time, new relationships developed on the estates, including family networks that did not exist when the projects were first developed. Currently, residents from the same family form recurrent networks of acquaintances. We observed residential strategies where parents join their children or vice versa. For instance, we observed children who bought an apartment for their ageing parents. Some already live in the building while others plan to occupy the flat themselves one day. All the people we met spoke of a measured mutual aid, intimacy, and watchfulness from a distance. Their choices also reveal a strong attachment to the municipality in which some of them grew up and aged.

“Our daughter used to live in pavilion 2 and that's how (...) She came to live here, she bought here, she bought a flat here, in pavilion 2. And we also started looking left and right and finally we found this. Well, we saw each other when we went to the market or something but we didn't depend on each other. But we got on well!”

Ganshoren, Mr and Mrs G, aged 82 and 86, arrived 1988

“I look after the animals of my son who lives next door, here at the other entrance. When he goes to work, they come to me, so I'm never alone. He lives in Mum's flat. I was the owner and when Mum died, he moved to the flat. Because she lived in a small house and I was in charge of it, going for a run every day...And I thought she was very isolated because she couldn't move around anymore either, so I said to Mum, Listen, sell your little house and take a flat here so that I'm near you all the time. We had everything well organised, we would come and do her washing and I would go and prepare her dinner, in the evening I would go and make her sandwiches and give her medicine (...) And now it's my son who takes care of me, we do the shopping together.”

Auderghem, Mrs T, aged 75, arrived 1995

“My son at that time was working in the police and he bought a house in the same street but on the other side and one day he said, 'Listen, it's better that you come to Woluwé too because I have to come here every time when you're in Forest, so I'm more at ease if you live nearby. I found this flat with the agreement we both made, he lives there and I live here. When we need each other, we're here, but not always. Young people need to have their own life and old people are such a pain in the ass. We've always been there. We call each other, and when he has little

cakes, he calls me, I come down, he gives me a little cake and when he goes on holiday, I'm there to look after the animals. And when I'm ill he also comes to help me.”
 Woluwé, Mrs R, 79 years old, arrived 1995

C. The evolution of the means of emancipation

Vectors of emancipation have evolved. In particular, access to property has become more difficult in Brussels, where the percentage of homeowners is much lower than in other parts of Belgium – less than 40% in Brussels for an average of 70% in Belgium (Statista, 2020). In addition, the share of housing costs in household expenditures has increased tremendously from Etrimo's times to today, rising from 10 to 20% in the 1960s according to Collin (Figure 5) to 34% today (Statbel, 2018).

Nevertheless, we note that Etrimo's apartments remain an interesting option for households as their average price remains below market. We might therefore conclude that, for many young households, Etrimo represents a stage of their life trajectory rather than a place to stay in the long term.

3. Housing families in a collective venue

3.1 Living together in a park

A. A repetitive model

Etrimo's collective housing projects were conceived and built in identical ways, based on the repetition of a standard building (i.e., the superposition of two T3 flats on either side of a stairwell) in a park. The horizontal juxtaposition of two, three, or even four of these standard buildings constitutes a “pavilion”. Within the pavilion, each dwelling benefits from a series of collective extensions, shared by two or even three buildings: collective drying rooms in the attic, porticoed galleries on the ground floor, and underground car parks. Finally, the pavilions all share the collective park and its facilities, which vary from one site to another (children's playgrounds, sports fields, squares, etc.).

Another element contributing to Etrimo's uniform image of is the common materiality of all buildings. Indeed, the buildings' materiality and finishes contribute to creating a comprehensive and familiar image for Etrimo estates. The co-ownership regulations state that this characteristic aesthetic line has to be maintained: blue balcony ceilings, orange awnings, glass railings, interior decoration (a single artist decorated the halls, lifts, and landings of all Etrimo buildings) (figure 6). These elements make it possible to identify Etrimo buildings. These aesthetic codes contribute to the definition of an Etrimo community at the scale of the city.

Figure 6. A precise aesthetic that conveys the familiar image of Etrimo buildings



Source: Etrimo (1963, p. 57).

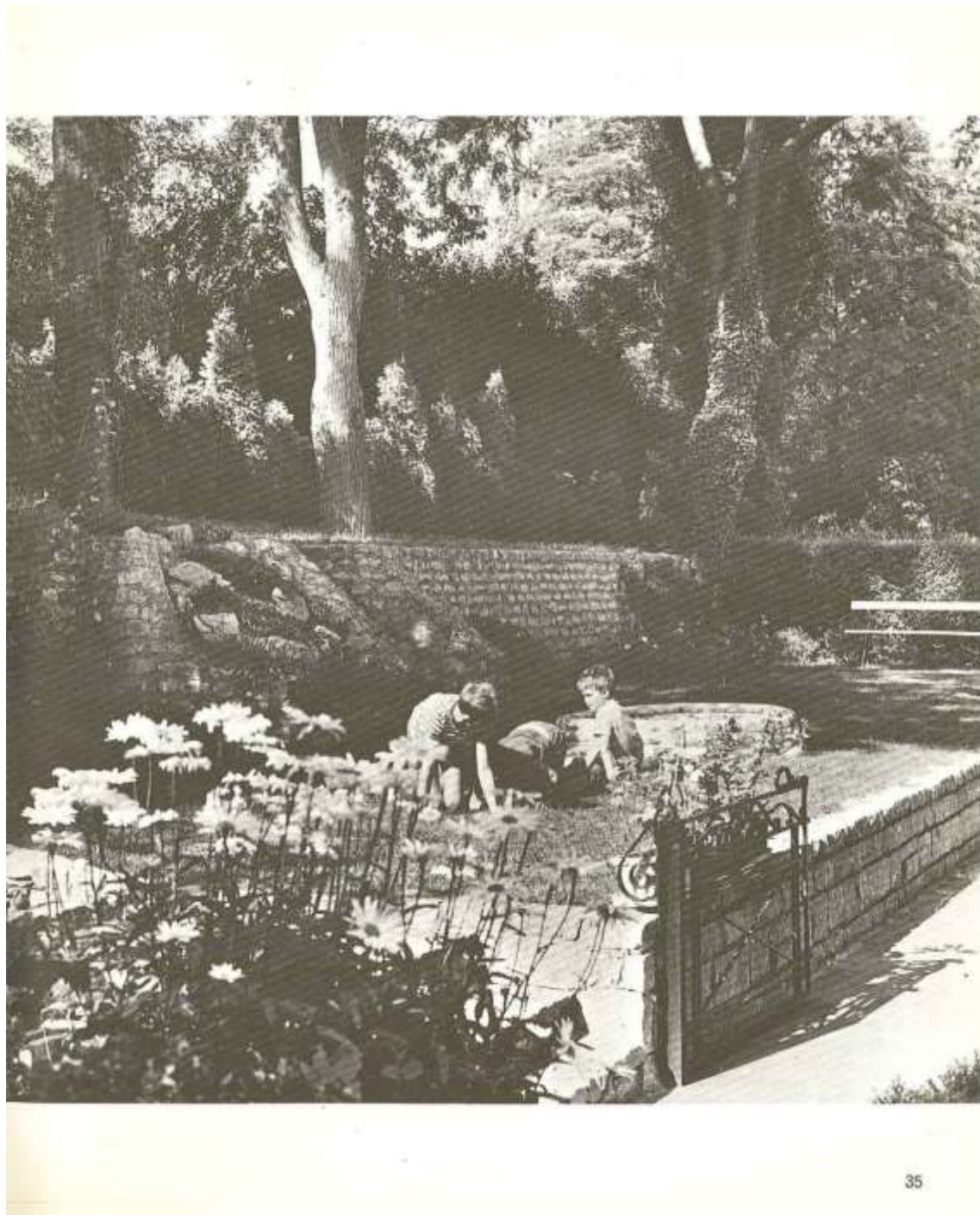
B. Buildings in a park

As mentioned above, Collin portrayed his ideal family as living in a park. “A green setting” and “living in a park” are recurring Etrimo sales pitches (figure 7). In the sales brochures, the project even invites potential buyers to come and have a good time with their children in the parks of residences already built. It is worth noting that each Etrimo estate is named after a park: “Parc Albert” (Ganshoren), “Parc de la Héronnière and Parc Beaulieu” (Auderghem), “Parc Schuman” (Woluwé-Saint-Lambert), “Parc Aurore” (Anderlecht), and “Parc Aristide Briand” (Woluwé-Saint-Lambert).

Figure 7. An apartment located in a park for young households

Source: courtesy of Pol Mertens.

Children are never mentioned in the flats' descriptions but they appear in discussions of the safety of playgrounds or entranceways. These children are still young and enjoy the outdoor green spaces (figure 8). In the words of Etrimo, "the wide avenues carry only local traffic and are pleasant places. Children can move around and play safely." Also, "the building has wide terraces that allow the occupants to enjoy the park and parents to watch from their flats their children playing in the specially designed areas of the park. They can play without constraints, just as their parents can give them extended breaks without risk or worry." We can see the park as a spatial support for the new civilisation of leisure advocated by Etrimo.

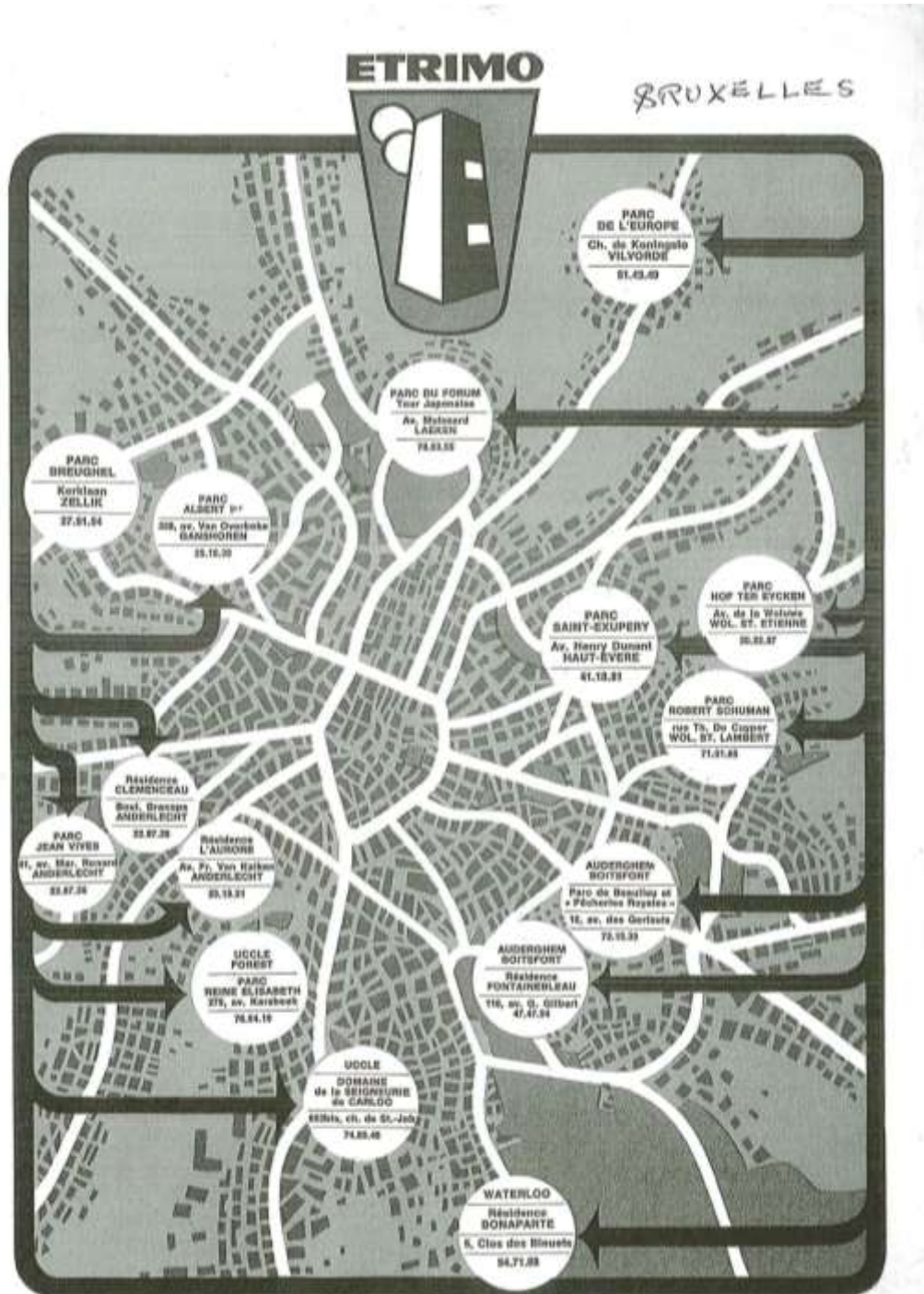
Figure 8. Children playing in the park

Source: Etrimo (1963, p. 35).

The recurrent organisation of “buildings in a park” recalls both the Modernists’ principles of functional urbanism (separation of cars and pedestrians, autonomy of buildings in relation to roads, “sun, space, greenery”), and culturalist urbanism led by E. Howard and R. Unwin (park system, living in the green crown of the city, roads links by major axes). The choice of this hybrid modernism allows us to refine our understanding of the imagined community. All Etrimo’s residents were suburbanites. They lived in the green periphery of Brussels, in a park

system linked by the ring road, which was then under construction. This location gave rise to a particular way of life in which the car occupied a central place (figure 9).

Figure 9. Housing in a park system in Brussels' second green belt



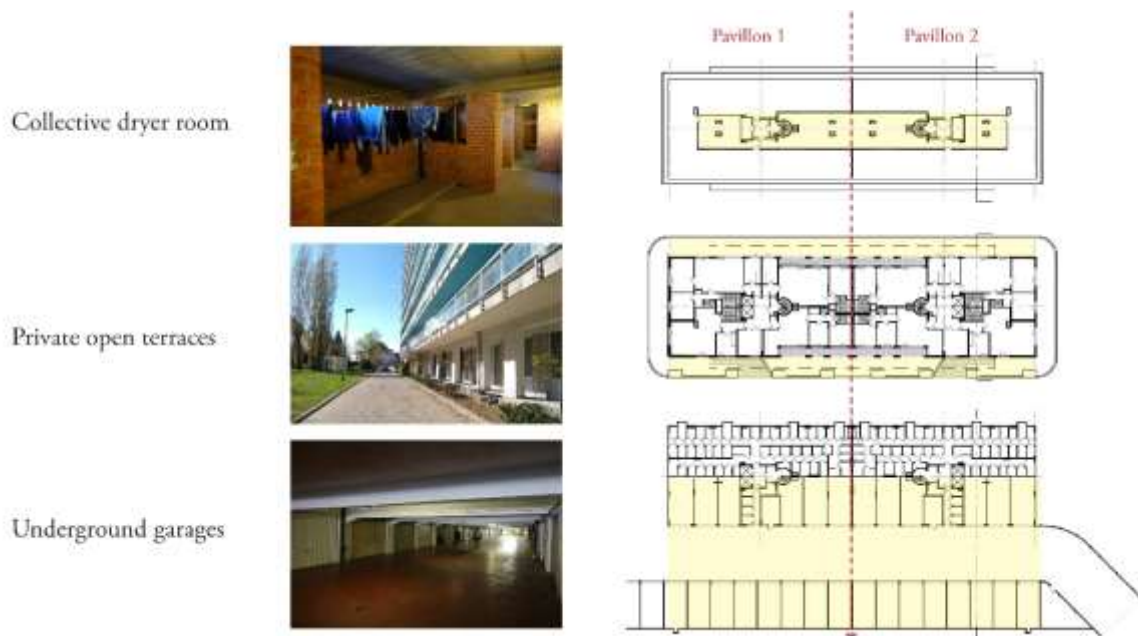
Source: courtesy of Pol Mertens.

C. Collective amenities

Etrimo organised several common spaces and amenities at various (interlinking) scales, the park being the largest scale of repetition and the building the next largest. Within buildings, each pavilion had a specific management system, caretaker, entrance, and address; there was still a sense of community within the building.

Etrimo's brochures advertised these amenities as selling points: car, bicycle, and motorbike parking (Etrimo, 1965a); well-served environments where "flats are built in privileged locations: direct communication routes, numerous and frequent means of transport that are easily and quickly accessible" and close to schools and shops (Etrimo, 1963, p. 16); common areas "contributing to the eminence of the building": the porch, the entrance hall, the lobbies, the lifts, the concierge (Etrimo, 1949), etc. A reading of the plans reveals that a pram room was also planned on the ground floor as well as a communal drying room on the top floor, which is not mentioned anywhere else (figure 10). Nothing is said however about the commercial premises on the ground floor or the layout of the parks.

Figure 10. Common shared spaces at various, interlinking, scales



Sources: Audrey Courbebaisse (photography) and Gérald Ledent (drawings), 2021.

3.2 From a trademark to a contemporary community

Not all of Etrimo's ideas and ambitions were equally successful. While some have disappeared, others continue to support community development.

A. The recognition of an Etrimo identity

The first is a community-shared recognition of Etrimo housing estates, at the scale of the Brussels-Capital Region. Indeed, most of the interviewees knew Etrimo's history, of its project to provide access to property for the middle classes, and of its bankruptcy at the end of the 1960s. Some could even position their building in the chronology of this history. It should be noted that this knowledge seems to be limited to Etrimo post-war collective buildings. Etrimo's interwar buildings as well as its post-war individual houses are usually forgotten. Most residents had no idea that the housing allotments built next to their buildings were also part of Etrimo's development. Nevertheless,

a majority of residents could name at least one other Etrimo estate in Brussels and could explain the builder's social project.

We notice an interesting reciprocal relationship: Etrimo had based their project on a community of typical households (they had therefore imagined this community) and the inhabitants also position themselves in relation to a community of buildings built by Etrimo. In their own way, they have appropriated the Etrimo community.

“Very paternalistic...Etrimo was really part of Brussels. Here we used to talk about it because these were the last buildings, then it went bankrupt. I think it was the last one here. It wasn't built well, it wasn't made like the other buildings, well maybe the plans and everything but the quality of the materials not so much... They were really bankrupt. I was told, but I don't remember by whom, that the people had to do the finishing touches themselves.”
Ganshoren, Mrs M, 70 years old, arrived 1972

The comparison between the two main post-war real estate developers, Etrimo and Amelinckx, is also part of a shared myth: some residents claim that Amelinckx's buildings are better than Etrimo's. The inhabitants are also aware of Etrimo's bankruptcy at the end of the 1960s and the fact that many buildings or building plots were taken over by Amelinckx. They know the difference between the buildings built by one developer and the other.

“Etrimo, it was our youth. It was everywhere, everywhere, everywhere, everywhere, all over Brussels, there was Etrimo (...). And there was also Amelinckx who built. But Amelinckx was a little better and more expensive, too.”
Ganshoren, Mr and Mrs G, 82 and 86 years old, arrived 1988

“Here, the concrete, the frame of the building would only be guaranteed for 30, 40 years. So it would have been finished about 20 years. Etrimo was not the best quality. Amelinckx was already at a higher level.”
Ganshoren, Mr and Mrs D, arrived 1966, bought off-plan in 1964

“Here, when it was this building, Etrimo went bankrupt when it was three quarters done, they went bankrupt and then it was Amelinckx who took over... Because the blocks in the park, the ones with the red brick, that's Amelinckx, there is a difference. There's also a difference, I'd say, even internally, it's richer... And then here, I think it was Amelinckx who finished the building.”
Auderghem, Mrs T, 75 years old, arrived 1995

Finally, the interviewees displayed a very precise vision of what constituted the Etrimo-built community by being able to position themselves within the park, the buildings, and the pavilions. Indeed, to present their dwelling, residents position themselves in relation to the whole estate. They are thus in “the first or the last building built”, the most off-centred, the tallest or the shortest. They live at the fronts or the backs of the buildings. Some take advantage of the morning sun and others try to protect themselves from the afternoon sun. Once again, these comments make it possible to identify several sub-groups.

“My building is the shortest building. This one has only 12 floors. Over there, it's 14 or 16 floors.”

“We are at the front of the building, so we have more work to do. All the dust, the dead leaves, the snow, it's always at the front of the building that there is the most work.”
Woluwé, Mrs I, 62 years old, caretaker since 1996

“I have the sun in the morning and it's nice because in the afternoon on the terraces, on the other side, we can't enjoy the terraces. From 1.30 pm until 5.00 pm, you can't even walk on the tiles because it's so hot on the other side.”
Mrs V, 59 years old, arrived 1976

B. Oases of peace

Currently, parks with their green spaces, playgrounds (when preserved, i.e., basketball court and sandbox in Auderghem), their small facilities (former sales pavilion in Ganshoren, given back to the municipality, which turned it into a nursery), are one of the support spaces most mentioned by the inhabitants, caretakers, and pharmacists. They appreciate them in terms of aesthetics, shade, and calm (figures 11; 3b).

Figure 11. “Parc Schuman” in Woluwé-Saint-Lambert



Source: Audrey Courbebaisse, 2021.

According to the caretakers, there are more and more dog walkers in the park. Residents are getting older, losing their spouses, and adopting pets. Etrimo's residents meet and get to know one another, as well as people living in the surrounding areas, this way. We could say there is a “dog walkers’ community” and that the park is a support for this community. This resident remembers that the inhabitants knew each other because of their dogs and testifies to a certain mutual aid in this respect.

“There was always a cocoon here, Mum was known for babies and then we had a dog and (...) people knew him because he never listened, he was a hothead and my father always had the art of letting him loose in the park...And then sometimes, my father would say, Have you seen Bel? Oh, we put him in the lift, he's already gone home. They'd ring my mum's doorbell, We'll send Bel to you! OK! And they put him in the lift.”

Woluwé, Mrs V, 59 years old, arrived 1976

C. Building collectiveness

Collective basements and drying rooms on the top floor still act as community supports. Both allow the passage from one pavilion to another when a lift is out of order. In Auderghem, Mrs T, 75 years old, goes through the basements to fetch her son's dogs from the next pavilion to avoid running into other animals. In Ganshoren, the drying rooms are even used for neighbourhood parties. In other buildings, some residents continue to use them to hang their laundry (sheets and anything that takes up space).

Unfortunately, the lack of light (there is no opening to the outside), their configuration (long and intersecting walls) and the successive deterioration of the spaces mean the drying rooms are not very useful. Faced with a collective desertion of the drying rooms, some buildings in Woluwé even decided to rent the spaces to a telephone operator to install antennas.

At the foot of the buildings, private open terraces formed by a continuous portico also constitute an interesting community space. They give a specific aspect to each building thanks to the inhabitants' appropriation (gardening, flower pots, decorative objects, garden furniture, etc.) and "good maintenance" by caretakers. They are also a space for conviviality. In summer, those seated on the terraces invite other people to come and have an aperitif. Most of the neighbourhood parties take place on the terraces on top of the car parks, which are requisitioned for the occasion (figure 3a).

The services located on the ground floor of the buildings play a role in the social links between neighbourhood inhabitants. In Ganshoren and Woluwé-Saint-Lambert, pharmacists arrived when the buildings were built. In the first case, the original pharmacist's son is now the owner. In Woluwé-Saint-Lambert, two young pharmacists have joined forces with the former owner. This continuity has made it possible to establish and maintain friendly and trusting relationships. The pharmacists, some of whom have known the inhabitants for many years, offer delivery of medication for those with limited mobility.

Other services occupy the ground floors. All of them are related to the medical and care field (physiotherapists, pedicurists, doctors), revealing the over-representation of people over 65 years of age compared to the regional average.

This explains the importance of the personal assistance services, associations for the elderly, and activity clubs present in these municipalities. These places provide important sources of support for the elderly. Many people told us that they missed the activities, outings, and events organised by community centres, associations, and cultural venues (suspended during the pandemic).

Other places originally frequented by Etrimo residents have now disappeared. These include local shops (butcher, baker, haberdasher, grocery) whose evolution, although varying according to the municipality, is moving towards total disappearance. Carrefour Markets and Proxy Delhaizes have taken over. These transformations raise questions about the evolution of community-support spaces and the renewal of the community/ies themselves.

At pavilion level, we note the unifying role of the caretaker. In Ganshoren, Mrs N created a Facebook page for the pavilion to communicate with the residents and to facilitate exchange (of furniture in particular). Mutual aid exists on this scale for shopping, exchanging meals, watering plants, and looking after animals. In Woluwé-Saint-Lambert, the caretaker, Mrs T, is in charge of organising the neighbours' day:

"The only thing we do collectively is the neighbours' day, normally in May, but given what's going on (with the Covid19), we haven't been able to organise it. So that's it. We do it here in front, we put tables. We put tables here in the hall and the people are there, in front and what we do is we put ribbons, so that the cars pass by the back because the children, they play. And even people from other buildings come too (...). I have someone who helps me to do it. I have a lady here who helps me to put out the tables. She's a lady who gives me a big folding table that she has at home and then we put it there. And she brings the chairs down and the other people bring chairs down. I usually go shopping with the president of the building, we always take a little bit to start with, but otherwise, people bring a little something each. It has always gone well."

Woluwé, Mrs T, 70 years old, caretaker, arrived 1996

When discussing the pavilions, no one uses the names of flowers or shrubs given to each building, and few use addresses (street numbers). They are more likely to use the pavilion number, which refers to the order of construction over time (pavilion 1 being the first built). This naming system reinforces the idea of mutual recognition and inhabitants' common belonging to the Etrimo park.

Inside a pavilion, the inhabitants recognise that their encounters are conditioned by the times at which they go out and come back (especially those who work) but also by the floor number, even or odd, that they live on and the use of the appropriate lift.

"As there are two lifts, one even and one odd, there are always some of the people we know much less because we don't all see each other at the same time."

Auderghem, Mrs T, 75 years old, arrived 1995

“I know everyone, but what happens is that people know each other more on the odd and even sides because, as it’s two different lifts, they hardly ever meet.”

Woluwé, Mrs T, 62 years old, caretaker since 1996

The caretakers of each estate form a group in their own right, although the collective understanding and organisation varies site to site. In Ganshoren, for example, most caretakers share the weekend on call. They share chores such as washing garages or taking out garbage.

“This weekend I’m on call. It’s a weird thing to be on call here. If there’s a leak on the other side, it’s me, my number’s there.... But I say, if there’s a problem, the person should call the plumber straight away! That’s the way it is from Saturday 8 am to Monday 8 am.”

Ganshoren, Carla, 50 years old, arriving from Portugal in 2019

“The caretakers are together but separate. She has her lodge, I have mine, she has her gallery, I have mine, she has her routine, I have mine, we don’t mix. If there’s a problem, we call each other, can you help me, and there it is, there was a stuck door, I went to help her, we help each other if there’s a problem, I know I can count on her, if there’s a problem, we help each other, it’s easier. But she has her job and I have mine.”

Auderghem, Maria, 49 years old, arrived 1994

Neighbours who share a landing usually know one another, such as two neighbours who wanted to answer our questions together or another who has made friends with her young neighbour. This proximity was rarely mentioned as a problem, since noise pollution, for example, comes more from the floors above. However, the landing, because of its narrowness and lack of natural light, is not exactly a relational support area either (we did not observe any plants, or any decoration of the entrance halls).

“My neighbour is a cook and as he is unemployed at the moment, he said to me, Listen, if you ever want to have a good meal, I’m ready to do it (...) And then, the landing here is fantastic, I must say, we are very spoilt. Across the landing, there’s also a lady who arrived alone shortly after me. So that’s great. If we all had landings like that...”

Ganshoren, Mrs S, 80 years old, arrived 1990

“I’m old now and automatically I have my neighbours on the landing who are much younger and automatically when they see me, they say to me, If you need anything or if there’s anything, we’re here.”

Auderghem, Mrs T, 75 years old, arrived 1995

4. Contemporary challenges for the Etrimo community

In the three Etrimo estates studied, recurrent trends were observed, relating to the sense and the formation of an inhabitant community and the potential of some community supports.

4.1 From a homogenous community to several sub-communities and spatial supports

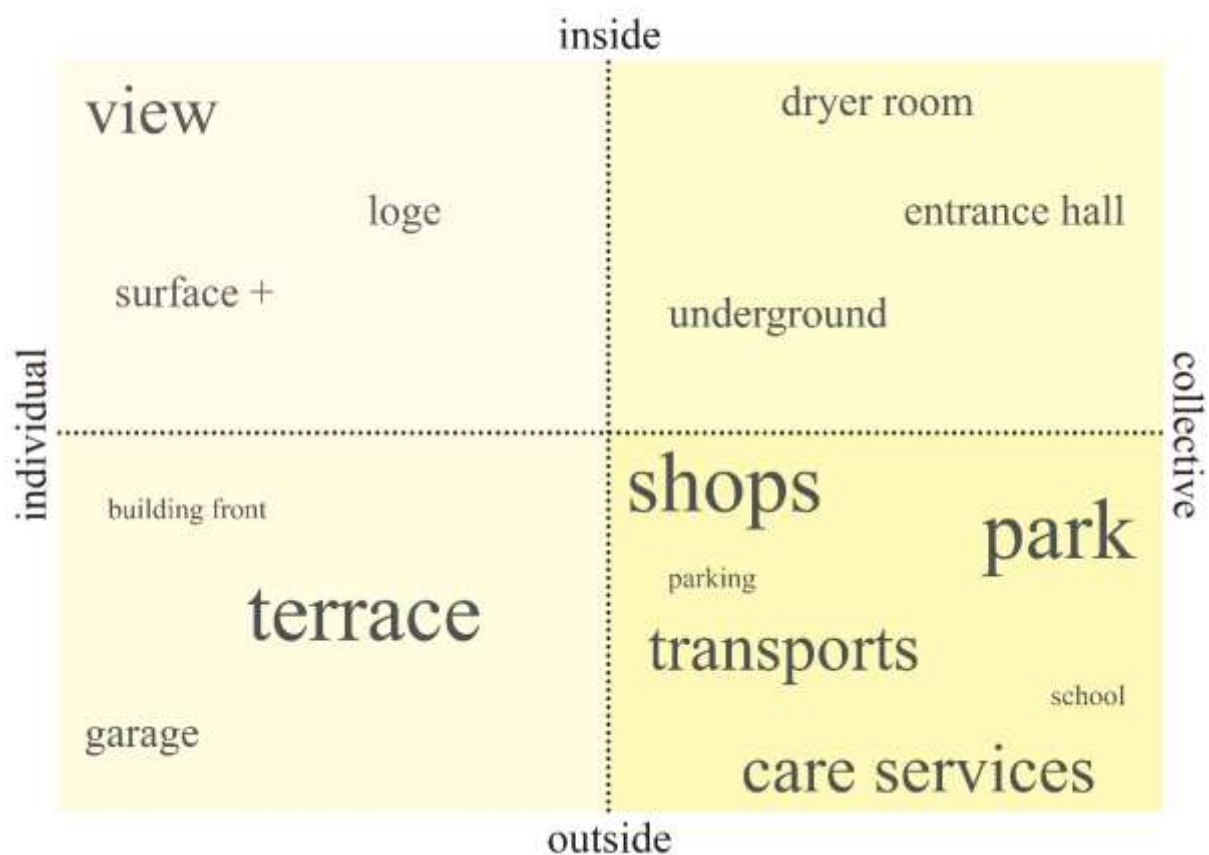
We have seen how, in Etrimo’s ideology, the juxtaposition of identical households may have produced a homogenous community based on middle-class families. Family compositions, residential strategies, and even ways of life were similar amongst residents. Some members of this initial community are still present in Etrimo settlements, but they constitute a minority.

Today, Etrimo settlements are no longer characterised by this homogeneous population. Rather than a homogenous community, we found various inhabitant communities. Their existence is motivated by social and spatial reasons. On the one hand, there are communities built through sharing an identical vision of collective life (the older generation), a common activity (dog walking), a certain relationship with the condominium (the caretakers), or a family link. On the other hand, spatial proximity (shared landing, lift, pavilion, etc.) as well as the characteristics

of certain spaces (entrance, collective drying room, foot of the building, park) contribute to the constitution of other groups. Accordingly, we could say that some spaces support the creation of collective dynamics. Figure 12 synthetises this capacity: it highlights the spaces most mentioned by the inhabitants as contributing to the establishment of communities. These spaces are categorised in four groups defined by two axes, the social, horizontal axis and the spatial, vertical axis, for instance:

- (1) individual interior spaces: the view from the flat (and location within the estate as a whole) promotes the establishment of sub-groups at the front or the back of the buildings;
- (2) individual outdoor spaces: the terraces that, with their blue balcony ceilings, orange awnings, and railings, characterise Etrimo buildings and participate in the construction of an Etrimo community at the city scale;
- (3) collective indoor spaces: the entrance hall with the presence of the caretaker, letter boxes, lifts, is a very important place that allows mutual recognition among pavilion residents;
- (4) outdoor collective spaces: the proximity of shops and health services are often pointed to as places where residents meet, supporting yet again another form of community. As noticed across all the communities, these shared shopping practices often lead to mutual aid and solidarity among residents (e.g., sharing shopping).

Figure 12 1. The spatial supports most mentioned by the community



Source: Audrey Courbebaisse, 2021.

4.2 From a life project to a stage in a residential journey

The reduction of owner-occupiers has led to increasing residential turnover. Two trends can be noted: first, the estates' population are getting younger. Whereas the 1990s and 2000s were marked by an overwhelming proportion of elderly people (the newcomers were then aged between 60 and 80), for the last ten years or so, the housing estates have been getting younger (departure and death of the oldest residents, arrival of young households). Second, some residents move in for specific periods of time depending on their professional circumstances (employees of the European institutions in Woluwé). Therefore, for them, Etrimo corresponds to an intermediate stage in their residential journey, a transitional moment in their lives. That is very different from the initial situation imagined by Collin. This evolution influences the relation to the community. The new inhabitants have a more consumerist relationship with their housing. They buy or rent a product that suits them at a given moment in their lives and which they will get rid of when they no longer need it. The interest they find in it is related to the low price and the proximity to their work. But they have no interest in getting involved in the collective life of the place. The common services are options that they pay for (the caretaker, for example). In this respect, they rarely or irregularly get involved in the management of the co-ownership, which are supposed to be the responsibility of professional structures. The distance they keep from other residents gives them the illusion that they remain free to leave at any time. This attitude is very different from that of older people who have "always lived there".

4.3 New challenges to shape new communities tomorrow

New opportunities nevertheless allow us to imagine new communities. These opportunities take the form of at least four common challenges: building renovation, soft mobility, parks renewal, and evolution of the caretakers' role.

Concerning building renovation, challenges arise such as lowering energy consumption, renovating terraces and facades, replacing railings and blue balcony ceilings. In this case, older people are reluctant to sacrifice their peace and money for changes that they are unlikely to benefit from. Younger households, however, seem to be more concerned about the rehabilitation of buildings.

Concerning mobility, we observed that these initially suburban estates were designed for the car generation. Nowadays, they are extremely well connected by public transport (metro, tramway, several bus lines). For the public authorities, as well as for future Etrimo inhabitants, it could be interesting to reflect on the challenges posed by soft mobility in these neighbourhoods. At present, there is very little space to park bicycles or prams, for example. This topic could bring together groups of young residents.

A similar reflection applies to the maintenance of the parks (currently closed to games) and the invention of new social practices. In addition, the parks created by Etrimo in the city's second belt create an oasis of nature and peace that could help us envision the green city of tomorrow.

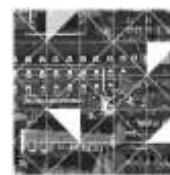
Finally, the issue of caretakers and their maintenance or replacement by outsourced services (cleaning company) or even virtual services (video surveillance, switch to connected intercoms in the halls), is also a challenge to be tackled by today's residents. It could be an opportunity to work together on other ways of maintaining and ensuring the smooth running of the community.

These new challenges are central issues to our society. What if the Etrimo community could seize them to reinvent itself?

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CIDADES, Comunidades e Territórios



What makes mass housing representations so different, so appealing? The French *grands ensembles* in comic-strip form

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Abstract

References to mass housing complexes tend to balance between their generally unknown realities and the pervasive power of their representations. These are often nourished by emotional experiences conveyed by words and images in mass media and political discourse – especially when it comes to ghettos or problematic suburbs – and multiple arrays of commercial, documentary, and fictional depictions of everyday realities or aspirational imaginaries. Complementarily, different media types entered middle- and lower-class houses, rendering these mediations bidirectional by progressively conquering their place in the domestic scene. Besides, the history of access to housing runs parallel and often intertwined with the history of media, rendering mass housing an object of mass media and a pop culture subject, entangling different and often contradictory representations.

Simultaneously the country of *bande dessinée* and the crisis of the *banlieues*, France is a particularly revealing example. Since the mid-1960s, comic strips acquired a special status in French society that rendered it an accurate cultural barometer of its culture. Alongside, France extensively built social housing estates in the outskirts of its major cities throughout *Les Trente Glorieuses*. As a result, these *grands ensembles* often became highly stigmatised and mediated places with their bars and towers, frequently depicted in cinema, literature, comic strips, and other art forms.

This paper aims to discuss the state of the art of the presence of social housing estates in French comics and present an array of comic books – produced since the 1970s – that depict these architectures and illustrate their social questions. These examples reveal the qualities and expose the contradictions of comics and the seductive power of the medium to explore the urban context of the *banlieue*, either when narrating its dystopic and violent environments or when enhancing the anthropological and visual qualities of these suburban settings.

Keywords: suburbs, comics, social housing, graphic representation.

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1. A matter of context

Comics always had a robust and specific presence in the French cultural scene. Not only in terms of popular culture but the entire social and intellectual context. It was precisely in this country that the medium paved its way into academia, in the early 1960s, with the emergence of the first groups devoted to the study and criticism of *bande dessinée*. At the same time, Charles De Gaulle would say: “Really, you know, my only international rival is Tintin! We’re both little fellows who won’t be got at by the big fellows. Nobody notices, because of my height!”, a statement revealed by André Malraux (1971), then Minister of Culture and a self-declared fan of Hergé’s work. The General was assuming the role of French counterpart of the Belgian reporter, or perhaps comparing to the real gaulois, Asterix, equally short, brave, and resistant to foreign invasions, a more suitable metaphor. Indeed, De Gaulle’s Minister of Youth Affairs and Sport, François Missoffe, once told Goscinny that, during a cabinet meeting in 1968, the General gave each of his ministers the name of a character from the Gallic village (Didier Pasamonik, 2009). Conceived in 1959 by Goscinny and Uderzo at the latter’s apartment in an HLM social housing estate in Bobigny (Pajon, 2015, p.111), Asterix rapidly acquired a major relevance in the country, giving the name to the first French artificial satellite, launched in 1965. While the adoption of Tintin by France also reached the Chamber of the French National Assembly, debating whether the Belgian character was left-wing or right-wing by its 70th anniversary in 1999. But the interest of French intelligentsia with comics went way beyond major *bande dessinée* characters like Tintin and Asterix, as might prove the fact that Roland Barthes once qualified Claire Bretécher, the famous cartoonist of *Le Nouvel Observateur* and one of the founders of *L’Echo des Savanes*, as the “best sociologist of the year” in 1976 (Parone, 1977). More than any other western country, these accounts testify to France’s recognition of the legitimacy of comics at the level of official culture and of its role as a barometer of its society.

In addition to comics, France is also a country known for segregation and the crisis of the *banlieues*. A country where the social problems of the 19th century became the urban issues of the 20th century due to the clear territorial expression that they progressively acquired, particularly in the outskirts of major cities. (Machado e Moura, 2006) Although this phenomenon has been especially evident since the late 1980s, it started long before with Baron Haussmann’s gentrification of Paris, which relocated the working classes from the centre to the suburbs. This segregation played a significant role in the Paris Commune, originating the so-called “revenge of the exiles” (Donzelot, 2006, pp.38, 102). Somewhat ironically, as Bernard Marchand (1993) puts it:

Victorian England, so attached to all forms of segregation and which had almost institutionalised inequality, knew how to avoid translating it too brutally into the urban space, whereas France, which claimed to be more egalitarian, especially under the Third Republic, gave birth around its capital to one of the first great social ghettos in urban history.

However, it was in the economic boom of the post-war era, during the so-called *Trente Glorieuses*, the three-decade period of economic growth and prosperity from the end of the Second World War to the oil crisis of 1973, that the country implemented a technocratic strategy of “modernisation of society through the urban” (Oblet, 2005, p.87). A proactive policy based on the construction industry and the diffusion of concrete prefabrication, benefitting the Public Works sector. The State carried out the massive construction of large residential estates – called *grands ensembles*, whenever above a particular dimension – in major cities’ crowns. Composed of bars and towers, these complexes mostly of social housing – in French HLM, for *habitation à loyer modéré* – were built during two decades, between the 1953 Plan Courant and the circular Guichard, which put a term to it in 1973 (Dufaux, Fourcaut, 2004, pp.15-16), at the rate of 300,000 apartments per year in the 1960s and 450,000 in the early 1970s. A boom that matched the country’s lack of housing and welcomed the rural exodus and immigration from Southern Europe and North Africa needed to respond to France’s new industrial priorities quickly. Especially the Algerians, who had been given priority of entry in the country because of a tacit assumption that they would return to their homeland after Algeria’s independence in 1962, something that didn’t happen (Ross, 1995, pp.152-153).

Initially, these new neighbourhoods had some social and ethnic mix – *mixité* – primarily due to their attractive power compared to the city centres' lack of hygiene and comfort. But, soon, the middle classes, followed closely by the white working class, as soon as their saving allowed them, opted for a peri-urban adventure, seeking comfort in a family house with a garden, without the company of the poorer. So, these schemes were progressively relegated to the most disadvantaged populations, without resources for accessing the property and for whom social housing represents the final step of their residential trajectory (Donzelot, 2006). Finally, in the 1980s, these neighbourhoods faced a deep crisis, becoming subject to social segregation and the harsh reality that sociologist Pierre Bourdieu compiled in *La Misère du Monde* (1993). This public policy and this urban form were doomed by the entire society and the media, leading *Le Monde* to publish the headline “*Raser les grands ensembles?*” – to raze the large housing estates – as soon as 1982 (Dufaux, Fourcaut, 2004, p.40). No systematic demolitions occurred, but the State outlined several *politiques de la ville*. These included renewal processes with many partial demolitions and reconstructions to mitigate these effects and, sometimes, foster gentrification under the guise of social *mixité*. As a result, numerous neighbourhoods are now ghettos, places of social exclusion, stages of urban violence and images of the profoundly anti-urban feeling that runs across French society. Sites of low reputation, which even compose their proper vocabulary – *la zone*, *loubard*, *galère*, *racaille*, etc. – are often subject to security measures, as reinforced as the concrete that made them.

This article inquires on the visions that French *bande dessinée* has provided of the broadly stigmatised and mediatised space that corresponds to its urban outskirts, particularly the social housing estates organised in *grands ensembles* and *cités HLM*, from the 1970s until today. What depictions can we find in the ninth art and its images of our world of representations about these spaces? What different perspectives and social questions do these comics illustrate?

Figure 1



To the “sound” of Serge Gainsbourg, Blutch’s *Vitesse Moderne* reveals a series of Parisian buildings, including the Tours Nuage estate in Nanterre, built by Émile Aillaud in 1977 and the social housing complex Hautes Formes, designed by Christian de Portzamparc in 1979.

2. Representations in comic strip form

As a form of literature, Comics generally tend to focus mainly on a given narrative, thus often diluting spatial aspects within a series of human and social ones. Although there are many exceptions to this assertion – with series like *Les Cités Obscures* that bring architectural and urban features to the foreground –, the characterisation of the physical realm, required to frame the narrative and inevitable given the medium's graphic dimension, tends to subordinate itself to the story's development, often by simplifying the drawing – which might suggest more than it describes –, and giving priority to the action. Moreover, the mechanical properties of the medium, which narrates through sequential panels, decomposes the architectural space in partial visions, allowing the whole to be reconstructed only in the mind of the reader. It is only at precise moments – like aerial or distant views – that one realises, with more information, the urban form at stake:

A contemporary comic book reader almost naturally identifies what is “urban” in it: the asphalt, the cobblestones of its streets, the stone, the brick of its walls, the glass and the steel of its buildings (...) [there is] a decor that makes the contemporary reader recognise himself and know that he is “in town”. However, this presence of the city serves as a background; it does not appear as an explicit subject of comics. The restricted space of the panel encloses the viewer in closed areas where urban existence is obvious but unquestioned evidence. To open the gaze and for the city to become an object of representation, it is necessary to meet the points of view where it opens in perspectives, in the squares or the main avenues. Above all, the city ceases to be evident when I enter or leave it. (Garric, 2014)

Although this feature is likely to occur in the rendition of any urban experience and not only in comics, each medium – from cinema to painting or literature – proposes a different approach, manipulating and composing its own ‘construction by images’. Borrowing the title of English pop artist Richard Hamilton's 1956 work “Just what is it that makes today's home's so different, so appealing?”, one could ask where lies the seductive power of these mass housing representations? Hamilton's collage vividly portrays the paradoxical nature of the modern notion of home simultaneously as a multi-media recipient and a mediated construction, both an object of desire and its avid consumer. Similarly, by confronting the ambiguity of images and representations with the complex realities of mass housing living, one realises the multitude and richness of the different approaches, both in comics and in cinema.

The examples of comic books that we analyse further clearly reveal the qualities and the contradictions of comic strips that explore the urban context of the banlieue and its architectural forms, either when narrating its dystopic and violent environments or when enhancing the anthropological and visual qualities of these suburban settings. Complementarily, a quick overview of French movies on grands ensembles, from Malik Chabane's *Hexagone* (1994) – in English: *Tale of the Suburbs* –, to Mathieu Kassovitz's *La Haine* (1995) – in English: *Hate* –, Rabah Ameur-Zaïmeche's *Wesh wesh, qu'est-ce qui se passe?* (2001) – in English: *Wesh, wesh, what's happening?* – or, more recently, to Leïla Sy and Kery James' *Banlieusards* (2019) – in English: *Street Flow* – or Ladj Ly *Les Misérables* (2019), would reveal an equally exciting and diverse set of approaches. Some of these films are actual products of the suburbs, all are mediated constructions of varied genres, from documentary to comedy and drama, and all are triggers of different readings of the reality they portray.

French sociologist Isabelle Papieau argues that when they are “called to constitute a comic book theme, the images of the suburbs will demonstrate a strong ‘symbolic power’ and draw ‘a bridge’ between the fictional domain and the universe that is ours.” (Papieau, 2001, p. 15). It is perhaps in this specific ability of comics of establishing a link between reality and fiction that lies the seductive power of the medium. Unlike cinema, a bridge mediated by the graphical expression of the drawing and the organisation of a sequence in multiple juxtaposed panels, as well as by the reader's own rhythm.

3. A diversified corpus

The relationship between architecture and comics has been discussed in many exhibitions and publications, especially since the Institut Français d'Architecture organised the exhibition *Attention Travaux! Architectures de Bande dessinée* in 1985, which itinerated through various European institutions, including the CAM/Centre of Modern Art at the Gulbenkian Foundation in Lisbon. Curated by Lionel Guyon, François Mutturur and Vincent Lunel for the broadcast department of the Institut Français d'Architecture, directed by François Chaslin, it groups a collection of images by different topics. Three of which fit within our scope: *Vérités de la palissade*, *H.L.M.* and *Banlieue*. Forty panels, primarily black and white, reveal collective housing schemes, in the modern language of postwar architecture, and unqualified open spaces at night, hoardings, *terrains vagues*, vandalised telephone booths, piled scrap cars, or parked in extensive lots next to the buildings. At first glimpse, the criticism of the monotony of these places and their lack of quality and maintenance is implicit.

However, many of these images are extracted from comic books whose stories are marginal to these places, sometimes having little, if anything, to do with them. Indeed, quite often, the curators of the exhibition selected the only panel of the entire story that depicts these neighbourhoods (Boucq, 1984, p.39; Filippini, 1984, p.10), and the exhibition catalogue reproduces these drawings without offering any comment (Guyon, Mutturur, Lunel, 1986, pp.67-70); the merit of the exhibition lies precisely in providing a collection of drawings, not in formulating their criticism. Yet, the comic magazine *A Suivre* devoted a special issue to the exhibition, for which several authors specifically drew comic pages. *Walthéry* (Busscher, 1985, pp.34-35) brought the short story of a couple of young teenagers while looking for a place for some intimacy in the basement of one of these buildings, discover the skeleton of the architect who got lost in the endless spaces he had designed without being able to find his way out. The story conveys explicit criticism of this dehumanised architecture with humour and funny graphism.

At the same time, *Attention Travaux* was opening in Angoulême, a special issue of another magazine, *Urbanisme*, devoted to the inter-ministerial programme Banlieues 89, offered a quick overview of the renderings of housing complexes in comics, as in literature and painting. In the introduction, Gilles Rousseau (1985, p.77) remarks that “contemporary comics (...) set up a suburban setting that is not yet that of large housing estates” but an “atmosphere typical of the first crown.” Later, the exhibition *Archi & BD – la ville dessinée*, curated by Jean-Marc Thévenet and Francis Rambert and held at the Cité de l'architecture et du patrimoine in 2010, collected a series of other examples, organising them with greater attention to their narrative content. In the catalogue, Philippe Morin writes *La Ville extra-muros*, an essay that argues that the authors' views of suburbia are often biased for affective reasons:

(...) comic authors' views of the suburbs are often idealised. They frequently come from the outskirts, so they use it in their decors as it is more familiar to create a world full of nostalgia. (...) while little used in other arts, the suburbs always had certain respectability in comics because, as an old sub-culture, they always felt more at ease there. (Morin, 2010, pp.108-110).

This view matches the account of Gilles Rochier, author of an award-winning trilogy on the suburbs (2008, 2011, 2017), who states using suburban complexes as setting for his narratives for the simple reason of being acquainted with such reality:

(...) my books are not about an estate, but books that use the estate as a scenario, because I live in a suburban neighbourhood and always did so that decor is the one I master the best. (...) [It is] my universe; I have always been a child of the suburbs. (Lyon BD Festival, 2013)

The Public Administration even explores the idealism endowed with some optimism and an apparent naiveté of some representations. It is the case of the *Tendre Banlieue* series, which we will refer to later, used as a pedagogical tool in several schools. Even more evident is *Oh, ce sera beau!* (Trocquet et al., 2013), an urban exhibition and a book prepared in 2014 in Le Havre, for the centenary of the Office Public d'Habitat de la Ville, the public entity that manages the social housing park. It used illustrations of eighteen comic authors – Boucq, François Schuiten, Loustal, Frank Margerin, Philippe Drouillet and others – depicting a colourful optimistic suburban dreamlike universe. Nevertheless, the reality of the suburbs portrayed in comic albums is not always so sweetened: social, psychological, and urban violence are present in numerous stories.

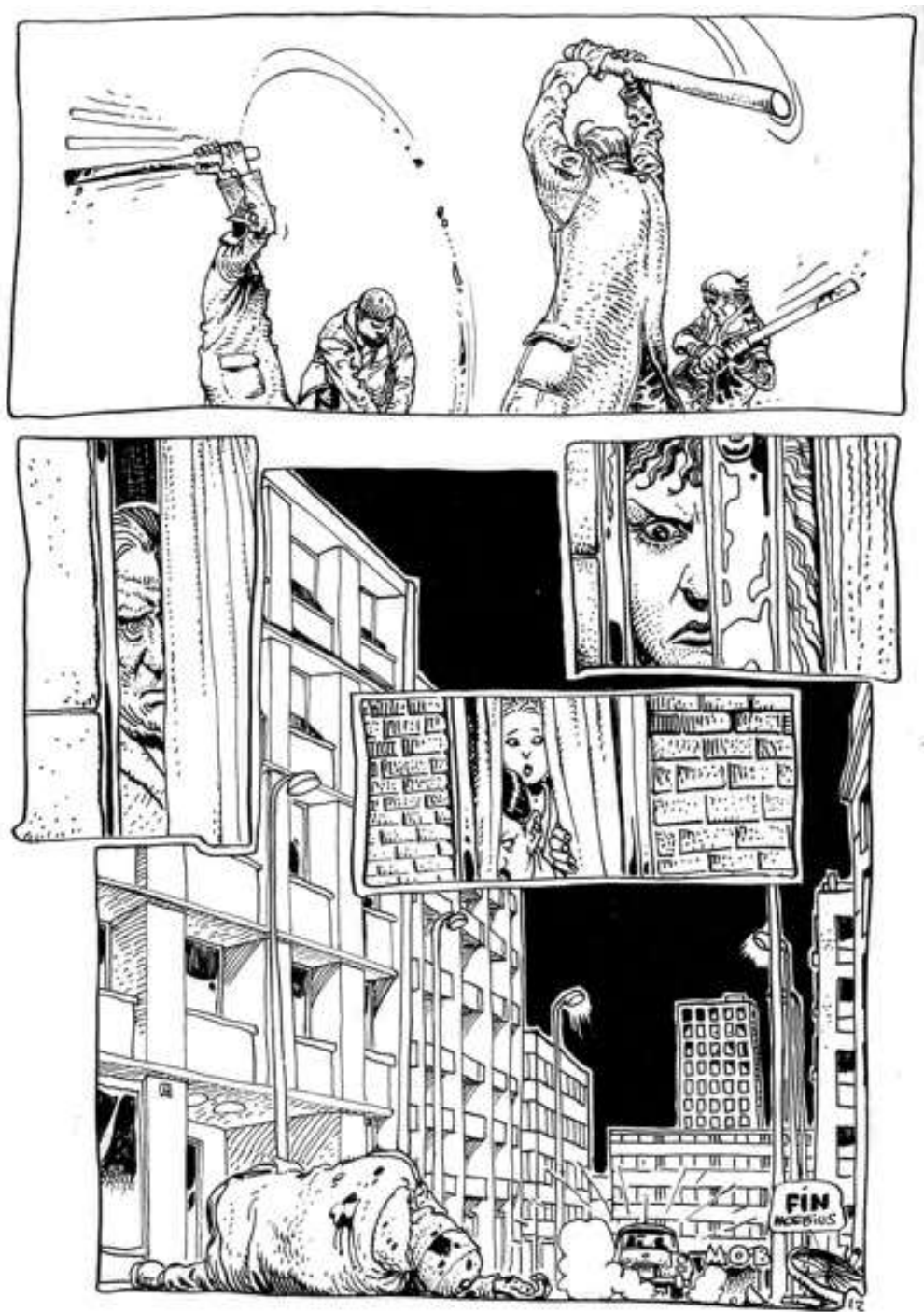
Isabelle Papieau, the author of *La banlieue de Paris dans la bande dessinée* (2001), identifies some exciting aspects of how comics deal with the subject of the suburbs. Unlike other articles that also focus on the comics representations of the French city but neglect social housing estates (Molina, 2007), Papieau specifically addresses *grands ensembles*. First, she emphasises the visual elements, the illustrations that often explore *chiaroscuro* and the night's rhetoric (Papieau, 2001, p.63), combining a dark and shadowy decor – a noir realism – with marginalised places and symbolically painful stories.

Some comic book illustrators propose an image of a suburb decomposed under a spectral light from two “instrumental” colours: black and white. (...) The pessimism of the chilling images explores unspeakable places, referring to the origins of stigmatisation; the visual record of wrecked, thankless suburbia that graphically dilutes the infinite is supported by expressionist images that communicate, through the scenarios and scenes of life, the despair of those places. (Papieau, 2001, p.51)

The aesthetic coldness of the landscapes, some of which are even identifiable – as is the case with *Klisky s/s Bois* (Eberoni, Lob, 1980) – is sometimes enhanced by the graphics and the perspectives that accentuate the vanishing points (Papieau, 2001, p.62). Signs of filth and degradation convey the lack of civility: on the outside, garbage on the floor, façades with tags and graffiti; in the interiors, damaged walls and ceilings, especially in the common areas, untidy and modest apartments, with banal decoration and kitschy taste. The constant presence of television and alcohol, the books rare and neglected, also alludes to a low cultural stratum (pp.54-60). Characters, especially teenagers, sometimes defined by some quick strokes only – possibly to “reinforce the notion of anonymity” (p.62) – depict an excluded youth, with a feeling of non-belonging, victim of a flawed school system and unavoidable and long-lasting unemployment (p.67). We thus find the archetypes of deviation, wandering, the spiral of marginality and the menace to public order, alongside the black economy and the delinquency that degenerates social norms and hides in the shadow. In short, Papieau argues that “in tune with the media treatment, comic books explicitly report the avatars of a fallacious micro-society, deviated to collusion and punitive actions” (p.67). Additionally, they manage “illustrating the inhumanity of the utterly monofunctional and socially fractured *grands ensembles*, embedded in public spaces that comic authors graphically describe their emptiness and pollution” (p.127). These considerations are more or less supported by a set of albums that Papieau analyzes, in particular the *Adventures of Lucien and Ricky Banlieue* (Margerin, 1981; 1987), *Les Bidochon* (Binet, 1982), *Scènes de la vie de banlieue* (Caza, 1977) and *Ethnic ta mère* (Boudjellal, 1996).

4. Some examples

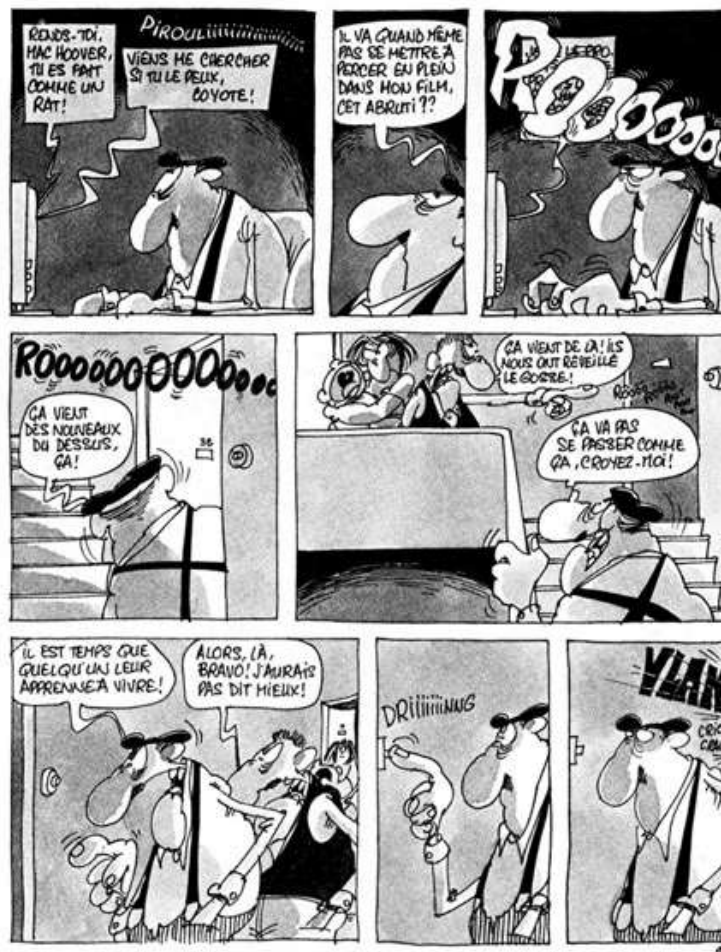
The first comic story in *bande dessinée* in a suburban neighbourhood is *Cauchemar Blanc* (Mœbius, 1980) – in English: *White Nightmare* – published in 1974 in the Franco-Belgian comics magazine *L'Echo des Savanes* and the only incursion of Mœbius in social realism. Far from his typical fantastic scenarios, this short episode occurs on a winter's night in a social housing neighbourhood and focuses on racism and interpersonal disputes. Throughout thirteen monochrome pages and agonising graphics (figure 2), we see an Arab man run over, knocked unconscious, and beaten by a group of four racists in a vacant parking lot outside of the apartment buildings. The drawings are masterly balanced, exploring the composition of several partial views, with different zooms and counter-perspectives, reinforcing the graphical power of the black and white contrast and emphasising the dramatic story. This piece also served as a screenplay for Mathieu Kassovitz's homonymous short film (1991) set at the Fontenay-sous-Bois *cité HLM*, where Moebius is from, four years before his feature film *La Haine* (Kassovitz, 1995) filmed in Chanteloup-les-Vignes (Thierry, 2013).

Figure 2. Mœbius, *Cauchemar Blanc*

Between 1977 and 1979, Philippe Caza launched the series *Scènes de la vie de banlieue* (1977) – in English: *Scenes of suburban life*. Composed of short episodes, it stands out for intersecting the realm of the suburbs and the fantastic through passages to parallel dreamlike worlds borrowed from science fiction. Although its visual interest – supported by meticulous psychedelic and bold coloured aesthetics – largely overcomes its ideological or social commitment, the author describes the dormitory neighbourhoods as dehumanising spaces. In some episodes, at least, he portrays their inhabitants as living-dead and reveals this architecture as a mere scenery, implicitly referring to the alienation and normalisation imposed by these spaces and by the rat race logic of the commuters' daily routine, popularly translated by the French expression *metro, boulot, dodo* – literally subway, work, sleep.

Several other series represent the *grands ensembles* somehow marginally. For example, Jean-Pierre Gibrat launched *Goudard* in 1980, the story of a young teenager that skates throughout a series of suburban blocks (Gibrat, Berroyer, 1981-82). However, apart from brief allusions to neighbourhood problems and the depiction of some punctual architectural elements, the interaction with the neighbourhood is significantly reduced. In the same period, Frank Margerin provided idealised and humorous versions of the suburbs in his series *Lucien* (1981, 2008) and *Ricky Banlieue* (1987) – in English: *Ricky Suburb* – which explicitly avoid addressing the social problems that were already felt at the time. Although they allow reading some social and cultural aspects (Papieau, 2001), the urban issues remain marginal and *grands ensembles* a mere feature of the scenery.

Figure 3. Binet, Les Bidochons en habitation à loyer modéré



An emblematic and totally different album is *Les Bidochon en habitation à loyer modéré* (1982) by Binet. The *Bidochons* are a stereotypical suburban middle-class family, somehow the French *bande dessinée* counterpart of the American cartoon *The Simpsons* and the British sitcom *The Royal Family*, albeit relatively unknown outside France. In this specific adventure, the narrative unfolds in a social housing building, never revealed in an ensemble perspective, but always in partial views, often combining the structure of the comics page with the white frames between the panels used as architectural elements, either walls or slabs. Binet, who also lived in a public-sector estate, depicts, throughout the story, a series of neighbourhood problems and promiscuity due to the cheap and thin construction of these prefabricated buildings: inadequate acoustic insulation, the poor quality of the finishing materials, the garbage chutes and the staircases acting like sounding boards, promiscuous subject to various smells, etc. (figure 3). The story also points out the banality and the repetitive sameness of the architectural solutions and the poor quality of outdoor spaces, besides the distance and physical separation between the city and the estates.

“Built away from it all” or stuck between a “boulevard on one side and the railway on the opposite.” (Binet, 1982, p.36). The architect himself is summoned to explain the great challenge of fitting “the maximum number of inhabitants into the minimum space” (p.37). Lastly, we witness the boredom and the depression of the residents and Mrs. Bidochon’s frustration when realising that neighbours are moving into a single-family house without being able to do the same. Despite the book’s caricatural tone, many of the album’s criticisms correspond accurately to the accounts of Bourdieu’s interviews (1993).

With an optimistic tone, from the 1980s to 2010, Tito’s *Tendre Banlieue* series (1983, 1984) – in English: *Tender Suburb* – chronicles the happy adolescence in a suburban environment of a group of teenagers between 7th and 12th grade. With a pedagogical vocation and a sentimental oversimplified manner, its 20 albums address both the issues of that generation as some social problems, from unemployment to illiteracy, drug addiction, AIDS, etc., but always in an upbeat and sweetened version of reality. Architecture renderings are very accurate, and some neighbourhoods are even recognisable, like *La Butte Rouge* in *Chatenay-Malabry* – where the author lived – to reinforce the narrative’s credibility. However, as one could predict from the title, the harsh, complicated, and mediatised suburbs are avoided, preferring quieter, ‘tender’ areas (Jacquet, 2015). Jano made the opposite choice, explicitly portraying violence with *Kébra* (Jano, Tramber, 1981, 1985), published in the comics magazines *Hurlant Métal* and *Charlie Mensuel*. Using animal characters, this top-rated series in the 1980s became a symbol of youth counterculture. The main character, a rat – like Art Spiegelman’s *Maus*, created in the same period, who lends himself to the pun “rat-caille” from the French *racaille* for scum – lives in a decrepit HLM estate (figure 4). In ‘dirty’ graphics, sometimes monochrome others in full colour, we see *terrains vagues*, destruction and dereliction, filth, vandalism, delinquency, theft and aggression, revolt against the forces of order, drug trafficking, etc. In short, all the typical clichés of violent suburbia, but with lots of humour.

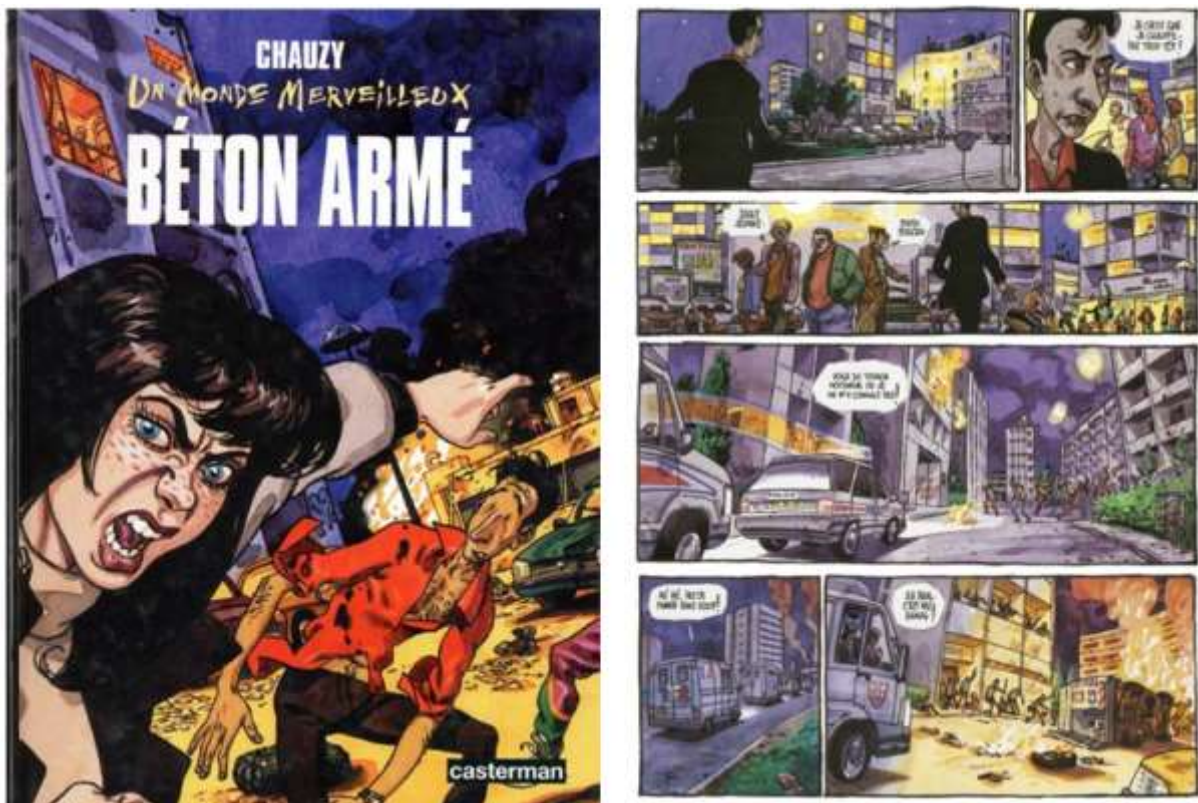
Figure 4. Jano, *Kébra* dans la honte aux troussees!



The theme of violence in the estates returned in the late 1990s with Jean-Christophe Chauzy's *Béton Armé* (1997) – in English: *Reinforced Concrete* (armed). The main character finds himself in the middle of the night, alone and on foot, in the middle of a *cité*; he gets into trouble in a series of caricatural adventures typical of the suburbs portrayed by the media. Supported in facts, exaggerated with large doses of humour and mockery, Chauzy brings intense, colourful and distressing graphics that overcharge the dramatic scenes loaded with brutality and gore. Drawn expressively (figure 5) – like all his albums (Chauzy, 2001) – the architecture of the estates reinforces this effect.

My book received the reactions I expected: I was accused, upon its publication in 1997, of telling nonsense about the suburbs, but the reality proved to be much more spectacular and atrocious than fiction. One of my students (...) accused me of exaggerating, showing what we saw on television. He had been an educator in the suburbs for years, dealing with young people. He recently admitted that he was breaking down and recognises today that what I was saying wasn't as exaggerated as that. (Chauzy, 2000)

Figure 5. Chauzy, *Béton armé*



Cover (left) and collage of different panels (right).

Violence – sometimes extreme, especially in rivalry and reckoning between gangs – continues in subsequent comic series. *Le Temps des Cités* (2008) – in English: *The Time of the Cities/Estates* –, set in the 1980s, makes this report by using highly realistic architectural sceneries. However, some more recent narratives, like TMLP *Ta mère la pute* by Gilles Rochier (2011) – in English: *Your mother the whore* – or *Ligne B* by Julien Revenu (2015), opted for simplified, almost childlike graphics in the representation of the characters and the buildings. This graphic economy reveals an especially effective communication of the various forms of violence of these places: latent violence; symbolic violence, with specific social codes; and actual violence, including physical and verbal aggression against people, and the inability of the forces of order to control it. Rochier's album, which won the

revelation prize at the International Comics Festival of Angoulême 2012 – and forms a trilogy about life in the suburbs with the autobiographical *Temps Morts* (2008), *La Petite Couronne* (2017) and *Solo* (2019) – offers a sensitive and raw image of youth. It subtly reveals the mechanisms of social exclusion without great pathos or gratuitous violence. We see grands ensembles arising in the 1970s, way before they became ghettos when some optimism and innocence remained. We then witness the daily life of a group of young people between childhood and adolescence. Their encounter with the secrets of others sets the main plot, and that discovery destroys their friendship and steals their youth away. The sweet childlike monochromatic sepia drawing suggests more than it describes, turning especially effective in transmitting this sad and cruel reality, this profoundly human misery. Ligne B (figure 6), on the other hand, with a more linear drawing and shades of grey, places the narrative in 2005, precisely in the period of the revolt in the outskirts of several cities – *émeutes des banlieues*. The album tells the story of a father living in the suburbs who makes the wrong choices after constant humiliations. Following his assault on a train by a group of youngsters, being unable to respond, he gets stuck in feelings of anger and helplessness. As a portrait of the *malaise* of a man reduced to *metro, boulot, dodo*, the album reveals a growing crescendo from petty crime to countless images of urban riots, in apparently caricatural graphics yet devoid of humorous intention. Despite the simplified graphics of both authors, several real neighbourhoods are recognisable in the albums: the infamous Cité des 4.000 at La Courneuve in Ligne B, particularly the Barre Balzac building, erected in 1963 and demolished in 2011 (figure 7); Montmorency in TMLP, or the famous Tours Nuage, designed by Émile Aillaud in Nanterre, in Rochier's *La Petite Couronne*.

Figure 6. Gilles Rochier, TMLP. Ta mère la pute



Figure 7. Julien Revenu, Ligne B

5. Final remarks

The *corpus* of comic strips that addresses *grands ensembles* and their social problems is considerable, composed of albums of several authors in different periods and with intentions, contents, styles, and narratives that do not compete for a unique precise vision. Moreover, assuming comics might convey a univocal image of this territory would correspond to the mistake – unfortunately quite common – of taking comics, not as a medium or a narrative art form but as a ‘literary genre’. That precise confusion led to the disappearance of photo novels, which was “confiscated by sentimental novels” (Peeters, 1991, p.5). Yet, one thing that we could argue, HLM estates or *grands ensembles*, due to the stigma that they comprise and through the repetitive nature of its architecture, with the solid “Hard French” image – to borrow the term of Bruno Vayssière (1988) –, quickly overcome the strength of a mere scenery. They immediately assume a relevant role in the narrative and call a series of imageries and representations.

Longtime reserved for the children’s world, mainly featuring adventures and humorous gags, comics progressively conquered an adult audience and, consequently, became intellectualised, acquiring density and the label ‘graphic novel’, and assuming the role of a portrait of social reality, one that explores its multiple connections. Life in a problematic suburb, especially with a recognisable architectural and urban fabric and solid graphic power, quickly becomes fertile material for inspiration. Besides, its character of failed architecture, the image of an inverted

utopia, indubitably provides additional interest for the narrative – history of cinema and literature demonstrates it – as dystopic worlds always proved to be more productive than any utopian urban systems (René Boer, 2013; Lus Arana, 2012).

Comic authors imbue their narratives with their personal visions – often informed by their own experience as residents in the suburbs – which might be closer or distant from the stereotypes conveyed by the media and those assimilated by the readers. When narrating dystopian environments and violent gore or enhancing this suburban setting's anthropological and visual qualities, the architectural issues, social problems, delinquency, or personal feelings become raw material for constructing different approaches and messages. Graphics, whether imbuing the representations with a comic and caricatural effect – even if in apparent contrast with the severity of the themes – sometimes providing it with optimism, other times reinforcing its dramatism, play a determinant role in the way we see (and read) these paper architectures. Perhaps, beyond the general atavisms of urbaphilia and urbaphobia, these graphic narratives might also provide interesting clues about the much-needed right to the city.

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Comic Books

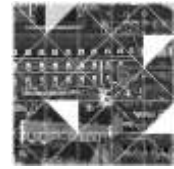
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CIDADES, Comunidades e Territórios



The history of the Cité Balzac and the vicious circle of social housing

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Abstract

The history of the Cité Balzac, a housing complex built in the 1960's in Vitry-sur-Seine, an emblematic "red suburb" in the south of Paris, reveals several transformations on public housing policies in France and some permanencies throughout five decades. Originally built to provide affordable housing for the inhabitants of problematic neighbourhoods within Paris, this large-scale complex inspired by post war architectural models and organized following functionalist urban-ism schemes has been initially occupied by an emerging middle class that left the apartments when private property became encouraged by a liberal government during the 1970's. The social housing apartments were by then occupied by impoverished immigrants and French citizens coming from former colonies and became stigmatized as a symbol of social problems and ethnic conflicts. Recently, even being situated in a municipality dominated by the French Communist Party since 1920's, the Cité Balzac was the epicentre of an intense urban renovation project led by the National Agency for Urban Renewal (ANRU), giving room to a controlled gentrification process that tried to erase the image of sensible neighbourhood that characterized this territory and its surroundings with the demolition of the bigger blocks and the 'residentialization' of the smaller ones. This project opened space for new housing blocks built by real estate and public works contractors based on private property to be occupied by middle class families that couldn't afford to buy in Paris *intramuros*. This controlled gentrification happened gradually as the Grand Paris project was taking place, expanding the limits of the French capital to its closer suburbs with the extension and improvement of the public transportation system, feeding a vicious circle that raises fundamental issues about the role of social housing and its contradictions.

Keywords: social housing in France, Paris' red suburbs, urban renewal in the 2000s.

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Introduction

In this article, our aim is to discuss some problems and conflicts emerging from the analysis of the history of a particular grand ensemble in the Paris' southern red suburbs, built in the last years of the Thirty Glorious years of economic growth after World War II, partially demolished and rebuilt during an ambitious renewal operation in early 2000's. In the PhD thesis defended in 2014, our strategy was to develop two monographs on specific large-scale housing projects in France and Brazil to understand their parallels and common aspects, revealing the role of social housing in the capitalist societies and their structural problems. Here, we will focus in one side of this wider story, concentrating our attention on Vitry-sur-Seine, emblematic municipality dominated by the French Communist Party since interwar period where social housing was a strategic field on public policies and political rhetorics. During the so-called ZUP (*Zone à Urbaniser en Priorité*) years, especially after the inauguration of the Fifth Republic in France (1958), the state set in motion an ambitious plan to reorganise the banlieue, which envisaged the construction of several *grands ensembles* around Paris, as an indispensable measure to balance rural migrations towards Paris and reduce the population density of the crowded and run-down "îlots insalubres".

Many recent works have been published in France on the history of grands ensembles, in an attempt to understand the enormous transformation to which these spaces and objects were subject-ed. From symbol of a broad constructive social project, the huge housing estates produced during the thirty glorious years of spectacular growth of the French economy in the post-war period, especially in the 1960s, came to be seen as spaces of segregation, violence and social problems, occupying the place previously reserved for *bidonvilles* and self-built territories, also known as "pavillonnaire".² It is mainly up to historians of the city, architecture and urbanism to recover the original meaning of the grands ensembles, as does Danièle Voldman: "Les grands ensembles sont aujourd'hui perçus comme des repoussoirs et des symboles d'une relégation sociale; ils ont pour-tant été, en leur temps, l'objet d'une des plus belles ambitions du XXème siècle: offrir un logement décent à tous." (Voldman, 2010, p.201)

From monographic approaches over one particular project or grouped under the work of one architect or institution to sociological perspectives or political histories, grands ensembles became recently privileged objects of urban and social history in France. Even if the ordinariness of Cité Balzac didn't claim for specific work in architectural history field³, as one of the less exceptional examples of many grands ensembles with similar stories, after its spectacular, mediated and traumatic renewal, our hypothesis is that this particular territory describes a perfect cycle, showing the limits and contradictions of social housing as a modern utopia, its crisis and contemporary conditions. Cité Balzac interests us not only because it was one typical 1960's project, symbol of a new way of living and of the modernization of housing construction techniques and policies but also because it suffered intensely a process of degradation and stigmatization, being characterized a little more than a decade after its inauguration by social problems, violence, conflicts involving youngsters, unemployment, drug trafficking and the concentration of immigrants and poverty. From ZUP, Cité Balzac shifted to *Zone Urbaine Sensible* (ZUS), a euphemism that inserts it in the cartography of problematic suburbs, relegated to those who could not choose where to live through not so subtle economic or ethnic differentiations.

Here, we will shortly present the construction of the Cité Balzac, inscribed in this ambitious urban operation in the southern limits of this red suburb⁴, its occupation and the conflicts that lead to its physical and social metamorphose through one project led by local communists and funded by the National Agency for Urban Renewal (ANRU). The logics of ANRU imposed the demolition of the gigantic housing blocks, towers and slabs, substituted by new typologies and new policies, favouring a controlled gentrification process, under the notion of "social mixing".

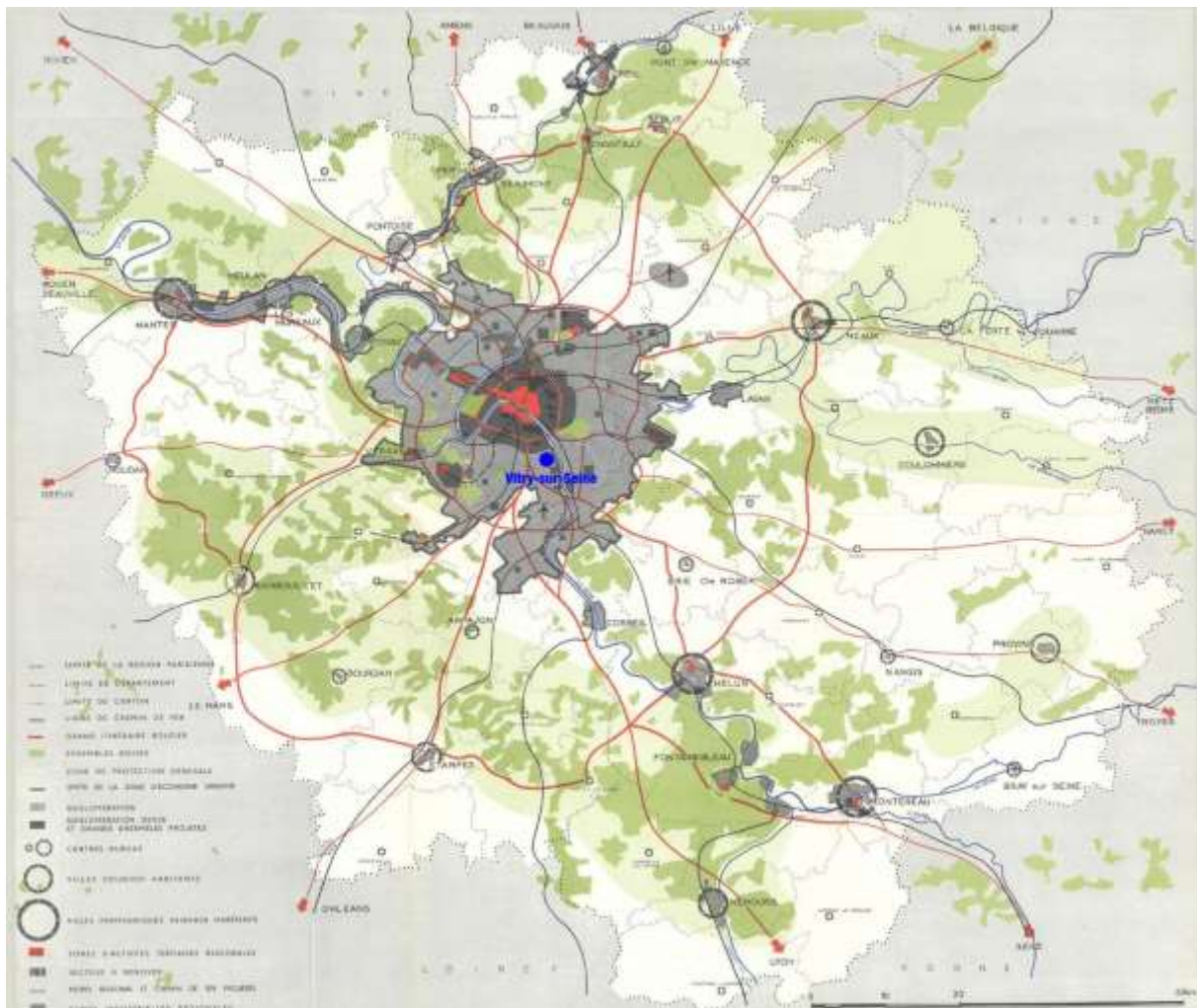
² See the study made between 1964 and 1965 by the Institut de Sociologie Urbaine under the coordination of Henri LeFebvre entitled *L'habitat pavillonnaire*, with the collaboration of Henri Raymond, Nicole Haumont, Marie-Geneviève Raymond and Antoine Haumont, published in Paris by the Centre de Recherche d'Urbanisme in 1966.

³ With the exception of Robert Heritier's work, presented as an thesis on architecture at Unité Pédagogique d'Architecture n° 6 (UPA n°6, nowadays École Nationale Supérieure d'Architecture de Paris La Villette) in 1982, that aimed solve Cité's Balzac problems through small-scale architectural interventions. See also the documentary *Dans le regard des autres*, directed by Daniel Kupferstein in 2010 and produced during the first demolitions, capturing the memories and nostalgia of inhabitants when recapitulating the history of the Cité Balzac.

⁴ *Banlieue rouge* (or red suburbs, in a free translation) is a common expression in France to designate the municipalities around Paris and other major french cities led by the French Communist Party mayors during the 20th century, place of a particular political phenomena known as the "Municipal Communism". See Fourcaut, A. (Org.) *Banlieue rouge: Années Thorez, années Gabin: archétype du populaire, banc d'essai des modernités (1920-60)* Paris: Autrement, 1992.

This synecdoche of the history of rise and fall of this modern utopia — a decent house for every family, materialized through a particular architecture — hard, statistic or even sordid modernism that radically transformed the urban landscapes in France, can be foreseen following the singular history of the Cité Balzac. Through the critical and transdisciplinary gaze over these episodes, conflicts and transformations, we can understand some limits of social housing political and economic functions and the permanence of the urban crisis in contemporary conditions. Through a “simultaneous understanding” of the history of the subject and of this territory, confronted with the diachronic sequence of the short time of events reconstructed from local public archives and the press, we will seek to understand the general meaning and contradictions that surrounded the realisation of large social housing estates and that ended up calling into question the function of these policies.

Figure 1. The strategic position of Vitry-sur-Seine



Source: Plan d'aménagement et d'organisation générale de la région parisienne (1960).

Tumulte dans l'ensemble: the case of Cité Balzac

Cité Balzac is part of the Grand Ensemble N°4, built in the late 1960's in Vitry-sur-Seine, following the plans of the Construction Ministry, led by former French resistant Pierre Sudreau (1919-2012) during Charles de Gaulle government (1959-1969). Sudreau embedded the functionalist urbanism doctrines as did Paul Delouvrier (1914-1995), responsible for conducting the *Plan d'Organisation Générale de la Région Parisienne* (PADOG), approved

in 1965 to “put some order in the urban mess” that characterized the Parisian region after World War II, following de Gaulle’s words⁵. Vitry-sur-Seine, since 1925 until recently⁶, is ruled by the French Communist Party (PCF) as Ivry-sur-Seine, strategic territories of the municipal communism that emerged in the interwar years. During the *Trente Glorieuses* period (between 1945-1974), grands ensembles became the rule as urban model and iconic symbol of the État Providence. Social housing was a priority in communist administrations for evident reasons, transforming these territories in a collection of elaborated experiences in the field⁷. Since the 1920s, when the first blocks of ‘Habitations à Bon Marché’ (HBM) were built to house the precariously sheltered workers of the industries that settled around Paris, to the present day, the commune has been constructing both paradigmatic and ordinary examples of social housing projects⁸.

The characteristic achievements of the interwar HBMs were severely criticised by the modernists and the generations that followed, finding a certain rehabilitation in our days, praising their scale, more compatible with the traditional French cities. Le Corbusier (1887-1965) was one of the critics of this model of living, calling the buildings “sordid ante-chambers of the city”⁹; his fellow countryman, the poet Blaise Cendrars (1887-1961) also vociferated against the way of life inside today’s valued HBM flats. Part of the criticism focused on the ineffectiveness of public production from the achievements of that moment, either HBM or garden city; both models would be unable to face the growing housing deficit, especially after the destructions of the World War II. Large-scale housing production based on industrialized construction would emerge from the 1950s as the only possible answer to face the problem, replacing the HBM-type brick buildings as a design paradigm, loaded with ornamental details characteristic of artistic masonry.

Figure 2. Cité Balzac building site in late 1960’s



Source: Vitry-sur-Seine’s Municipal Archives (APMV).

⁵ ‘Interview with Pierre Sudreau, Minister of Construction: Planning of Parisian Region’, 20/Nov/ 1958. <http://www.ina.fr/art-et-culture/architecture/video/CPF86635169/entretien-avec-pierre-sudreau-ministre-de-la-construction-amenagement-de-la-region-parisienne.fr.html>.

⁶ The PCF rule over Vitry and Ivry-sur-Seine was only interrupted between 1940 and 1945, during World War II, when France was under Nazi occupation.

⁷ Pouvreau, B. (2009) ‘Quand communisme municipal rimait avec laboratoire urbain (1944-1986)’ in Bellanger, E. and Mischi, J. (2013) *Les territoires du communisme Élus locaux, politiques publiques et sociabilités militantes* Armand Colin/ Recherches CHS.

⁸ Vitry, cité laborieuse Documentary (1947) http://www.cinearchives.org/recherche_avancee_VITRY__CITE_LABORIEUSE-424-135-0-1.html?ref=5afbb53ad8a230aa18fb5b5da297-be2a

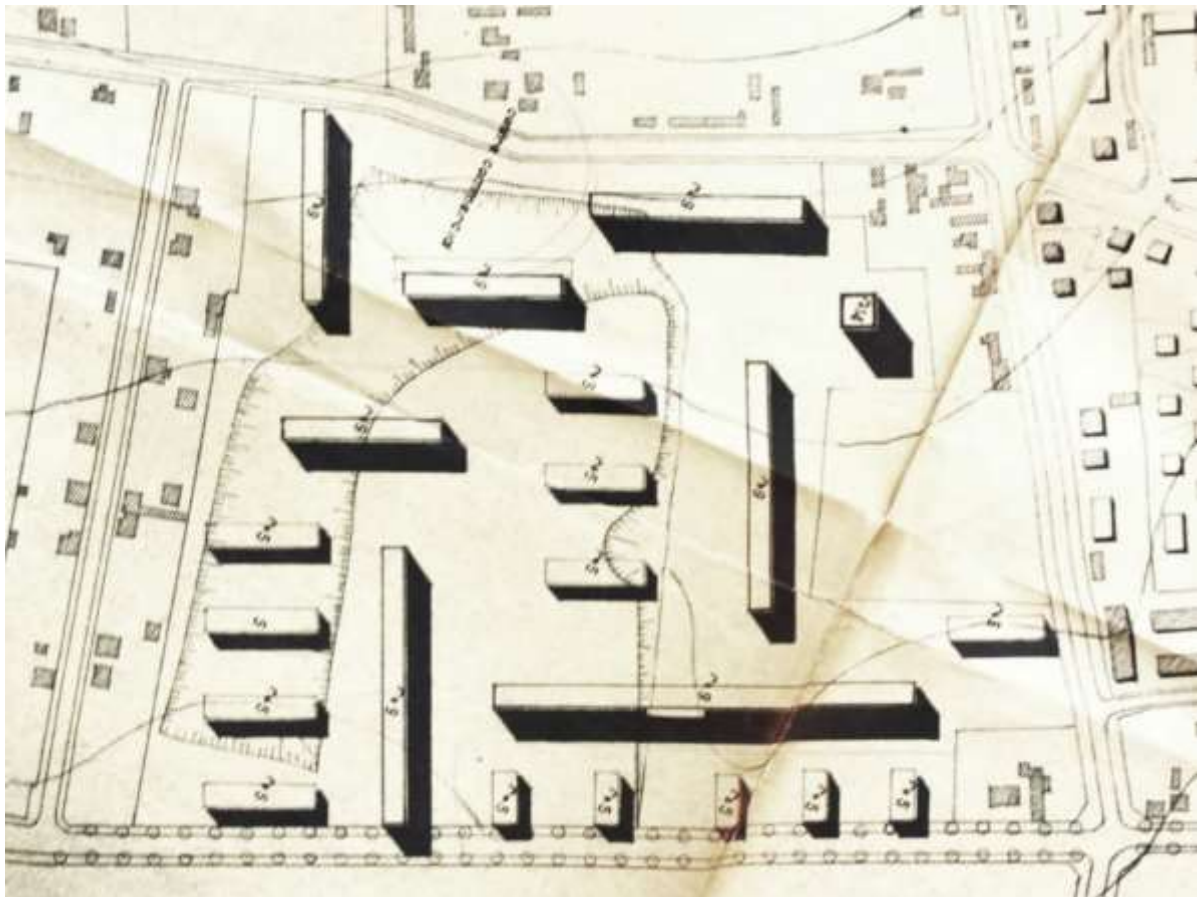
⁹ Apud Heritier, R. (1982). *Le quartier Balzac à Vitry - Analyse comparative de trois formes différentes d’habitants collectives: un îlot préhaussmannien, une rue haussmannienne et un grand ensemble - Proposition de réaménagement du quartier Balzac* Paris: École Nationale Supérieure d’Architecture Paris La Villette.

In Vitry, we can find examples of early red bricks buildings that materialized a typology associated to the French version of the *Cité-jardins* or radical experiences such as the Charles-Floquet project by Marcel Lods (1891-1978) and Eugène Beaudoin (1898-1983) from 1933-35, using prefabricated concrete elements, among other more ordinary post-war “hard French” architectures, some of them greatly inspired of the Marseille’s *Unité d’Habitation* by Le Corbusier and Pierre Jeanneret (1896-1967) and other modern typologies built during the ZUP years¹⁰.

Cité Balzac makes part of the ambitious plan of massive urbanization and city centre’s renewal, involving the demolition of a substantial part of the dilapidated medieval urban core and the construction of dozens of new apartments blocks, public equipments, parks and commercial facilities.

Ainsi naissent les cités nouvelles appelées 'grands ensembles' à partir des années 1960. Ce consensus, né de l'urgence de la crise du logement, est partagé par tous: les maires poussés par leurs électeurs qui veulent des logements neufs; les responsables politiques; les fonctionnaires du ministère et des directions départementales; les architectes et les maîtres d'ou-vrage. (Annie Fourcaut in Fourcaut, A. e Harismendy, F. (orgs.) 2011, p.211)

Figure 3. Cité Balzac original project by Charles Sebillote



Source: Vitry-sur-Seine’s Municipal Archives (APMV).

The film *Deux ou trois choses que je sais d’elle* (1967), by Jean Luc Godard (1930-), reflects the ambiguities and contradictions of a society that was voluntarily modernising itself, in conflict with the new forms of life in metropolises and the prospects of the mass consumer society. The Parisian region is one of the female characters

¹⁰ Monnier, G. and Klein, R. (2002.) *Les années ZUP : architectures de la croissance, 1960-1973* Paris: Picard.

in the film, among others, who prostitute them-selves while delivering reflections and 'lessons on industrial society', 'introductions to ethnology', echoing the critique and discourse associated with the grands ensembles in the same film through different characters.

The first project to the urban operation was made by the architect Charles Sebillote (1908-?), according to the Ministry of Construction prescriptions. However, the communist municipality re-fused the preliminary plan, demanding more social housing that could face the needs of the emerging industrial workforce, composed of French middle class but also European and north African migrants. Using the French Communist Party's political prestige, in expansion at that moment, Vitry's mayorship imposed the Italian-born architect Mario Capra (1923-1971) as the responsible for the operation, in an attempt to control the major urban transformation and build modular experiences in the red suburbs. The urban project developed by Capra was greatly inspired of Brasília as a model of a utopic city designed from scratch to foster new relations between citizens of different social conditions under a complete rationalist urban realization. According to Bruno Vayssi re, one of the first critics to write about the hard French, statistic or even sordid architecture characteristic of the Trente Glorieuses, the relation between Vitry's Grand Ensemble project and Bras lia was evident: *Le grand ensemble de Vitry sur Seine, une Bras lia rouge pr curseur: d s le debut des ann es cinquante, la r novation urbaine   coup de tabula rasa inspir e des bombardements va proposer de v ritables villes contemporaines dans la ville ancienne*. (Vayssi re, 1988, p.228)

During late 1960s, Oscar Niemeyer (1907-2012) was self-exiled in France, designing not only the siege of the Communist French Party but also other important projects on other municipalities ruled by the communists through strong and friendly connections with the PCF¹¹. Bras lia's yet recent fascination was one present reference on the imaginary of the protagonists of the municipal communism movement that dreamed of building the modern "symbolic capital" of the red suburbs the surrounded Paris (Bellanger and Mischi, 2013).

Ivry-sur-Seine, the Siamese sister city between Vitry and Paris, was an iconic communist municipality. Surnamed Little Moscow is a strategic political base of important PCF leaders like Maurice Thorez (1900-1964), Georges Marrane (1888-1976) and the Gosnat family¹² and an iconic territory for the realizations of municipal communism, such as social housing complexes, public health, education and leisure facilities on the Southern bastion of communist territories around Paris.

Planned to foster the expansion of the local population from less than 50.000 to 100.000 inhabitants within few decades, the massive operation composed of high rise precast concrete blocks and low-rise slabs transformed not only Vitry's landscape but also its social structures. Capra's plan organized the project in different sectors in order to absorb the demographic explosion characteristic of the post war years but also to offer decent housing to French middle-class families poorly installed on the " lot insalubres", whose demolition was considered a priority by the Construction Ministry policies. Cit  Balzac was the most segregated sector of the ZUP established in Vitry, composed by different housing blocks built under different programs designed to offer housing to the population evicted from inner Paris, emigrating families coming from the countryside and to former slums inhabitants. The construction works started in 1967 with the erection of three high-rise blocks inspired of Le Corbusier's Marseille Unit  d'Habitation and were accomplished around 1974, when the last of the smaller blocks were delivered to its first inhabitants.

The social organization of heterogeneous populations can be read through the architectural composition of the ensemble: the three Marseille-inspired ABC-DEF-GHI blocks and the low-rise slabs around them were dedicated to typical HLM financing schemes and populations, while a longer block placed in the limit of the plot housed higher stand apartments with superior rents, mainly occupied by French middle class. Other three smaller blocks were dedicated to host populations moved from the Parisian " lot insalubres" situated on the 13 me

¹¹ On Niemeyer's period in France and its relations with the PCF, see Grossman, V. (2021) *Oscar Niemeyer en France : Un exil cr atif* (Carnets d'architectes) Paris: Cit  de l'Architecture et du Patrimoine.

¹² Venise Gosnat (1887-1970), Georges Gosnat (1914-1982) and Pierre Gosnat (1948-2015) were key figures of the PCF based in Ivry-sur-Seine.

arrondissement; a Cité de Transit, temporary residence for former slum residents, among them many Portuguese, existed also in Cité Balzac during its early years, being demolished in late 1970's. Until the recent renovation, also a *Foyer de travailleurs célibataires* lodged single African migrants working in France and willing to bring their families in. The local newspaper *Vitry Hier, Aujourd'Hui et Demain*¹³, published by the communist municipality follows and reports the construction of the different phases of the Grand Ensemble project but also the clashes between first residents and authorities.

After some years of pacific coexistence of these three different social groups, the white and French middle-class started to leave the complex, stimulated by the savings accumulated during the thirty glorious years and by the policies of the liberal right government of Valéry Giscard d'Estaing (1926-2020) in late 1970's that fostered private-property policies on housing. The empty apartments were progressively occupied by migrant families, mainly from North Africa but also from European countries like Portugal and Italy or by poorly integrated *pié-noirs*, French citizens re-turning from former colonies such as Algeria, independent since 1962. The conflicts between the incoming population of the housing projects and the former Vitry citizens started to become violent in the early 1980's when a youngster was killed by a janitor, giving place to clashes and conflicts mediated by the police and strong stigmatization on the press. The lack of maintenance of the collective spaces within the buildings and its infrastructures, associated with the pathologies of the experimental construction techniques employed to build in unprecedented speed and scale helped to raise the tensions between neighbours, aggravating the segregation and stigmatization of the Cité Balzac and its inhabitants.

In early 1980's, the transference of a group of African workers from another suburb controlled by the right wing to Vitry opposed the communist mayorship to the African Muslim immigrants in an episode explored in national political disputes and press to denounce communists contradictions. The mayor took part in an action to avoid the transference of the Mali immigrants, showing some limits on communist's notion of integration and giving fuel to both right wing and socialist's critiques.

At the same time, in the national level, the Socialist government of François Mitterrand (1916-1996) started to act in the sensible neighbourhoods, developing positive discrimination actions on these problematic territories and demolishing some of the blocks built in the late 1960's and early 1970's such as parts of the Cité des 4000, in the northern suburb of La Courneuve. Despite of the social actions undertaken by a different approach of these impoverished neighbourhoods known as "politique de la ville", the relegation process on Cité Balzac kept escalating, helping to concentrate high rates of unemployed and undereducated populations and frequent episodes of delinquency such as drug trafficking and robberies. In early 1990's, the commercial facilities built in Cité Balzac were demolished after being left unoccupied by store owners tired of being constantly robbed by local youngsters. Progressively, the local social housing company, responsible for the administration and the attribution of the apartments to the families, had to face the rejection of the families to the possibility of living in Cité Balzac. Frequent demands of dwellers expressed the will of getting an apartment anywhere but in this stigmatized complex.

In 2002, when the youngster Sohane Benziane (1984-2002) was burnt alive in a trash container in one of the Cité Balzac blocks by her ex-boyfriend, the national media turned again their attention to the complex, focusing the episode as a symbol of the conflicts that were spread out on social housing complexes opposing and challenging French revolution's moral and limits. In 2005, several episodes of violence in the suburbs spread out an intense wave of contestation and altercations between youngsters and the members of the *Compagnies Républicaines de Sécurité* (CRS) in reaction to the death of three youngsters persecuted by the police. These mediated and politically explored episodes of a history of violence and tension frequent since late 1970's that suddenly and constantly escalates until nowadays has been analysed in different perspectives. The anonymous collective *Comité Invisible* in its manifesto *L'insurrection qui vient* (2007) situated in these struggles that took place in the French suburbs as an episode of a disruption in the politic field:

What was new wasn't the "banlieue revolt," since that was already going on in the '80s, but the break with its established forms. These assailants no longer listen to anybody, neither to their Big Brothers and Big Sisters, nor to the community organizations

¹³ The collection of all editions of the newspaper can be consulted at the Vitry-sur-Seine Municipal Archive (APMV).

charged with overseeing the return to normal. (...) This whole series of nocturnal vandalisms and anonymous attacks, this wordless destruction, has widened the breach between politics and the political. No one can honestly deny the obvious: this was an assault that made no demands, a threat without a message, and it had nothing to do with "politics." One would have to be oblivious to the autonomous youth movements of the last 30 years not to see the purely political character of this resolute negation of politics. (Comité invisible, 2007, p.24-25)

Figure 4. Cité Balzac “shifts the page”.



Source: Libération, September 6, 2012.

In the public opinion, especially in the early 2000s, modern architecture was considered responsible for these violent episodes, contributing with the tacit condemnation of the forms and techniques that helped to raise the

conditions of living of middle-class families some decades earlier. The urban comedy *C'est la faute à Le Corbusier*, developed by Louise Doutreligne from the opinion of an inhabitant not far from Cité Balzac represents through a play the cultural rejection of the blocs, towers and slabs concrete architecture. The television show *Droit de réponse* in 1982 confronted the opinion of the inhabitants to the architects Fernand Pouillon (1912-1986) and Ricardo Bofill (1939-) around the question: Shall we destroy the grands ensembles?¹⁴, showing that the image of these housing complexes shifted from solution to problem within few decades.

Cinema has used these housing territories as an expression of cities and social metamorphosis, as a metaphor of the idiosyncrasies of the consuming society characteristic of post war and as battle field for the functionalist urbanism critique. Modern architecture and rationalist urbanism were perceived as tools of cultural homogenization and political control, as denounced by the situationists, specially by Guy Debord (1931-1994) in *La Société du spectacle* (1967). In 1990's, films like Mathieu Kassowitz's *La Haine* (1995) or *Ma 6té va cracker* (1997) placed in these territories the conflicts between different layers of the French society and their correlated spaces.

The demolition of the problematic blocks, considered and experimented since 1980's with limited results, appeared as a universal solution employed with different emphasis by both right and left wings to demonstrate the power and the commitment of French national government to re-establish the control over the popular territories. If this solution has been experimentally tested since 1980's in order to open these segregated spaces and integrate them to their surroundings, avoiding the poverty and social issues concentration on specific parts of these projects, after the 2005 fires, with the emergence of a right-wing government, demolition became a mandatory procedure in order to intervene on the grands ensembles.

Rénovation, démolition, résidentialisation

The creation of the National Agency for Urban Renewal (ANRU) by the Jacques Chirac (1932-2019) government gave place to a new wave of radical transformation of the housing complexes, intensified during the Nicolas Sarkozy (1955-) mandate. Cité Balzac is the epicentre of the demolitions¹⁵ related to an ambitious operation by the National Agency for Urban Renewal (ANRU), planned in accordance with the Vitry's communist municipality, also inscribed in an Operation of National Interest (OIN) and structural transport articulation of the Paris Region, the so-called Southern Arc of the Grand Paris project.

The project provided for the demolition of almost a thousand housing units in the complex and the construction of two new units for each demolished unit, spread across the various districts of the city. This opportunity was seen by the municipal authorities as leverage for the resumption of housing construction in the commune, on a downward trajectory since the glorious thirties, while 'solving' the problems of Cité Balzac through the forced introduction of a supposed social *mixité*, opening up public land to private developers and other income strata as a strategy to break the pocket of poverty that was concentrated there.

Following the logics of the ANRU, for each new social housing unit to be built, one had to be demolished, situated inside the defined perimeters that concentrated social issues. The Sensible Urban Zones (ZUSs) were elected by then as epicentres of the spectacular demolitions widely mediated and celebrated by the government as definitive solution of the social problems associated with these particular architectures. The sociologist Renaud Epstein, in a detailed analysis of the typical processes of renovation and reconstruction, makes a distinction between *renouvellement* and *renovation urbaine*, differentiating the reform of sets experimentally tested in the most varied forms over a quarter of a century of 'politiques de la ville' and the renovation, which would necessarily go through the public and media impact of a major demolition and transformation of large groups.

¹⁴ *Droit de réponse* (1982, January 23) 'Faut-il raser les grands ensembles?'. INA.fr. <http://www.ina.fr/video/CPA82056439/faut-il-raser-les-grands-ensembles-video.html>.

¹⁵ The larger blocks were fully demolished while the lower ones had been either renovated or partially demolished. The first block, ABC was demolished in February 14 2007, followed by DEF, in June 23 2010 and GHJ, in September 5, 2012.

Figure 5. The different phases of the Cité Balzac during the renovation, demolition and residentialization works in 2014



Source: Author, 2014.

Il faut dans le même temps faire disparaître les stigmates qui réduisent leur attractivité résidentielle, ce qui justifie des démolitions de grande ampleur d'immeubles parfaitement salubres. En même temps, ces démolitions libèrent des vastes terrains sur lesquels les aménageurs peuvent dessiner librement de nouveaux morceaux de ville. La démolition de barres et de tours, remplacées par des maisons et de petits immeubles collectifs, banalement disposés le long des voies nouvellement créées, permet d'opérer une transformation aussi profonde que visible, à la mesure du caractère spectaculaire de la disparition, dans un nuage de poussière et un odeur de poudre, de ces quartiers hors normes. (Epstein, 2013, p.95)

From Vitry to the national plan, the publicity of Sohane Benziane episode levelled the leader of the feminist movement “Ni putes ni soumises” to an important position on the Sarkozy government but also helped to establish unique conditions to the Vitry-sur-Seine’s renovation project, approved among the first ANRU operations. For each apartment demolished at the Cité Balzac, two new housing units were to be built in Vitry. The three high-rise blocks and some parts of the lower slabs were appointed to be demolished in order to integrate the housing complex in the surroundings, avoiding the enclave condition of the Cité Balzac and erase its negative image. Even the name of the complex was to be changed, giving place to a new neighbourhood called Petit Vitry, liberated from its traumatic past. Under the abstract notion of social mixing, the impoverished population of the Cité Balzac was spread out and installed on other social housing complexes or even on other municipalities and the middle-class was attracted to the new constructions with policies that encouraged private property acquisition through affordable conditions.

The remaining blocks were renewed and went through “résidentialisation” operations, neologism that stands for interventions in order to improve the energetic conditions of the apartments and, above all, install security systems, and establish limits between private, collective and public spaces, avoiding the grey areas where part of the

traumatic episodes took place. One important source to grasp the chronology of the urban renewal operation in Vitry is the local newspaper *Les quatre pages*, published by municipality as part of participatory strategies to communicate the phases of the project to the inhabitants and promote activities with them through the local social centre. Epstein describes the logic and the mechanisms of the “résidentialisation” that aimed to transform the social housing complexes in ordinary parts of the urban fabric, imposing new dynamics and rules:

la résidentialisation doit simplifier la gestion urbaine en clarifiant les domanialités et donc les responsabilités en matière d'entretien et de nettoyage des différents espaces, entre les collectivités territoriales et les bailleurs sociaux ou syndicats de copropriétaires; elle doit aussi contribuer à la sécurisation des lieux en rendant plus difficile l'appropriation des espaces extérieures et des halls d'immeubles par les groupes de jeunes à l'origine de nuisances et de dégradations; enfin, elle doit aussi contribuer à la sécurisation des lieux en rendant plus difficile l'appropriation des espaces extérieurs et des halls d'immeubles par les groupes de jeunes à l'origine de nuisances et de dégradations; enfin, elle doit responsabiliser les habitants, les incitant à respecter les parties privatives et communes de leur résidence. (Epstein, 2013, p.95)

The remaining public land was occupied by lower scale developments and “eco-friendly” architectures, marketed as a viable investment with optimistic valorization possibilities supported by expected improvements on public transportation system enhancing the direct connection to Paris. At the same time, other social housing projects of exceptional quality and architectural significance were recognized by heritage institutes and administrations that questioned the demolitions and recommended the preservation of several grands ensembles as a built testimony of a modern utopia that shaped French landscape in the 20th century.

Having in mind that Vitry-sur-Seine was included in the perimeter of the Great Paris project, aiming to expand and improve the public transportation network as a strategy to expand the limits of the French capital over the surrounding municipalities, it is impossible to consider Cité Balzac's project as a punctual operation disconnected from the plans to integrate these problematic suburbs in the more socially homogenous territories that nowadays characterizes Paris *intramuros*. Apparently, what happened in 1860 with the expansion of Paris limits with the annexation of its surroundings by Haussmann and the extension of social housing territories over the last defence walls from 1930's onwards, may be happening again in consequence of the integration of the “red suburbs” around Paris with the expansion of public transportation networks. If in its glorious years Cité Balzac received some of the former inhabitants of the Îlot insalubre N°4, as described by Henri Coing in 1966, once again the impoverished dwellers are being pushed away, forced by sophisticated segregation mechanisms to move to other limits or to worst housing conditions. At the same time, the renovation left new void plots to be occupied by real estate investments with few or any social concerns, where the middle class unable to afford Paris prices found an opportunity to buy an apartment.

Final notes or the vicious circles of social housing

Housing in an intriguing object of interdisciplinary studies that articulates measurable needs that can be established for specific layers of the society through financing and access conditions with more abstract and subjective desires, impossible to satisfy or precisely describe, as the historian Danièle Voldman (2010) would put it¹⁶.

Additionally, there is a hard conciliation between architectural optimism regarding the great housing projects and the political critics of its structural role in controlling urban and social dynamics. In France, this fracture and frictions can be observed in detail through the recent history of one particular territory and its uncertain near future. Cité Balzac is an emblematic example precisely because it is not an exception or an application of a general rule: its history unveils elements of the general and particular dynamics involved in the metamorphosis of the grand ensembles.

¹⁶ Voldman, D. (2010). *Désirs de toit* Paris: Creaphis.

Even in a communist mayorship, we can observe and understand these recent episodes that turned one page of the history of this housing complex as effects of an “urban realpolitik”¹⁷ as defined by Sfeir (2013). The municipality is associated with national funding and agencies led by governments of different political orientations and private real estate developers to operate a controlled gentrification program using the notion of social mixing to transform the economic and ethnic profile of the inhabitants of a specific part of the city as a strategy to intervene in the alleged source of the frequent urban conflicts. The typical “hard French” architecture of the glorious post-war years was the more visible and concrete aspect of these transformations. Hero, villain and victim of a tragedy, architecture was by nature inscribed in a vicious circle of the social housing contradictions, as described in a political economy perspective by Butler and Noisette (1983):

Les termes de « logement social » désignent un phénomène historiquement et géographiquement bien particulier: une classe sociale est, en tant que telle, privée de la maîtrise de son habitat et se trouve « logée » par une autre. Sauf à vider le concept de tout sens, on ne peut le rapporter à n'importe quelle forme de ségrégation sociale dans l'habitat, ou à n'importe quelle traduction spatiale d'un rapport de domination ou d'exploitation. La notion de logement social comme les réalités qu'elle recouvre sont en ce sens liées à l'évolution des sociétés capitalistes occidentales. (...) Depuis le XIX^{ème} siècle, l'économie et la société françaises se sont profondément transformées. Mais les caractères et les fonctions du logement social demeurent indissolublement liés à sa nature, quels que soient ses avatars formels ou ceux des politiques mises en oeuvre. Par nature, il est à la fois produit, outil et lieu de contrôle et de ségrégation. Chacun peut l'observer quotidiennement dans l'espace urbain. (Butler and Noisette, 1983, pp.6-7)

Friedrich Engels (1820-1995), when analysing the housing question in capitalist industrial societies in 1872, identifies a bourgeois solution method developed during the Haussmannian urban reforms in Paris that describes vicious circles that seem active at the particular history of the Cité Balzac, metaphor or synecdoche of similar histories in other cities and societies.

In reality the bourgeoisie has only one method of settling the housing question after its fashion - that is to say, of settling it in such a way that the solution continually poses the question anew. This method is called "Haussmann." (...) By "Haussmann" I mean the practice, which has now become general, of making breaches in the working-class quarters of our big cities, particularly in those which are centrally situated, irrespective of whether this practice is occasioned by considerations of public health and beautification or by the demand for big centrally located business premises or by traffic requirements, such as the laying down of railways, streets, etc. No matter how different the reasons may be, the result is every-where the same: the most scandalous alleys and lanes disappear to the accompaniment of lavish self-glorification by the bourgeoisie on account of this tremendous success, but they appear again at once somewhere else, and often in the immediate neighbourhood. (Engels, 1872, pp.68-69)

Inscribed in a wider national strategy, even the communist municipality seems to be involved on the pragmatic capitalistic dynamic that involves periurbanization, relegation and gentrification, as described by Jacques Donzelot (2009) when analysing contemporary dimensions of urban transformations that takes place in these problematic suburban territories.

La prise en compte de la fermeture entre ces 'états de ville' que sont la relégation, la périurbanisation et la gentrification permet de mesurer la véritable portée de cette logique de séparation: une diminution du sentiment d'interdépendance, la tentation pour les petites classes moyennes de renvoyer la population reléguée vers son pays d'origine, du moins d'incriminer la cause de sa présence sur le territoire national, cette 'mondialisation' 'par le bas' qu'est l'immigration vécue comme déstabilisant la société. (Donzelot, 2006, p.56)

¹⁷ Sfeir, N. (2013) “Realurbanism: or the Urban Realpolitik.Towards a ‘Spatialisation’ of the Realist Paradigm” in *International Relations Theories Journal of Settlements and Spatial Planning*, vol. 4, 1, 1-10.

The recent history of the grands ensembles in France, even through a particular case, is telling of the transformations of a typical modern social and architectural utopia. The persistence of housing question and urban crisis in contemporary societies reveals not only the end of modern architecture as Blake¹⁸ and Jencks¹⁹ proposes but also marks the destruction of a social project that started to be considered in the late 19th century, with progressive urbanization that followed industrialization in Europe. The demolition of social housing “towers and slabs”, symbols and objects related to a global history (Urban, 2012) can be understood as symbol of the fall of the welfare state promises. At the same time, the renovation and new constructions try to respond to contemporary issues, revealing and creating new contradictions. From a modern utopia, social housing became a contemporary issue, showing that the articulations of architecture, urbanism and politics are quite more complex than some narratives developed to describe an historical process under development would pretend.

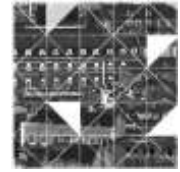
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¹⁸ Blake, P. (1978) *Form Follows Fiasco: Why Modern Architecture Hasn't Worked* New York: Little Brown & Co.

¹⁹ Jencks, C. (1978) *The Language of Post-Modern Architecture* New York: Rizzoli.

CIDADES, Comunidades e Territórios



Total heavy prefabrication: Santo António dos Cavaleiros (SAC) and Quinta do Morgado (QM). Overview of the building process, exterior panel pathologies and a study for their rehabilitation

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Abstract

Prefabrication is one of the two great methods of industrialized construction that became cost-effective after World War II. The development of such industrialized building techniques was prompted by the great shortage of buildings resulting from the massive destruction of cities, the big demographic explosion and the industrial concentration after World War II (Blachère, 1975).

Traditional construction, which was diffused and disorganized, short of skilled labour, materials and energy, came out ineffective. Most European countries came to the conclusion that housing provision, in terms of quantity, speed of construction and price, could only be solved with the use of industrialized construction.

The use of heavy prefabrication in Portugal began in the mid-1960s, in order to meet the large national deficits (requiring 500,000 new dwellings per year). The first Portuguese building experience with this kind of technology began in 1964, accomplished by the construction company ICESA - Indústria de Construção e Empreendimentos Turísticos. This presentation will explore two significant case studies built by ICESA: Santo António dos Cavaleiros (SAC), a Housing unit of real estate development, with 42 hectares, located in the Lisbon Metropolitan Area, near the Frielas bridge, Loures, about 2.5km away from the main city centre. Around 3000 dwellings were grouped in small-scale buildings (up to 5 floors) and towers (11 floors). They were divided into several categories, according to the organization of the space, floor area, materials and appliances, and typologies of one to four bedrooms per apartment; and, Quinta do Morgado, a Housing unit located in Lisbon, next to the Encarnação neighbourhood, where a total of 1660 dwellings were spread throughout 20 hectares. The planning, design and construction of this housing complex is the result of a bidding process carried out by the Lisbon City Hall (initially for 1140 houses), to tackle the housing problem of the lower classes.

Keywords: Total Heavy Prefabrication, Fiorio Process/ICESA, Santo António dos Cavaleiros, Quinta do Morgado, Pathologies, Rehabilitation.

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1. The beginnings of industrialised construction/ prefabrication

The concept of industrialised construction was realised in the Industrial Revolution. Due to the general tendency towards industrialisation, this method of construction increased swiftly with the introduction of an organised and mechanical work force, which took place from the beginning of the 18th century.

However, until the middle of the 19th Century architecture lost the opportunity that industry offered. Architects, generally, didn't know how to take advantage of the available industries. There were, however, some exceptions – one of the most notable being the use of wrought iron and steel used by Nash in the construction of the Royal Brighton Pavilion between 1818 and 1824. Joseph Paxton built Crystal Palace in London in 1851. Prefabricated and standard elements from the foundry were assembled on site in six months (Alonso et al, 1974).

It was at this time that a new material appeared – cement – invented by Joseph Arpin, who patented it in 1824 and gave it the name 'Portland'. However, the discovery of reinforced concrete as a construction material was credited to Monnier in 1867, who patented the manufacture of prefabricated products using a metal mesh covered in cement. Reinforced concrete was created as an industrial product within the spirit of prefabrication. According to Konz, and within this spirit, one of the first and most representative companies was Coignet of Paris, which in 1891 was producing prefabricated beams in reinforced concrete to be used in the construction of the Biarritz Casino (Konz, 1962).

Since the 1920s several architects have tried to solve the housing problems in their countries using industrialised construction as a basis. This process constituted a revolutionary change in architecture itself. It included the cases of Le Corbusier in 1921, Buckminster Fuller in 1927, Marcel Lods and Beaudouin, who created the first prefabricated housing estates in France, at "Cité des Oiseaux" in Bagneuse in 1930, and Gropius and Konrad Wachsmann in 1941 (Alonso et al, 1974).

It was the great shortage of buildings resulting from the massive destruction of cities by bombing, the great demographic explosion and the industrial concentration in cities after the Second World War that made it economically viable and the driving force behind the development of industrialised construction and prefabrication in particular (Blachère, 1975).

Facing the urgent need to solve these building shortages, the European countries reached the conclusion that only industrialised construction processes could resolve them quickly and at low cost. To this end, countries like France allocated 5% of their GDP and used Marshall Plan funding to construct buildings, adopting industrialised technologies, based on reinforced concrete, to set up large construction sites with a large number of buildings.

This process of overcoming major shortages has taken place over two major periods:

- The period of Quantity, from 1947 until the end of 1973 – coinciding with the increase in the cost of oil (the price of a barrel of oil increased fourfold). The dwellings were characterised by little complexity in the organisation of space and small compartment areas. There was also a repetition of buildings, not very interesting formally, and a lack of hygrothermic and acoustic comfort, namely due to the absence of insulation in the exterior reinforced concrete walls.

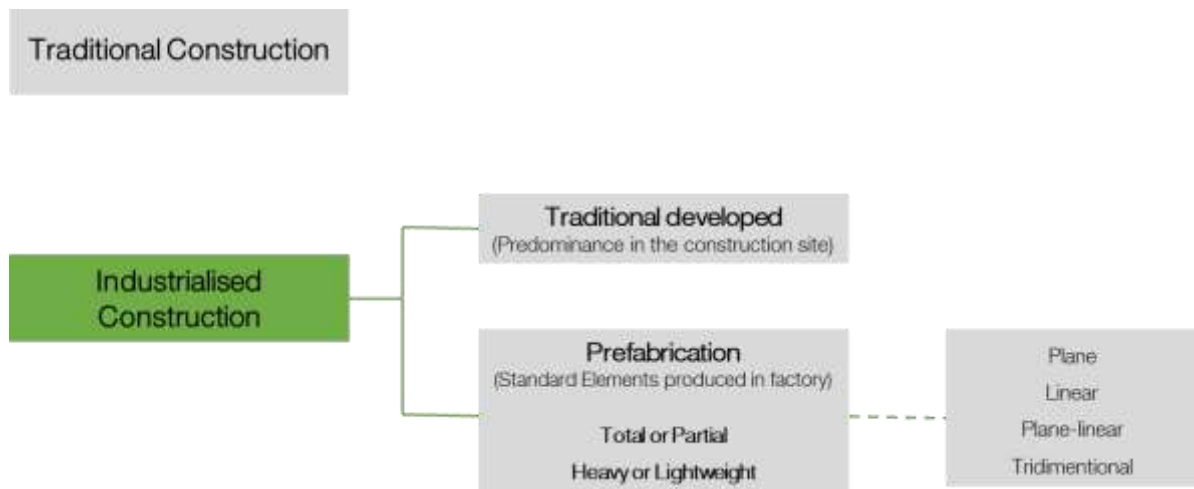
- The period of Quality, from 1974 onwards – with a reduction of the building shortage, the building site becomes smaller, with fewer dwellings and greater complexity in terms of the organisation of space. The areas of the compartments are larger, with better finishes and equipment, and the users' demands increase in terms of greater hygrothermic and acoustic comfort.

2. The building construction

In general, there are two types of building construction:

- Traditional Construction – a slow process, of empirical knowledge passed from craftsmen to apprentices, through the use of traditional materials – walls, vaults and construction elements were built until they could not fall down, and time-tested, long-lasting solutions were found;
- Industrialised Construction – a very rapid evolution, defined by Gerard Blachère as a construction process which replaces the skilled labour of the craftsman with machinery.

Figure 1. Traditional developed and prefabrication, the 2 major routes of Industrialised Construction



Industrialised Construction is made possible through 2 major routes:

Traditional developed or rationalised – the predominance of construction work in the building site. Traditional development uses new materials and techniques of moulded concrete for building on site. It uses, at work, a scientific organisation; it demands a complete definition of the project in interdisciplinary terms, preparation of work and methods for buildings; it rationalises and industrialises metallic mould and other equipment for transport and lifting (the concrete stations) and even uses in mixed processes certain prefabricated elements built, sometimes, on site (Reaes Pinto, 1973).

Prefabrication – Prefabrication consisted of the manufacture of those elements which constitute a building in a factory (individual or collective property) which are later transported and erected at the building site. Most of the elements which had traditionally been made at the building site were now sent to factories where they were speedily and efficiently manufactured under shelter from inclement weather, thus reducing the need for specialised workers.

Prefabrication, whether total or partial, light or heavy, has been applied in plane, linear, plane-linear and tridimensional ways (Figures 2 and 3).

Figure 2. Partial prefabrication of exterior walls – conventional metallic structure



Source: Author.

Figure 3. Plane and Plane – Linear Prefabrication



Source: PAVICENTRO / Author, Aveiro 1998.

Partial prefabrication is used, namely the use of façade panels fixed on conventional reinforced concrete or metallic structures.

Total heavy prefabrication in Portugal

The use of total heavy prefabrication in Portugal began in the mid-1960s, with the aim of helping to solve the country's great deficit of around 500,000 dwellings per year. The first experience of prefabrication with this technology for building construction in Portugal began in 1964 with the construction company ICESA, which applied the French FIORIO process of heavy total prefabrication.

ICESA and the FIORIO process

The FIORIO process is a French system of total heavy prefabrication, utilizing large panels of concrete and brick. This system is one of the oldest, along with the French process CAMUS (1948) and COIGNET (1951), the British process REEMA (1946), BMB (1952), and the Dutch process RBM (1946), all of which are post World War II. The engineering brothers, George and Henri Fiorio, patented their invention in 1951.

With this process more than 100,000 dwellings were completed by 1968 and it was used in France, Spain, Portugal, Germany, Belgium, Austria, Algeria, Venezuela and Iran (Alonso et al, 1974). The FIORIO process was introduced in Portugal in 1964, through a Portuguese company, ICESA, an authorized dealer of the "Société Entreprises de Licence des procédés Fiorio". This Portuguese company had a factory with a production capacity of four dwellings a day and more than 10.000 dwellings were produced in Portugal using this system.

The FIORIO prefabricated construction system consists of the use of large dimension construction elements, one-storey-high wall panels and room sized floor panels which are prefabricated at the factory. These are then mounted on site and interlinked with belts at floor level and reinforced concrete moulded rises "in situ", defining a three-dimensional solid contrived structure. The foundations and the support structure of this type of prefabricated construction are normally undertaken using traditional methods. However, there should be a topping horizontal belt in concrete, to anchor the vertical framework of panels. It can also be undertaken with prefabricated lintels at the foundation anchor, support and joint together stake heads or solid foundation anchors of framework to the rest.

The panels are made up of ceramic blocks laid out in rows, solidified with concrete and supplied with a strengthening framework and suspension.

The manufacture of these panels includes almost all of the construction accessories and finishing, doors and window frames, finishing materials on the faces of the panels, openings for plumbing, tubing and boxes for electrical installations, etc., which allow the definition of each panel. The procedure of loading and unloading during the transportation from the factory to the building site of the prefabricated panels demands the utmost care and the use of specialized equipment. The mounting of the panels on site is done with the help of cranes using appropriate hooks adapted to the different panels.

ICESA's complex

Figure 4. Prefabricated decorative panel at the entrance to the company complex



Source: Author / ICESA 1971.

Figure 5. ICESA headquarters and entrance



Source: Author / ICESA 1971.

Figure 6. ICESA headquarters and entrance



Source: Author / ICESA 1971.

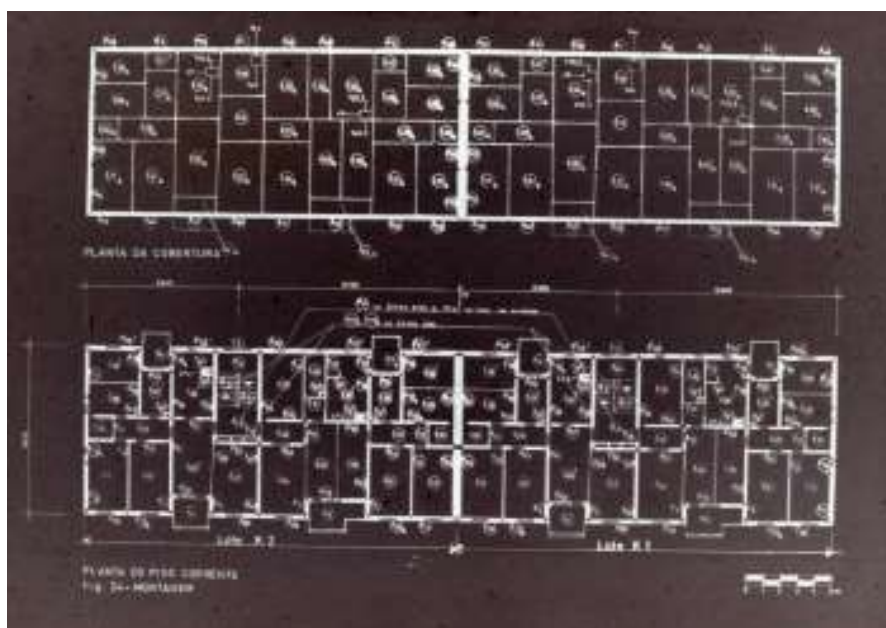
The ICESA complex was composed of the head office building (Administration, Administrative services, Planning and Studies and Projects department), factory, workshops and social services building (canteens, changing rooms, etc.), located in Póvoa de Santa Iria.

Figure 7. Study and Projects Department



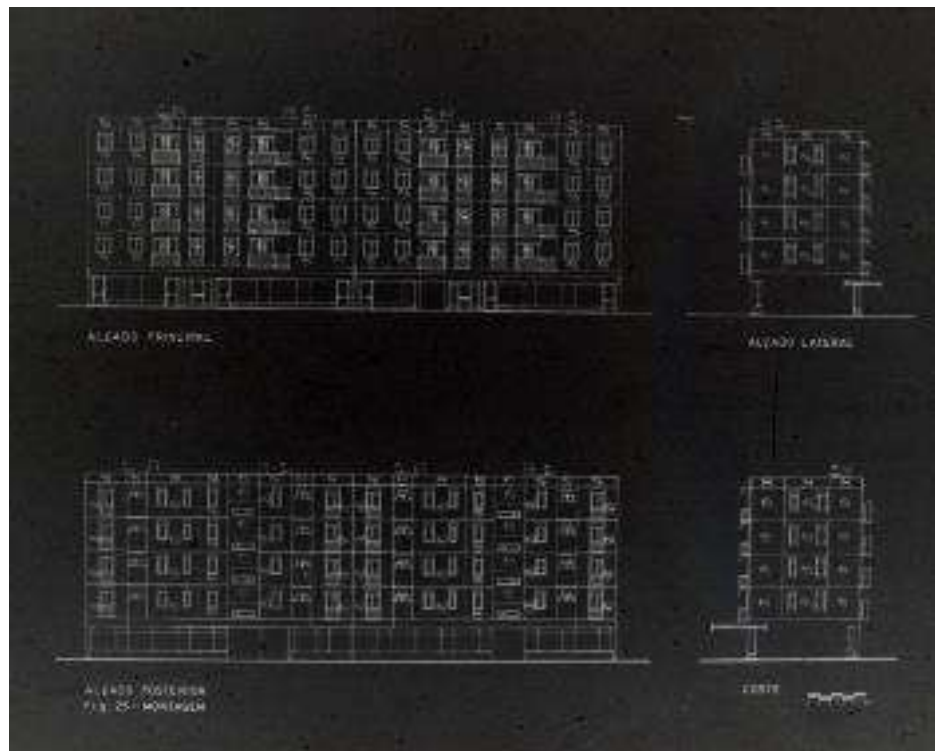
Source: Author / ICESA.

Figure 8. SAC: Decoupling plans of panels for assembly



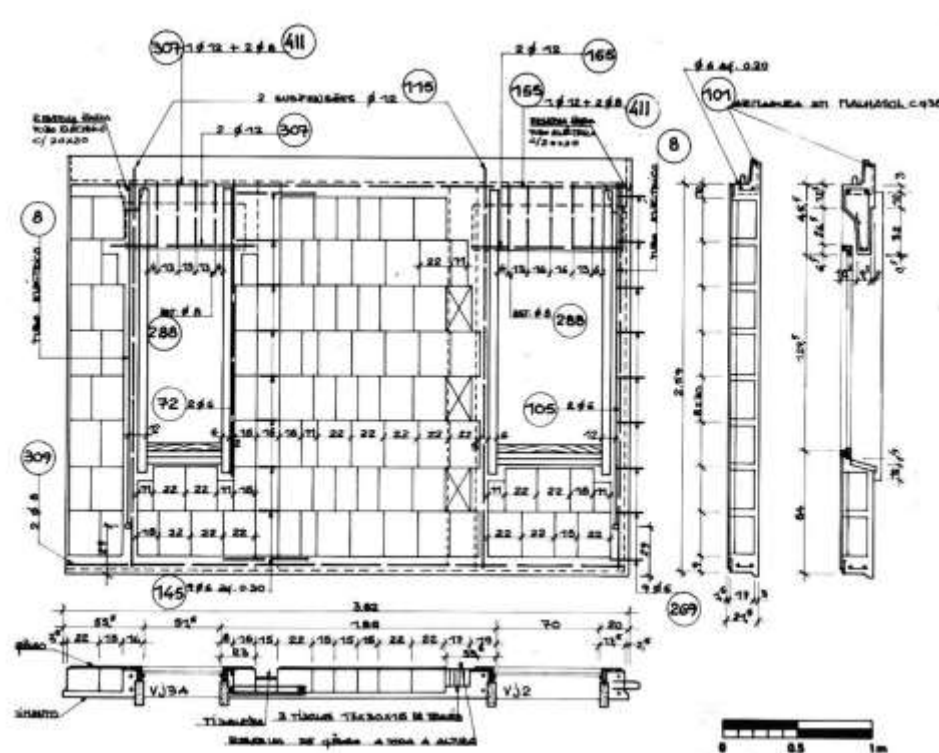
Source: Author / ICESA.

Figure 9. SAC: Decoupling elevations of facade panels for assembly

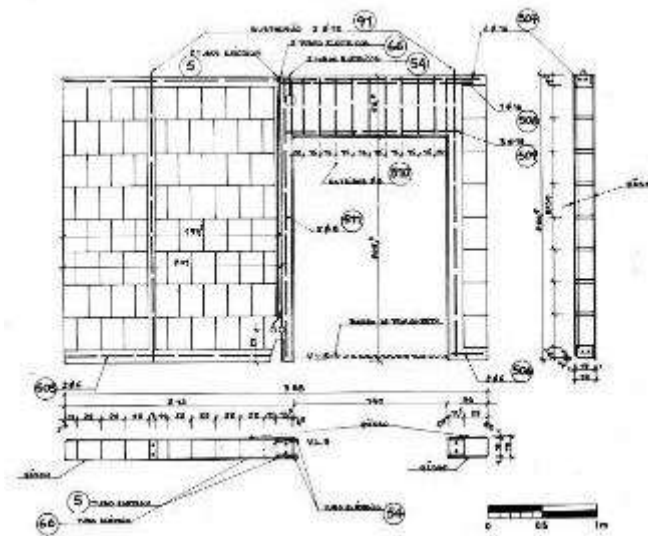


Source: Author / ICESA.

Figure 10. Facade panel

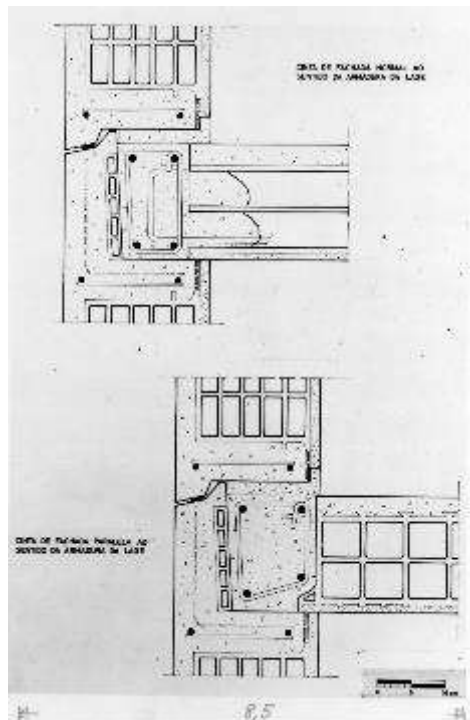


Source: Author / ICESA 1968.

Figure 11. Resistant Interior panel

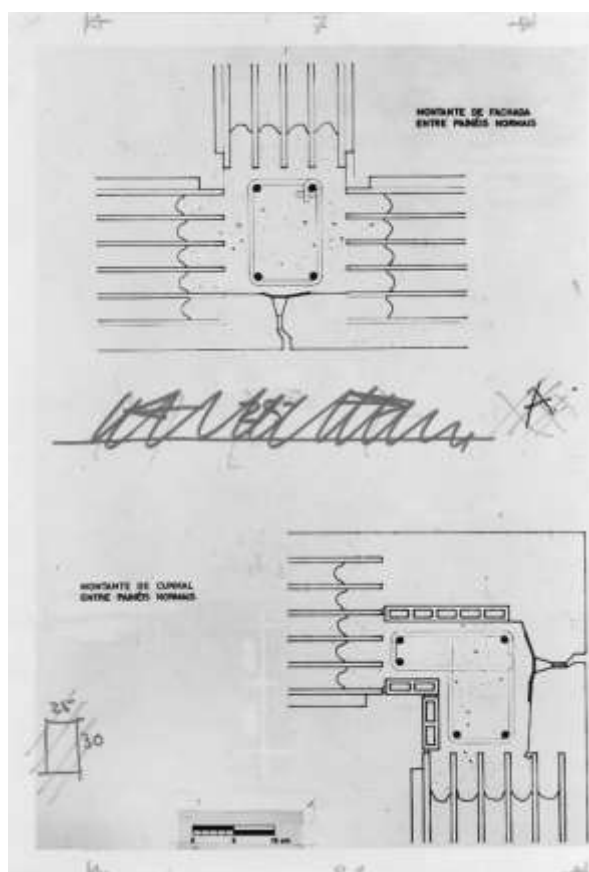
Source: Author / ICESA 1968.

In the construction of buildings, the wall and floor panels are strengthened by a structural network of belts and rises of moulded concrete “in situ” (Figures 12 and 13). The exterior and interior belts differ in their dimensions according to the parallels or perpendiculars and opening floor panels.

Figure 12. Junction scheme: Belts and rises in reinforced concrete

Source: Author / ICESA 1968.

Figure 13. Junction scheme: Belts and rises in reinforced concrete



Source: Author / ICESA 1968.

Factory

Figure 14. Factory: Storage of aggregates for the production of concrete and gypsum and Automating gypsum production station



Source: Author / ICESA.

Figure 15. Factory: Storage of aggregates for the production of concrete and gypsum and automating gypsum production station



Source: Author / ICESA.

Figure 16. Factory: General view of the factory – metallic horizontal moulds, and lubrication of the bottom of the mould in order to facilitate demoulding



Source: Author / ICESA.

Figure 17. Factory: General view of the factory – metallic horizontal moulds, and Lubrication of the bottom of the mould in order to facilitate demoulding



Source: Author / ICESA.

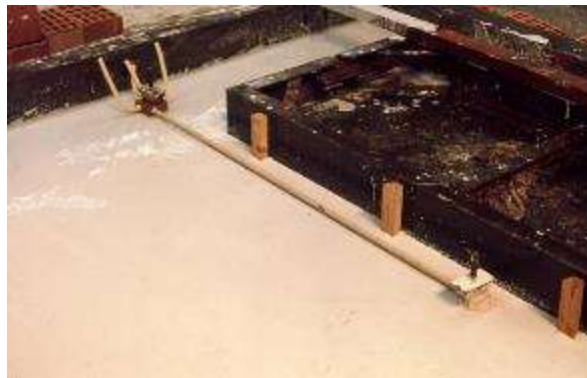
Figure 18. Gypsum plaster leaking into the mould



Resistant Interior Panels: the largest number of operations are referred to the manufacture

Source: Author / ICESA 1968.

Figure 19. Gypsum plaster leaking into the mould



Resistant Interior Panels: the largest number of operations are referred to the manufacture

Source: Author / ICESA 1968.

Figure 20. Factory: Concrete leakage and resistant exterior walls



Source: Author / ICESA 1966.

Figure 21. Factory: Concrete leakage and resistant exterior walls



Source: Author / ICESA 1966.

Figure 22. Resistant interior panels – finishes with ceramic tiles for kitchens



Source: Author / ICESA 1968.

Figure 23. Partition wall panels and dividing panels with ceramic tiles as finishing



Source: Author / ICESA 1968.

Figure 24. Partition wall panels and dividing panels with ceramic tiles as finishing



Source: Author / ICESA 1968.

Figure 25. Hydraulic panel manufacturing mould with a finished partition wall



Source: Author / ICESA 1968.

Figure 26. Slab panels and concrete vibration at reinforcement ribs



Source: Author / ICESA 1968.

Figure 27. Slab panels and concrete vibration at reinforcement ribs



Source: Author / ICESA 1968.

Figure 28. Regularisation of the concrete layer of the slab panel



Source: Author / ICESA 1968.

Figure 29. Exterior panels storage areas



Source: Author / ICESA 1968.

Figure 30. Exterior panels storage areas



Source: Author / ICESA 1968.

Figure 31. Storage area of the exterior panels and prefabricated elements (interior panels) storage yard



Source: Author / ICESA 1968.

Figure 32. Storage area of the exterior panels and prefabricated elements (interior panels) storage yard



Source: Author / ICESA 1968.

Figure 33 - Transport of vertical panels

Source: Author / ICESA 1968.

Case studies: SAC and QM

This research aims to analyse and study the behaviour of exterior panels of prefabricated buildings, built by the FIORIO process, five decades ago, with particular reference to the perspective of hygrothermic comfort.

These buildings are part of two residential complexes, namely Santo António dos Cavaleiros (SAC) and Quinta do Morgado (QM)

Santo António dos Cavaleiros (SAC)

This residential complex, comprising approximately 2,500 housing units, is located in the Lisbon Metropolitan Area. The SAC residential unit occupies an area of 42 hectares and has been developed in a calm and wind protected area near Frielas bridge, in the Loures municipality. The N° 8 road in the East-South side marks the border between the actual Loures town and the capital Lisbon. The distance between the residential complex area and the capital border is about 2,5 Km. The land area is developed in a sloped East-South exposition with good conditions for urban development. The complexity and dimension of the urban area led to the design of urban facilities, in accordance to the needs of about 10,000 users.

The residential unit is structured around a common interest area: the Civic Centre. This Centre has a nucleus with commercial areas and it contains a cultural and leisure area.

The 2,500 dwellings are grouped in 5-storey buildings and some 11-storey towers, with different typologies and quality of finishes, with the objective to respond to the various social and economic patterns of the potential users.

Figure 34. Aerial view of SAC



Source: Author / ICESA.

Figure 35. Layout in which the bands of buildings are parallel and spaced equally to allow assembly with the same crane on a single trajectory

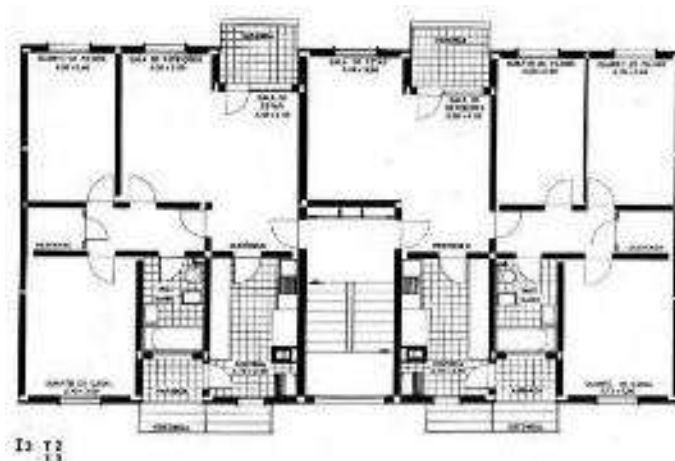


Source: Author / ICESA.

Figure 36. Implementation of high-rise buildings, without dismantling the cranes. Details of the external arrangements (streets)



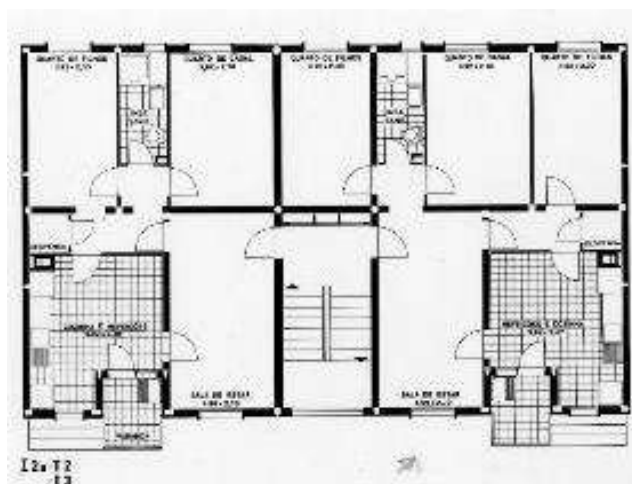
Source: Author / ICESA.

Figure 37. SAC: Examples of dwellings in the various categories and typologies

Source: Author / ICESA.

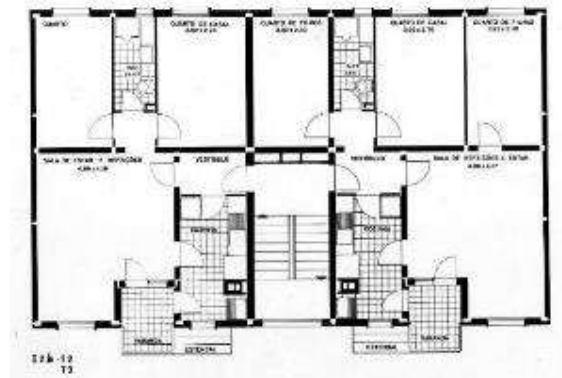
Figure 38. SAC: Examples of dwellings in the various categories and typologies

Source: Author / ICESA.

Figure 39. Examples of dwellings in the various categories and typologies

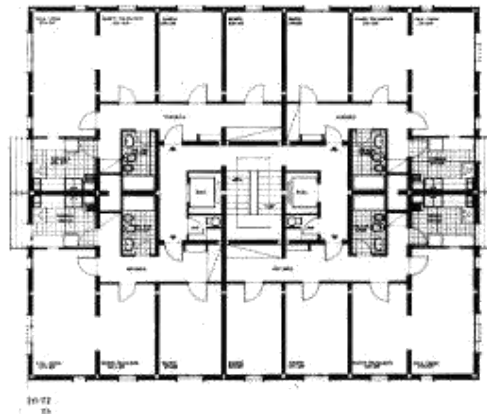
Source: Author / ICESA.

Figure 40. Examples of dwellings in the various categories and typologies



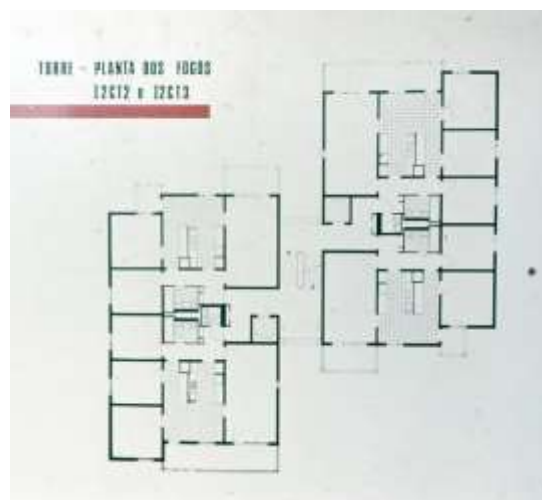
Source: Author / ICESA.

Figure 41. Examples of the tower dwellings in the various categories and typologies



Source: Author / ICESA.

Figure 42. Examples of the tower dwellings in the various categories and typologies



Source: Author / ICESA.

Figure 43. Assembly of the panels on site



Network of electric tubes in the reinforced concrete belts, in the panels connections area (previous to the concreting phase)

Source: Author / ICESA.

Figure 44. Assembly of the panels on site



Network of electric tubes in the reinforced concrete belts, in the panels connections area (previous to the concreting phase)

Source: Author / ICESA.

Figure 45. Assembly of panels on site



Source: Author / ICESA 1966.

Figure 46. Assembly of the heavy panels on site and view of the first completed buildings



Source: Author / ICESA 1967.

Figure 47. Assembly of the heavy panels on site and view of the first completed buildings



Source: Author / ICESA 1967.

Figure 48. Category 2 – Building details



Source: Author / ICESA 1968.

Figure 49. Roof protection paving slabs



Source: Author / ICESA 1968.

Figure 50. Retaining stone walls without mortar, and streets signage



Source: Author / ICESA 1968.

Figure 51. Retaining wall with prefabricated panels of moulded concrete



Source: Author / ICESA 2000.

Figure 52. Gabion retaining wall

Source: Author / ICESA 2000.

Figure 53. Urban design and tower

Source: Author / ICESA 1968.

Quinta do Morgado (QM)

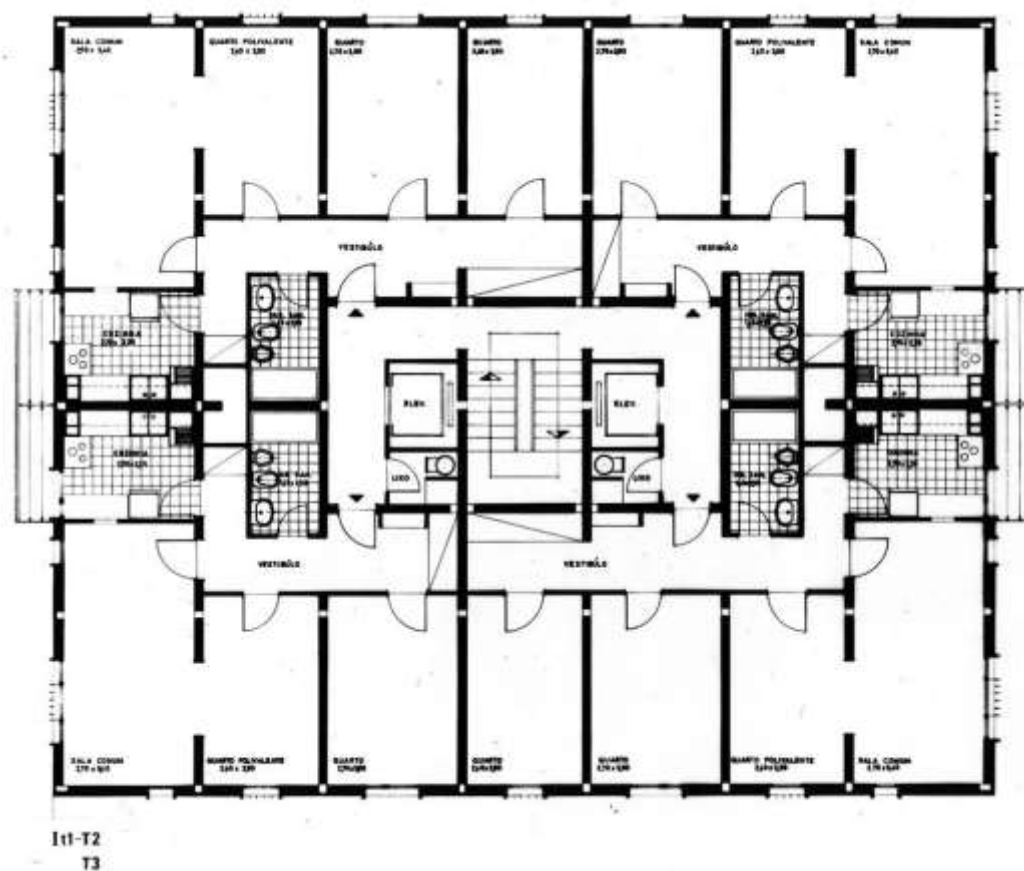
This residential complex is located in Lisbon, near the Encarnação neighbourhood. This urban area occupies about 20 hectares and has been developed in a quiet flat area not far from the Lisbon airport. The A-10 motorway and the Portela residential complex mark the boundaries of the QM complex. The distance between the QM residential area and Av. João XXI, one of the main commercial and financial axis of the capital, ending in Campo Pequeno, is about 4 Km. In terms of commercial, cultural and leisure facilities, the solution adopted is different from the SAC options. QM design has non-concentrated facilities scattered in different areas, according to the users' needs. Other residential areas nearby have facilities such as swimming pools, tennis courts and gymnasia available. QM consists of 1,660 dwellings with similar buildings to the SAC complex residential area and with similar typologies.

Figure 54. Quinta do Morgado



Source: Author / ICESA.

Figure 55. Quinta do Morgado: tower plans



Source: Author / ICESA.

Figure 56. Quinta do Morgado



Source: Author / ICESA.

Figure 57. Quinta do Morgado



Source: Author / ICESA.

The pathologies of the ICESA/FIORIO process

From a general point of view, the pathological origins of external panels could be the result of:

Conception

- The under valuation of the thermal resistance of the panels due to incorrect use of materials, both from lack of quality and dimensional problems. The result is water condensation on the interior surface of the exterior panels.

Manufacture

- The non-squarely mounting of the moulds (horizontal), which creates non-orthogonal panels. This results in non-parallel and non-tolerable joints when mounted, and the leaking of water.
- Incorrect dosage, too much cement and dry mixed fine sand as well as pulverized cement powder on the exterior panels at the finishing point of the manufacture of these panels. This excess of cement gives rise to retractions on the exterior surface of the panels, which results in faults that increase in width over time and weather, allowing water to seep in, giving the panels an unsatisfactory appearance.
- Microfissures due to concrete retraction.

- Direct contact of brick between the outer concrete layer of plaster (3cm thickness) and the interior one (about 1 to 1.5cm) which have given rise to damp patches.
- The absorption of humidity by the panels while still in the factory warehouse, due to prolonged storage (stacked on a sand base); this also gives rise to dirt stains and the degradation of the panel's covering (especially in the case of the plaster).
- Too much oil used when freeing the panel from the mould (at the base of the mould) and on the lower interior surfaces in the plaster, not allowing the plaster any "breathing space", thus causing difficulties in the drying of water in the materials which make up the panels. This also causes difficulty and a lack of adherence of paint when applied to the interior, and also provokes stains in the paintwork due to unequal adherence and absorption of the coats of paint over the plaster.
- Deficient quality control of the manufacture and storage of the panels, resulting in an increase of pathologies and maintenance costs.

Transport

- Bad loading of the panels for transportation, which could result in cracking or even breakage.

Assembly

- Deficient assembly of panels, which even when they are well aligned, can result in irregular joints (non-parallel) and out of line with the determined tolerance, permitting the entrance of humidity.
- Deficient execution of the joints linking two panels in the mounting when the sealing agent has not been compressed correctly. For example, the sealing agent "compriband" only achieved a sealing level when compressed to about 65%. Compression lower than this made the sealing behaviour of this material seriously deficient.
- Deficient fixing of the asphalt band of the sealing of the internal joint of two external panels, which causes water to enter.
- The obstruction of vertical decompression canals of the joints, which impede the draining off of humidity coming from the exterior or building up at the interior joint (condensation water).
- Incorrect placing or pure obstruction of drainpipes, situated at the base of the joints and the links between two panels, which could give rise to infiltration of humidity to the interior.
- Lack of or deficient laying of the "thermal lagging" in the interior, at the joints of two exterior panels, to avoid hygrothermic points and the accumulation of condensation water.
- The falling or dislocation of some panels and their subsequent bad repair.
- The inadequate or inappropriate use of paints or covering materials on the exterior panels at the finishing period.

Utilization

- The over occupation of the space by people, furniture, curtains, etc., without heating or occupation during the day, as well as the lack of internal ventilation (e.g. often windows are kept closed). This stimulates water condensation, mildew and fungi.
- This above-mentioned situation is aggravated due to the misuse of extractor fans in the kitchen, which are not used often enough or are used without the cleaning or substitution of the filters. This results in the appearance of condensation water.

- The two situations mentioned above are sometimes aggravated, in cases where the chimneys' exhaustion is reduced due to the under dimensioning of the "Shunt" type of chimneys.
- The incorrect use of paints on the internal surface of the external walls, which does not let the walls "breathe" sufficiently, leaving humidity within the walls.

Understanding the pathologies

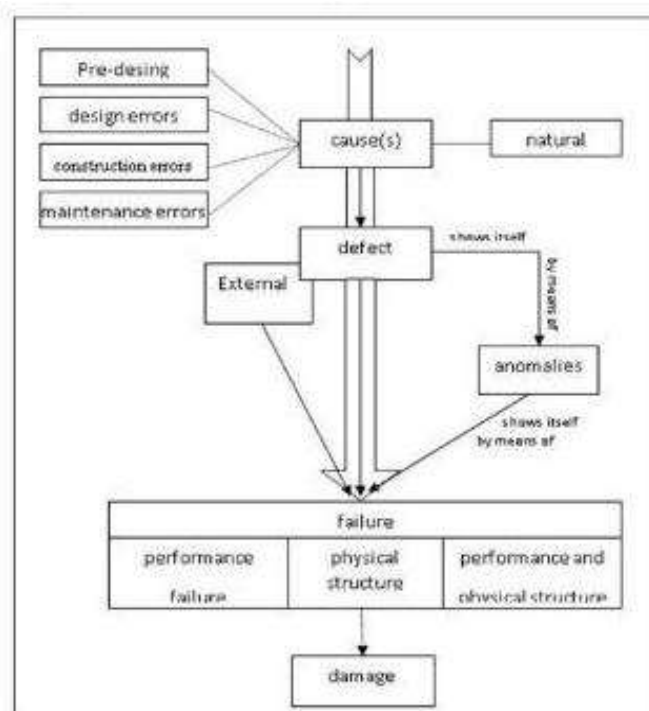
The use of new technologies and new materials was not always tested at an opportune moment. The need to launch a construction process and to construct quickly prompted an increase in anomalies (compared to traditional construction processes, tested with plenty of time) in industrialised construction.

This situation deteriorated further due to improper usage of houses, lack of ventilation and heating and over-occupation. Many aspects may be the subject of building pathology and several relationships exist with other activities in the building field (CIB, 1993).

Generally, the building defects that are considered result mainly from technical aspects. But one should not overlook the fact that the real origins of defects are mainly lack of knowledge, know-how, information and communication (CIB, 1993).

Diagnosis, which is a fundamental part of the building pathology discipline, demands knowledge of the decay process supported by the building components. On the one hand, the pathological decay may begin with one or more errors which might have been committed during different stages of the building process or, on the other hand, errors committed during design or construction. These defects can either remain in a latent form, or manifest themselves by the action of external agents. Interaction between external agents and defects is the necessary condition for the manifestation of the decay as a failure (CIB, 1993), as shown in Figure 58.

Figure 58. The decay process



Source: CIB, 1993.

The decay process needs time to develop and it does not immediately cause components to pass from a performance to a failure condition. This is highly relevant to the possibility of planning maintenance strategies with a preventive purpose.

So, if the correct diagnosis of an occurred failure is an important condition to carry out an effective emergency maintenance strategy, the possibility of a correct acknowledgement of anomalies – when the failure has not yet occurred – is fundamental to preventive maintenance planning.

Finally, as a consequence of the failure, the (economic) damage appears at the end of the process (CIB, 1993).

The level of defects inherent to the new construction is fundamentally linked to hygrothermic comfort due to a weak thermal resistance in the exterior walls, and its deficient behaviour towards humidity, fundamentally condensation (BRE, 1991).

According to Oliver (1997), condensation has become a major problem nowadays essentially because of economic and technological change. Increasing energy costs have placed an economic restriction on the amount of heating that occupants can afford, and have encouraged increases in energy efficiency in buildings. Modern building standards have thus aimed at achieving higher insulation and lower natural ventilation levels. Financial pressures have also forced builders to achieve lower building unit costs since the recessions from the late 1970s.

According to Freitas (1995), at the International Symposium on Moisture Problems in Building Walls, the study of moisture migration in building materials is extremely important for the characterization of their behaviour, with regard to its durability, waterproofing, degradation and thermal performances. Condensation is one of the main causes of degradation of materials and construction elements. Among the different mechanisms of humidity fixation, condensation and the physical phenomena of vapour diffusion should be well known in order to design the buildings' envelope correctly. The transfer of moisture, in vapour phase, is caused by various mechanisms, where the building envelope participates in the following ways:

- Transferring humidity by means of the internal air, depending on the building use (occupation and ventilation);
- Transferring humidity through construction elements, as a result of the vapour-pressure-gradient between the internal and external ambient;
- Transferring humidity between the exterior of the element and atmosphere;
- Transferring humidity between the interior of the element and the internal ambient.

Figure 59. SAC: fissures detected in the external surface of the outside panels



Source: Author 2000.

Figure 60. SAC: Micro-fissures in exterior panels



Source: Author / ICESA 2000.

Figure 61. QM: Interior humidity coming from exterior panels, caused by the incorrect assembly of the panels or by the lack of compression in the sealants of the panels' joints



Source: Author / ICESA 2000.

Study of the rehabilitation of the exterior existing panels

Regarding the buildings of these two case studies (SCA and QM), generally without maintenance, some cases of anomalies in the external walls were detected for which solutions were developed.

However, the hypothesis of these solutions should have taken into consideration the location of the pathologies, and the fact that the inhabitants continued to live in their houses in order to increase the efficiency of those solutions to be applied and, if possible, to reduce the costs of those interventions.

Besides the location and the hypothesis to repair the anomalies found, it was necessary to always keep in mind the need to solve the insufficient thermal resistance of the external walls, especially those previously referred to in hygrothermic comfort of the walls.

For this matter, a hypothesis of positioning the thermal insulation material in its exterior is considered.

The option of this hypothesis would result in a general solution of compromise which takes into account the characteristics of the thermal insulation material (its reaction to humidity, in a sense of waterproofing and permeability to steam, its dimensional behaviour, its coefficient of conductivity, its resistance to compression, etc.), the effectiveness of its application and the situation of the inhabitants who must remain in their houses.

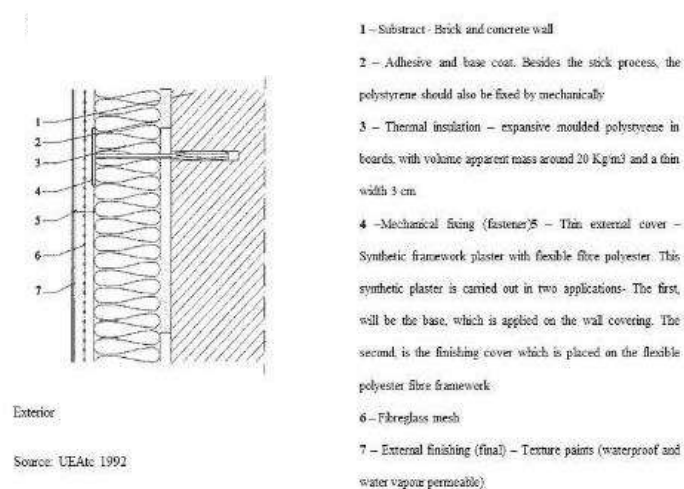
Solution proposals

It is fundamental to analyse the nature of the pathologies and their location, the technical effectiveness of the solutions' application, the technical conditions and equipment necessary to improve practical corrections in practice. This leads us to consider one solution proposal to the problem of the panels' pathologies.

This solution is, fundamentally, the position of the thermal insulation material in relation to the external panels. The characteristics of the thermal insulation material were studied according to the humidity response, being not only waterproof to the water itself but permeable to the water vapour. Also, this is applicable to the dimensional behaviour, conductivity ratio, compression resistance, application effectiveness and durability.

The proposed solution has the characteristics we now present. This solution is constituted when the thermal insulation material is placed on the outside of the external panel. The mineral reinforced rendering is applied on the thermal insulation. Two layers of synthetic cover with reinforced glass fibre framework or flexible polyester constitutes the “thin” rendering external facing. The texture finishing works are made with cement and resins, with a silicate rendering or with a cover based on EM photo reticulated resins. In the last ten years the appearance and the improvement of these resins has been observed. This resin film hardness and flexibility will be achieved due the solar light influence (CSTB, 1997).

Figure 62. Summary of the solution developed for the external position of the thermal insulation material on external wall panels



Source: UEAtc, 1992.

Advantages of the Solution

- The hygrothermic bridge effect is significantly reduced on external walls (in beams and pillars, pavement slab tops, links between internal and external walls). This will increase the effectiveness of the thermal insulation solution.
- Fissuration reduction due to different thermal amplitude on the same day or season. This is a result of the thermal protection of the reinforced structure as well as the masonry, which fulfils the structural framework spans.
- Keeping the interior space without reducing its area.
- Reduction of disturbances on users who continue to live in their homes, due to the structural repairs made on the exterior.
- Improvement to the rainwater penetration on external walls resistance.

Disadvantages of Solution

- Thin coverings in rigid supports are less mechanically resistant to accidental shocks and vandalism compared to conventional ones.
- Compatible requirements of the solution adopted to the building design. The exterior walls' thin increase reclaims an accord with spans and joints between exterior wall panels.
- Spans and joints need finishing profiles and corner reinforcement.
- Weather (temperature, rainfall, etc.), conditions affect the application of this solution.

Characterization of the final solution to solve the exterior panel building pathologies

The final solution for the rehabilitation of the external walls of the SAC and QM buildings will be an external insulation system, totally different from the existing walls and taking into account the counsel of the ETA Guideline on ETICS (EC, 1999). It does not contribute directly to the stability of the wall on which it is installed, but can contribute to its durability by providing enhanced protection from the effects of weathering.

Broadly speaking, the system is constituted by prefabricated thermal insulation products bonded onto the wall, or mechanically fixed using anchors, profiles, special pieces or a combination of adhesive and mechanical fixing.

The thermal insulation product is covered with a thin rendering consisting of one or more layers (applied on site), one of which contains a reinforcement. The rendering is applied directly to the insulating panels without any air gap or disconnecting layer.

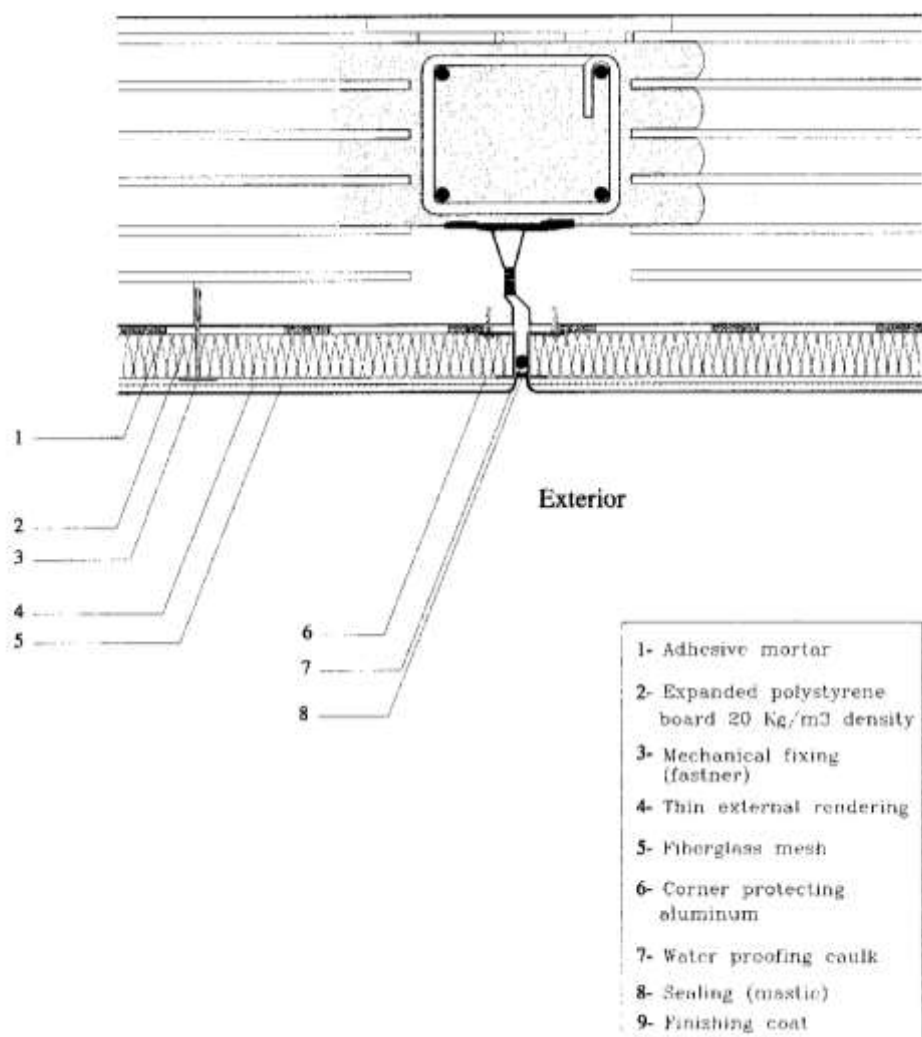
The system includes special fittings (e.g., base profiles, corner profiles, etc.) to connect them to adjacent building structures (apertures, corners, parapets, etc.).

The system is designed to give the wall to which they are applied satisfactory thermal insulation.

It should provide a minimal thermal resistance in excess of 1 m². K/W.

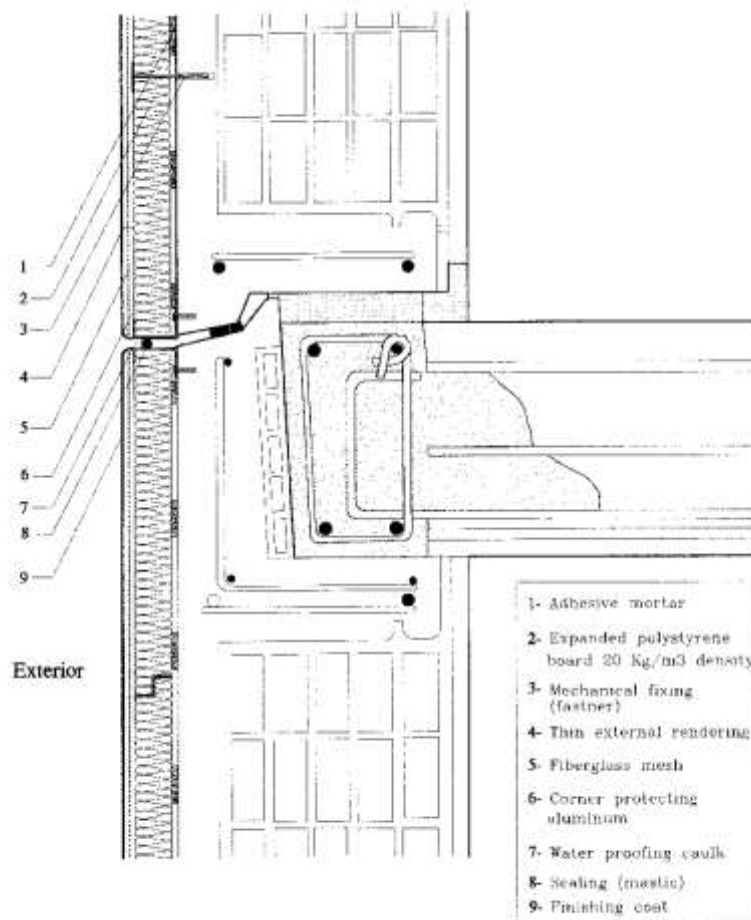
The final solution is presented in figures 63 and 64.

Figure 63. Rehabilitation of the external walls of the SAC and QM buildings with an external insulation composite system with rendering



Source: Author.

Figure 64. Rehabilitation of the external walls of the SAC and QM buildings with an external insulation composite system with rendering



Source: Author.

Figure 65. Building work in progress (Science Faculty of Lisbon Building) – The insulation board with adhesive coat applied with points and bands



Source: Author.

Figure 66. Building work in progress (Science Faculty of Lisbon Building) – Special fitting profiles to allow an adequate fitting of the pieces and better continuity



Source: Author.

Bearing in mind the above-mentioned opinions and counsel, a final solution is presented, which is adequate to solve the pathologies of the SAC and QM buildings. This solution aims not only at the hygrothermic rehabilitation of the external walls of these buildings and their resultant energy rehabilitation but also the improvement of the global quality of the buildings so as to prolong their lifecycle.

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