

From Socialist Estate to City Neighbourhood

**A Critical Look at Eastern
European Housing Estates**

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

ABSTRACT

This thesis presents a critical examination of Eastern European housing estates, examining their unique condition and growing concerns, in order to propose a new model for their regeneration so that they can become vital neighbourhoods within the city.

In order to redefine the image of these estates from their negative Soviet memory, the street becomes a vital element for re-adaptation. The street can provide a new public space that is truly democratic, used by all habitants, while at the same time setting up a structure for controlled property development.

Focusing on the socialist period estate of Wierzbno in Warsaw, a new urban design is proposed which integrates the estate into the surrounding city, while providing a unique character that differentiates from other city neighbourhoods, creating a memorable and diverse district.

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Finally, I appreciate all the help and support of my friends, helping me stay sane throughout these last years, months and especially the last weeks. Such fine wisdom as, “finish your coffee first!” has undoubtedly helped avoid many disasters!

DEDICATION

To my family.

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* Unless otherwise noted, illustrations are by author.

INTRODUCTION

“The real question to be concerned with in the modern world is that of the dwelling.”¹

Large housing estates make up less than ten percent of the housing stock in Western Europe as opposed to forty percent in post-communist cities of Eastern Europe. This proportional imbalance exemplifies the importance of this type of housing to the urban housing markets of Eastern European cities.² Despite the importance of this issue to Eastern Europe, the estates of the West have been in the forefront of recent debate. When discussing the failures of the functional city, images of the suburbs of Paris, the council flats of London, and the inner-city projects of American cities predominate. The discussion of the Eastern developments is long past due.

Driven by political, societal and economic factors, the period between 1950 and 1970 saw a great push for large social housing projects worldwide; the projects were seen to offer a new modern living environment and provide a solution for housing the masses. These estates provided a new modern alternative to the overcrowded tenements and slums they replaced, using contemporary industrial

processes to achieve efficiency in design and cost. By the 1970's, problems began to emerge within the estates, as the societal structures and personal housing preferences changed the Utopian visions for a new urban life, (political, economic and social assumptions) were no longer relevant to contemporary city planning, development, and management.³

Many terms are used to describe these housing developments. For the context of this thesis, the term, 'Estate' is used as "Areas built in the second half of the Twentieth century as groups of at least 2,000 housing units that are recognised as distinct and geographical areas, planned by the state or with state support."⁴ The problems with estates vary, and not all estates are problematic, "Many function well, economically and socially and resident satisfaction remains high."⁵ In cities where the estate has lost popularity, descending to the bottom of the housing market, the estates have become increasingly problematic. Common problems experienced among estates are physical decay of the buildings, litter in open spaces, concentration of low income households, low demand for housing with a high turnover, increasing unemployment, crime, vandalism, social and racial tension, conflicts amongst residents, lack of social cohesion, reduced resident activity, lack of public services, and poor educational quality.⁶ The causes for the concerns with large housing estates are just as varied: from administrative problems such as bad estate management, underfunded policies, maintenance, or community activity programming, to social concerns dealing with the concentration of poverty, the isolation of buildings from the surrounding neighbourhoods and the lack of connection to outside social networks. The troubles with the estates can also be linked to fundamental design decisions. With the modernist towers placed in a vast openness of green common area, there is a lack

of ownership of this space. Without the traditional street systems of an urban city, the estates lack 'eyes on the street'¹⁷ that offer a primary sense of safety and ownership.

The Eastern European housing estates have similar problems as their counterparts in the West, yet they do have several key differences, making the approach to the renewal of these neighbourhoods unique from that of Western Europe or America. Although similar in their urban design, the Eastern estates were created under a Soviet mandate; and with that, they carry the memory of almost fifty years of Communist rule. The large residential blocks remain as a symbol of the authority of the Soviet Era, acting as a constant reminder of the oppression felt under communism. Currently, these estates are in a state of transition from a socialist to a market-based economy. Once centrally owned and operated, many of the blocks are becoming privately owned building cooperatives. Furthermore, Eastern Europe has historically had major housing shortages and a lack of choice and mobility in the housing market. Unlike the Western situation, housing was a social right for all citizens, and it was not assigned based on income need. As a result, the social mix in the estates has been maintained up to this point. However, with the new housing developments and single-family houses going up around Warsaw, as in most major cities, residents are beginning to have more choice in their location and type of dwelling.

If nothing is done to counter the isolation and inhabitability of these estates, there is the potential for them to turn into enclaves of poverty, similar to that experienced in the West. It is vital that these estates learn from the West and combat the forces at play before the cycle of decay begins. It is not feasible to simply demolish and reconstruct these buildings due to the sheer volume these estates compose within the

built fabric of the cities, and the ongoing shortage of housing, especially of low to mid-income housing. An alternate for regeneration needs to be explored when dealing with these Eastern estates, working with the existing housing to create places where residents with choice would wish to remain. For a regeneration plan to be effective, it needs to be started before the area becomes labelled as problematic. After that, it needs to overcome the negative stigma as well as the underlying problems.

This thesis presents a critical examination of the unique condition of Eastern European social housing estates in order to establish a model for their regeneration so they become vital areas within the city. By exploring alternative cases of renewal, along with theories of urban cities development and the creation of usable public spaces, a new model will be produced and tested upon the estate of Wierzbno in Warsaw. Based on the creation of a traditional neighbourhood, the street will become the driving force for the design, the new public space of the site and the means for establishing property development.

A neighbourhood in the context of this thesis is more than a political district and often lacks a clear physical boundary. As a geographically localised community within a larger city, the social bond that the residents have to the place and each other defines the neighbourhood, and the public spaces allow for the fostering of community.

The new model is a response to contemporary urban ideals: creating compact pedestrian-friendly communities, establishing vitality by creating a diversity of land-use and social-mixture, all of which is meant to facilitate social and economic interaction. These new ideals came about from an exploration of several key texts and played a role in informing the design:

Jane Jacobs' book, *The Death and Life of Great American Cities*, was first published in 1961 as a criticism of the new modernist urban planning and has maintained relevance. Though discussing American cities and their context, the theories of what make captivating cities is applicable, as the desires for a safe and vital community translates across borders.

Jacobs provides an in-depth observation on the workings of streets as providers of safety and the holders of public life. According to Jacobs, "A good city-street neighbourhood achieves a marvel of balance between its people's determination to have essential privacy and their simultaneous wishes for differing degrees of contacts, enjoyment, or help from the people around."⁸ Jacobs clarifies the essential difference between a city and neighbourhood, that city people are mobile, able to choose among the entire city for their choice of restaurants, shops, work, etc., while neighbourhoods need not become towns in themselves, but provide residents a specialized choice within the city.⁹ A city is a sum of its parts, the concept of diversity maintains a high priority in the discussion of a vital city. Jacobs provides a list of conditions that encourage diversity, such as: the need for a mixture of primary uses to ensure that people have reason to be out on the streets at various times of day and allowing for mutual support between uses; that most blocks must be short to allow connection between adjacent streets; the mixture of buildings are at various ages and conditions to allow a range of investment so shops of various economic strength can co-exist; and that there is a sufficiently dense concentration of residents.¹⁰ Furthermore, she examines conditions of decline found in American cities, warning, "The first sign of an incipient slum, long before visible blight can be seen, is stagnation and dullness. Dull neighbourhoods are inevitably deserted by their more energetic,

ambitious, or affluent citizens, and also by their young people who can get away. They inevitably fail to draw newcomers by choice.”¹¹ This becomes a part of the central argument for the necessity to evaluate estates, before they undergo decline.

Jan Gehl in his books *Life Between Buildings*, and *Public Spaces- Public Life*, explores the uses and design of the public spaces of cities, and the need to design for human scale. A successful space creates moments for walking, standing, sitting, seeing, hearing, and talking. Gehl establishes distances for social interaction and examines social behaviours that can help create good spaces, such as the importance of the edge condition, and providing a mixture of primary and secondary sitting. In areas where most periods have limited users, “interplay between a relatively limited number of primary seating opportunities and a large number of secondary places to sit also has the advantage of appearing to function reasonably well in periods when there is only a modest number of users... [as too many empty primary seats can] give the depressing impression that the place has been rejected and abandoned.”¹² He argues that spaces should help to encourage other activities to occur such as play, sports, community activities, etc., and that there is a need to consider various age groups, children, adults, and elderly, in the design of public spaces. Furthermore, Gehl argues that, “The rejection of mono-functional areas is a prerequisite for the integration of various types of people and activities,”¹³ and discusses the benefits of assembly of programs versus their dispersal, in order to provide a mutual support.

Lastly, the book, *Restructuring Large Housing Estates in Europe*, presents key findings from a major EU-funded research programme that studied 29 large housing estates in 10 countries throughout Europe. By

focusing on the nature of contemporary problems on the estates, and examining policy and initiatives explored by various estates, a basis for renewal through social, physical, and policy actions are discussed. The renewal by place making is a concept discussed by Patsy Healey. She defines place making as “the promotion of the social, economic, and environmental well being of diverse places and the development of institutional capacity to achieve this.”¹⁴ This is a collaborative process that is meant to include a multitude of stakeholders from local residents to public authorities, and is a process “driven by dialogue and the consideration of different ‘images’ and ‘visions’ of the types of place that the large estates are or ought to be.”¹⁵

This thesis deals with the architectural implications of estates; and, how a redesign of them can help to foster new neighbourhoods, and approached by a design proposal. The problems faced by large housing estates cannot be fully attributed to bad architecture; and restructuring with respect to housing policy, social needs, management and maintenance will need to be considered for the long-term success of a project, an area of inquiry which will be beyond the scope of this thesis.

The thesis is composed both by a study of estates for their underlying concerns and by the use of design to consider new alternatives for estates. The design is based on site visits during a research trip November 2007 and on a site analysis based on maps obtained from the central bureau of Surveying and Cartography issued 2002.

Chapter One will present the evolution of social housing in Eastern Europe illustrating the unique situation of Eastern estates to that of the West and the design limitations this poses. The current condition of the housing situation will also be discussed outlining the vital role it plays in

addressing the need for the regeneration of the housing estates.

Chapter Two will explore several case studies, examining the current strategies being undertaken in other estates facing problems of decline, and understanding what makes these estates viable for regeneration or not. These case studies include Pruitt-Igoe, St. Louis; Regent Park, Toronto; and Bijlmermeer, Amsterdam. Common design concerns become apparent when the cases are examined in sequence: the isolation of the estate, the lack of diversity of function, the vast open spaces and the monotony of the buildings are all elements that will be explored.

With Chapter Three, the focus will shift to the proposed site of regeneration: Wierzbno, Warsaw. To understand the estate the overall historical context of Warsaw is first illustrated, exploring the changing urban fabric and traditions of the city, followed by mappings of the current systems influencing the growth of the city as well as the condition of the existing site. Although each estate is similar in its design objectives, each has unique site characteristics and various self-organizing attractors working on its site. This thesis will review these factors and integrate them into the new design for the neighbourhood in order to maximize the site's potential. A study of the existing housing typologies will illustrate the lack of variety in the housing types available, their monotonous appearance and their disconnection with the site at grade.

Chapter Four will examine a synthesis of the ideas explored thus far with a new urban design for Wierzbno. With the aim to re-define the image of this neighbourhood beyond its negative Soviet memory, as well as countering the urban deterioration facing the estate, the street becomes vital in the re-adaptation of these post-socialist buildings. The

street provides a new public space that is truly democratic, used by all habitants, and sets up a structure for controlled property development. A new street system creates an opportunity for a network of new parks and various other public spaces, and establishes a new building typology for the redevelopment of the existing blocks. The new block offers a means to integrate the new construction with the existing fabric, provide common amenities, and create a hierarchy of housing organization.

Public space becomes key in redefining the estate from its Soviet image. City land was naturalized and considered that of the collective. The open green space of the estates was to be public space but its lack of ownership and its lack of legibility as either park or yard left it as largely unused. The new concept of public space for the city creates an inversion from the previous model where there is a clear boundary of public and private space. Ownership is given to private yards and semi-private courtyards, and public space is allotted to a large park to the north of the site, which has a clear legibility as usable public space.

Though coming from a different historical development, the Eastern European estates continue to play a large role in the local housing market and maintain a high standing in it. However, they are currently faced with the realities of a market-based system. As new housing developments create competition, these estates have the potential of becoming unwanted relics. A new solution needs to be explored to avoid deterioration and abandonment of the estates. This thesis illustrates that the estates have the potential to become new and vital neighbourhoods within the city.

Endnotes

- 1 As proposed in 1932 by the French delegation of the CIRPAC, addressing the key concept of CIAM. Le Corbusier, Athens Charter, 31.
- 2 Ronald van Kempen, ed., *Restructuring large housing estates in Europe* (Bristol: Policy Press, 2005), 2.
- 3 Ronald van Kempen, ed., *Restructuring large housing estates in Europe* (Bristol: Policy Press, 2005), 50.
- 4 Ibid.
- 5 Ibid.
- 6 Ibid.
- 7 Jane Jacobs. *Death and Life of Great American Cities*. (New York: Random House, 1961).
- 8 Jane Jacobs. *Death and Life of Great American Cities*. (New York: Random House, 1961), 70.
- 9 Jane Jacobs. *Death and Life of Great American Cities*. (New York: Random House, 1961),126.
- 10 Jane Jacobs. *Death and Life of Great American Cities*. (New York: Random House, 1961),162.
- 11 Jane Jacobs. *Death and Life of Great American Cities*. (New York: Random House, 1961), 287.
- 12 Jan Gehl and Jo Koch. *Life between Buildings : Using Public Space*. 4th ed. (Copenhagen: Arkitektens Forlag, 2001), 163
- 13 Jan Gehl and Jo Koch. *Life between Buildings : Using Public Space*. 4th ed. (Copenhagen: Arkitektens Forlag, 2001), 109
- 14 Ronald van Kempen, ed., *Restructuring large housing estates in Europe* (Bristol: Policy Press, 2005), 50.
- 15 Ronald van Kempen, ed., *Restructuring large housing estates in Europe* (Bristol: Policy Press, 2005), 59.

01 ESTATES

EVOLUTION OF EASTERN EUROPEAN ESTATES

“The majority of the cities studied today present the very image of chaos... The human crisis is raging in the major cities with repercussions throughout the land. The city is no longer serving its function, which is to shelter human beings, and to shelter them well.”¹

Large housing estates have been attributed to the modernist movement growing out of the functional city, as explored by CIAM, (the Congrès International d'Architecture Moderne) a group founded in 1928 by Le Corbusier, and included members from Hungary, Czechoslovakia, Poland, and the Soviet Union. Out of the new industrial age, a new ideal for city development emerged, one that has come to define countless modern city developments. However, in the post-industrial era the role of the city is being redefined. The collective living ideals and separation of function that characterises the large housing estates no longer reflects the desires of the contemporary city. The following section outlines the historical evolution of the Eastern European housing estates as they break from the ideals of the modernist functional city into the development of the Socialist City.

CIAM was founded with the aim of defining and promoting the principles of modernism and the social role of the architect. The theme

of the 'Functional City' was a culmination of CIAM's major themes of the 'minimum dwelling unit' and the 'rational site planning' of the previous Congresses. At the Berlin special Congress of 1931, the dialogue for the definition of the functional city began. The Socialist City was also presented, as "[an] urban-development planning [that] proceeded in accordance with modern insights that had been developed in Western Europe: a separation of industrial from residential districts, an open subdivision, a rational traffic organization and a systematic distribution of greenery."² The practice of the functional city at such a scale, of new Soviet cities, was made feasible with the introduction of a planned economy and collective land ownership.³

However, with growing political tensions, Soviet links began to deteriorate. Increasingly, ideology played a fundamental role in the definition of the Socialist town, the word from the Soviet Union by the beginning of 1933, "proposed that the CIAM should no longer talk about the 'functional city' in connection with Moscow without a clear definition of its ideological basis."⁴ By March 1933, the concern was escalated to "Russians refused insights that had been developed in the West simply because they were the product of a capitalist society."⁵ The proposed Congress in Moscow never came to fruition.

The Fourth Congress meeting of CIAM was held in Athens in 1933. Discussions on the modern urban development of cities took place, exploring a vision for a new city that emphasized the separation of function into dwelling, work, leisure, and circulation, with a concentration on the advantages of collective organization as opposed to the garden city, which focuses on the individual.⁶

The resolutions of the Congress were drafted into the Athens Charter. Key points that come to symbolize the modern housing projects

included, “No.27 – The alignment of dwellings along transportation routes must be prohibited. No.28 – The resources offered by modern techniques for the erection of high structures must be taken into account. No. 29 – High buildings, set far apart from one another, must free the ground for broad verdant areas.”⁷ This new vision for the city was further explored by Corbusier in his plans for the Ville Radieuse (the Radiant City). This was a new city located in a park setting, where high speed transport linked sections of the city together. It was a city of a new scale, based on the automobile and the railway.

With the outbreak of the Second World War in September 1939, the slow separation of the East and West began. The East was on a different trajectory for architectural development, one that defined the contemporary image of its cities. The Eastern European estates developed in growing isolation from the West, with an increasing Soviet mandate for city development, that of the Socialist City. From here, the examination of the evolution of the contemporary condition of Eastern European housing estates will be discussed, emphasizing the political rhetoric associated with them, the social-economic condition they formed, and their lasting architectural legacy. Furthermore, the current condition of the housing market will be explored, as the housing market is in the process of transition from a centrally planned to a market-based economy, and what this means for future developments.

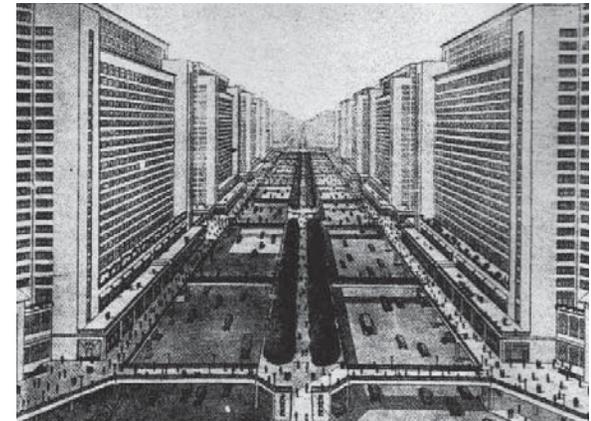


fig. 1.1 View of Ville Radieuse.

fig. 1.2 Bird's eye view of Ville Radieuse.

1.1 EVOLUTION OF EASTERN EUROPEAN ESTATES

“A city may form in two ways: either by integration into the natural environment or by expansion into and destruction of the natural environment. The first way can be traced in the development of ancient Russian cities while the other is typical of the spontaneous growth of cities under capitalism.”⁹

Post-War rebuild, 1945-1949. Liberation from the Nazis by allied forces in 1945 saw Europe split into two, with American and British forces re-building the West and Soviet forces overseeing the Eastern countries. Five years of war’s destruction had left many countries in ruin. For example, Warsaw endured destruction of 85% of the built fabric. The main priority after the War was the reconstruction of cities. The first step in reconstruction was to restore the country’s economic potential, which included the construction of essential factories and transportation routes.⁹ Housing shortages remained another prime concern; as the war also meant a five-year halt in new construction, followed by subsequent years of large shortages of materials, combined with the post-war trend of urbanization in most

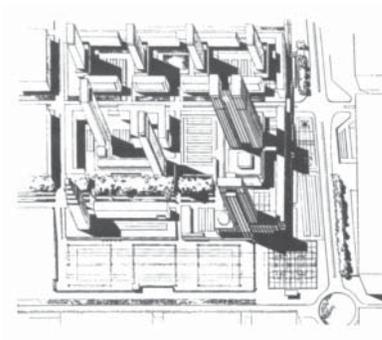
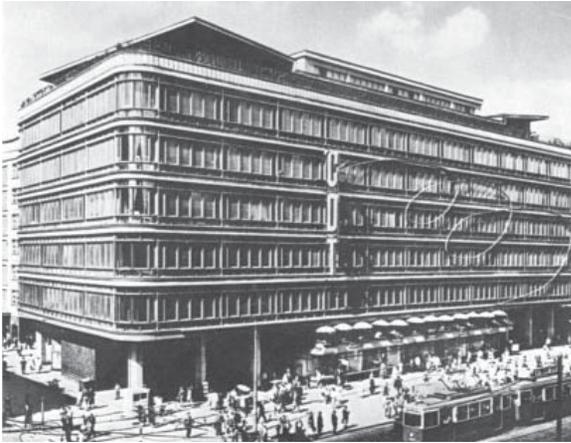


fig. 1.3 Warsaw department store designed in the post-war era by Ihnatowicz and Romanski.

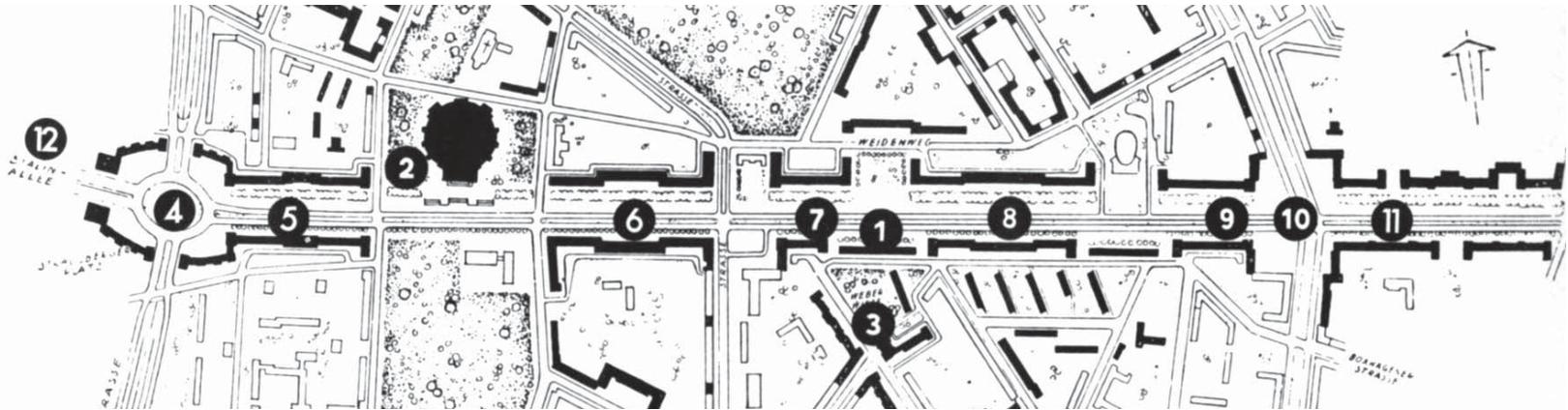
fig. 1.4 Warsaw, prize-winning project by Ihnatowicz and Romanski for an office and housing development, 1948.

countries and a trend towards a decrease in the average number of persons per dwelling.

The scale of rebuilding and the reorganization of space were made possible by the nationalization of land in the beginning of the communist period. In Warsaw, a ‘Decree on Communalization’¹⁰ was declared in October of 1945. This called for the nationalization of urban land and of houses whose owners did not claim them or exceeded a certain size¹¹.

Ties to the modernist movement were still strong in this period. Buildings such as the Warsaw department store, (see figure), designed immediately after the war, is an example of modernist architecture, demonstrating the use of modern construction technologies and a strong style. Soon after completion, it was already criticised as “technology fetishism” and Formalistic.¹² The mid-town area of Warsaw suffered great destruction during the war, and a competition for this central area was held. The prize-winning design demonstrated a strong preference towards modernist design; but the project was not executed, instead the site became the future location of the Palace of Culture.¹³

Socialist Realism, 1949 - 1956. Growing political tensions between the Soviet Union and the West brought on the escalating isolation of the Eastern Countries, and by 1949, the Cold War crossed over into realms of architecture, as it was used to further the Communist agenda. “The contest between these ideologies is also being waged in architecture.”¹⁴ Architecture was a visual manifestation of power, and the architectural language of the communist party was Socialist Realism, following the motto, “Socialist in content and national in form”¹⁵. The style could be adapted to any country, as the distinct



style was a reinterpretation of the local historical style. ‘National’ as used by the party was the antithesis of ‘cosmopolitan’, which in the Soviet terms was synonymous with imperialist, capitalist, ‘the Anglo-American warmongers’¹⁶, and modernism was the representation of Cosmopolitan.¹⁷

To facilitate the political agenda in architecture and assure power over the cities, private architectural practices were abolished. By 1949 in Poland, as well as in other communist countries, architects became employees of large state planning bureaus.¹⁸ This transmission of power from the individual to the state made it easier to control the architectural expression as “Nearly all building land was publicly owned and the same public sector was in reality the one and only developer, just as it was the one and only publisher of books and periodicals. All architects were employed in state planning offices.”¹⁹

“Architects in the Soviet Union, moreover, had to represent and make plain a new social system whose objective was to ‘build socialism’. Building was a picture of politics. Political language made demands on



fig. 1.5 Berlin, Stalinallee (renamed Karl-Marx-Allee in 1961), 1950's plan.

fig. 1.6 Berlin, Stalinallee, block (6).

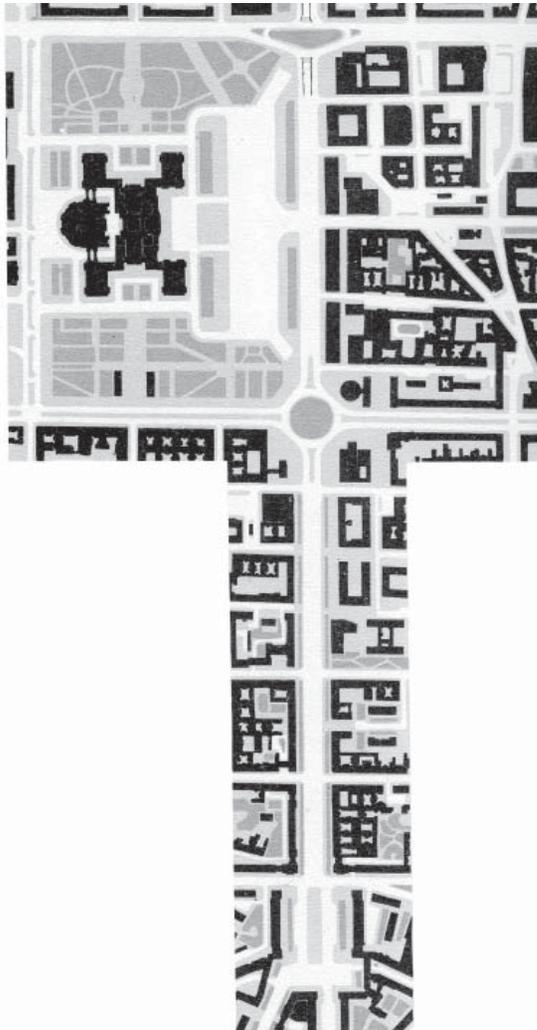


fig. 1.7 Warsaw, Plan of MDM-Marszalkowska, with the Palace of Culture to the north and Constitution Square to the south.

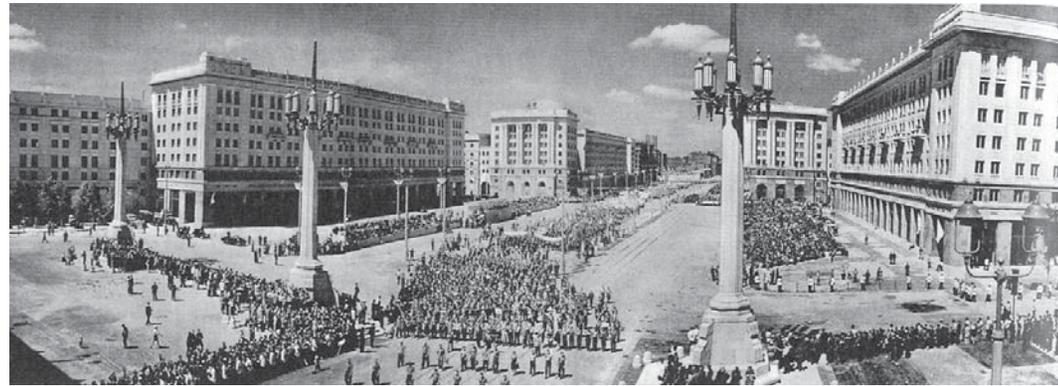


fig. 1.8 Warsaw, Inauguration of Constitution Square, July 1952.

architecture, demands that, in the eyes of many people, Modernism was not strong enough to meet.²⁰ Socialist Realism drew inspiration from Classical architecture and Classical town planning concepts: the ornament, the architectural detail, the facade via the street, the square, the block, and the city as an artistic entity. The ensemble and the silhouette became key themes explored. Monumentality was an important concept, and tribute was still paid to architecture as art.²¹

The prominent communist projects of this time are the Stalinallee in Berlin (now the Karl-Marx-Allee), the Kreshtchatik in Kiev, and the MDM-Marszalkowska in Warsaw. The political rhetoric is illustrated by the design of streets. These were streets with an agenda; the buildings on it were treated as a unit to create the street space, meant for large parades ending in a large square, such as the Defilad Square in Warsaw, in front of the Palace of Culture.

The main concerns arising from Socialist Realism is its content. It was a clear representation of Soviet power; inserted into the form were powerful elements of personal cult, terror and the propaganda of success. For example, the Kreshtchatik terminated at a major square

with a large statue of Lenin, and numerous wall carvings of workers adorn the buildings of the MDM-Marszalkowska. “It was content, much more than form, that was to be the problem of the new Soviet architecture.”²²

The Thaw, 1956 - 1964. With the death of Stalin in 1953, references to Stalin quickly disappeared, and the political rhetoric was toned down.²³ The new vision once again came from the Soviet Union, “first, fierce criticism was levelled against technical and economic shortcomings of the building program, against bad layouts, sloppy workmanship, uncompleted projects, poor efficiency, the lack of interest shown by architects in standard solutions and industrial building methods... second, eleven months later... a general attack on Socialist Realism... the removal of exaggerations in planning and building.”²⁴ The new policy change quickly re-wrote history, calling the style, as a ‘few grave misunderstandings’.²⁵

The new ideal for Soviet architecture was to be “characterized by simplicity, austerity of form, and economy of layout. Buildings must be given an attractive appearance, not through the use of contrived, expensive decorative ornamentation, but by an organic connection between the architectural form of the building and its purpose, between good proportions and a proper use of materials, structures, and detailing, and through high-quality workmanship.”²⁶ Modernism was not to be the victor in styles, and the development of cities still had a clear political agenda against that of the West, “A Socialist city is not a machine for living in, but an organized environment for people building a new society.”²⁷

A Socialist city was about providing uniform living conditions to all of



fig. 1.9 Kiev, Inauguration of the Lenin statue on the Square of the October Revolution, (now Independence Square), October 1977.



fig. 1.10 Warsaw, Sady Zoliborskie. Early example of estates. 1960's.



fig. 1.11 Warsaw, Sluzewiec Housing Estate of Prototypes, 1963.

its the residents, with an equal distribution of social and communal services in each residential district, and ensuring uniform allocation of parks for recreation and sports as well as access to public transportation.²⁸ Estates during this time remained relatively compact with apartments of four to five storeys high. There was little choice given to location; residents were assigned a unit based on the size of household.

Super-estates, 1964-1989. With ongoing housing shortages, the need to build bigger, more quickly and cheaper increased, “in [Eastern Europe], politicians and planners on the national level determined how many flats were to be built and set all their parameters... the local neighbourhoods had no influence at all on the process of housing estate development.”²⁹ For example, in 1960 the new Five-Year Plan for Housing in Warsaw, announced that 75,000 new flats would be built in the city. New districts like Grochow suddenly appeared housing upwards of 24,000 people.³⁰

For estates of this scale to be feasible economically and to be completed expediently, a new construction method was required, “It took ten man-hours to lay one cubic metre of a brick building. The corresponding figure for a building made of large blocks is six to six and a half hours. In a building made of large panels, after the latest method introduced in 1959, the time is reduced to four and a half hours.”³¹

Increasingly the estates began to resemble the images of CIAM's Functional City. However, the design was still following the Soviet model. The urban form of the cities was based on a balance of “massive industrialization and urbanization with an ideological reorientation toward the compact, densely populated European city...



in the context of a socialist property rights system, urban patterns emerged that were in some ways different in spatial and environmental terms from the ones to be found in Western countries.”³²

The housing policies of the Socialist countries maintained a differential status from their counterparts in the West; Housing policy in the East followed a controlled command structure, “the system was based on low housing costs, centralized production and state control over housing allocation. Homeownership, particularly in urban areas was discouraged; all housing was universally affordable due to extensive subsidies and macroeconomic regulation of prices.”³³ By the end of the 1970’s, the social housing distribution policy created was in a state of chaos with vast waiting lists, “preference was based on institutional, professional and hierarchical positions which caused an unbalance and distrust within the society.”³⁴ Despite the long queues for housing,



fig. 1.12 Warsaw, Wawrzyszew estate, buildings reach lengths of 300m.

fig. 1.13 Warsaw, Ursynow estate, maintains a high standing in the city.



everyone was entitled to a dwelling; unlike social housing in the West, in the Eastern countries allocation of housing was not income reliant. This formed a social-mix in the occupancy in the estates; however, it also left a lack of connection to the area, as applicants were allocated housing based on availability rather than preference of location; this discouraged a social community to emerge, as residents often did not share common interests. The estates were seen as large ‘bedroom communities’ where everyone remained largely anonymous.

Post-Socialist Era, post-1989. With the fall of communism in 1989, the East has been in transition to a market-based economy. New strain is now being felt on the housing market with privatization of the social housing stock and the emergence of new market-rate apartments and single-family houses throughout the cities. The following section discusses the contemporary status of the housing market in Eastern Europe as the effects of privatization become apparent.



fig. 1.14 Warsaw, New Ekopark housing development.

fig. 1.15 Komorow, growing suburb town of Warsaw, single-family dwellings.

1.2 CURRENT TRENDS IN EASTERN EUROPEAN ESTATES

Fifty years of a centrally controlled housing market have left Eastern European cities with a lack of differentiation of dwelling types and overcrowding caused by large waiting lists and low residential mobility. With recent political reforms, a transition from a centrally planned to market-based economy is occurring. The economic-reform policies vital to this transitional period are the reduction of the role of state-owned enterprises, privatization, and the restitution of property rights³⁵. For a real estate market to function there needs to be a commodity to trade associated with private ownership of property. During the Communist period, most real estate was state-owned, with cooperative housing estates also becoming completely dependent on the state for dwelling allocation.³⁶

The mass privatization of the social housing stock was strongly promoted by the new governments, since they could not handle the financial burden of social housing. "In Slovenia, the main reasons for the privatization of the public stock were to remove the burden of high maintenance and renewal costs from the state budget, to generate a substantial amount of cash to assist the state budget during the



fig. 1.16 Warsaw, Wrzeciono estate, newly renovated tower.

fig. 1.17 Detail of renovation, 100mm ridged insulation is added to exterior of building.

critical period of establishing an independent economic base... and to establish better housing management and maintenance.”³⁷ As a result, of compulsory privatization, with the 1993 Housing Act, now most buildings in are now 85-100% owner-occupied, organized into condominium associations.³⁸ Privatization occurred much slower in countries such as the Czech Republic, Poland, Slovakia, Estonia and Latvia.³⁹ In Warsaw, for example, the progress was hindered by the difficulty in finding the real owner, either due to loss of pre-war archives or immigration during communism.⁴⁰

The early years of post-communism saw a decrease in housing investment. Between 1988 and 1995, there was a “substantial decrease in newly completed dwellings in Warsaw... The situation may be explained by economic insecurity, low residential mobility, increasing construction costs, the uncertainty of the housing market for investors and developers, and the lack of land plots.”⁴¹

The future of the real estate market relies on dealing with the supply and demand of housing, and establishing a residential mobility. New housing trends indicate a demand for high-income housing, especially for single-family dwellings and row houses. The majority of the existing housing stock was created under the mandate of uniform standards for all leaving it generally geared to mid-income residents in high-rise blocks. With the lack of vacant land for building, especially within the city center, new developments were being pushed to the periphery⁴², leaving the lower-income groups to populate the estates.

The privatization of social housing estates has provided an opportunity for residential mobility. However, the affordability of new housing along with lack of appropriate financing remain key contributors to the low level of housing market activity, “Households have little or

no confidence or access to the means of unlocking their equity for consumption or of using their housing assets as base for up-market moves.”⁴³

Furthermore, privatization has left low-income households at a disadvantage, as the burden of ownership is too high, as fees for central heating and hot water can amount to 60-70% of the rent.⁴⁴ Increasingly, households simply cannot make their payments, “one of the biggest problems of the post-communist cities is the future of the run-down multi-family housing stock inhabited by poor owners.”⁴⁵

Following the new trends in housing, there is a potential for public-private collaboration in the renewal of the estates. As a means to maintain current mid to low income housing, the open spaces of the estates can be used as new land plots for market-rate housing. They would provide the estates with new amenities and finance repairs that the new cooperative could otherwise not afford.

The housing estates have evolved in isolation from the west and from the traditional building types typical before the war. Their initial development was disconnected from the desires and control of their residents. These large sections of the city hold within them the legacy of Soviet power. However, they retain a large presence in Eastern European cities, and as such play an important role in their housing markets. A renewal of these estates would need to address the years of imposed architectural style and urban design, the loss of control over housing developments from the location to the type of dwelling, and the loss of community life. The following chapter will examine strategies being undertaken for the renewal of Western estates as they have evolved with the context of market-rate housing and are the current examples of large restructuring programs not yet visible in Eastern Europe.

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02 CASES

STRATEGIES FOR THE RENEWAL OF LARGE ESTATES

“Despite the many physical similarities between the built elements of the large estates, they were perceived by the residents and the market as heterogeneous. However, the success or failure of an individual estate is affected by its position in the local housing market and cannot simply be attributed to the different forms and types of the buildings. Many of various physical forms have proven successful, while other similarly designed estates have been faced with severe problems.”¹

Each of the case studies that will be discussed in this chapter was once a vital project within its community with grand ambitions for community development, each exploring new and innovative models for social housing. However, while planning for the best they later proved problematic, becoming enclaves of poverty and crime. Each of the following examples takes a different approach to the renewal of the estate; providing a unique response to the urban design, housing policies and building occupation types.

Neither maintenance, nor social-economical measures, nor participation, nor physical measures alone are sufficient to solve the complicated problems of these estates. These problems act in combination, so any renewal strategy needs to be an integrated design

approach that addresses the issues together. These sites are often labelled as problematic areas, carrying with them a negative stigma that will need to be overcome in order to rehabilitate the estate. As well, it is important to acknowledge that the “demolishing and relocation of inhabitants is not the answer to spatially-concentrated poverty.”² For a project to be successful in the city, an integrated approach needs to be employed which aims to solve these issues instead of relocating them.

In each of the following cases, the main goal is to create a ‘vital’ neighbourhood, a place where residents actually want to live. However, what is a vital neighbourhood? It is a generic term that has different connotations to each stakeholder involved in the regeneration of the estate. To a business owner, it could mean a neighbourhood where people want to be, where the shops are all leased, and where customers enjoy spending time: strolling the streets, sitting in cafes along the way and doing their shopping in the neighbourhood. To the resident, it could mean a safe neighbourhood where they can use the public space and there is a strong sense of community. To the city councillor, it could mean a neighbourhood with low turnover, a low crime rate and a high property tax intake. But what really is key to making it ‘vital’ is that it no longer a self-contained development, but a neighbourhood, a connected area and not an isolated space within the city.

The following case studies are all large social housing projects; dealing with American and Western European social housing issues. The urban design ideals in the examples are still applicable to those of Eastern European estates; hence, similar design concerns are faced by these estates: isolation from the city, segmentation of functions, monotonous appearance, and vast anonymous public spaces. Examining the

strategies employed by the following estates can inform the renewal approach to be used with Eastern European estates.



fig. 2.1 Pruitt-Igoe, aerial photo, 1968.



fig. 2.2 Pruitt-Igoe, aerial photo, present-day.

2.1 PRUITT-IGOE, ST. LOUIS, USA

Pruitt-Igoe, St. Louis, is an example where the development was declared no longer salvageable and faced demolition, a fate very typical of failed American social housing projects. Pruitt-Igoe has come to symbolize the failures of modernism and high-rise public housing. A study of its origins through to its final occupation reveal that the project failed on many accounts, its location, architectural language, social-economic condition, and the politics surrounding it to name a few.

The site was located in the De Soto-Carr neighbourhood an extremely poor section of St. Louis, displacing a black slum of 515 dwellings of which over two-thirds were without inside plumbing, and a quarter without any running water.³ Originally proposed as a project of two to three storey row-housing apartment buildings with a large park, the election of a new mayor, Joseph Darst, shifted the vision for the project. Darst campaigned for the “revival of [their] aging cities and promoted large-scale physical building programs ... [with a focus on] downtown and neighbourhood redevelopment.”⁴ The project aimed to revive the city, and rebuild it as ‘Manhattan on the Mississippi’⁵. The project was designed to attract young middle-class renters; however, most of the towers ended up being occupied by low-income residents, many on welfare programs, living at or below poverty levels.⁶



fig. 2.3 Oblique view of Pruitt-Igoe, between 1963 and 1972. The estate stands out from its surrounding city fabric.



fig. 2.4 Pruitt-Igoe, the common corridors become places of crime and vandalism.



fig. 2.5 Pruitt-Igoe, abandoned towers become targets for vandals.

Completed in 1956, the project consisted of 2,870 dwelling units in 33 eleven-storey buildings on a twenty-three hectare site, and was one of the largest public housing projects in America at the time.

Built following the ideals of CIAM (Congrès International d'Architecture Moderne), the high-rise design was meant to allow the ground plane to be open public space used for recreation, parks and playgrounds. However, these spaces quickly became places of crime, vandalism and litter. As described by Oscar Newman, "Because all the grounds were common and disassociated from the units, residents could not identify with them. The areas proved unsafe. The river of trees soon became a sewer of glass and garbage. The mailboxes on the ground floor were vandalized. The corridors, lobbies, elevators, and stairs were dangerous places to walk. They became covered with graffiti and littered with garbage and human waste."⁷ Because of the extensive size of the public areas, it was difficult to maintain and quickly resembled a sort of no-man's-land.

The plan of the individual towers included a skip-stop elevator design that stopped at only the common floors. These floors housed the laundry, garbage, and communal rooms and provided stairs to the remaining floors. Unfortunately, these spaces quickly became highly vandalized and crime-ridden. Like Newman's theory of defensible space, "Landings shared by only two families were well maintained, whereas corridors shared by 20 families, and lobbies, elevators, and stairs shared by 150 families were a disaster – they evoked no feelings of identity or control. Such anonymous public spaces made it impossible for even neighbouring residents to develop an accord about acceptable behaviour in these areas. It was impossible to feel or exert proprietary feelings, impossible to tell resident from intruder."⁸

Faced with the severe problems of crime, disrepair, and negative stigma, Pruitt-Igoe never achieved more than sixty percent occupancy. By the time the decision to demolish the project was made, occupancy was just above twenty percent.⁹ However, this decline was also echoed by the city at large, “from 1950 to 1970, the city’s population fell by 234,000 people, and its share of the St. Louis metropolitan area’s population plummeted from 51 percent to 26 percent.”¹⁰ By 1972, after spending over five million dollars to fix problems at Pruitt-Igoe, the St. Louis Housing Authority decided that further regeneration of the site would be ineffective and demolished three of the high-rises. The following year, the U.S. Department of Housing and Urban Development declared Pruitt-Igoe unsalvageable and tore down the remaining buildings.¹¹ Currently the site sits predominantly vacant with the Gateway Institute of Technology occupying the western end.

However, the failures in this case cannot be blamed on architecture alone. The estate was a product of bad decisions in its founding; the high-rise towers did not reflect the housing demand at the time, as people preferred the single-family homes being constructed on the outskirts of town; the site itself was never seen as favourable, as part of a slum clearance; and the city was in a state of decline. Because of this, the estate was not in a position for viable regeneration. Though demolition is perhaps an overly radical solution, it may have been a valid choice in this case.



fig. 2.6 Pruitt-Igoe, 1965. Only ten-years after its completion, renewal efforts are undertaken in an attempt to save it.

fig. 2.7 Demolition of Pruitt-Igoe, July 15, 1972.

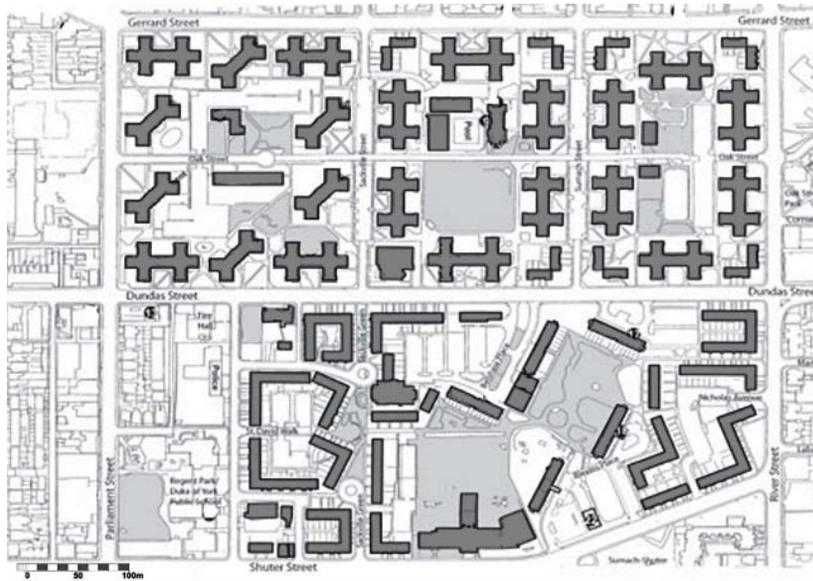


fig. 2.8 Regent Park, existing plan.



fig. 2.9 Regent Park, proposed plan.

2.2 REGENT PARK, TORONTO, CA

Regent Park, Toronto, is a site that has a favourable location for regeneration, but after many studies, the current masterplan calls for a phased demolition and a complete redesign of the site. Although the percentage of low-income housing units will remain approximately unchanged, all the existing housing will be effectively demolished.

The site first underwent an urban renewal in the 1940s and 1950s. The slum clearance of the Cabbagetown district replaced the fine grain of streets and blocks with two mega-blocks on either side of Dundas Street, the main link to the downtown region. The project was Canada's first and largest social housing project, designed for the 'working poor' that had been displaced by the renewal. Tenant selection focused on providing affordable housing for low-income applicants, and as a result only the poorest and most disadvantaged households gained access to housing in the area.¹²

Completed in 1959, the estate consists of approximately 7,500 residents in 2,087 units over an area of twenty-eight hectares in a series of three and six-storey walk-up apartments, two-storey units in high-rise apartment buildings, and two and three storey townhouses all in a car-free park-like setting.¹³ The project was designed to be largely self-

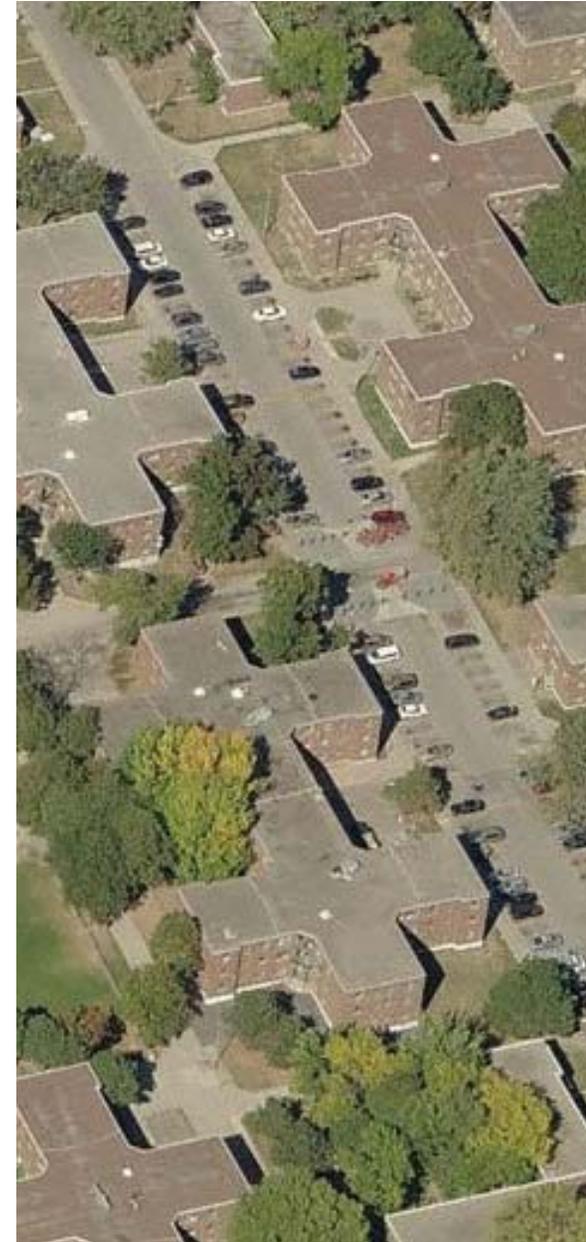


fig. 2.10 Regent Park North, view towards downtown core.



a)



b)



c)

fig. 2.11 Regent Park, Onecole development, new market-rate condominium, architectsAlliance.

contained, with no through traffic interrupting the plan. It was a primarily residential area without retail, institutional or employment uses included in the original design.

Regent Park is one of Toronto's poorest neighbourhoods. It has a high rate of poverty and unemployment, and is home to a large immigrant community. The population make-up is greatly a result of housing policies in Canada, where available dwellings are allotted to the poorest and most disadvantaged households, and as residents become better established they eventually move out.¹⁴ As a result, Regent Park suffers from similar problems to estates elsewhere: lack of facilities, amenities and services, maintenance problems, poor housing layout and design, lack of possibility of housing for purchase, isolated estate design, lack of safety, and a growing stigma of the area.¹⁵

The site is considered an area of prime real estate area in the city, with its location quite close to the downtown core. Renewal talks have been going on for several decades, recognizing the need to create a healthy community and reintegrate it with the surrounding city. As part of these discussions, the existing housing stock was deemed to be aging quickly and was too expensive to maintain. A phased demolition plan was devised, replacing the existing housing and urban plan over a span of ten to fifteen years. It follows an incremental model to deal with the relocation and management process; each phase will generally not demolish more than 200 low-income units or build more than 400 units per phase.¹⁶

The new masterplan is based on re-introducing streets to the original city grid, replacing the common open spaces with a large new public park, aligning the new buildings along the streets, and introducing multi-functional buildings geared at providing opportunities for

employment, education, culture and community facilities. The new neighbourhood would consist of 12,500 people in 5,115 mixed-income units, providing both market-rate and subsidized housing. The cost of the project is estimated at \$1 billion, funded by the Toronto Community Housing Corporation.

Part of the 1950's Regent Park developments failure lies in the housing policy that essentially created a single-class society, further increasing the isolation of the estate from the surrounding neighbourhoods. The monotonous design of the buildings also offered little in identity for individual buildings, causing the area in its entirety to suffer from an overall negative stigma. The new redevelopment aims to create a diversity of residents by forming a new mixture of social housing that integrates it with market-rate housing. The design also provides a greater diversity of housing types, with high-rise and townhouse units, as well as a diversity of tenures, owner-occupied and rentals. The phased approach allows various firms to become involved in designing a range of buildings on the site, creating diversity in architectural language; preventing the monotonous development of the site. The success found in this strategy for renewal is the diversity of place it establishes, which allows the estate to integrate into the surrounding fabric; the estate will then truly function as a neighbourhood within the city.

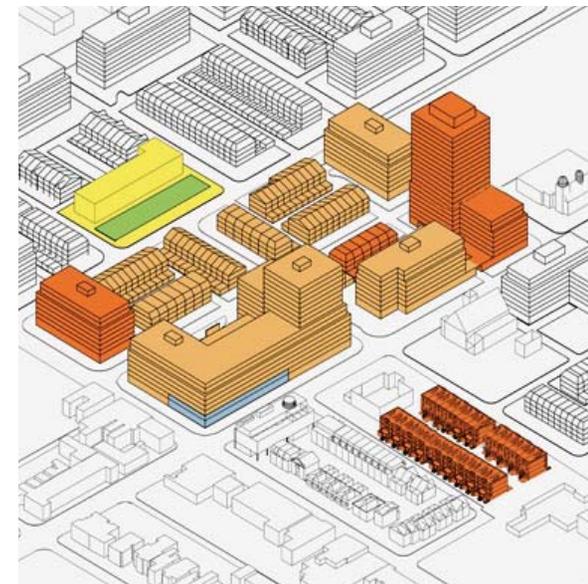


fig. 2.12 Regent Park Phase One, occupancy breakdown.

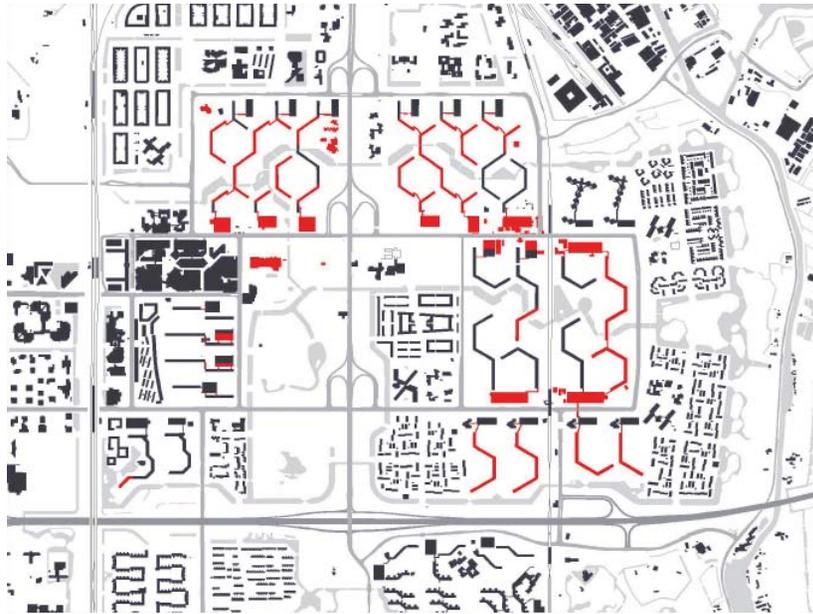


fig. 2.13 Bijlmermeer, existing plan indicating buildings to be demolished.



fig. 2.14 Bijlmermeer, proposed plan indicating new construction.

2.3 BIJLMERMEER, AMSTERDAM, NL

Bijlmermeer is the largest renewal project in the Netherlands to date, and is of great international interest, as it was the estate from which countless social housing projects were modeled upon. Located in the southeast extension of Amsterdam, it was promoted as the most modern place to live, following the teachings of CIAM's functional city.

This massive social housing project was built in response to enormous housing shortages in the Netherlands as a whole and in Amsterdam in particular. These shortages were present in most European countries because of damages from the Second World War, a freeze on new construction during the war, and a lack of available building materials. Furthermore, after the war, there remained a large quantity of poor quality pre-war housing; many countries underwent a large increase in urbanization, and there was a trend decreasing the average number of persons per dwelling.¹⁷ The ambition of the project was to create a modern city where the 'people of today' could find the residential environment of 'tomorrow'. The ideas of CIAM on modern living were applied through the separation of functions, extensive public open space between apartment blocks, parking garages and separation of traffic flows with elevated roadways for vehicular travel and pathways at grade for pedestrian and bike passage.

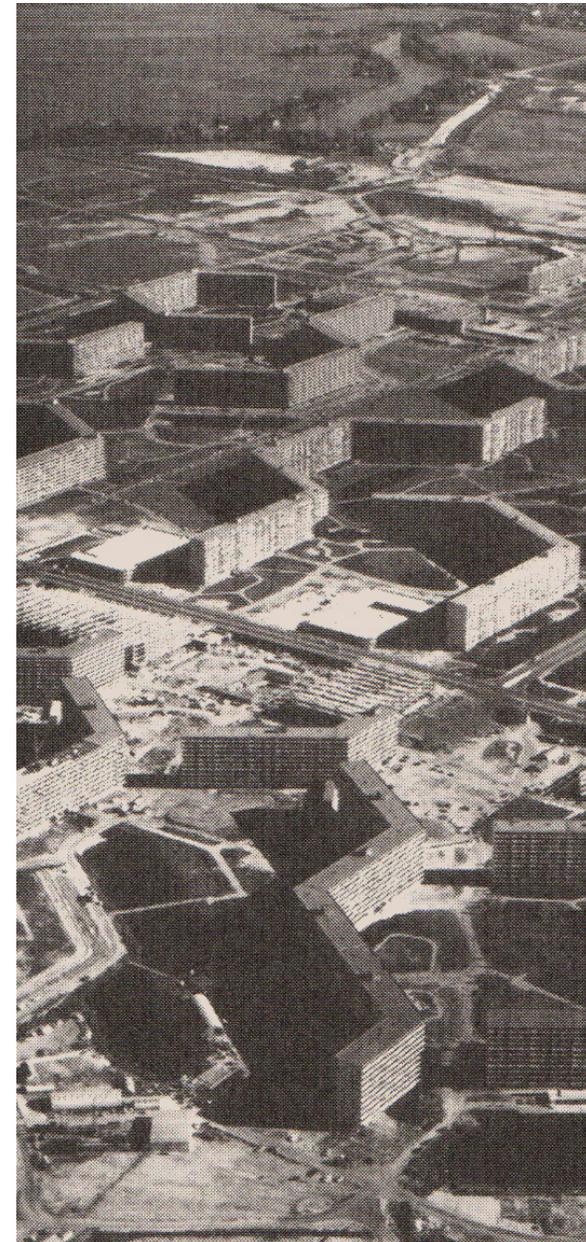


fig. 2.15 Oblique view of Bijlmermeer.



fig. 2.16 Bijlmermeer, the vast park-like landscape between the blocks.



fig. 2.17 Bijlmermeer, the separation of traffic, sacrifices pedestrian safety for vehicular efficiency.

The project consisted of 13,000 dwellings, in 31 large ten-storey buildings, each building ranging from 200 to 300m in length, built between 1968 and 1975. Ninety percent of the building typology is high-rise blocks organized in a honeycomb pattern. The dwellings were of a high quality, with a large floor area, modern sanitary facilities, central heating and their own storerooms.¹⁸

Failures of the project began to surface soon after its construction. In spite of ongoing housing shortages in Amsterdam, there were still vacancies in the Bijlmermeer. This was seen to be caused by three central issues: the unfinished character of the district, the liveability problems, and the imbalance of supply and demand. The facilities such as stores, sports halls, and recreation centers were not completed and the public transit link to the city center did not exist until long after the opening of the buildings. The management of the area required much more time and expense than originally expected, which left the semi-public and collective spaces largely uncontrolled, leading to pollution, degradation, vandalism and a lack of safety. In the period that the Bijlmermeer was designed and built, the housing preferences of the middle-class families shifted from the collective living ideals common to social housing estates towards a desire for single-family houses with gardens, as found in the towns outside of Amsterdam. All these factors lead to the Bijlmermeer being occupied by residents who had no other choice, and the site became an area for a single-class of low-income and unemployed new immigrant families.¹⁹

Renewal attempts beginning in the early eighties aimed at improving the quality of life in the estate. Public services, such as sports halls, an indoor swimming pool, police station, mosque, and shopping center, were installed, along with a metro line into central Amsterdam.

Structural improvements were made to entrances and walkways, storage rooms were closed or transformed into houses with gardens, and some dwellings were divided into smaller units to provide a greater range of inhabitants such as single-person and two-person households. Management was consolidated, and a cooperative system between maintenance and the inhabitants was initiated. However, this was not enough to combat the already negative image of the area, and by 1985 occupancy dropped to 75%.²⁰

The renewal attempts could not counteract the huge scale of the site area, individual housing preferences and the behaviour of inhabitants. Bijlmermeer was unable to gain a respectable position in Amsterdam's regional housing market and it soon became clear that a more radical solution was necessary, one where the fundamental urban concept of the place had to be questioned. As a further solution, the site was divided into multiple districts, with each to be redesigned by a different architecture firm in an attempt to create greater differentiation between neighbourhoods, providing each new section with its own character and living environment. The improvements included changes to the landscaping, introducing new programs alongside the housing, lowering elevated roadways, and demolishing or converting the parking garages to other functions. The plan also called for strengthening support for social-economic measures, focusing on job creation in the area and intensification of the maintenance.

Importantly, the new approach needed to take into account the lack of differentiation in the housing types. A survey of the residents was taken to understand the desired level of renewal. A large percentage of residents supported demolition with renovation as a less desirable option. As a result the final plan required fifty percent of the high-rise

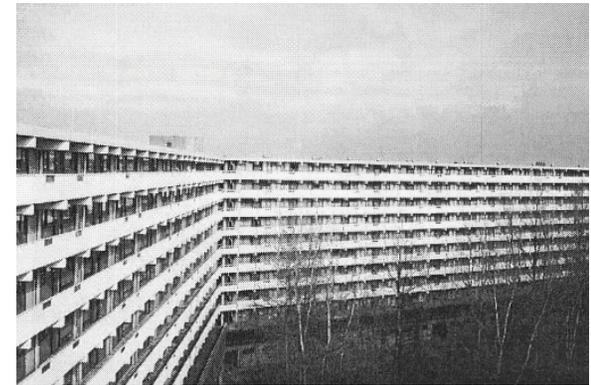


fig. 2.18 Bijlmermeer, 13,000 dwellings in 10 storey high-rise apartments. With a singular architectural language the area lacks a sense of place.

fig. 2.19 Characteristic spatial landscape of Bijlmermeer, creating a dull pedestrian experience.



fig. 2.20 Bijlmermeer, the new Ajax football stadium and entertainment center.

housing to be demolished. The new mix proposed 44 percent high-rise apartments, 34 percent low-rise apartments and 21 percent single family-dwellings. The greater diversity of housing typologies would accommodate residents who would normally move off the site if they wanted a single-family dwelling. By allowing for a long-term connection to the neighbourhood, a sense of place could be established, which in turn could attract newcomers.²¹ Of the thirty-one original blocks, only fifteen blocks will remain in whole or part with large sections of the public area being built up.

The renewal process of Bijlmermeer was deeply affected by the development of Amsterdam as a whole. The relative position of Bijlmermeer in the city has changed, making the site far more viable for regeneration than in previous years. Originally planned as a neighbourhood outside of the city proper on a cheap plot of available land, it was isolated from the rest of the city and its amenities. Since then, the metro line to the city has been opened, along with a new shopping center and market has been created. The new stadium for the Ajax football club containing an entertainment area with cinemas and theatres was opened next to the site. Furthermore, the most expensive office park in the Netherlands was built next to the Bijlmermeer railway station. “This means that Amsterdam Zuidoost [Bijlmermeer area] is already a place where people from the immediate vicinity go to do their shopping or to begin a trip to Amsterdam or Utrecht. Whereas the Bijlmer was once a satellite of Amsterdam, a district easily construed as introverted and enclosed and that one passed while entering or leaving Amsterdam, it is now becoming clear that it is a functionally integrated part of the region.”²²

The investment that has been made in this area, excluding the cost of

the stadium and entertainment area, is now over €1.6 billion, of which €450 million will produce no returns. Almost fifty percent is contributed by the City of Amsterdam, and the remaining is supplied by the housing corporation sector, a fund paid to by all housing associations, and therefore by all tenants of social housing; further support came from a grant from the European URBAN Community fund for related social-economical measures.²³

The condition for the success of the redevelopment of Bijlmermeer consists of a variety of strategies. Firstly, there were improvements made to the surrounding area, removing the sense of isolation of the site and making it part of the new 'network city'.²⁴ Next, an integrated approach to the renewal was taken, combining housing improvements, social and economic reform, and improvements in its liveability and maintenance. Because of the scale of the site, there was a need for a radical solution, as renovation alone was not enough to rid the site of its negative stigma years of decline had caused. Demolition provided an opportunity to change the fundamental urban design concerns of the site. Lastly, this process was done together with the inhabitants, by making them a part of the process, they are shown that they will profit from the renewal. This way a sense of community could be maintained and enhanced during the renewal.²⁵

The final renewal work is to be completed by 2010, and only then will it be possible to assess the success of the plan. The potential is there, the new integrated approach understands the many issues concerning the site and creates a plan that goes beyond the fundamental utopian ideals of the functional city. With Bijlmermeer, it was important to maintain part of the existing housing as the site has important architectural significance; as well, the problems were not with the



fig. 2.21 Bijlmermeer, new construction used to define streetscape.

fig. 2.22 Bijlmermeer, creating a diversity of building types.



individual unit design but the greater urban plan of the site. The masterplan utilizes new buildings to define a new urban fabric for the site, one that transforms the estate into a neighbourhood with a fine-grain built fabric much better integrated with its surrounding city.



fig. 2.23 Bijlmermeer, eliminated vast collective public space while providing new public parks.

fig. 2.24 Bijlmermeer, introduced mixed-use buildings, with retail at grade.

CONCLUDING REMARKS

Having examined the case studies, several possible strategies for renewal become apparent. Regeneration needs to be an integral process dealing with design and social-economic issues in tandem. The major design issues facing these estates are isolation from the city, segmentation of functions, monotonous appearance, and vast anonymous public spaces.

The location of the estates is often one of isolation, as they are designed as self-contained entities. By improving the estates relative location within the city, its standing in the local housing market can rise. By integrating the estate into its surroundings, local amenities can be shared, and non-residents can have the opportunity to enter the estate and use services that cannot be fully sustained by residents alone. Many estates have the populations of towns but none of the amenities and conveniences offered by them. By opening up the estate it becomes a part of the city, a neighbourhood in a larger whole. As Jane Jacobs points out, it is the choice offered by cities that make them work, "This very fluidity of use and choice among city people is precisely the foundation underlying most city cultural activities and special enterprises of all kinds. Because these can draw skills, materials, customers, or clienteles from a great pool, they can exist in

extraordinary variety, and not only downtown but in other city districts that develop specialities and characters of their own.”²⁶ As with the plan for Bijlmermeer, it is shown that by integrating itself into the city, it can become a vibrant district open to residents of the city at large, ‘a core in a networked city’²⁷. In the case of Regent Park, the city grid is reintroduced to the estate; by bringing in the city, it will have the opportunity to grow with it. However, in the case of Pruitt-Igoe, located in a city of decline, where there was not a strong enough network to integrate with; the location required a more radical solution, demolition.

The estates have been designed with separation of function in mind. This was meant to provide a more efficient and healthy city. However, this also creates dull places where people do not want to stay. Providing places of employment, shopping centers, restaurants, and entertainment spots, creates an assembly of primary uses that provide mutual support, as discussed by Jane Jacobs, “when a primary use is combined, effectively, with another that puts people on the street at different times, then the effect can be economically stimulating: a fertile environment for secondary diversity.”²⁸ Regent Park’s redevelopment focuses on diversity and providing a mix of uses within it. They plan to provide community and educational programs, retail and commercial uses, along with the residential units.

Estates often have a monotonous appearance. This is a negative aspect in many regards. This indicates a lack of housing variety, with only one high-rise dwelling available, if the family grows, their only option is to move off the estate, leading to a high turnover rate, a mono-class culture, and no long-term interest in the area. Furthermore, if one tower becomes problematic, the whole estate suffers the same stigma, as buildings are seen as interchangeable. The Bijlmermeer project required

demolition of about fifty percent of the honeycomb high-rise towers in order to rebuild and provide a higher diversity of housing stock to reflect the interests of the residents.

These estates were built as a result of a Utopian vision of the functional city. A new plan for how people were to use space was envisioned, but “The consequences of this new social environment were not discussed . . . not realizing the great effect buildings had on outdoor activities and social possibilities. It was thought, ‘That the extensive grass areas between the buildings would be the obvious location for many recreational activities and a rich social life.’”²⁹ However, the spaces did not ultimately function as pictured. There was a lack of ownership to the extensive green areas, giving them a feeling of no-man’s land rather than a defined space for recreation. Furthermore, the maintenance and surveillance of these spaces was impossible given their scale. These vast spaces were conceived as large-scale gestures lacking the fine grain design for the human scale: places for walking, standing, sitting, seeing, hearing, and talking. Regent Park intensifies the urban blocks while providing a space for a public park. Bijlmermeer as well, is reducing the amount of open space, restructuring it and providing a central park with sports facilities.

No one solution is found for the estates, their issues are unique, complex, and interconnected to the cities they reside in. By understanding how people actually use buildings, streets, and spaces, some solutions may be found. The greatest potential lies in reintegrating the estates into its existing city to create a neighbourhood that can benefit from the support a city provides. Although the case studies examined do not deal with the same social issues as in Eastern Europe, the urban design strategies developed can be applied to the renewal of Eastern European estates as well.

Endnotes

- 1 Ronald van Kempen. *Restructuring Large Housing Estates in Europe*. (Bristol: Policy Press, 2005), 69.
- 2 Gerben Helleman and Frank Wassenberg. "The Renewal of what was Tomorrow's Idealistic City: Amsterdam's Bijlmermeer High-Rise." *Cities* 21, no. 1 (Feb., 2004): 3-17.
- 3 Lawrence Harold Larsen and Richard Stewart Kirkendall. *A History of Missouri: Volume VI, 1953 to 2003*. (University of Missouri Press, 2004), 62.
- 4 Alexander v. Hoffman. "Why they Built the Pruitt-Igoe Project." <http://www.soc.iastate.edu/sapp/PruittIgoe.html>.
- 5 Ibid.
- 6 Lawrence Harold Larsen and Richard Stewart Kirkendall. *A History of Missouri: Volume VI, 1953 to 2003*. (University of Missouri Press, 2004), 62.
- 7 Oscar Newman. *Creating Defensible Space*. (Washington, D.C.: DIANE Publishing, 1996), 10.
- 8 Ibid, 12.
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- 11 Ibid.
- 12 *Regent Park Revitalization Study*. ([Toronto]: [Toronto Community Housing Corporation], 2002), 9-10.
- 13 Ibid.
- 14 Ibid, 11.
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- 16 Ibid, 62.
- 17 Gerben Helleman and Frank Wassenberg. "The Renewal of what was Tomorrow's Idealistic City: Amsterdam's Bijlmermeer High-Rise." *Cities* 21, no. 1 (Feb., 2004): 3-17.
- 18 Ibid.
- 19 Ibid.
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- 21 Ibid.
- 22 Maarten Kloos. "The New Bijlmermeer: The Taming of the Beast." Archis #3. <http://pro.archis.org/plain/object.php?object=923&year=&num=>
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- 26 Jane Jacobs. *Death and life of great American cities*. (New York: Random House, 1961), 126
- 27 Maarten Kloos. "The New Bijlmermeer: The Taming of the Beast." Archis #3. <http://pro.archis.org/plain/object.php?object=923&year=&num=>
- 28 Ibid, 174.
- 29 Jan Gehl and J. Koch. *Life between buildings: Using public space* (4th ed ed.). (Copenhagen: Arkitektens Forlag, 2001), 48.

03 ANALYSIS

WIERZBNO AS AN ESTATE

The distinct evolution of Eastern European estates has been explored, examining their current condition within the city and indicating the necessity along with the related challenges for their renewal. Furthermore, case studies showing the regeneration of various estates were examined for strategies used in the renewal process. The following chapter will focus establishing an understanding of the site of Wierzbno estate located in Warsaw, Poland as an analysis for the proposal of its new urban design explored in Chapter Four.

In order to understand the estate, it is important to gain appreciation for the city at large. By understanding of the systems that make up the city, it is possible to evaluate the estate's potential and integrate it in to the city in a manner that benefits both the city and the estate.

This chapter will explore the historical context of present-day. Mappings of Warsaw will present the large-scale trends of the city, focusing on infrastructure networks, built fabric and environmental systems. Further mappings and site photography will concentrate on Wierzbno and its site composition and interaction with the city. Lastly, a study of the existing site housing typologies will be illustrated, focusing on the dwelling types, architectural language and their interaction with the ground plane.



fig. 3.1 Map of Europe highlighting Poland.

fig. 3.2 Map of Poland indicating Warsaw.

03 Analysis

1025



1466



1569



[1772, 1793, 1795]



3.1 HISTORICAL CONTEXT

Warsaw has a long history of growth and destruction. The following section will explore the urban development of contemporary Warsaw. The city, still identifying with its golden age during the eighteenth century is currently trying to rebuild after fifty years of communist rule, Warsaw's new renaissance.

The foundations of the old city originate from the thirteenth century. This Medieval city was located on the point where the Vistula's escarpment reaches its highest peak, a natural defensive position. The old town was designed around a central market place; a walled town containing about one-hundred fifty building lots. All told, the original settlement was less than sixteen hectares.¹

Warsaw's location along several key trade routes and on Poland's main waterway, the Vistula River, promoted the expansion of its trading status and prompted its political growth. Its valuable location was also the driving reason behind its repeated invasion and destruction. By the fifteenth century, it became the capital of the Mazovia region, and in the sixteenth century, the Polish king moved the capital of the Polish Kingdom from Cracow to Warsaw, prompting yet another period of prosperity for the city. After this period, a second "golden



fig. 3.3 Changing Boundaries of Poland. 1025, 1466, 1569, [1772, 1793, 1795], 1815, 1921, 1945.



fig. 3.1 Warsaw circa 1939.

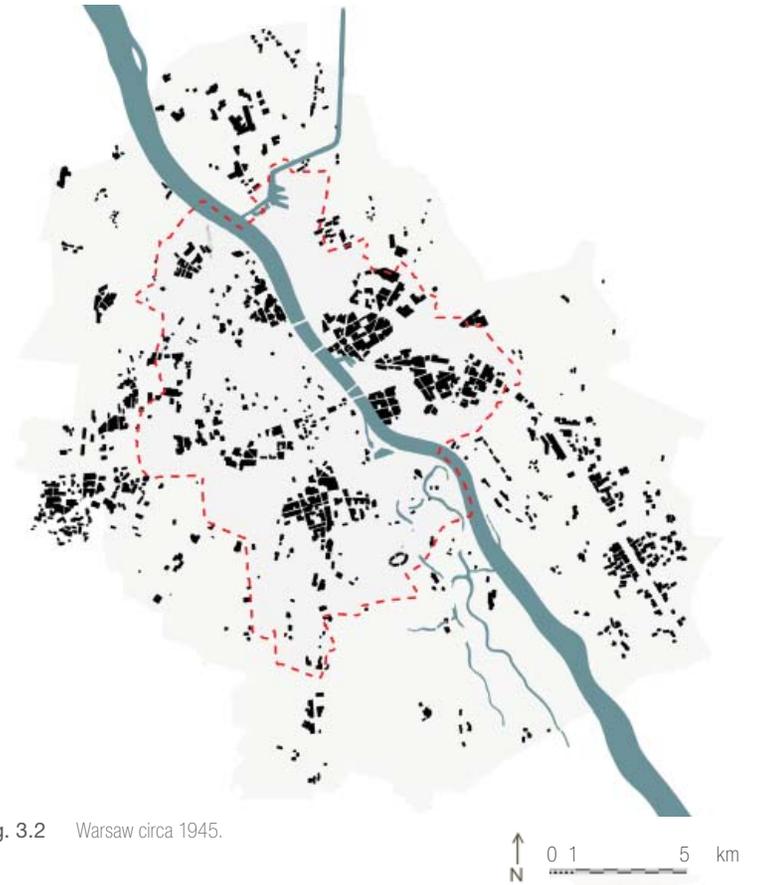


fig. 3.2 Warsaw circa 1945.



fig. 3.4 Warsaw circa 1960.



fig. 3.3 Warsaw circa 2000.



fig. 3.5 Warsaw, Krakowskie Przedmieście Street, second half of the 18th century, after a painting by Canaletto (Bernardo Bellotto).



fig. 3.6 Warsaw, Mid-town Warsaw, about 1930.

age” occurred during the reign of the last Polish King, Stanislaw August, in the mid-eighteenth century. His reign saw a dramatic growth in population², and Warsaw was transformed into a modern urban centre. Warsaw became the center of political, economical, commercial, industrial and cultural life of the country, as the city grew beyond the old fortification walls southward along the escapement. A distinct architectural character emerged under Stanislaw Augusts’ reign; the new architectural style based on classical motifs and certain elements of Baroque, varying from the conventional neo-classical styles prevailing in Western Europe.³ The growing prosperity of the time was hindered by the Partitions of Poland as its territory was divided up by Russia, Prussia and Austria, effectively erasing the country from the map.

In 1806, Napoleon liberated Warsaw and established the Duchy of Warsaw. Prosperity was once again brought to the city, albeit briefly, with the defeat of Napoleon in 1815. At this time, the city was once again politically dependent on Russian. Despite political tensions, the city continued to grow and develop industrially. During this time the first railway line was opened linking Warsaw to Vienna, followed by a line to St. Petersburg, and the creation of the first permanent bridge over the Vistula River. The new rail lines were a major determinate in the direction of Warsaw’s continued expansion. The city grew to a population of 884,000 by 1914.

After World War I, Poland regained independence with Warsaw as its capital city. This brought rapid development to Warsaw. It became an important industrial city, and the national center of cultural, literary, and scientific advancements, with a population reaching 1.3 million inhabitants before the Second World War⁴.

This period of prosperity came to an abrupt end with the Nazi invasion of Poland on September 1, 1939. By January 1945 eighty-five percent of the buildings were destroyed, due mainly to the results of three distinct campaigns. The September 1939 occupation of Warsaw accounted for about ten percent of the damage; the suppression of the 1943 Jewish Ghetto Uprising resulted in the levelling of the entire ghetto, an area of about 400 hectares, causing an additional fifteen percent damage; and lastly, with twenty-five percent of the damage resulted directly from the Warsaw Uprising in 1944 with the remaining thirty-five percent occurring as a result of the systematic Nazi objectives attempting to literally erase the city from the map following the defeat of the uprising. The population of the city on the day of liberation was a mere 162,000, living predominantly on the right bank of the Vistula River.⁵

The re-building of Post-War Warsaw was extensive and focused predominantly on the reconstruction of the Old Town, the symbol of Warsaw's spirit and strength, and the reconstruction of industry and transportation networks in order to restore the city's economic potential, followed by the creation of housing for the new population of Warsaw.

Housing was a major social concern after the war; of the 595,000 habitable rooms available before the war, only 165,000 were still standing, many of which were of substandard quality, lacking in facilities such as running water or sewage disposal.⁶ For the creation of the new housing, principles were developed stating that new living quarters should be, "grouped in separate housing estates having an inner structure of their own, to be composed of functional units of a size determined by the essential social service facilities. Housing districts [would also] have functional links [to] industrial districts."⁷ Furthermore,



fig. 3.7 Warsaw, Old Town Market Square, 1945.

fig. 3.8 Warsaw, Old Town Market Square, post-reconstruction, 1964.



fig. 3.9 Warsaw, Sluzew nad Dolinka estate.

fig. 3.10 Warsaw, Wawrzyszew estate.

the development of the city was influenced by the destruction as “only insignificant sections of the city were fit for that type of immediate reconstruction. That is why the first new groups of residential buildings were located in peripheral areas.”⁸ Additionally, with the increasingly Soviet mandate, such as the nationalization of land, market concerns for the development of the city were no longer an issue, “ground rent ceased [to] dictat[e] to the town planner where and how to utilize areas in various parts of [the] city. This is directly connected with the government taking over building construction and fixing a uniform rent, dependent on the size of the flat and not on its location.”⁹ Housing estates grew larger and moved further towards the outskirts of the city. Housing production was also increased with the use of industrialization of building technologies.

This type of development persisted until a new growth period began with the fall of communism. At the time, the economic boom was largely financed by new foreign investment. Years of communism had left the city with an underdeveloped retail market and new commercial zones

were created throughout the city. This created a network of smaller cores throughout the city. At the same time, Warsaw began to shift from an industrial based economy to one based on service and trade. In 2007, the population was estimated at 1,706,000 with a metropolitan area of approximately 3,350,000. Accounting for about 13.3% of Poland's national income, which per capita is estimated at 290% of the Polish average, Warsaw is emerging as a leading city in Poland. It also holds one of the lowest unemployment rates in Poland.

Warsaw has been constantly growing and redefining itself. In the recent history, it was almost wiped off the map, rebuilt under Soviet objectives, and later evolved and expanded under a free market. In this race to build, the spaces of everyday use are left behind, as the public spaces of the residential estates. There are ongoing housing shortages, and new housing projects are predominately marketed to high-income tenants. The new housing developments are currently being constructed on green-field sites throughout the city, buying out the area of allotments gardens, and replacing industrial lands. A few projects exist as infill projects within estates, annexing unused open space but do not support the development of the site at large. The city does not have the budget to maintain the current social housing estates, and as a result, the existing buildings are extensively privatized. Some estates are also seeing new investment, in the order of insulating the exterior and painting of the existing buildings. This approach helps with the energy efficiency of the buildings and the monotonous grey appearance of the towers; but it fails to address the underlining concerns within the estates, as established in the previous chapter. In order to maintain the estates as productive areas of the city, a more radical approach needs to be taken, addressing the fundamental urban design problems inherent in their design.



fig. 3.11 Warsaw, New Housing building in Mokotow.

fig. 3.12 Warsaw, new housing block in Sluzew Nad Dolinka.

3.2 MAPPING WARSAW

From the city's foundation on the peak of the Vistula Escapement, it has grown concentrically with the majority of the city located on the left bank of the Vistula River. The city consists of various forests on the perimeter, undeveloped open spaces along the river and in its surrounding flood plain. The escarpment serves as a physical boundary for the city. Most sections of along the escarpment remain undeveloped or are public parks.

The city is organized about a strong central core, with industrial and residential corridors radiating outwards. The growth of the city has been predominately defined by the major roadways and rail system, the Berlin to Moscow, and Gdansk to Cracow highways cross through Warsaw, creating major corridors of development out from the center. Currently new commercial centers are being built throughout the city, forming a network of local cores. Property values in Warsaw are slowly becoming market driven, with zones that are more connected to the central core showing an increase in value, especially sites accessible along the new metro line. In the Noli Plan of central zone shows the changing building fabric between the dense core where buildings define the streetscape and the periphery developments where buildings are sited in a green open space.

The Wierzbno estate is located in a favourable position in order to benefit from the services of the city. Located along a key corridor into the center, the site is easily accessible; furthermore, with the new shopping center located nearby, acting as a local core, the area has the potential of developing into a vibrant district, with Wierzbno as a new neighbourhood within it.

fig. 3.13 Central Warsaw, locating Wierzbno. The changing urban fabric, from the traditional buildings that define the street to buildings devoid of street orientation. The escarpment is visible as a void in the built fabric.



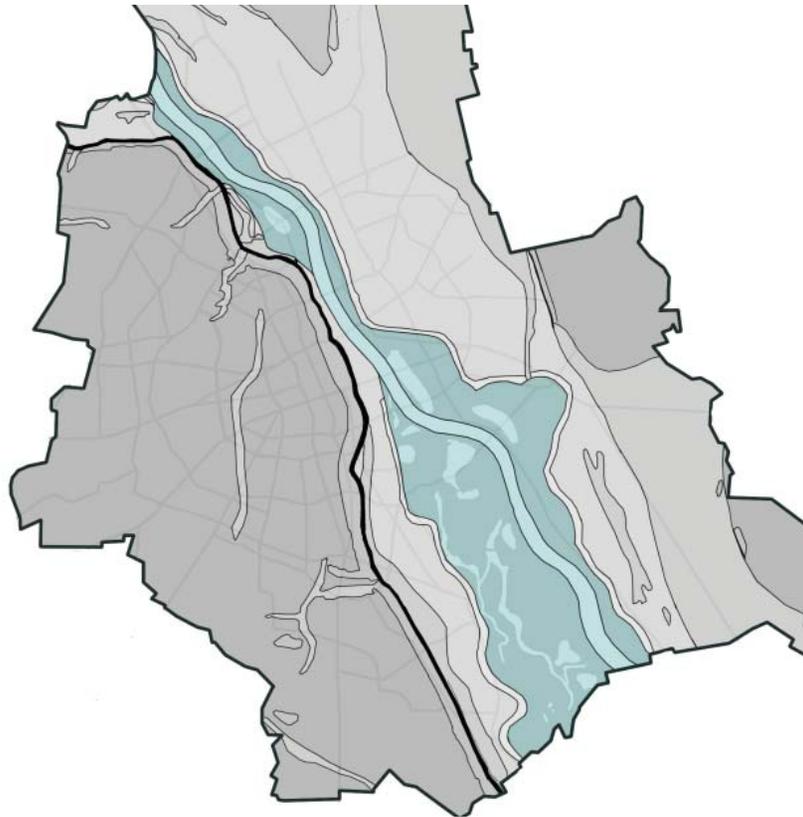


fig. 3.14 Warsaw, Topography



- High
- Mid
- Low
- Flood plain



fig. 3.15 Warsaw, Major Green Zones.



- Green Development

fig. 3.16 Central Warsaw, parks and green spaces.
 The escarpment acts as a major green corridor through the city, creating an almost continuous series of parks, including the Lazienki Royal Park.

- Park
- Green Area
- Allotment Gardens
- Escarpment

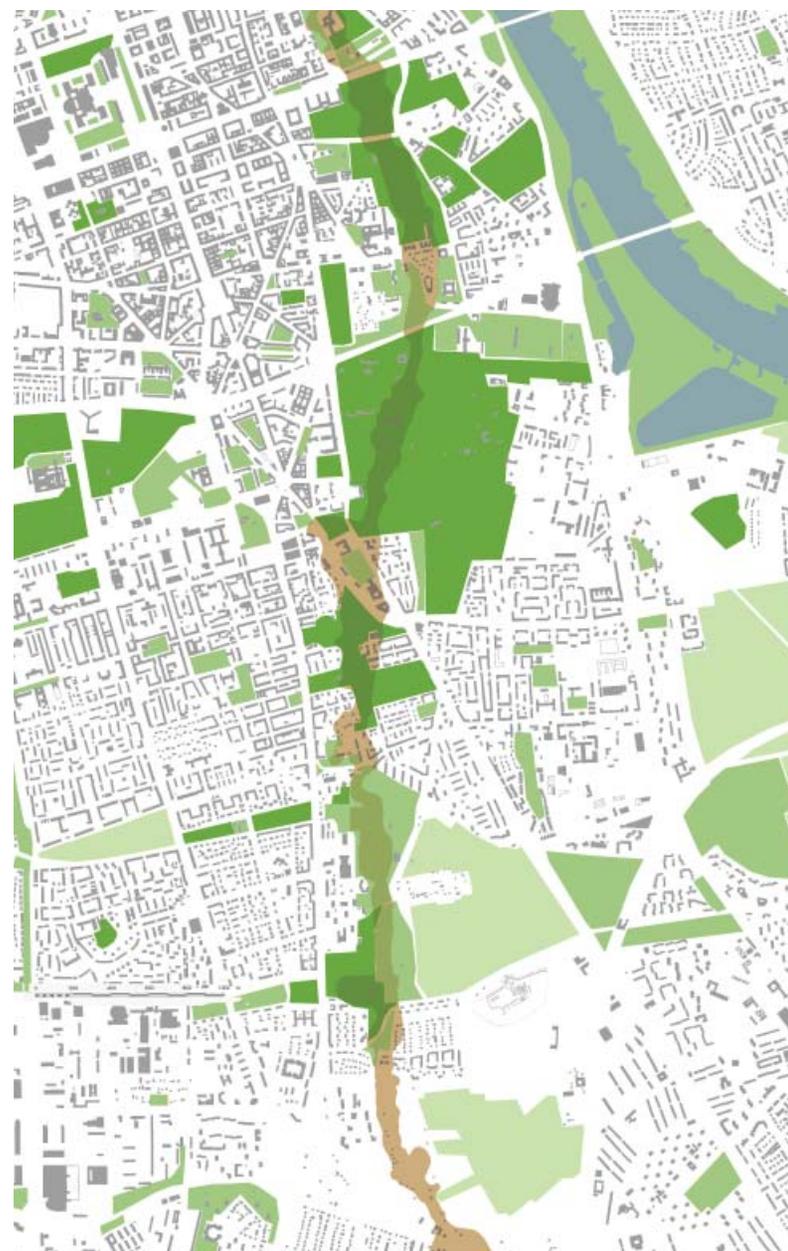




fig. 3.17 Warsaw, Major Roadways.



- Regional Arterial Road
- District Arterial Road



fig. 3.18 Warsaw, Public Transit Routes.



- Rail
- Metro
- Tram

fig. 3.19 Central Warsaw, Major Roadways
 Major roadways run towards the center, with secondary roadways linking between corridors. Wierzbno is surrounded by main roads yet none provide connection through the site.

- Regional Arterial
- District Arterial
- Collector
- Local



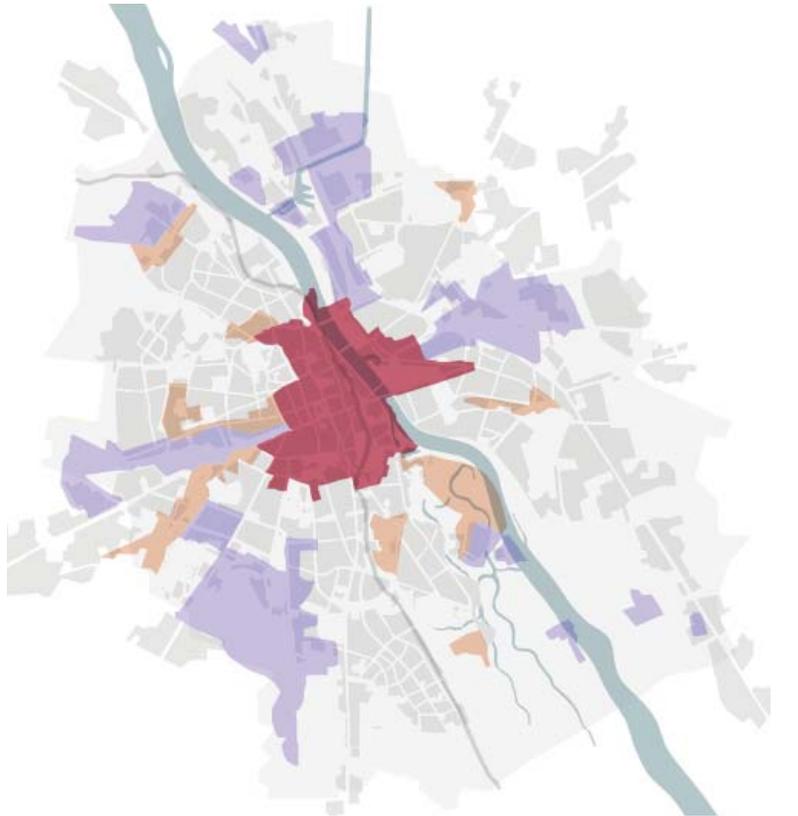


fig. 3.20 Warsaw, Functional Zones.

- Central District
- Commercial
- Industrial

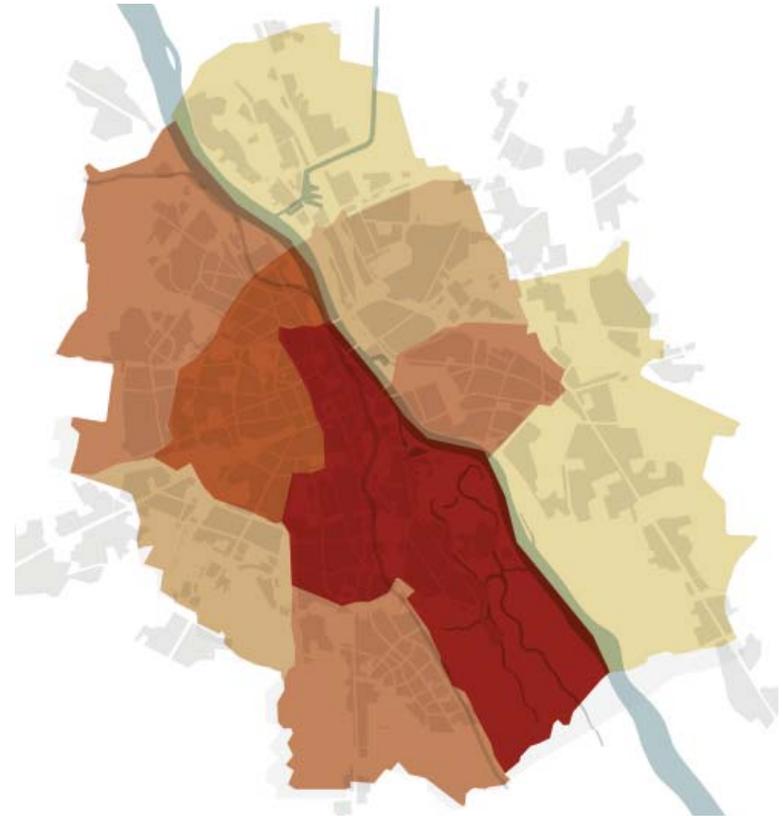


fig. 3.21 Warsaw, Average Monthly Rent USD/ m2.

- 17.5 to 19.0
- 15.0 to 17.5
- 13.0 to 15.0
- 11.5 to 13.0
- 8.5 to 11.5

fig. 3.22 Central Warsaw, Noli Plan.
 The changing urban fabric, from the traditional buildings that define the street to buildings devoid of street orientation. The escarpment is visible as a void in the built fabric.

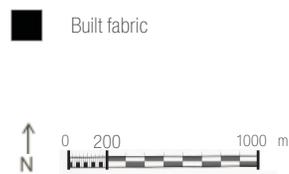




fig. 3.23 Wierzbno Estate, 3D Model.

3.3 MAPPING WIERZBNO

Designed by Zofia Fufius and Associates, Wierzbno was designed for 23,000 inhabitants in 6950 dwelling units with a built area of 290,000 m².¹⁰ The original masterplan varies from what was ultimately constructed, as several tall tower blocks have been built in the southeast corner. The central park blocks were redesigned as low-rise detached blocks and the tower blocks at Malczewskiego and Aleja Niepodleglosci were redesigned with new point towers and the retail center was omitted. Construction of the Wierzbno estate in the Mokotow district began in 1955 with later phases completed in the mid 1970's. Several recent buildings have also been constructed on the site: two residential blocks, three office buildings and numerous retail kiosks.

The following section analyses the various systems influencing the development of the Wierzbno estate. Mapping the infrastructure, built fabric and public space of the existing site allows for an understanding of how it functions, establishing the potential of the site for renewal, and revealing the most appropriate strategies for it.

The Wierzbno estate is isolated within the city. Framed by major roadways running at each edge, the site is effectively cut off from the surrounding neighbourhoods. Furthermore, only a handful of



fig. 3.24 Wierzbno Estate, aerial view, 1957.

fig. 3.25 Wierzbno Estate, Baszta Street, 1962.



fig. 3.26 Wierzbno Estate, under construction.

fig. 3.27 Original Wierzbno Plan, 1955.

main roads offer direct access to the site, none of which offers a thoroughfare through the site. The site is readily accessible by public transit, making its location favourable; but only one minor bus route stops within the estate, leading to long travel times to the metro and tram stops. Parking is limited to surface parking, in between towers in spaces planned for recreation and playgrounds, to street parking, which often occupies the sidewalk, and to single storey garage sheds, which only contribute to dull and unattractive streetscapes.

The Noli plan illustrates the isolation of Wierzbno from the surrounding build fabric, as well as the disconnect between the various building types on the site. Wierzbno is composed of predominately residential buildings with a concentration of mid-rise multi-family dwellings. The areas to the east and west are composed of single-family dwellings with industrial and commercial lands to the south. Retail is dispersed throughout the site with larger concentrations in three main zones: the bazaar at the northeast corner, the cluster of kiosks and retail units

at the corner of Aleja Niepodleglosci and Malczewskiego Street, and the retail units at the southeast corner. Furthermore, there is a new shopping center, Galleria Mokotow, located just south of the site on Wolowska Avenue. There are also new office buildings emerging on the site predominately in the southern end. The southwest edge borders on an industrial zone that is being converted into new office zone driven by the Curtis Plaza development south of the site.

Wierzbno estate is located near the escarpment that runs north to south through the city; from it leading west towards the site are a series of parks. Directly north of the site is a large area that is enclosed for allotment gardens. Once parts of the greenbelt of the city, these gardens were primarily used for leisure; many garden sheds were converted into weekend cottages allowing for longer stays. The estate was designed to allow residents access to open green space, as it was believed that, “above all, [it is] important to assure the residents the necessary green areas for their recreation and improvement of hygienic living conditions.”¹¹ However, the lack of ownership of this space and the lack of programmed uses for it has left the area largely underutilized.

The estate sits in isolation from its surrounding neighbourhood; however, it is in a favourable position for renewal, with its location on the metro line, close to the green space on the escarpment, near the new office area and retail shopping center. The site needs to overcome its isolation, vast open space, and lack of diversity of program.



fig. 3.28 Wierzbno, new apartment building.

fig. 3.29 Wierzbno, new office building.

fig. 3.30 Wierzbno, Road network.

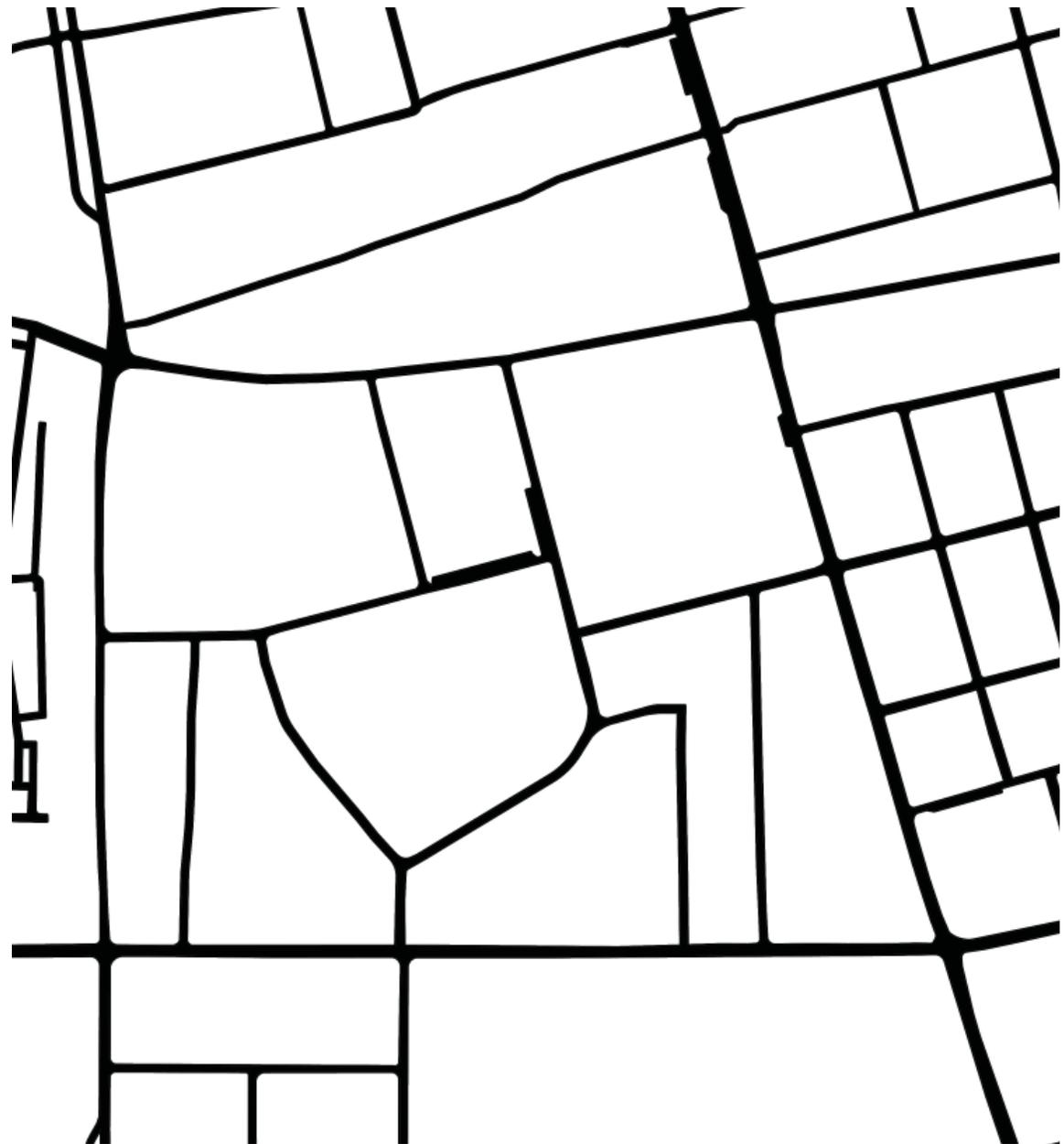
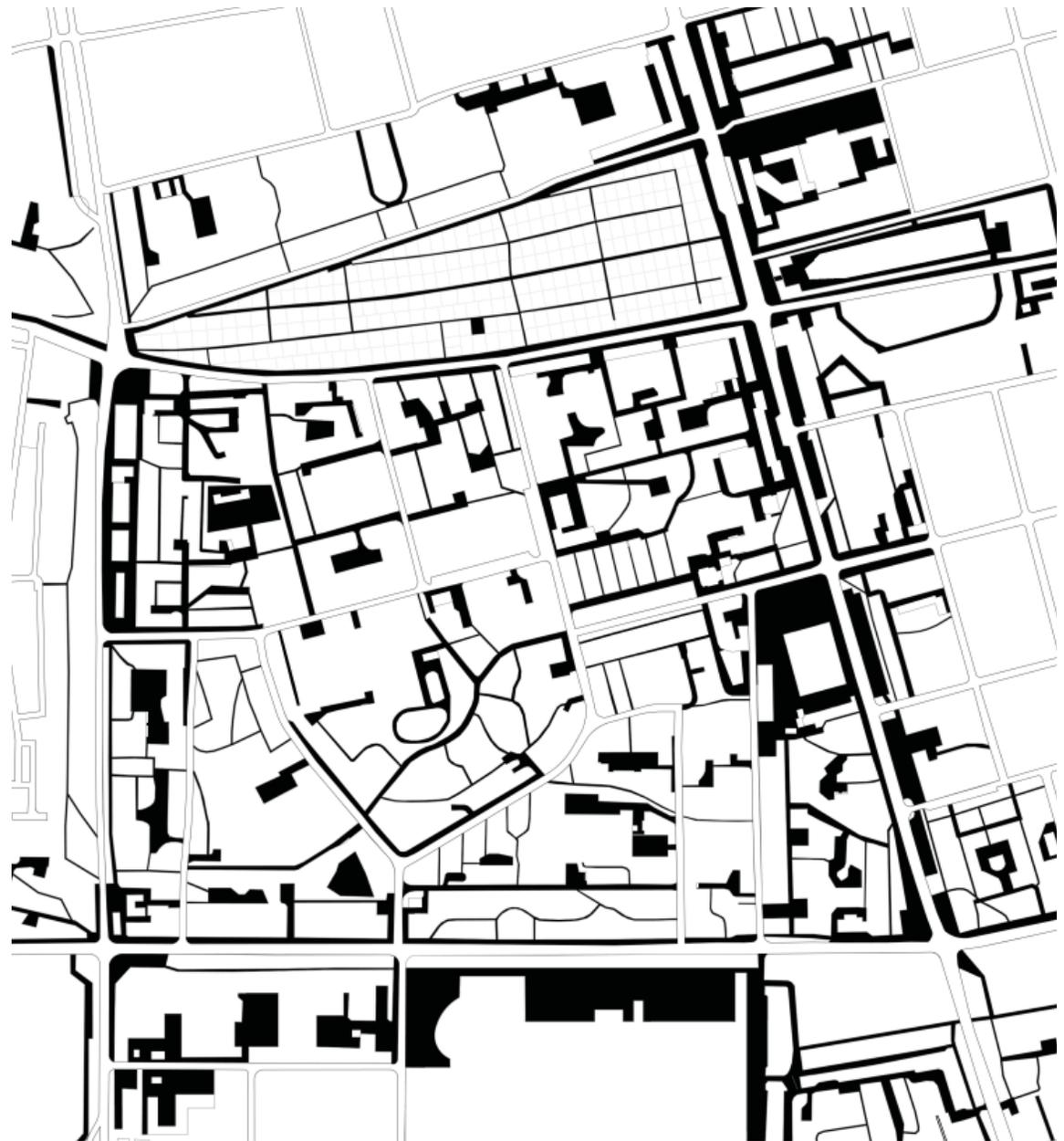


fig. 3.31 Wierzbno, Pedestrian network.





Key Map

fig. 3.32 Aleja Niepodleglosci, Secondary Regional Arterial Road.

fig. 3.33 Woronicza Street, Collector Road.

fig. 3.34 Joliot-Curie Street, Local Road.

fig. 3.35 Baboszewska Lane, Access Road.

fig. 3.36 Wierzbno, Road hierarchy plan. The site is framed by major roadways and has few roads running through it, leaving the site not well connected to the local city fabric.



- Secondary Regional Arterial
- Collector Road
- Local Road
- Access Road





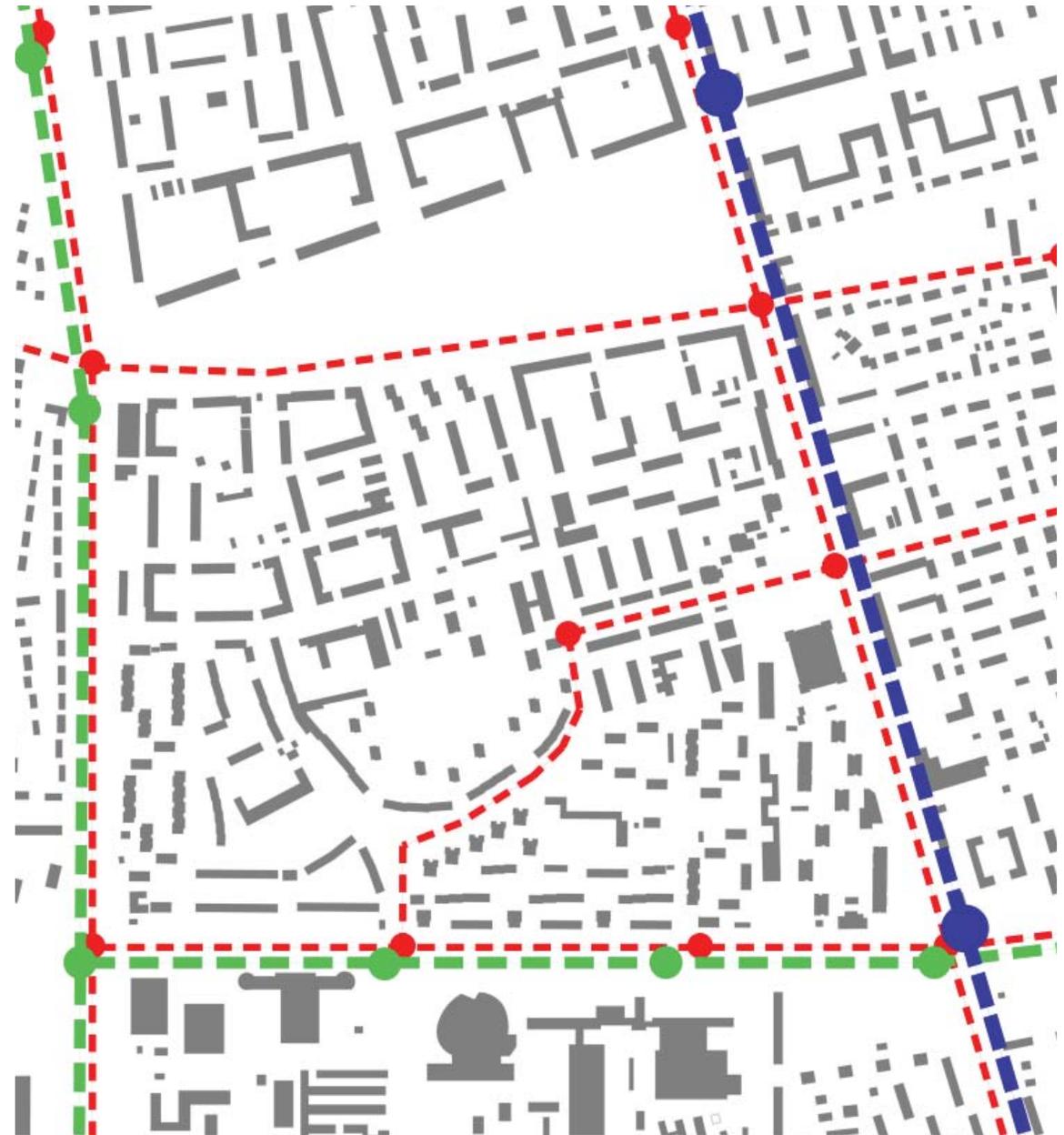
Key Map

fig. 3.37 Wolowska and Woronicza, Transit Interchange.

fig. 3.38 Woronicza and Aleja Niepodleglosci, Wierzbno Metro.

fig. 3.39 Wierzbno Metro Entrance

fig. 3.40 Wierzbno, Public Transit Plan. Metro and tram offer fast and reliable connection to the central core. However, only one minor bus stop exists within the site.



- Metro
- Tram
- Bus





Key Map

fig. 3.41 Wierzbno, single-loaded row of private garages along local road, provide secure storage for a few inhabitants of the towers.

fig. 3.42 Wierzbno, private appropriation of space, used as a garage.

fig. 3.43 Wierzbno, single loaded garages.

fig. 3.44 Wierzbno, double loaded private garage.

fig. 3.45 Wierzbno, site parking plan.



- Garage
- Surface Parking
- Street Parking





Key Map



fig. 3.46 Wierzbno, surface parking shared amongst three towers.

fig. 3.47 Wierzbno, newly renovated court to provide structured surface parking.

fig. 3.48 Wierzbno, surface parking, a restricted parking lot, provides a secure gated lot for its users.

fig. 3.49 Wierzbno, street parking on Pulku Baszta Street.

fig. 3.50 Wierzbno, street parking on Kolberga Street.

fig. 3.51 Wierzbno, street parking on Janka Bytnara Street.



Key Map

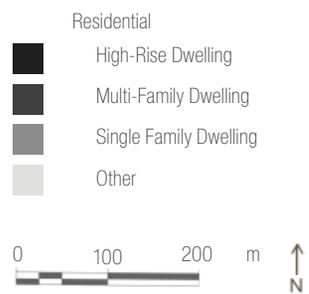
fig. 3.52 Wierzbno, single family dwellings on Malczewskiego Street.

fig. 3.53 Wierzbno, multi-family dwellings

fig. 3.54 Wierzbno, multi-family dwellings

fig. 3.55 Wierzbno, high-rise dwelling.

fig. 3.56 Wierzbno residential typologies. The site offers little variety in housing typology, with a predominately four to five storey walk-up units and high-rise towers.





Key Map

fig. 3.57 Wierzbno, Church on Woronicza.

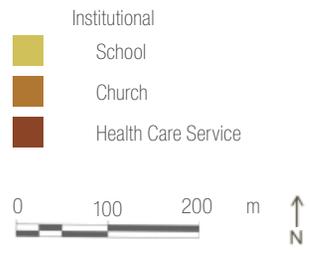
fig. 3.58 Wierzbno, High School.

fig. 3.59 Wierzbno, Pre-School.

fig. 3.60 Wierzbno, Nursery School.

fig. 3.61 Wierzbno, Institutional Types.

The site offers numerous schools, yet do not have a large site presence.





Key Map

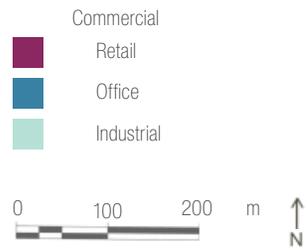
fig. 3.62 Wierzbno, Woronicza Street, New TVP Headquarter's building.

fig. 3.65 Wierzbno, Aleja Niepodleglosci, new office tower.

fig. 3.63 Wierzbno, Aleja Niepodleglosci, Polish Radio headquarter.

fig. 3.66 Wierzbno, Commercial Zones Plan.

fig. 3.64 Wierzbno, New office buildings.





Key Map



fig. 3.67 Wierzbno, Retail at corner of Malczewskiego and Al. Niepodległości.



fig. 3.69 Wierzbno, Malczewskiego Street single loaded retail strip.



fig. 3.71 Wierzbno, Woronicza and Joliet-Curie Streets, Restaurant Kiosk.

fig. 3.68 Wierzbno, Pathway through kiosk cluster at corner.

fig. 3.70 Wierzbno, Street vendors setting up between buildings on Malczewskiego Street.



Key Map



fig. 3.72 Wierzbno, Retail at corner of Wolowska and Woronicza Streets.



fig. 3.74 Wierzbno, two-storey retail plaza along Wolowska Street.

fig. 3.76 Wierzbno, Kiosk between buildings on Odyńca Street.



fig. 3.78 Wierzbno, Internal walkway of bazaar.

fig. 3.73 Wierzbno, Kiosk along Wolowska Street.

fig. 3.75 Wierzbno, Retail at grade on Odyńca Street.

fig. 3.77 Wierzbno, Wolowska and Raclawicka Streets, Bazaar.



Key Map

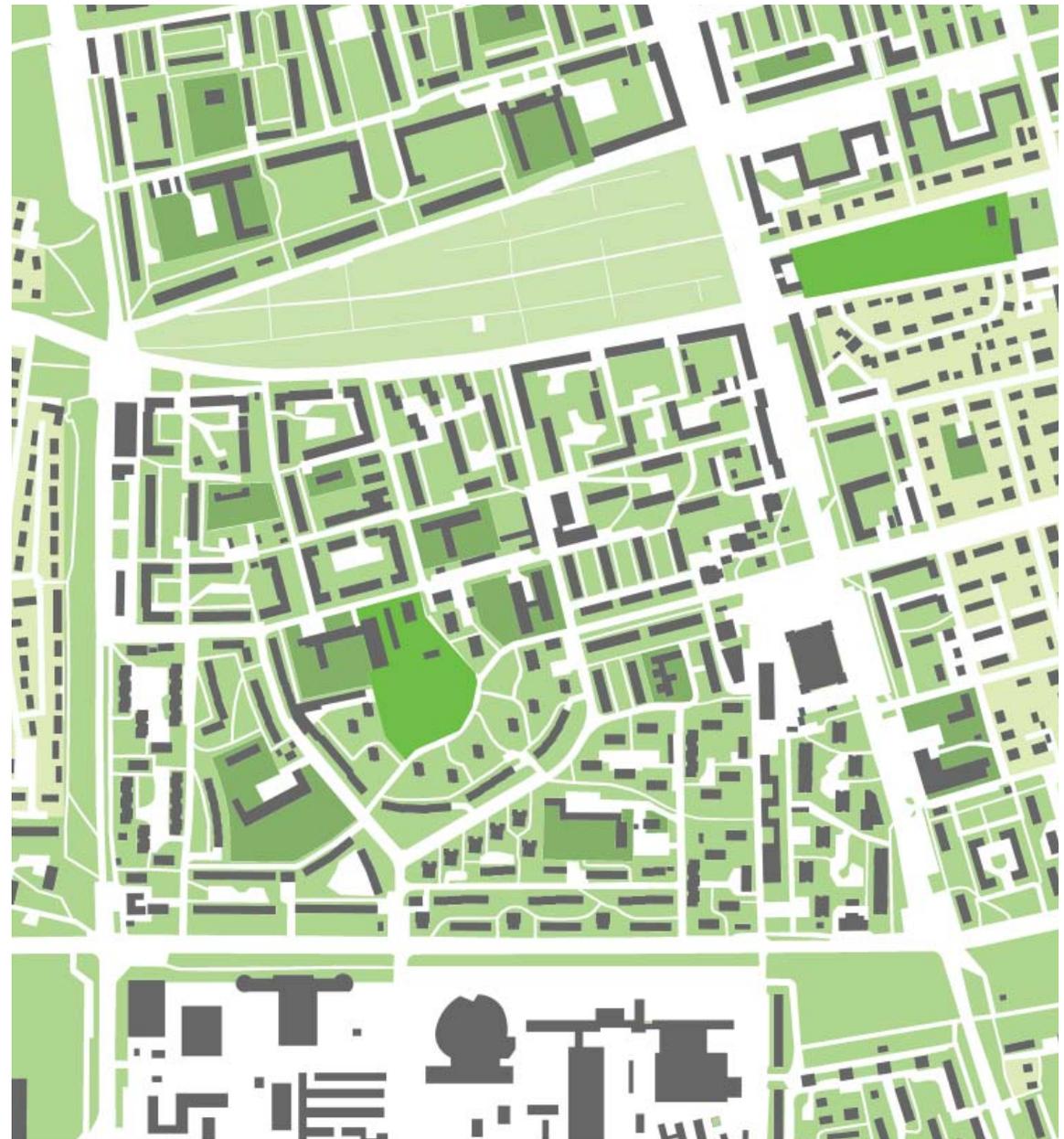
fig. 3.79 Wierzbno, Central Park of the estate.

fig. 3.80 Wierzbno, Central Park of the estate, soccer field.

fig. 3.81 Wierzbno, public spaces plan.



-  Park
-  Allotment Garden
-  Private Lawn
-  Public Green Space
-  School Yard





Key Map



fig. 3.82 Park Mokotowski.

fig. 3.83 Playground at Park, with retail pavilion working as gateway into the park.

fig. 3.84 Eastern threshold on Al. Niepodleglosci to the allotment gardens.

fig. 3.85 Wierzbno, Central walkway through allotment gardens.

fig. 3.86 Wierzbno, secondary walkway through allotment gardens.

fig. 3.87 Wierzbno, Allotment gate.

fig. 3.88 Wierzbno, Allotment garden typical lot.



Key Map



fig. 3.89 Wierzbno, new playground.

fig. 3.90 Wierzbno, Central Park, Open area leading to residential blocks.

fig. 3.91 Wierzbno, inner court of blocks, playground area.

fig. 3.92 Wierzbno, Garbage depot at entrance to inner court between towers.

fig. 3.93 Wierzbno, space between towers

fig. 3.94 Wierzbno, space between towers

3.4 EXISTING HOUSING TYPOLOGIES

The following section examines the existing housing typologies found on the site. They are organized by their density, calculated as the amount of units per hectare of land occupied by the building. The common spaces between the towers, which lack individual ownership and occupation, are not considered in the calculations.

Key statistics such as total amount of building, their site footprint, total built area, percent of total dwellings, and site coverage are collected for each type in order to provide a consistent comparison between the types and understand its overall contribution to dwelling types on site. The data collected is an estimate based on site plans, constructed elevations and creating typical floor plans based on typical unit layouts.¹²

The buildings are divided into three categories: high-rise block, low-rise detached block, and low-rise linear block. These are then further classified as perimeter type or pavilion type. A perimeter type is one that organizes the blocks to frame the street. This is a traditional method of organization, consistent with pre-war city fabric, where the buildings help to animate and define the street. The pavilion type is one that places the buildings within a field; here the traditional connection

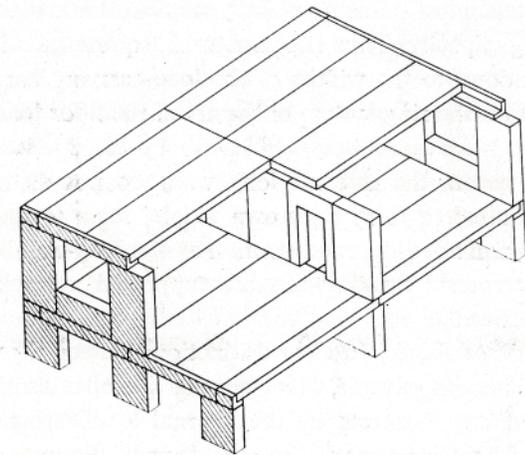


fig. 3.95 Diagrammatic view of a "classic" long wall construction in a prefabricated building.

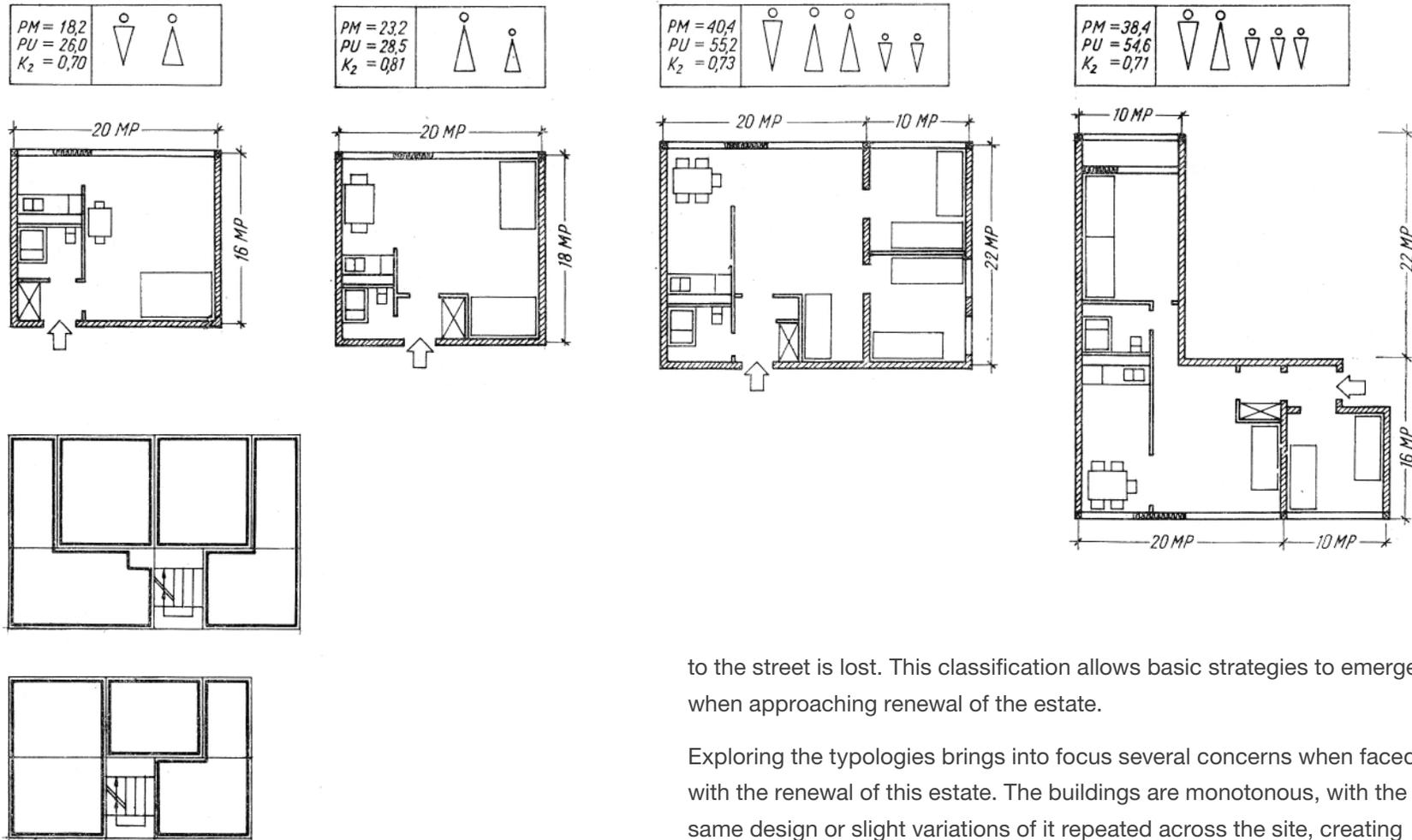


fig. 3.96 Sample pages from the catalogue of prefabricated housing estates. Showing typical plans of floors, and typical layouts for two-person units and family units.

to the street is lost. This classification allows basic strategies to emerge when approaching renewal of the estate.

Exploring the typologies brings into focus several concerns when faced with the renewal of this estate. The buildings are monotonous, with the same design or slight variations of it repeated across the site, creating a dull landscape with a lack of dwelling differentiation. The building materials are composed of concrete prefabricated members that further accentuate the landscape of grey dreary buildings. Lastly, there is a lack of interaction with the ground plane; most types have a raised first floor that effectively divorces the build from the ground plane.

SUMMARY

| Classification | Year | Buildings | Storeys | Dwellings | Footprint (m ²) | Floor Area (m ²) | Percent of Total Dwellings | Site Coverage | Density (units/ ha) | Type |
|----------------------------|------|------------|---------|--------------|--------------------------------|---------------------------------|-------------------------------|------------------|------------------------|----------|
| 01 high-rise block | 1970 | 2 | 11 | 462 | 2 240 | 24 640 | 6.1% | 0.4% | 2 063 | pavilion |
| 02 high-rise block | 1965 | 4 | 11 | 352 | 1 714 | 18 854 | 4.7% | 0.3% | 2 054 | pavilion |
| 03 high-rise block | 1970 | 6 | 11 | 528 | 2 652 | 29 172 | 7.0% | 0.4% | 1 991 | pavilion |
| 04 high-rise block | 1965 | 19 | 9 | 1 026 | 5 700 | 51 300 | 13.6% | 1.0% | 1 800 | pavilion |
| 05 high-rise block | 1965 | 3 | 12 | 198 | 1 350 | 14 850 | 2.6% | 0.2% | 1 467 | pavilion |
| 06 low-rise detached block | 1965 | 9 | 5 | 180 | 1 782 | 8 910 | 2.4% | 0.3% | 1 010 | pavilion |
| 07 low-rise linear block | 1955 | 79 | 5 | 1 580 | 16 590 | 82 950 | 21.0% | 2.8% | 952 | block |
| 08 low-rise linear block | 1965 | 118 | 4 | 1 416 | 17 818 | 71 272 | 18.8% | 3.0% | 795 | block |
| 09 low-rise detached block | 1955 | 4 | 4 | 128 | 1 640 | 6 560 | 1.7% | 0.3% | 780 | pavilion |
| 10 low-rise linear block | 1955 | 36 | 4 | 576 | 7 380 | 29 520 | 7.7% | 1.2% | 780 | block |
| 11 low-rise linear block | 1955 | 32 | 4 | 512 | 6 720 | 26 880 | 6.8% | 1.1% | 762 | block |
| 12 low-rise detached block | 1965 | 3 | 4 | 72 | 957 | 3 828 | 1.0% | 0.2% | 752 | pavilion |
| 13 low-rise detached block | 1965 | 6 | 4+ | 108 | 1 854 | 8 343 | 1.4% | 0.3% | 583 | pavilion |
| 14 low-rise linear block | 1965 | 24 | 4 | 384 | 7 080 | 28 320 | 5.1% | 1.2% | 542 | block |
| | | 345 | | 7 522 | 75 477 | 405 399 | 100% | 12.6% | | |



01 HIGH-RISE BLOCK

| | |
|----------------------------|-----------------------|
| YEAR | 1970 |
| BUILDINGS | 2 |
| STOREYS | 11 |
| DWELLINGS | 462 |
| FOOTPRINT | 2 240 M ² |
| FLOOR AREA | 24 640 M ² |
| PERCENT OF TOTAL DWELLINGS | 6.1 % |
| SITE COVERAGE | 0.4 % |
| DENSITY | 2 063 UNITS/ HA |

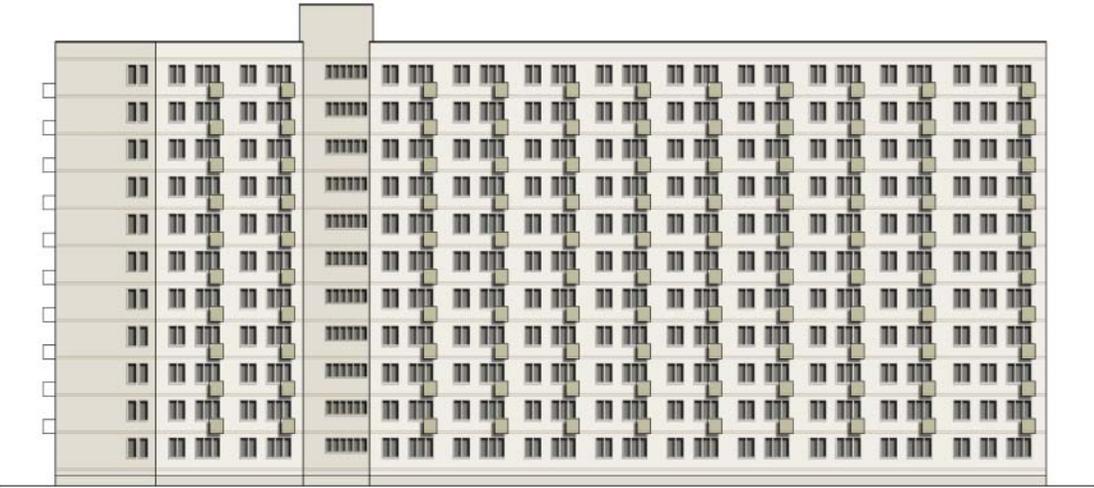
AMENITIES NONE
PARKING SURFACE PARKING



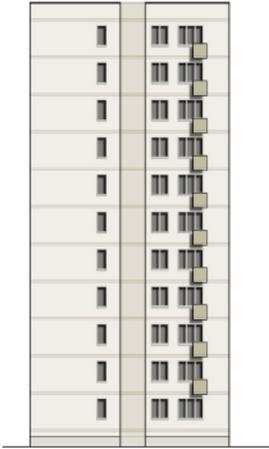
Key Plan 1 : 5000



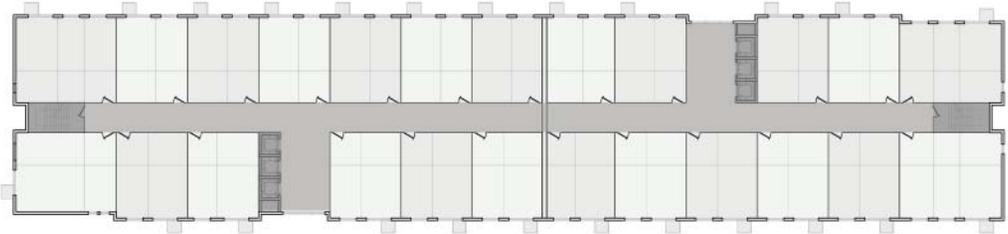
3D Perspective from Southeast Corner



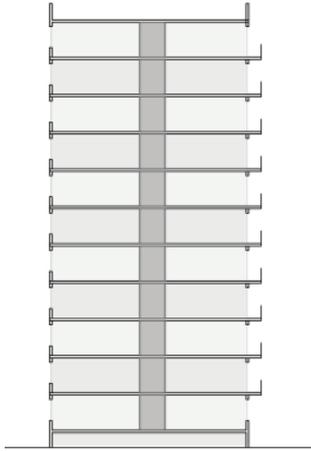
a)



b)



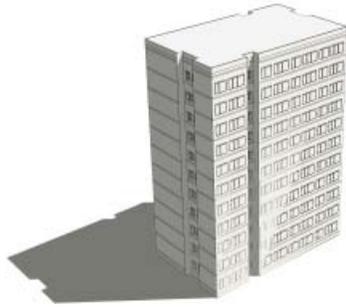
c)



d)

fig. 3.97 Drawings of type 01. a) West Elevation, b) South Elevation, c) Typical Plan, d) Typical Section. 1:500.





02 HIGH-RISE BLOCK

| | |
|----------------------------|-----------------------|
| YEAR | 1965 |
| BUILDINGS | 4 |
| STOREYS | 11 |
| DWELLINGS | 352 |
| FOOTPRINT | 1 714 M ² |
| FLOOR AREA | 18 854 M ² |
| PERCENT OF TOTAL DWELLINGS | 4.6 % |
| SITE COVERAGE | 0.3 % |
| DENSITY | 2 054 UNITS/ HA |
| AMENITIES | NONE |
| PARKING TYPE | SURFACE PARKING |



Key Plan 1 : 5000



3D Perspective from Southwest Corner

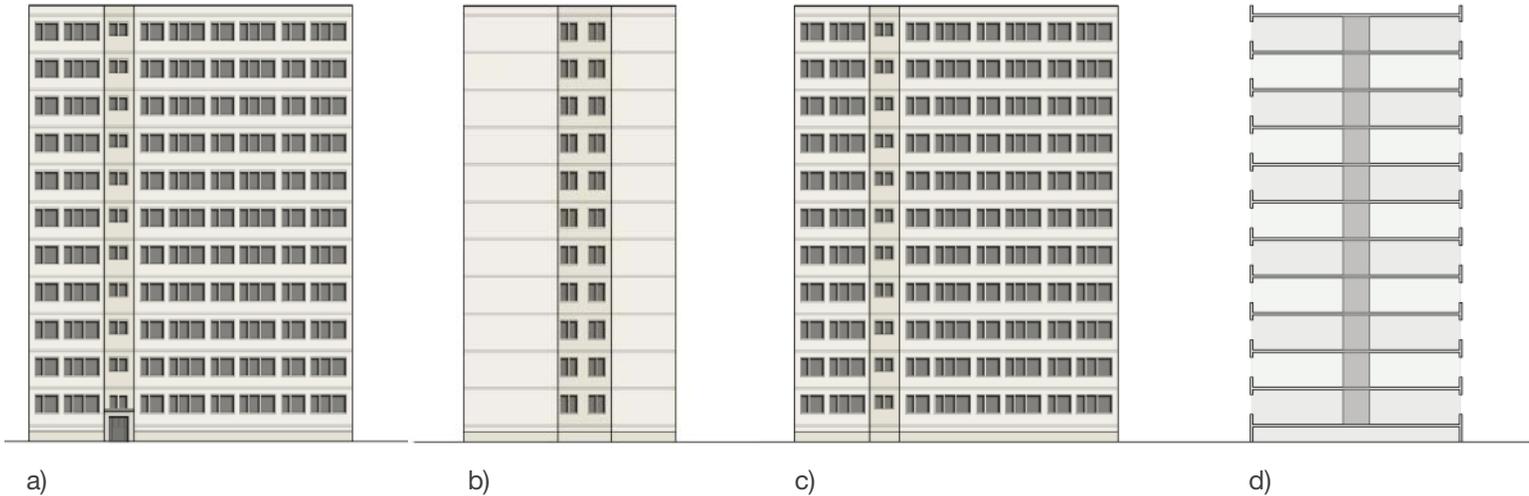
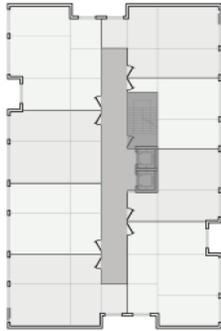
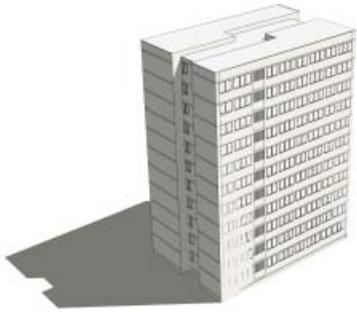


fig. 3.98 Drawings of Type 02. a) West Elevation, b) South Elevation, c) East Elevation, d) Typical Section, and e) Typical Plan. 1:500.





03 HIGH-RISE BLOCK

| | |
|----------------------------|-----------------------|
| YEAR | 1970 |
| BUILDINGS | 6 |
| STOREYS | 11 |
| DWELLINGS | 528 |
| FOOTPRINT | 2 652 M ² |
| FLOOR AREA | 29 172 M ² |
| PERCENT OF TOTAL DWELLINGS | 7.0 % |
| SITE COVERAGE | 0.4 % |
| DENSITY | 1 991 UNITS/ HA |
| AMENITIES | NONE |
| PARKING TYPE | SURFACE PARKING |



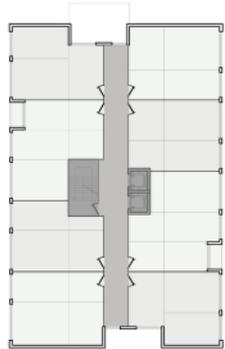
Key Plan 1 : 5000



3D Perspective from Southeast Corner

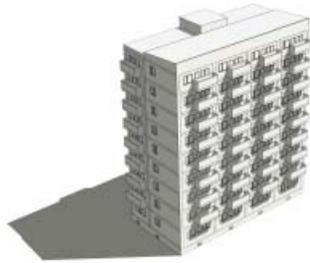


fig. 3.99 Drawings of Type 03. a) West Elevation, b) South Elevation, c) East Elevation, d) Typical Section, and e) Typical Plan. 1:500.



e)





04 HIGH-RISE BLOCK

| | |
|----------------------------|-----------------------|
| YEAR | 1965 |
| BUILDINGS | 19 |
| STOREYS | 9 |
| DWELLINGS | 1 026 |
| FOOTPRINT | 5 700 M ² |
| FLOOR AREA | 51 300 M ² |
| PERCENT OF TOTAL DWELLINGS | 13.5 % |
| SITE COVERAGE | 1.0 % |
| DENSITY | 1 800 UNITS/ HA |
| AMENITIES | NONE |
| PARKING TYPE | SURFACE PARKING |



Key Plan 1 : 5000



3D Perspective from Southeast Corner

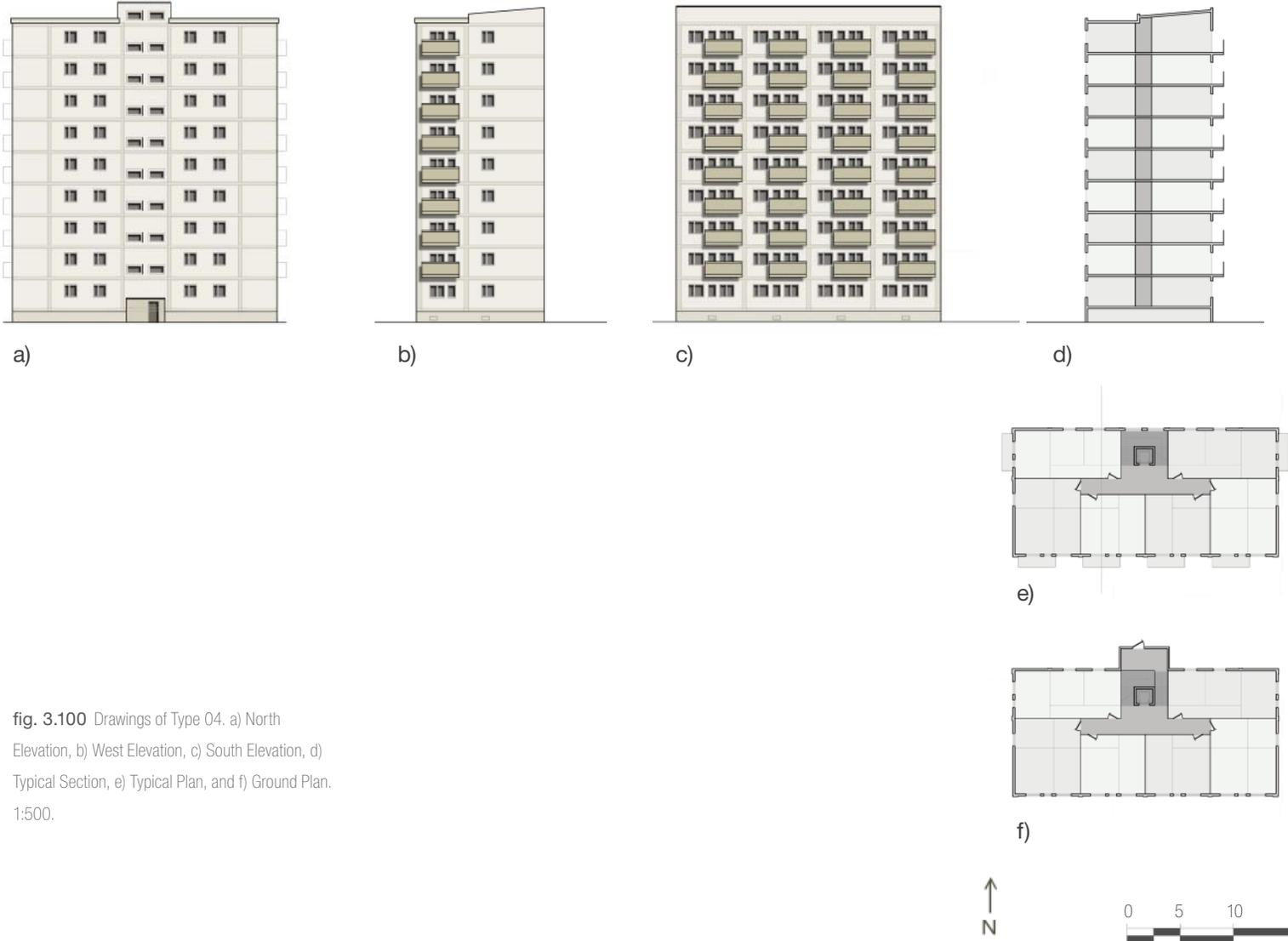
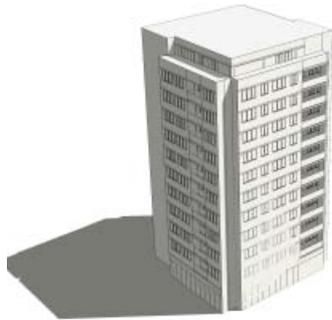


fig. 3.100 Drawings of Type O4. a) North Elevation, b) West Elevation, c) South Elevation, d) Typical Section, e) Typical Plan, and f) Ground Plan. 1:500.



05 HIGH-RISE BLOCK

| | |
|----------------------------|-----------------------|
| YEAR | 1965 |
| BUILDINGS | 3 |
| STOREYS | 12 |
| DWELLINGS | 198 |
| FOOTPRINT | 1 350 M ² |
| FLOOR AREA | 14 850 M ² |
| PERCENT OF TOTAL DWELLINGS | 2.6 % |
| SITE COVERAGE | 0.2 % |
| DENSITY | 1 467 UNITS/ HA |

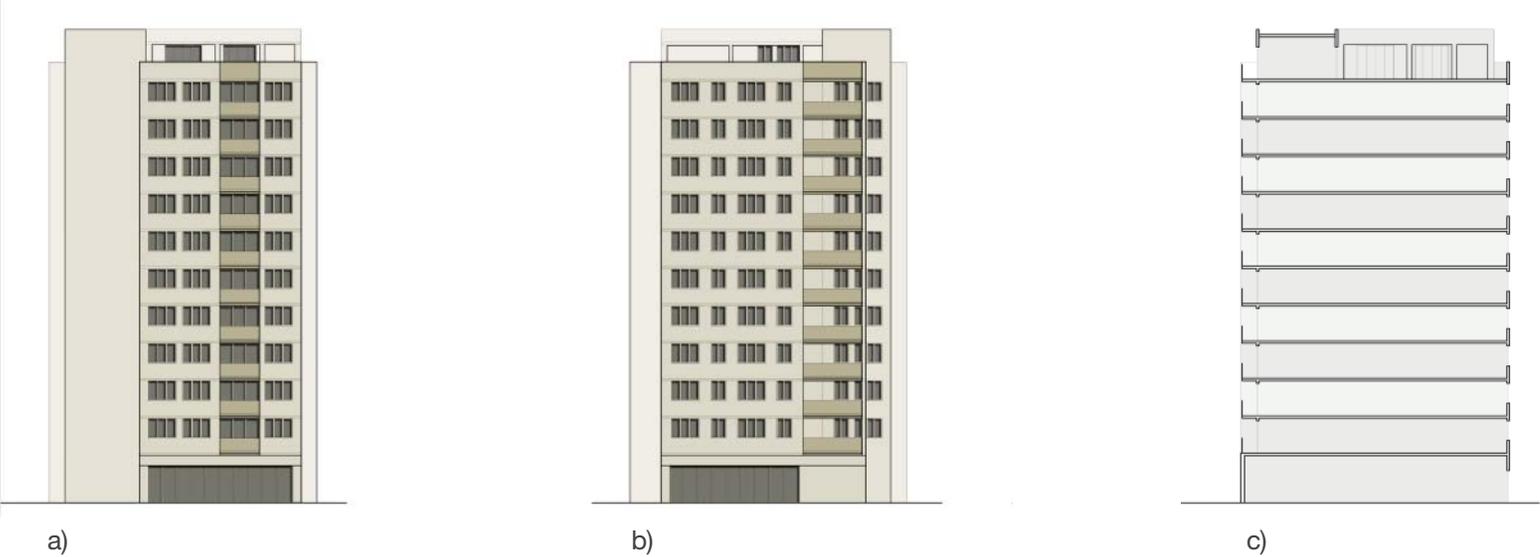
AMENITIES
 PARKING
 TYPE



Key Plan 1 : 5000



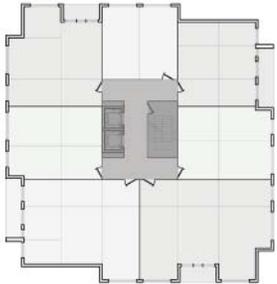
3D Perspective from Southeast Corner



a)

b)

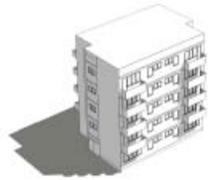
c)



d)

fig. 3.101 Drawings of Type 05. a) South Elevation, b) East Elevation, c) Typical Section, and d) Typical Plan. 1:500.





06 LOW-RISE DETACHED BLOCK

| | |
|----------------------------|----------------------|
| YEAR | 1965 |
| BUILDINGS | 9 |
| STOREYS | 5 |
| DWELLINGS | 180 |
| FOOTPRINT | 1 782 M ² |
| FLOOR AREA | 8 910 M ² |
| PERCENT OF TOTAL DWELLINGS | 2.4 % |
| SITE COVERAGE | 0.3 % |
| DENSITY | 1 010 UNITS/ HA |
| AMENITIES | NONE |
| PARKING TYPE | SURFACE PARKING |



Key Plan 1 : 5000



3D Perspective from Southwest Corner

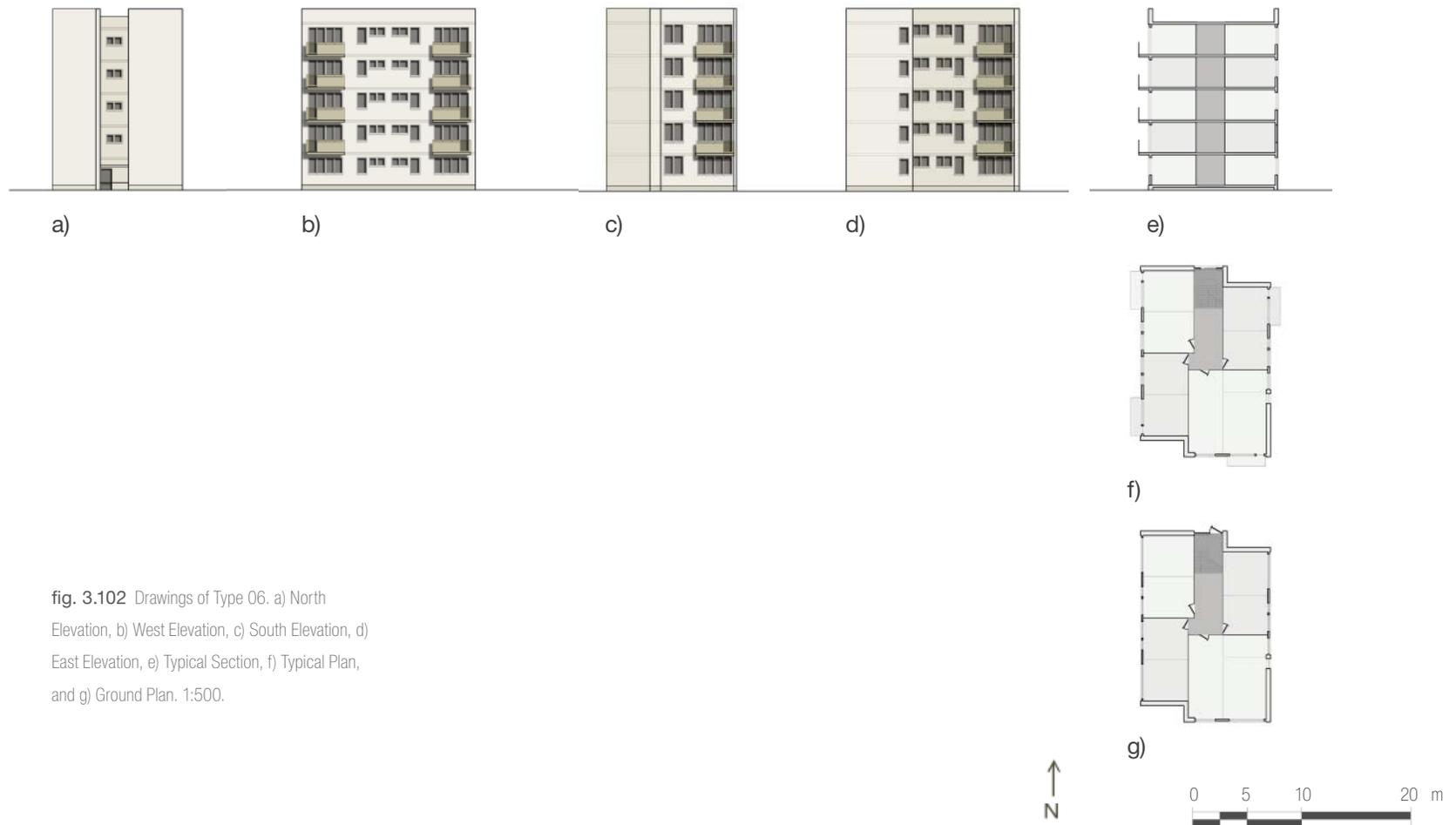
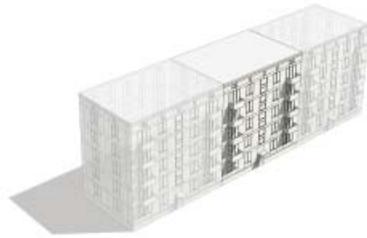


fig. 3.102 Drawings of Type 06. a) North Elevation, b) West Elevation, c) South Elevation, d) East Elevation, e) Typical Section, f) Typical Plan, and g) Ground Plan. 1:500.



07 LOW-RISE LINEAR BLOCK

| | |
|----------------------------|-----------------------|
| YEAR | 1955 |
| BUILDINGS | 79 |
| STOREYS | 5 |
| DWELLINGS | 1 580 |
| FOOTPRINT | 16 590 M ² |
| FLOOR AREA | 82 950 M ² |
| PERCENT OF TOTAL DWELLINGS | 20.8 % |
| SITE COVERAGE | 2.8 % |
| DENSITY | 952 UNITS/ HA |

AMENITIES
 PARKING
 TYPE



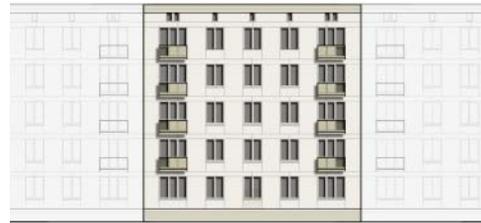
Key Plan 1 : 5000



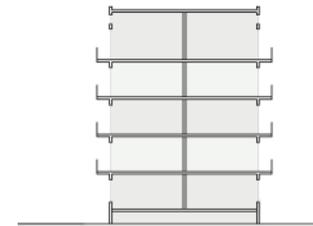
3D Perspective from Northwest Corner



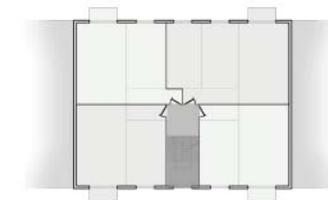
a)



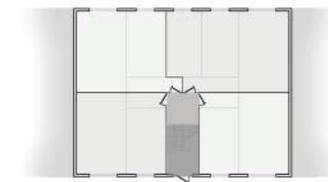
b)



c)



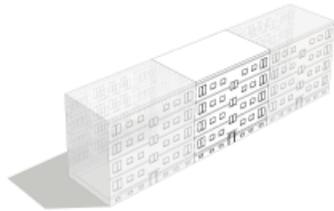
d)



e)

fig. 3.103 Drawings of Type 07. a) Courtyard Elevation, b) Street Elevation, c) Typical Section, d) Typical Plan, and e) Ground Plan. 1:500.





08 LOW-RISE LINEAR BLOCK

| | |
|----------------------------|-----------------------|
| YEAR | 1965 |
| BUILDINGS | 118 |
| STOREYS | 4 |
| DWELLINGS | 1 416 |
| FOOTPRINT | 17 818 M ² |
| FLOOR AREA | 71 272 M ² |
| PERCENT OF TOTAL DWELLINGS | 18.7 % |
| SITE COVERAGE | 3.0 % |
| DENSITY | 795 UNITS/ HA |
| AMENITIES | NONE |
| PARKING TYPE | STREET PARKING |



Key Plan 1 : 5000



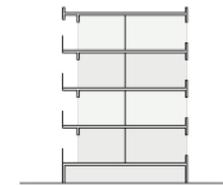
3D Perspective from Southwest Corner



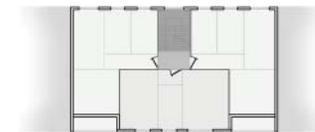
a)



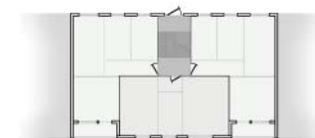
b)



c)



d)



e)

fig. 3.104 Drawings of Type 08. a) Front Elevation, b) Back Elevation, c) Typical Section, d) Typical Plan, and e) Ground Plan. 1:500.





09 LOW-RISE DETACHED BLOCK

| | |
|----------------------------|----------------------|
| YEAR | 1955 |
| BUILDINGS | 4 |
| STOREYS | 4 |
| DWELLINGS | 128 |
| FOOTPRINT | 1 640 M ² |
| FLOOR AREA | 6 560 M ² |
| PERCENT OF TOTAL DWELLINGS | 1.7 % |
| SITE COVERAGE | 0.3 % |
| DENSITY | 780 UNITS/ HA |

AMENITIES NONE
PARKING STREET PARKING



Key Plan 1 : 5000



3D Perspective from Northwest Corner

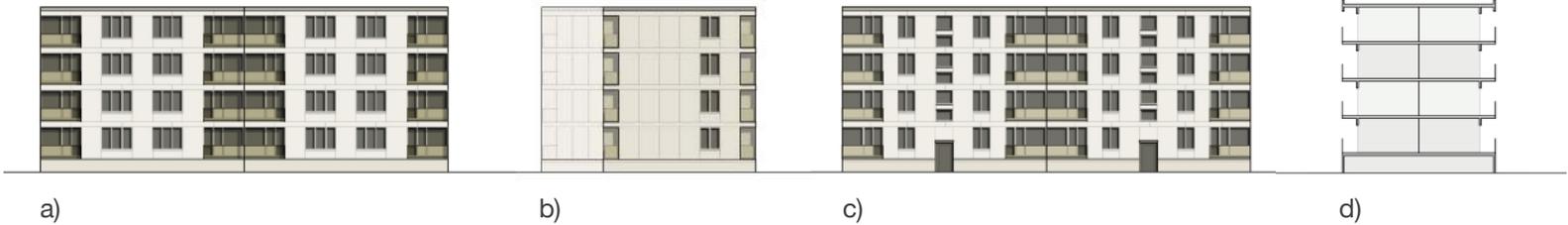
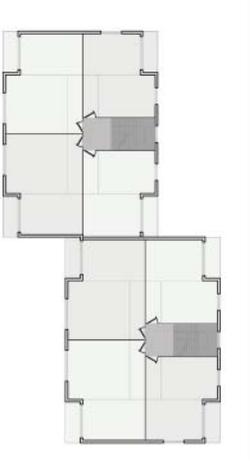


fig. 3.105 Drawings of Type 09. a) West Elevation, b) South Elevation, c) East Elevation, d) Typical Section, and e) Typical Plan. 1:500.





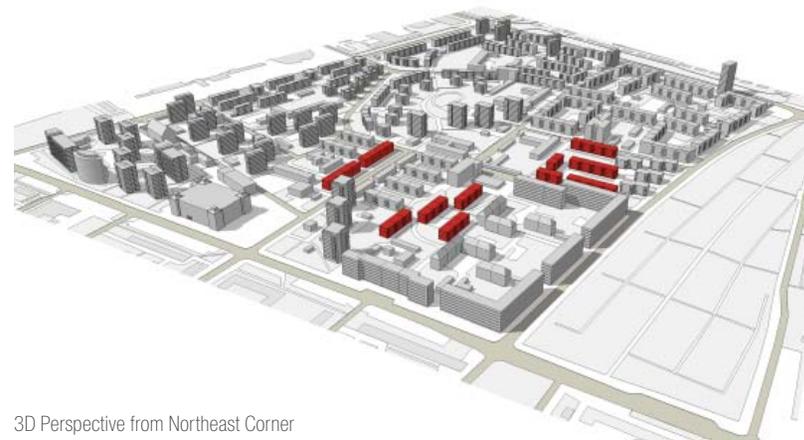
10 LOW-RISE LINEAR BLOCK

| | |
|----------------------------|-----------------------|
| YEAR | 1955 |
| BUILDINGS | 36 |
| STOREYS | 4 |
| DWELLINGS | 576 |
| FOOTPRINT | 7 380 M ² |
| FLOOR AREA | 29 520 M ² |
| PERCENT OF TOTAL DWELLINGS | 7.6 % |
| SITE COVERAGE | 1.2 % |
| DENSITY | 780 UNITS/ HA |

AMENITIES NONE
PARKING SURFACE PARKING



Key Plan 1 : 5000



3D Perspective from Northeast Corner

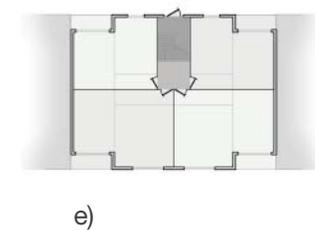
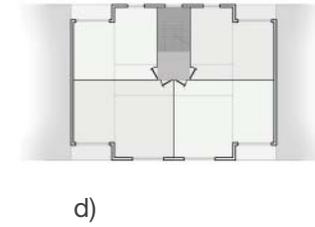
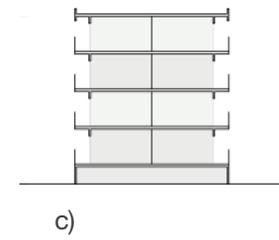


fig. 3.106 Drawings of Type 10. a) Front Elevation, b) Back Elevation, c) Typical Section, d) Typical Plan, and e) Ground Plan. 1:500.



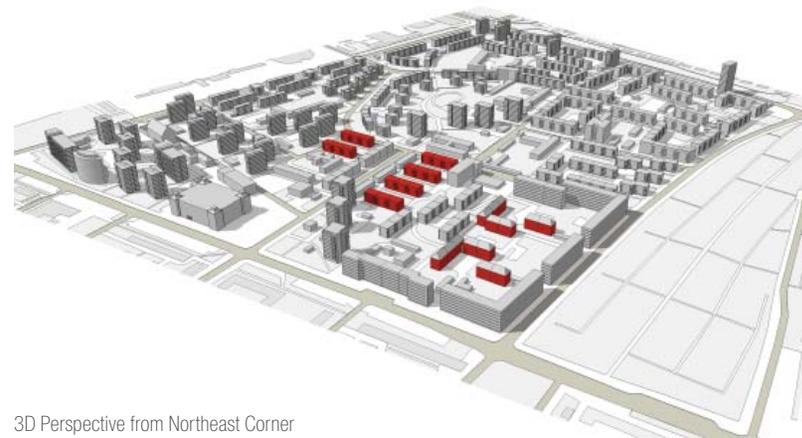


11 LOW-RISE LINEAR BLOCK

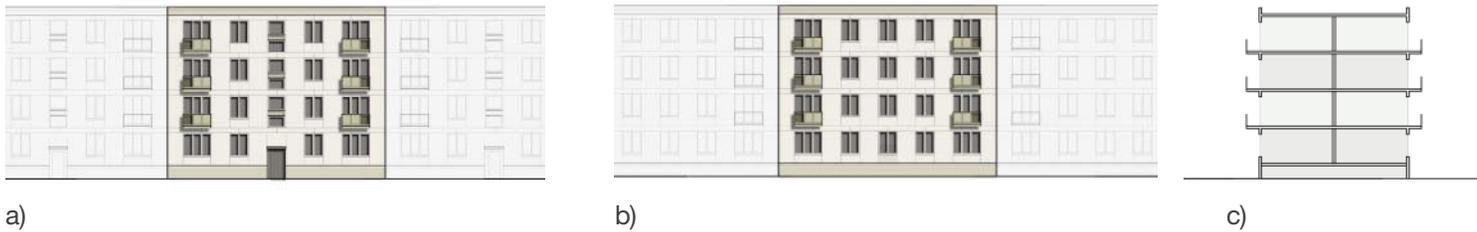
| | |
|----------------------------|-----------------------|
| YEAR | 1955 |
| BUILDINGS | 32 |
| STOREYS | 4 |
| DWELLINGS | 512 |
| FOOTPRINT | 6 720 M ² |
| FLOOR AREA | 26 880 M ² |
| PERCENT OF TOTAL DWELLINGS | 7.5 % |
| SITE COVERAGE | 1.1 % |
| DENSITY | 762 UNITS/ HA |
| AMENITIES | NONE |
| PARKING TYPE | STREET PARKING |



Key Plan 1 : 5000



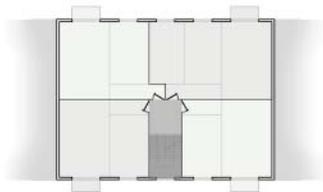
3D Perspective from Northeast Corner



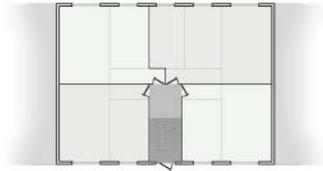
a)

b)

c)



d)



e)

fig. 3.107 Drawings of Type 11. a) Front Elevation, b) Back Elevation, c) Typical Section, d) Typical Plan, and e) Ground Plan. 1:500.





12 LOW-RISE DETACHED BLOCK

| | |
|----------------------------|----------------------|
| YEAR | 1965 |
| BUILDINGS | 3 |
| STOREYS | 4 |
| DWELLINGS | 72 |
| FOOTPRINT | 957 M ² |
| FLOOR AREA | 3 828 M ² |
| PERCENT OF TOTAL DWELLINGS | 1.0 % |
| SITE COVERAGE | 0.2 % |
| DENSITY | 752 UNITS/ HA |
| AMENITIES | NONE |
| PARKING TYPE | STREET PARKING |



Key Plan 1 : 5000



3D Perspective from Southwest Corner

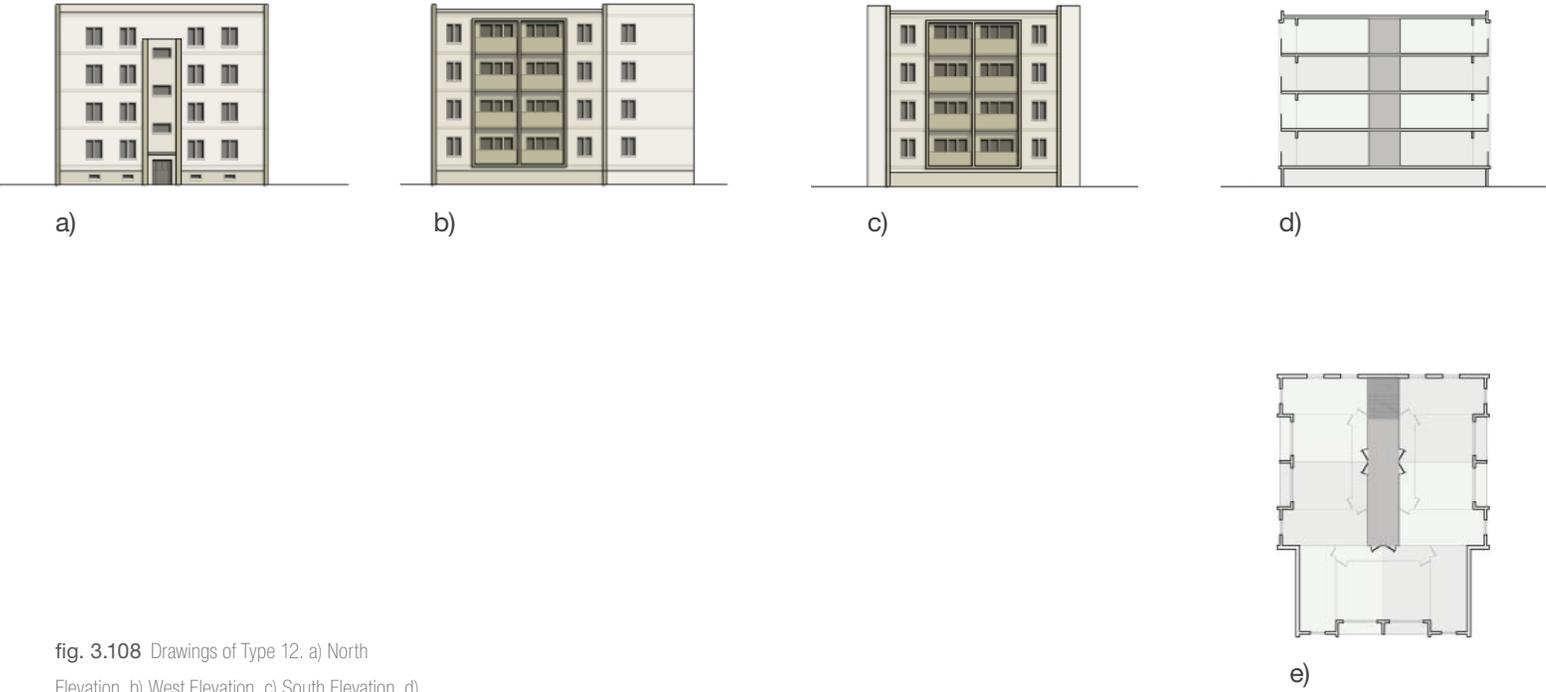


fig. 3.108 Drawings of Type 12. a) North Elevation, b) West Elevation, c) South Elevation, d) Typical Section, and e) Typical Plan. 1:500.





13 LOW-RISE DETACHED BLOCK

| | |
|----------------------------|----------------------|
| YEAR | 1965 |
| BUILDINGS | 6 |
| STOREYS | 5 SPLIT LEVEL |
| DWELLINGS | 108 |
| FOOTPRINT | 1 854 M ² |
| FLOOR AREA | 8 343 M ² |
| PERCENT OF TOTAL DWELLINGS | 1.4 % |
| SITE COVERAGE | 0.3 % |
| DENSITY | 583 UNITS/ HA |
| AMENITIES | NONE |
| PARKING TYPE | SURFACE PARKING |



Key Plan 1 : 5000



3D Perspective from Southwest Corner

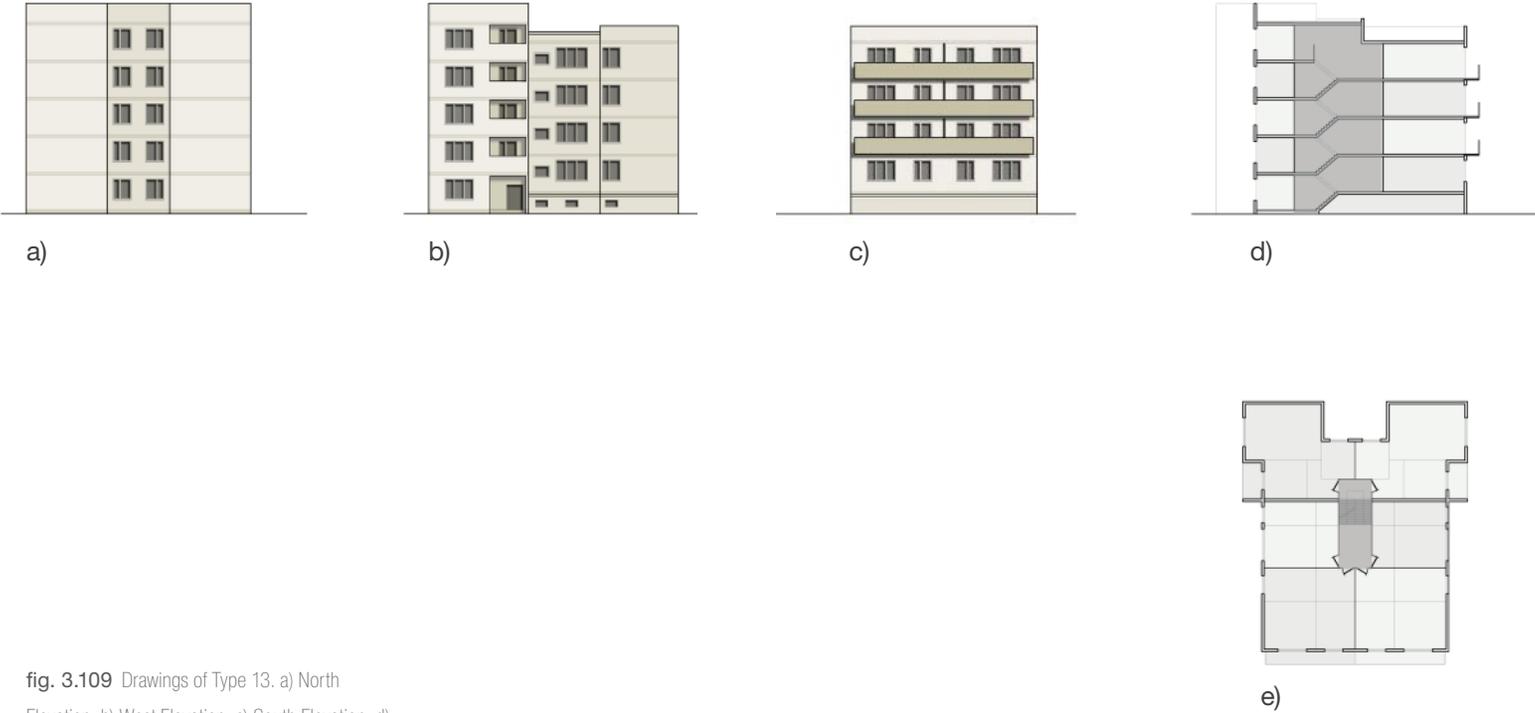


fig. 3.109 Drawings of Type 13. a) North Elevation, b) West Elevation, c) South Elevation, d) Typical Section, and e) Typical Plan. 1:500.





14 LOW-RISE LINEAR BLOCK

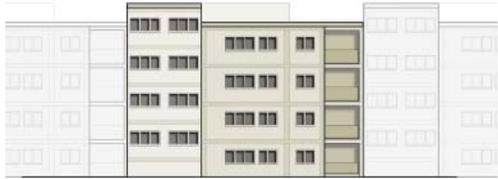
| | |
|----------------------------|-------------------------------------------------------------------------------------|
| YEAR | 1965 |
| BUILDINGS | 24 |
| STOREYS | 4 SPLIT LEVEL |
| DWELLINGS | 384 |
| FOOTPRINT | 7 080 M ² |
| FLOOR AREA | 28 320 M ² |
| PERCENT OF TOTAL DWELLINGS | 5.1 % |
| SITE COVERAGE | 1.2 % |
| DENSITY | 542 UNITS/ HA |
| AMENITIES | NONE |
| PARKING | SURFACE PARKING |
| TYPE |  |



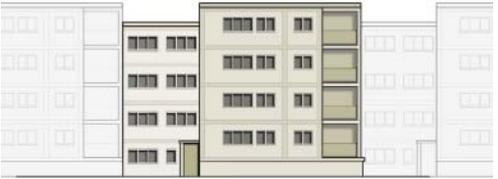
Key Plan 1 : 5000



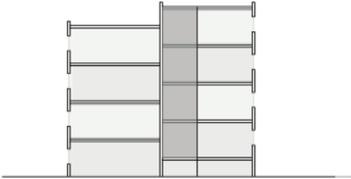
3D Perspective from Southwest Corner



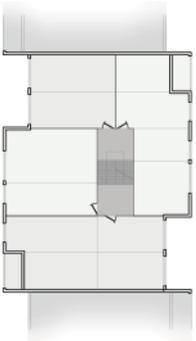
a)



b)



c)



d)

fig. 3.110 Drawings of Type 14. a) West Elevation, b) East Elevation, c) Typical Section, and d) Typical Plan. 1:500.

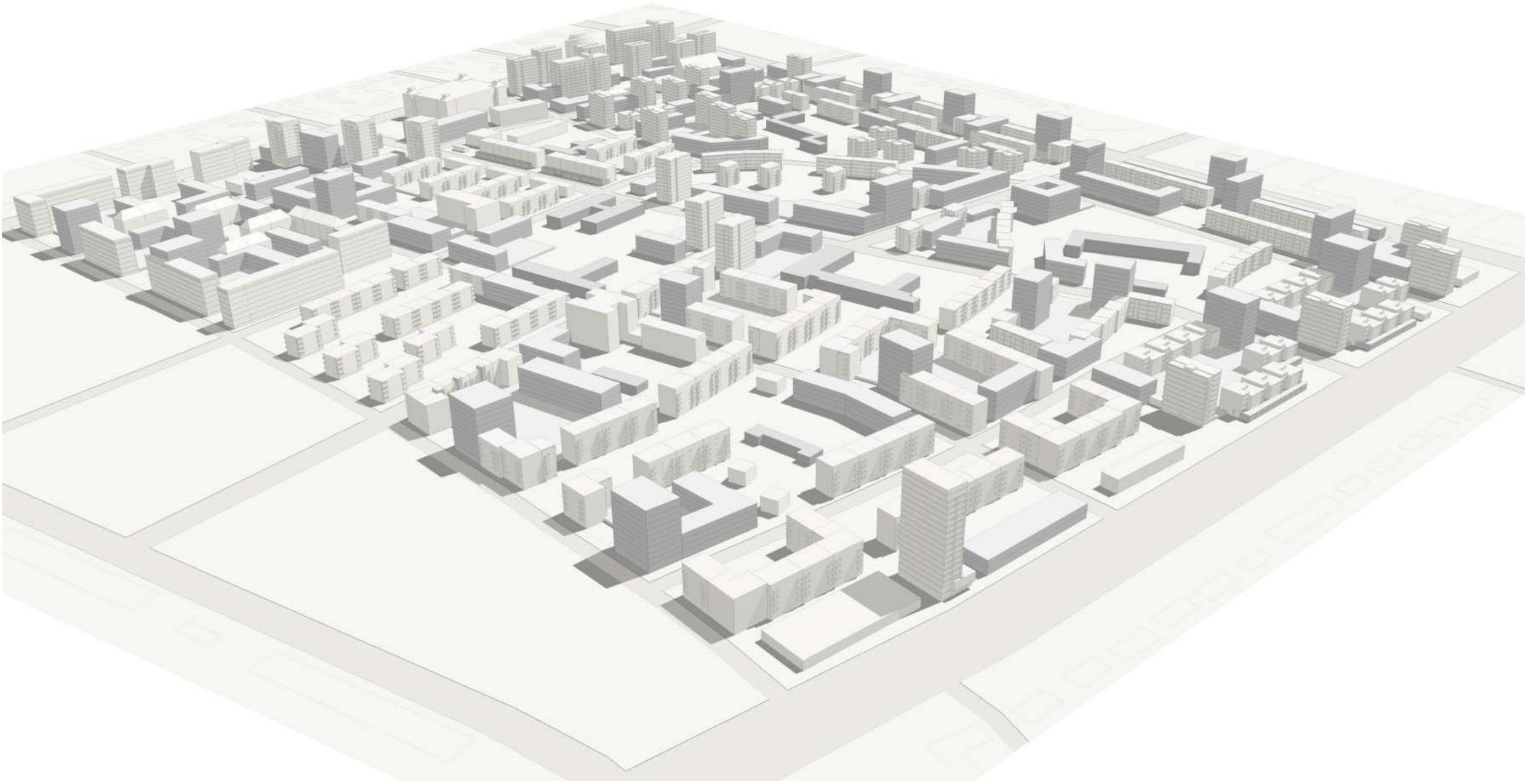


Endnotes

- 1 Adolf Ciborowski. *Warsaw, a city destroyed and rebuilt*. (Warsaw: Polonia Pub. House, 1964), 14.
- 2 In between the years 1760 an 1792 the population grew from 30,000 to 120,000. Ibid, 23.
- 3 Ibid, 26.
- 4 Ibid, 40.
- 5 Ibid, 65.
- 6 Ibid, 176.
- 7 Ibid, 153.
- 8 Adolf Ciborowski. *Town Planning in Poland*. (Warsaw: Polonia Pub. House, 1956), 13.
- 9 Ibid, 18.
- 10 Warsaw (Poland) Rada Narodowa., Ciborowski, A., & Wilski, J. (||||). *Plan Generalny Warszawy*. [Warszawa: s.n.], 158.
- 11 Adolf Ciborowski. *Town Planning in Poland*. (Warsaw: Polonia Pub. House, 1956), 19.
- 12 B. Lewicki. *Building with large prefabricates*. (London ; Amsterdam: Elsevier, 1966)

04 SYNTHESIS

WIERZBNO AS A NEIGHBOURHOOD



As established in the previous chapters, the main urban design concerns of Wierzbno estate are its isolation from the surrounding city, the vast amount of underutilized open space, the monotony of buildings, and the single functional zone. The potential of the site lies in its close proximity to the central core serviced by the metro line, its close connection to the escarpment and the new local core that is evolving at Mokotow with the new shopping center and office park.

The renewal of Wierzbno proposed in this document is based on the re-introduction of the traditional street. It is the public space of the neighbourhood and the means for property development. The following is a proposal for Wierzbno that would change its image and the fundamental functioning of it from a socialist estate to a new neighbourhood.

In Section 4.1 strategies for the renewal of Wierzbno including guidelines for the development of key zones will be examined. The new plan of Wierzbno is illustrated in Section 4.2 along with maps that illustrate how the new neighbourhood will function. Section 4.3 introduces the new street sections that will create the public spaces for the neighbourhood. Lastly, Section 4.4 will examine a new housing typology that incorporates new and existing buildings to create a new block.

fig. 4.1 Wierzbno proposed, 3D model.



4.1 STRATEGIES FOR RENEWAL

“Throughout the entire history of human habitation, streets and squares had formed focal points and gathering places, but with the advent of functionalism, streets and squares were literally declared unwanted. Instead, they were replaced by roads, paths, and endless grass lawns.”¹

The renewal of the estate is based upon the reintroduction of the traditional street into the project. The road and the pathway will be merged to create a new street that will be the new public space for the site providing a medium for social interaction to help establish a sense of community and a strong neighbourhood.

The creation of a street sets up a means for property development, as it sets up street frontage and makes the site more accessible. The previous open spaces can now be developed, providing the site with new housing and allowing new mix-use programs to be introduced. The new street layout will provide for continuous streets and help to rationalized building lots.

fig. 4.2 Proposed Wierzbno, rendered plan.



fig. 4.3 Wierzbno Proposed plan, Detail of Wolowska Street.

The redesign of the estate is based on the following approach:

- Integrate the estate by introducing new streets that link to the surrounding city.
- Create streets that cut through the site, which have a good connectivity.
- Appropriating the open space, currently underutilized or abandoned, for new building lots.
- Demolish existing buildings selectively in order to facilitate the new street order and block arrangement.
- Incorporate new buildings with the existing in order to set up a mutually beneficial condition.
- Establish a well-defined streetscape with buildings addressing the street.
- Create a new public park in place of the allotment gardens to the north of the estate, allowing for a continuous sequence of public spaces leading to the escarpment.
- Allot new residential public space in the courtyards of the new blocks; these will provide a space for a community garden.
- Establish a new diversity of program, following the trend of office development and retail existing on site.

- Place new public squares along these new office and retail streets; these will provide space for new fine grain activities to take place, such as kiosks and vendor stalls.
- Design new public streetscapes and small squares for the human scale, providing places for sitting, standing, walking.
- Design a soft threshold between the ground floor units and the street, both to animate the streetscape and to provide outdoor space for the units.
- Differentiate the new buildings through the use of varied architectural styles, forms and dwelling types.
- Use new and varied materials to provide further variation between buildings.
- Establish an entrance sequence for the entries into the buildings within each block by establishing a hierarchy of public spaces.



fig. 4.4 Wierzbno Proposed plan, Detail of central square, with Woronicza Street to the south.



fig. 4.5 Wierzbno, diagram of new commercial development zone.

fig. 4.6 Wierzbno, diagram of new retail development zone.

As a part of the renewal of the Wierzbno, focus will be on the following four zones of development. These zones attempt to redefine the image of the site by providing a new sequence of public spaces, creating new program and focusing development.

As described by Jane Jacobs, the planning guidelines for creating effective neighbourhoods are as follows:

“First, to foster lively and interesting streets. Second, to make the fabric of these streets as continuous a network as possible throughout a district of potential sub-city size and power. Third, to use parks and squares and public buildings as part of this streets fabric; use them to intensify and knit together the fabric’s complexity and multiple use. Fourth, to emphasize the functional identify of areas large enough to work as districts.”²

The new retail zone establishes a new Main Street for the neighbourhood. It links together existing areas of retail activity and creates a framework to intensify it. The Main Street intersects with Wolowska Street, which provides a link to the district shopping center to the south and to the local bazaar to the north.

The office zone takes advantage of the new office complexes emerging to the south. Integrating new mixed-use blocks on the north side of Woronicza Street, creates a double-loaded commercial zone. The new zone intersects with Aleja Niepodleglosci which is a main route leading to the center core of Warsaw.

The recreational zone creates a series of parks and playgrounds throughout the neighbourhood, each having a different program and aimed at a variety of age groups. The new street

intersects with the new public park to the north of the site, which leads to the escarpment.

The transit zone creates a series of nodes of transit stops. These become intersections with intensified activity. The new stops are created to strengthen and complement the previous zones.

The above zones establish a new character for the neighbourhood and establish cohesive zones of development. The zones provide a mixture of primary and secondary uses, providing vital mutual economic support³ between the zones.



fig. 4.7 Wierzbno, diagram of new recreational development zone.

fig. 4.8 Wierzbno, diagram of new transit development zone.



4.2 MAPPING THE NEW WIERZBNO

“Street life is drastically reduced when small, active units are superseded by large units. In many places, it is possible to see how life in the streets has dwindled drastically as gas stations, car dealerships and parking lots, have created holes and voids in city fabric, or when passive units such as office and banks move in.”¹

Currently the site is largely comprised of open space, and the proposed street network is set up to optimize integration and maximize usable lots for property development. The new street provides a frontage with a distinct address for parcels of land that were previously inaccessible. The following mappings focus on how the new site functions within the surrounding city systems. The design attempts to create a well-connected street layout and a continuous built fabric, as well as establishing a new sequence of public spaces and parks.

The plan outlines the demolition of 12.3 percent of the built area, about 50,350m² or 46 buildings. However, the new street layout provides for the zoning of 278,500 m² of new construction, including 28,200 m² for retail development and 25,500 m² for new office construction. The new podium design also provides about 6,100 new parking spots, which is about a 3:5 ratio for units to parking spots.

fig. 4.9 View of new neighbourhood public square, intersection of recreational, Main Street, and transit development zones.

fig. 4.10 Proposed Wierzbno, street plan.
Creates small blocks, running through the full site.
The new Woonerf, shared-streets, become a series
of squares that cars are allowed to travel through.

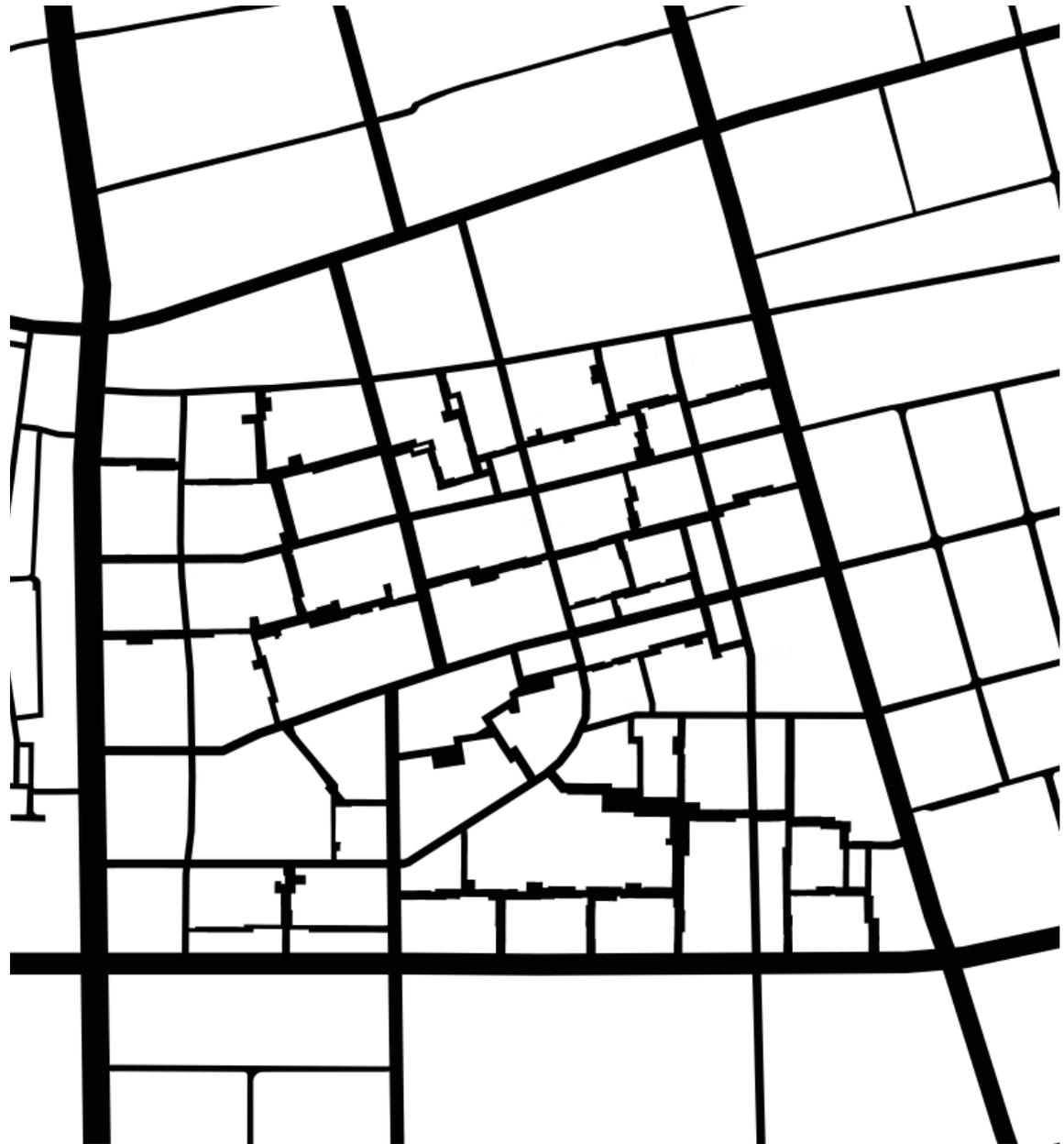


fig. 4.11 Proposed Wierzbno, road hierarchy plan.
The new street types establish a legibility.



fig. 4.12 Proposed Wierzbno, public transit plan.



fig. 4.13 Proposed Wierzbno, site parking plan.
The new underground parking as a part of the new podium block, creates about 6,100 new parking spots.



fig. 4.14 Wierzbno Demolition Plan.
Approximately 59,350m² of building area is demolished accounting for about 46 buildings, not including retail kiosks.



fig. 4.15 Proposed Wierzbno Plan.
New construction accounts for approximately
278,500 m².



fig. 4.16 Proposed Wierzbno, Noli Plan.
The new buildings are used to frame the street.



fig. 4.17 Proposed Wierzbno, Residential types.



fig. 4.18 Proposed Wierzbno, Institutional types.



fig. 4.19 Proposed Wierzbno, Commercial types.

New retail development is focus to Main Street, with a new shopping center located at the corner of Aleja Niepodleglosci and Main Street. New Office development is introduced on the north side of Woronicza street to complement the existing office development.

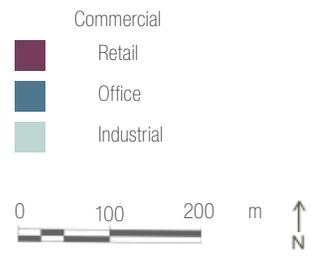
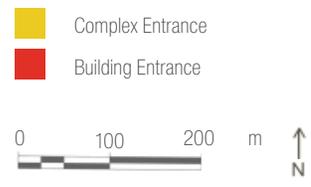


fig. 4.20 Proposed Wierzbno, public space plan.
The vast open space of the estate is developed and a new public park is created in place of the allotment gardens.



fig. 4.21 Proposed Wierzbno, Building entrance plan.

New block entrances are placed off squares on main streets or off the Woonerf streets. The building entrances are from the inner courtyards of the new blocks.





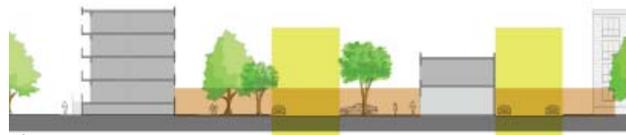
4.3 STREET AS PUBLIC SPACE

“Streets and their sidewalks, the main public places of a city, are its most vital organs... If a city’s streets look interesting, the city looks interesting; if they look dull, the city looks dull.”⁵

The Street is the new public space for the neighbourhood and as such provides a new image for it. Working with the zones of development, discussed in Section 4.1, a new vision for Wolowska, Woronicza and the new Main Street, formerly Malczewskiego Street is created. Furthermore, a new model for the local neighbourhood streets is proposed.

The estate had limited roads and those it had lacked a visual order. The new plan establishes a hierarchy of streets in order to establish a clear legibility of the site. The hierarchy focuses on generating a clear pedestrian experience, in order to support the development of a strong community and encourage the formation of a local economic base.

fig. 4.22 View of new Main Street development zone.



a)

0 10 m



b)



c)



d)



e)

fig. 4.23 Main Street Sections. a) Existing Section of Malczewskiego Street, b) Section A-A, double loaded retail, c) Section B-B, single loaded retail with small square, d) Section C-C, single loaded retail with square leading to housing block behind, e) Section D-D, single loaded retail with square leading to housing block.



0 2 5 10 m

Main Street

Main Street is the central street of the project; it establishes a new character for the neighbourhood. It is a street designed for an active pedestrian experience, to allow for sitting, walking, standing, and gathering. Various squares are placed along the street to allow for kiosk and street vendor activity to take place, as well as providing spill out areas for adjacent units, such as cafes and restaurants. Along the street, tree planters provide a soft threshold between the sidewalk and road, and provide secondary seating in the form of raised edges.

Street as Public Space

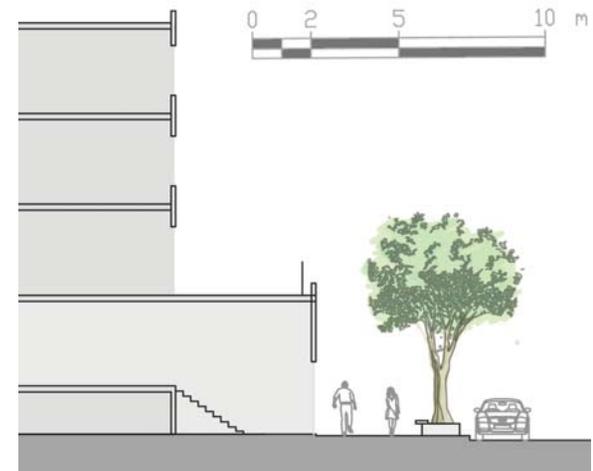
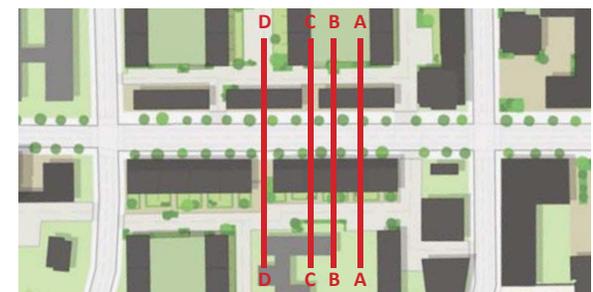


fig. 4.24 Section A-A Detail



fig. 4.25 Section A-A Detail



Key Plan

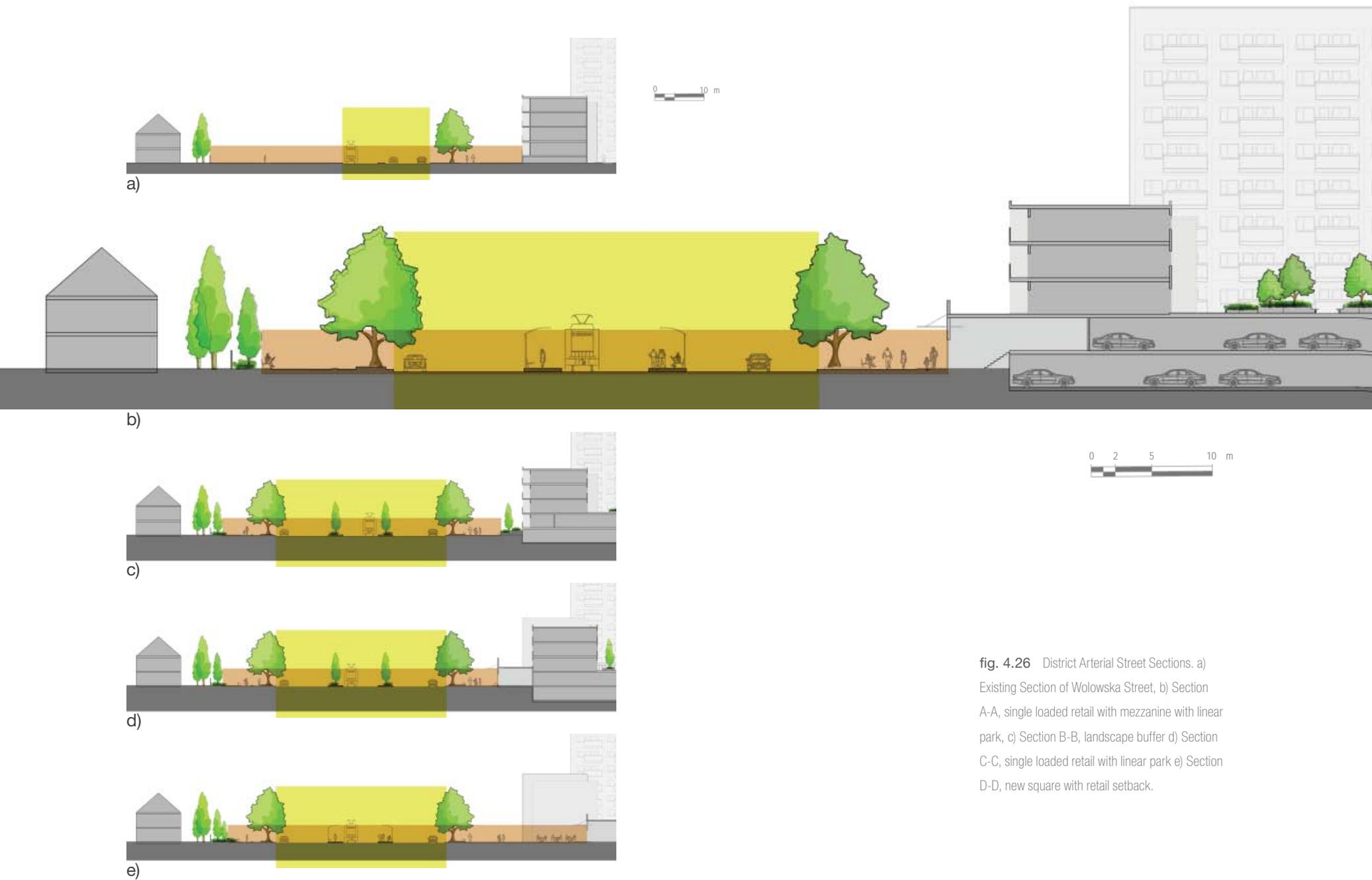


fig. 4.26 District Arterial Street Sections. a) Existing Section of Wolowska Street, b) Section A-A, single loaded retail with mezzanine with linear park, c) Section B-B, landscape buffer d) Section C-C, single loaded retail with linear park e) Section D-D, new square with retail setback.

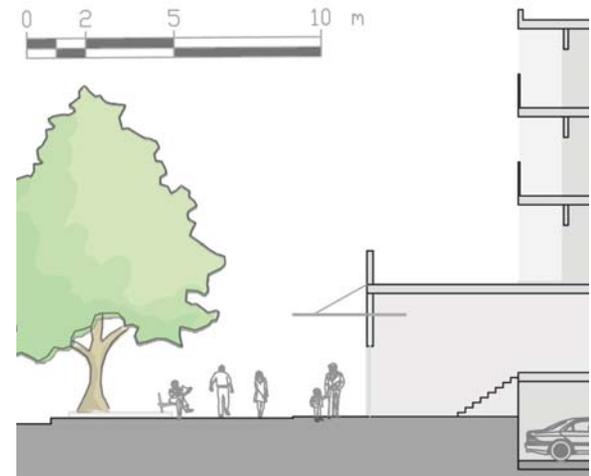


fig. 4.28 Section A-A Detail.



fig. 4.27 Section C-C Detail.



Key Plan

District Arterial Street

The road has been widened to allow for continuous traffic flow with the tram running in the median. New smaller blocks are created allowing for a higher connectivity of the street and allowing more diversity to occur. A linear park, with a bike path, is created as a buffer to the residential neighbourhood to the west. Landscape islands have been created along the street to buffer vehicular and pedestrian traffic, while at the same time providing places for seating and gathering. Along the street, new squares have been created at block entrances allowing new retail to develop, while the ground floor units can be used as new retail additions.

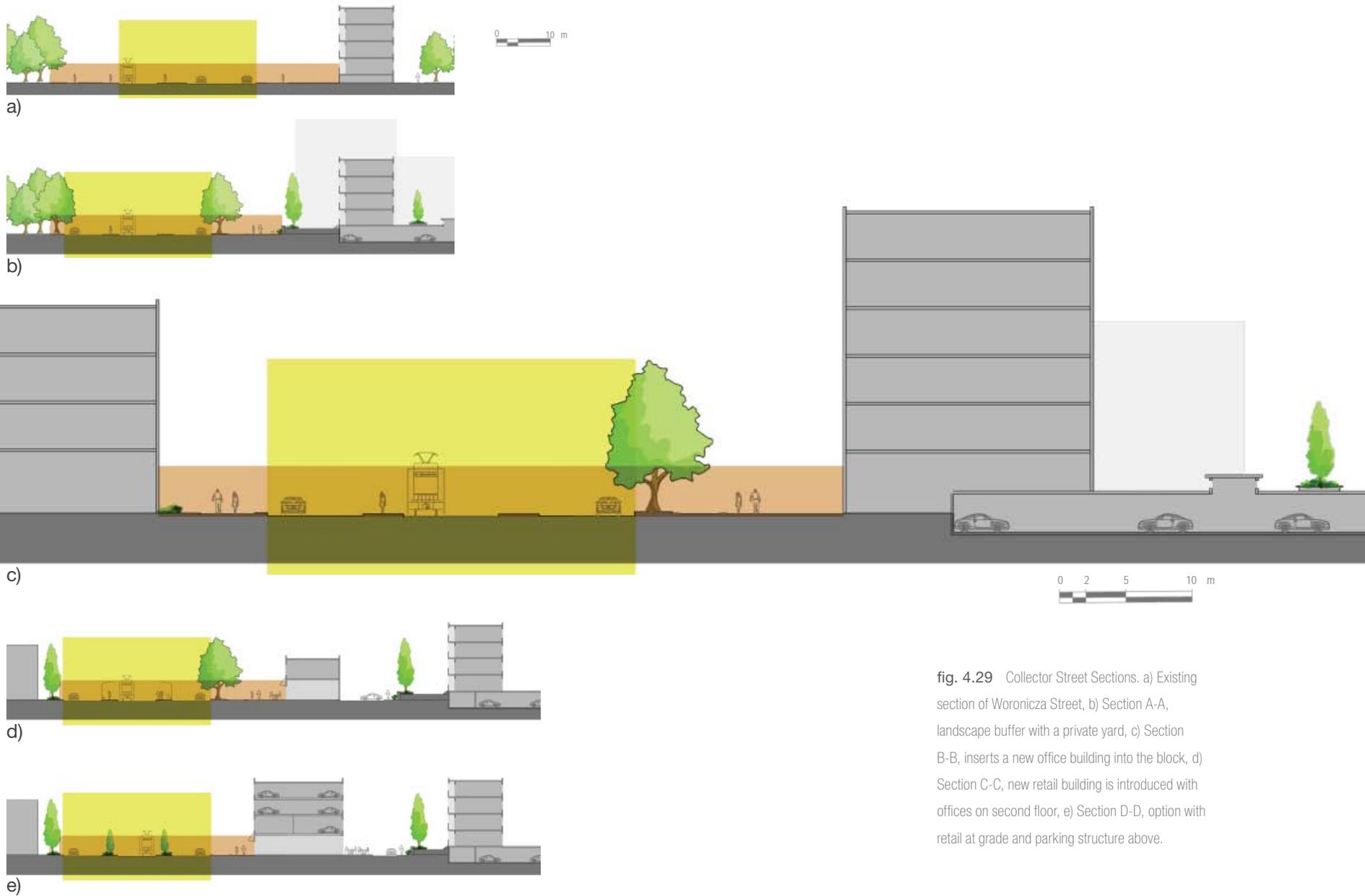


fig. 4.29 Collector Street Sections. a) Existing section of Woronicza Street, b) Section A-A, landscape buffer with a private yard, c) Section B-B, inserts a new office building into the block, d) Section C-C, new retail building is introduced with offices on second floor, e) Section D-D, option with retail at grade and parking structure above.

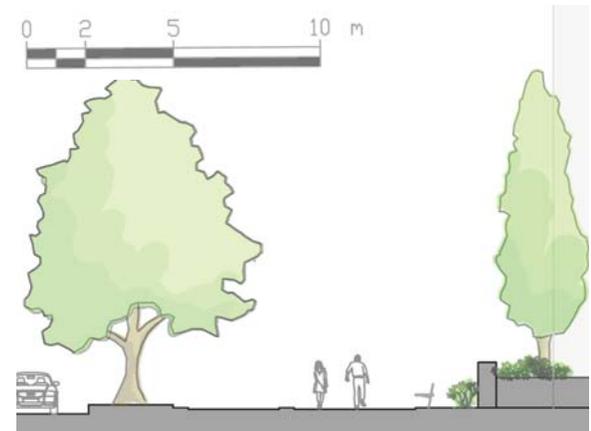


fig. 4.31 Section A-A Detail.

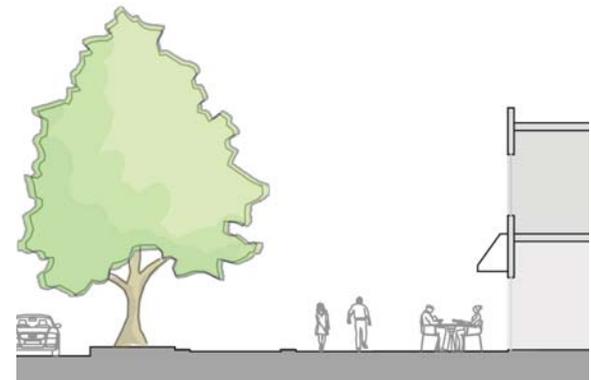
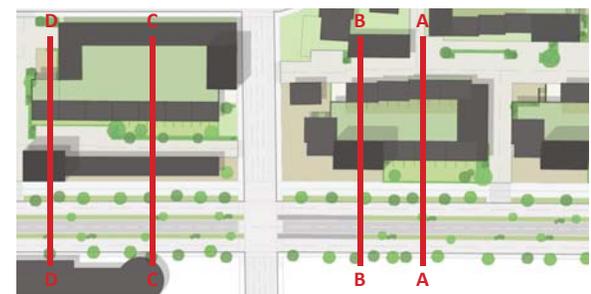


fig. 4.30 Section C-C Detail.



Key Plan

Collector Street

Woronicza Street has been addressed as a collector street for the site, zoned as a part of the new office development. The street has been re-centered about the tram, annexing more land for the housing blocks to the north, and allowing for new building lots and private yards to be added. The new street provides a dedicated bike lane and generous sidewalks for pedestrian activity, with new squares at block entrances and offices lobbies.



fig. 4.32 Local Street Sections. a) Existing Section of Marzanny Street, b) Section A-A, landscape buffer provides seating and allows for private yard c) Section B-B, option for units at grade to convert into retail unit d) Section C-C, landscape buffer narrows and defines the street section, e) Section D-D, provides a square at the entrance to the new podium block.

Local Street

These streets provide access to the new underground parking for the podium blocks. They still provide street side parking, but with a dedicated lane for parking, so that the sidewalk will not be interrupted by cars. The street sections are visually narrowed by providing private yards for ground floor units, where appropriate, and allowing ground floor units to convert into retail kiosks, where appropriate.

Street as Public Space

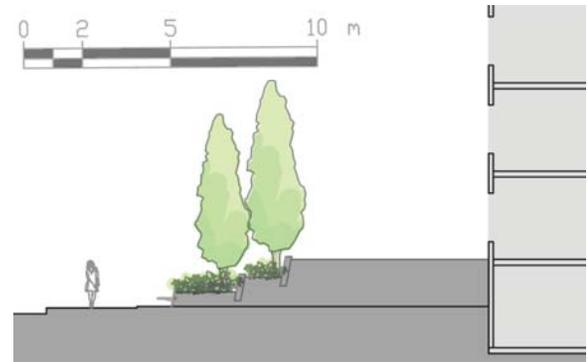


fig. 4.33 Section A-A Detail.

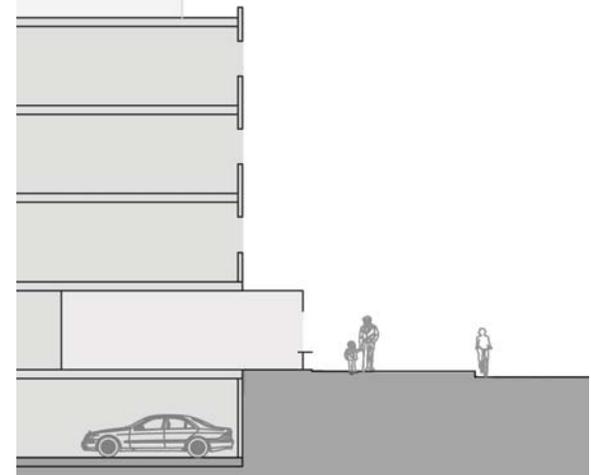
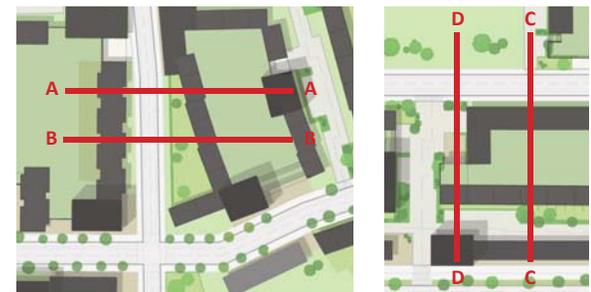


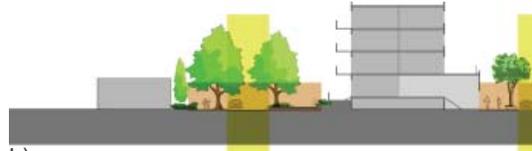
fig. 4.34 Section B-B Detail.



Key Plan



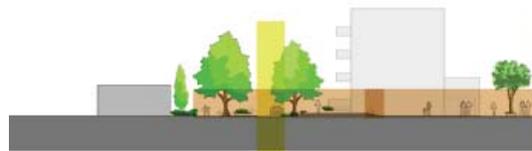
a)



b)



c)



d)



e)



fig. 4.35 Woonerf, Shared-Street Sections. a) Existing Section between blocks, b) Section A-A, a narrow lane for vehicular access, c) Section B-B, provides islands of surface parking integrated with the site landscaping, d) Section C-C, a connection to the Main street via a square, e) Section D-D, a connection to a new podium block, with restored existing buildings.

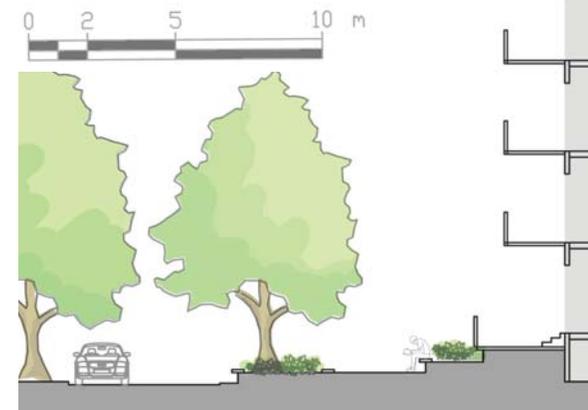
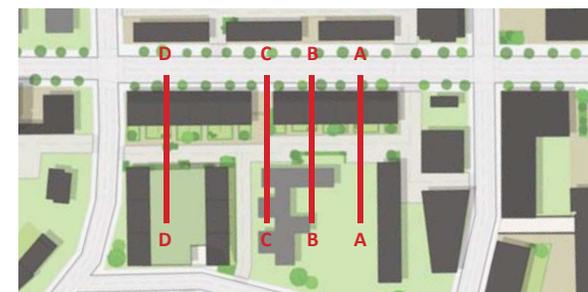


fig. 4.37 Section A-A Detail.



fig. 4.36 Section B-B Detail.



Key Plan

Woonerf, Shared-Street

“Woonerf” is a Dutch principle where the street is shared by slow-moving traffic, pedestrians and bicycles. Streets are detailed in a way that clearly indicates their status as predominantly “soft traffic” areas such as a change of paving materials and speed is further reduced by low ramps and landscape islands that require change of direction. These are meant as local access routes not throughways. They become places for pedestrians to occupy and use; they act as public squares for the new blocks. A prime concern is to create a good edge condition⁶ in order to create a variation of space. This allows people the choice to participate in the public space or to stand to the side and observe.

fig. 4.38 View of new 'Woonerf' type street.





4.4 NEW HOUSING TYPOLOGIES

“Establishing residential areas so that there is a graduation of outdoor spaces with semi-public, intimate, and familiar spaces nearest the residence also makes it possible to know the people in the area better, and the experience of outdoor spaces as belonging to the residential area results in a greater degree of surveillance and collective responsibility for this public space and its residences.”⁷

The new housing typology proposed is a response to the new street network and the desire to integrate the existing housing with new market-rate housing. The new block is a series of new infill buildings that form a traditional perimeter block. The inner courtyard is raised to the level of the first floor of the existing buildings allowing for at grade access to the units, while providing for underground parking.

The new typology remains flexible, allowing for individual architectural intervention and maximizing differentiation in the site. The infill projects would be a mixture of point towers, row houses, and walk-up apartments, and would provide a variety of dwelling units, including family-units with walk out gardens.

fig. 4.39 View of new inner courtyard of block typology.

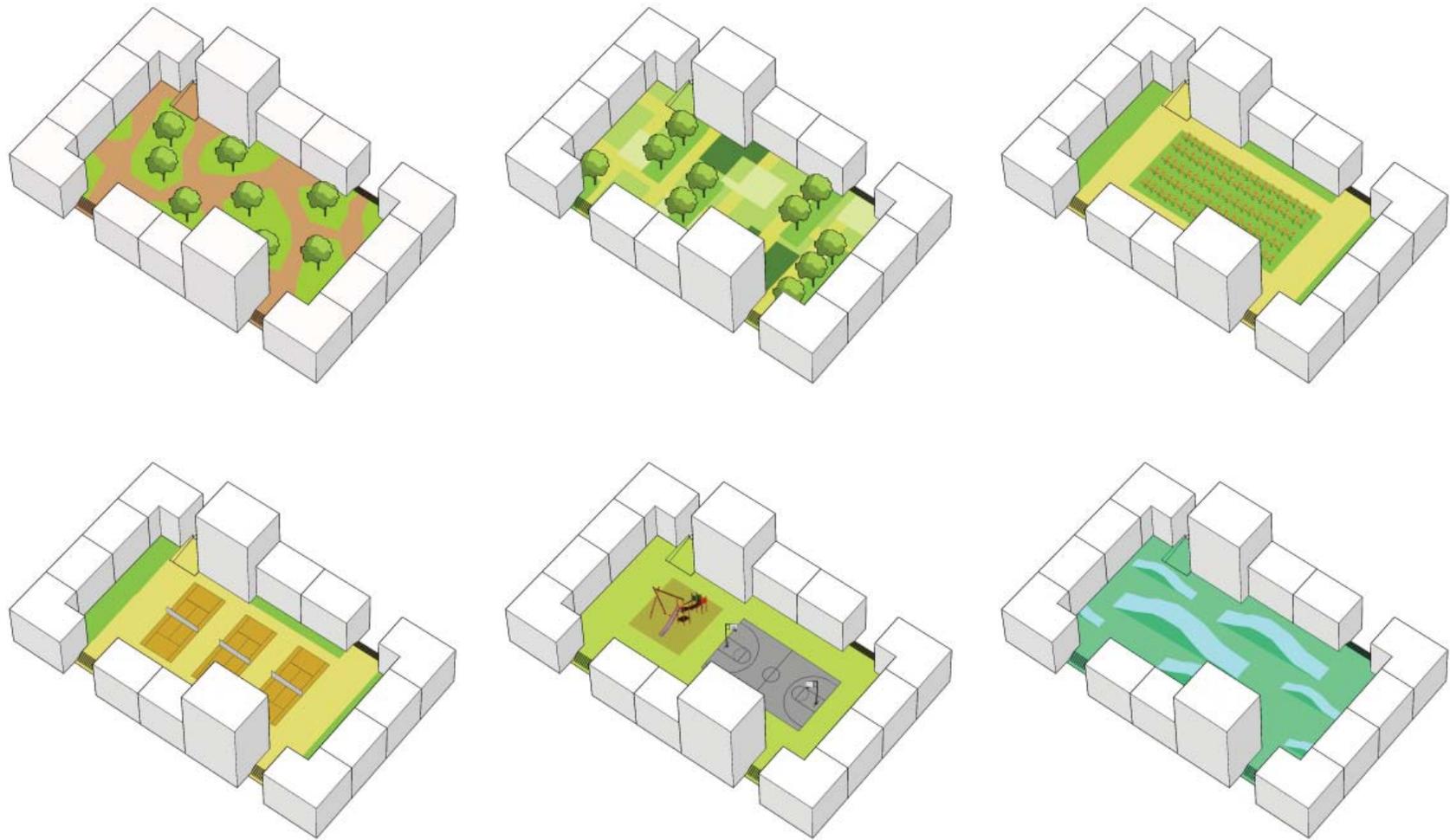


fig. 4.40 Block diagram, new courtyard layouts.
Allowing for new program to occur, landscaping, community garden, and play.

The design guidelines for the new blocks would include:

- Define the street section.
- Incorporate the existing housing.
- Provide new underground parking.
- Create a new public space for the block.
- Animate the ground plane of the street.
- Provide a differentiation of dwelling types, including walkout units with private yards.
- Create a legible entrance sequence for the individual buildings by establish a hierarchy of public spaces within the block.
- Provide shared amenities, such as gyms, laundry facilities, and function rooms.
- Provide visual variety with the use of new materials, such as wood, stone, brick, and glazing.

The new block acts as a threshold between the private housing complex and the public space of the street. According to Jan Gehl, a living city is “...one in which spaces inside buildings are supplemented with usable outdoor areas, and where public spaces are allowed to function.”⁸ The entrances to the blocks are placed at public squares allowing for the lobby to spill out and occupy the public space. The podium courtyard is used as a semi-public space with the block’s amenities such as gym and function room facilities allowed to expand out and fully utilize the space.

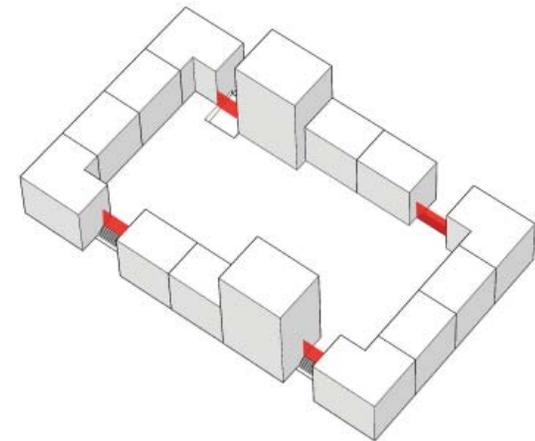
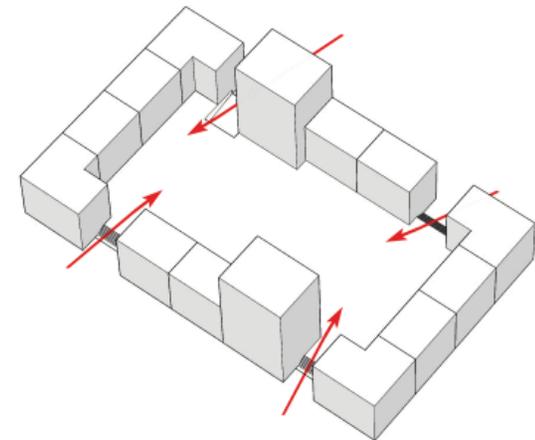
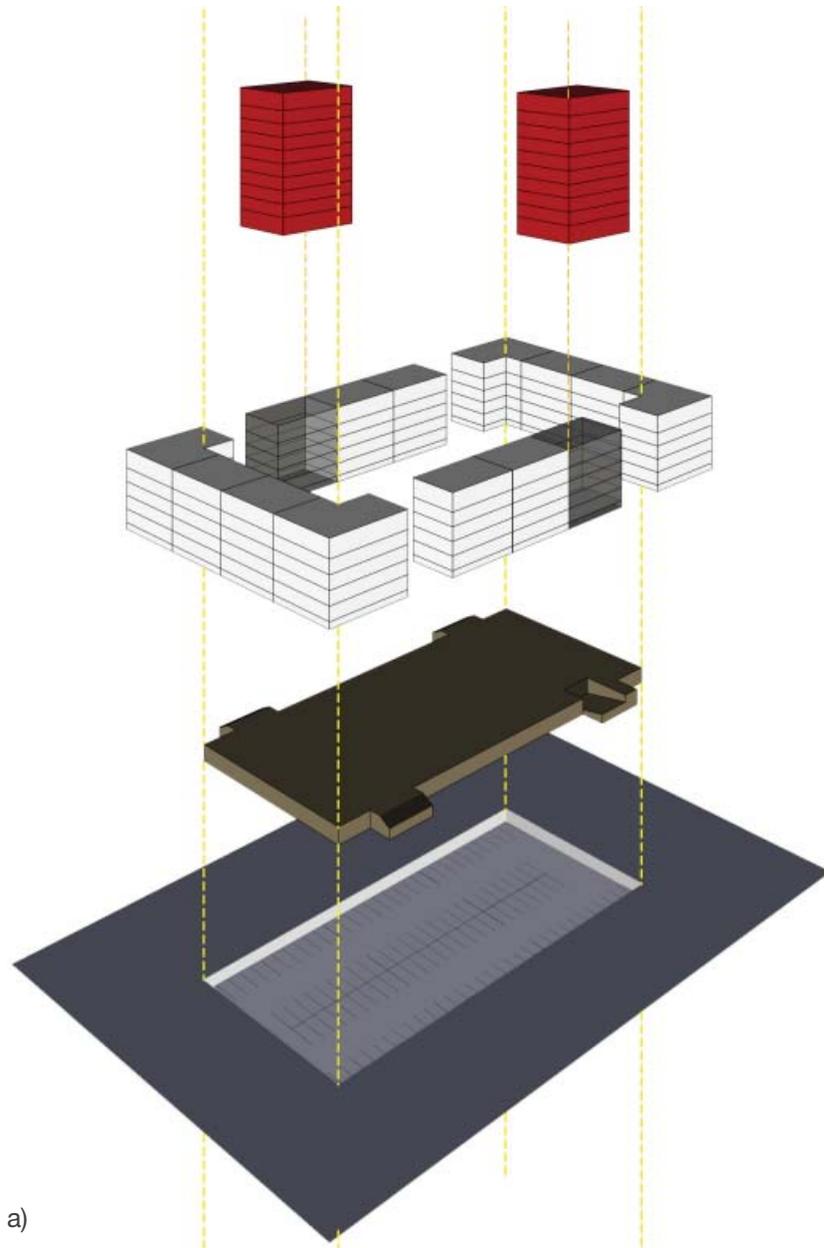


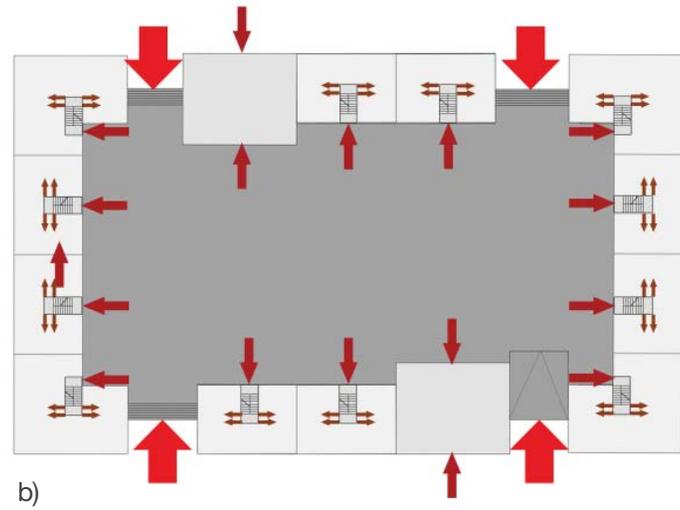
fig. 4.41 Block diagram, courtyard visible from street.

fig. 4.42 Block diagram, courtyard accessible to residents only.



a)

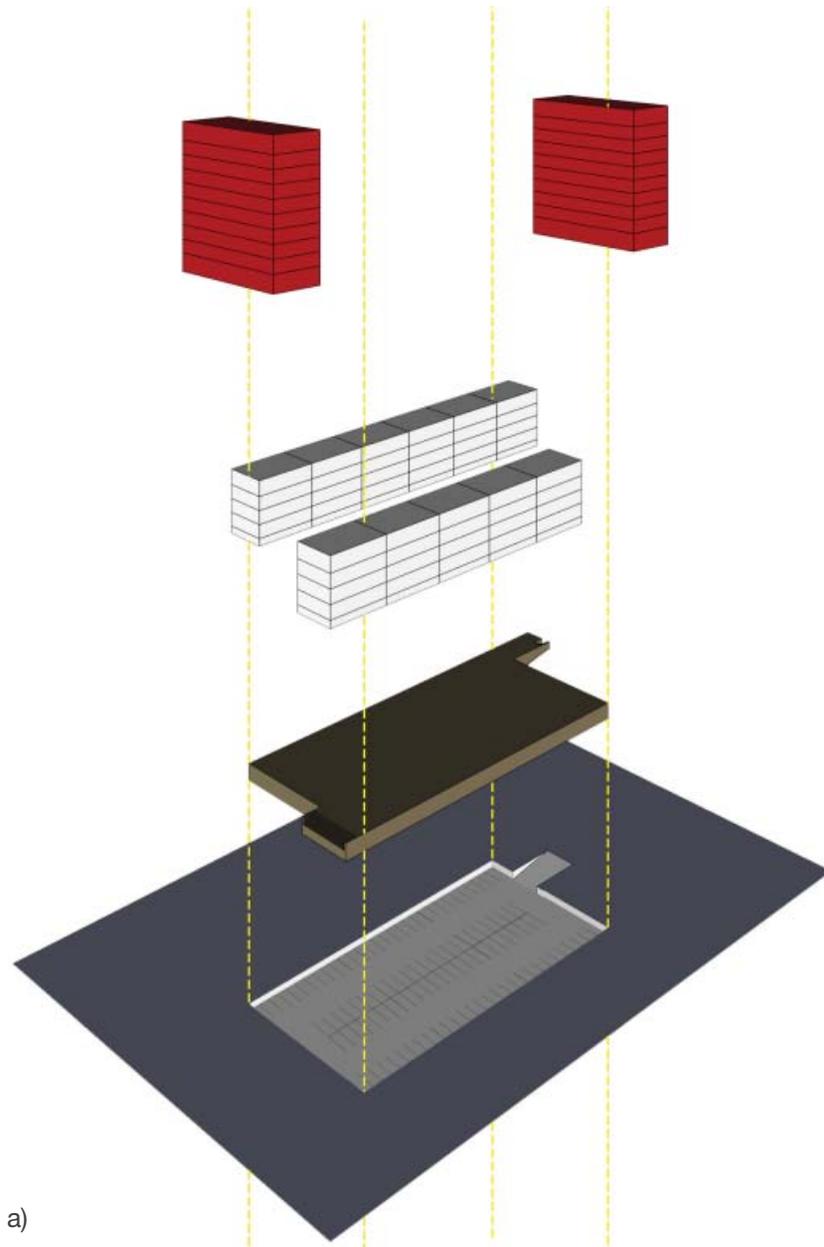
fig. 4.43 Courtyard Block. a) Exploded Axonometric view of block composition, b) Plan of entrance sequence: Block, building, unit.



b)

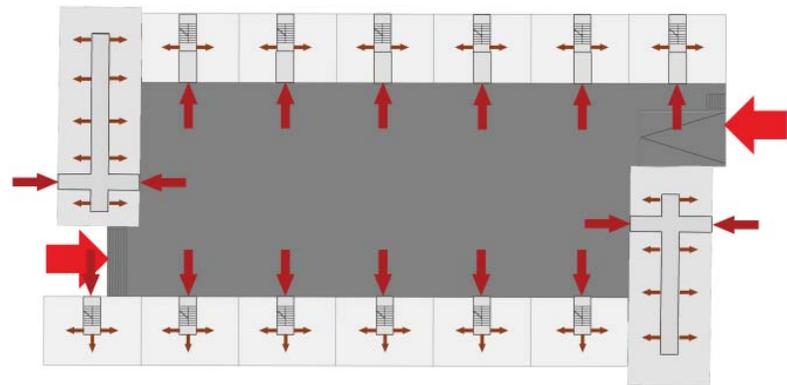
fig. 4.44 Section of Courtyard Block.





a)

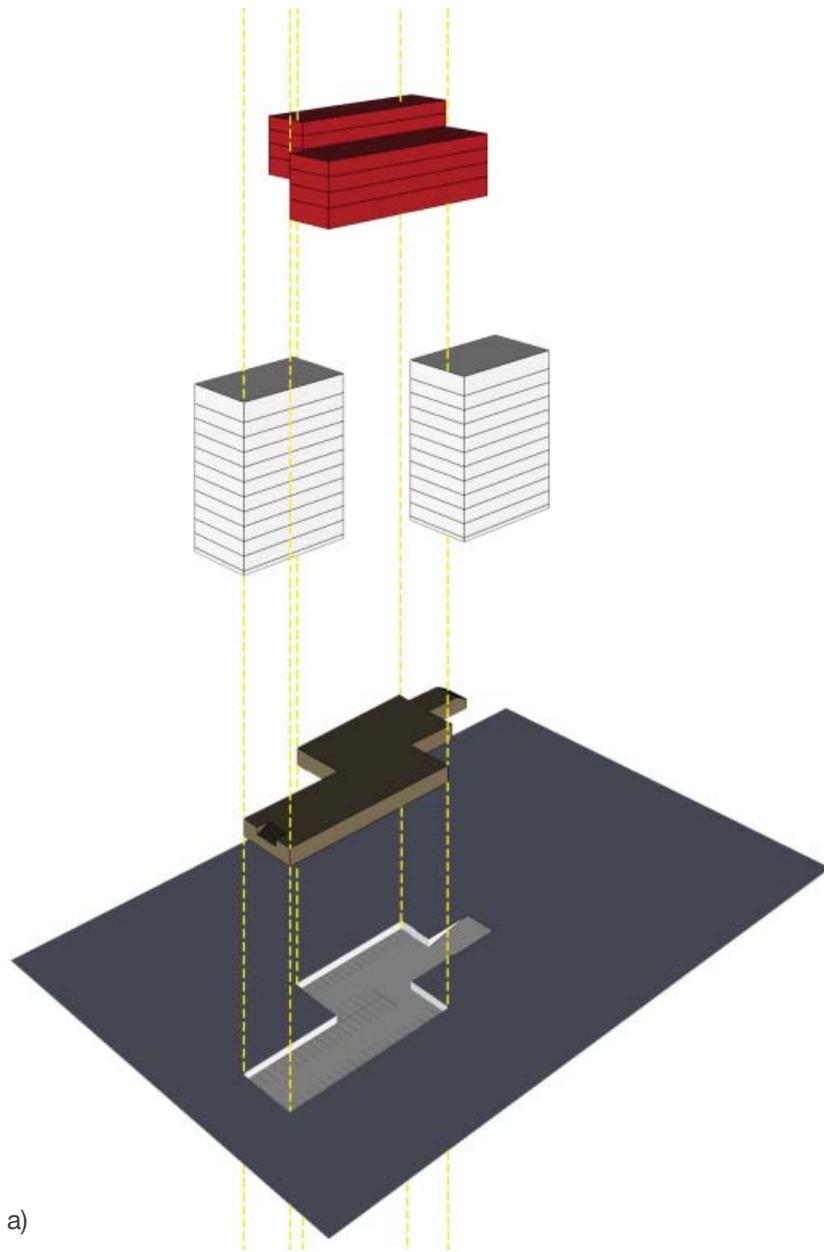
fig. 4.45 Linear Block. a) Exploded Axonometric view of block composition, b) Plan of entrance sequence: Block, building, unit.



b)

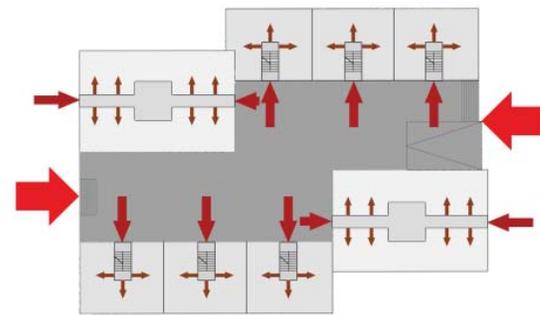
fig. 4.46 Section of Linear Block.





a)

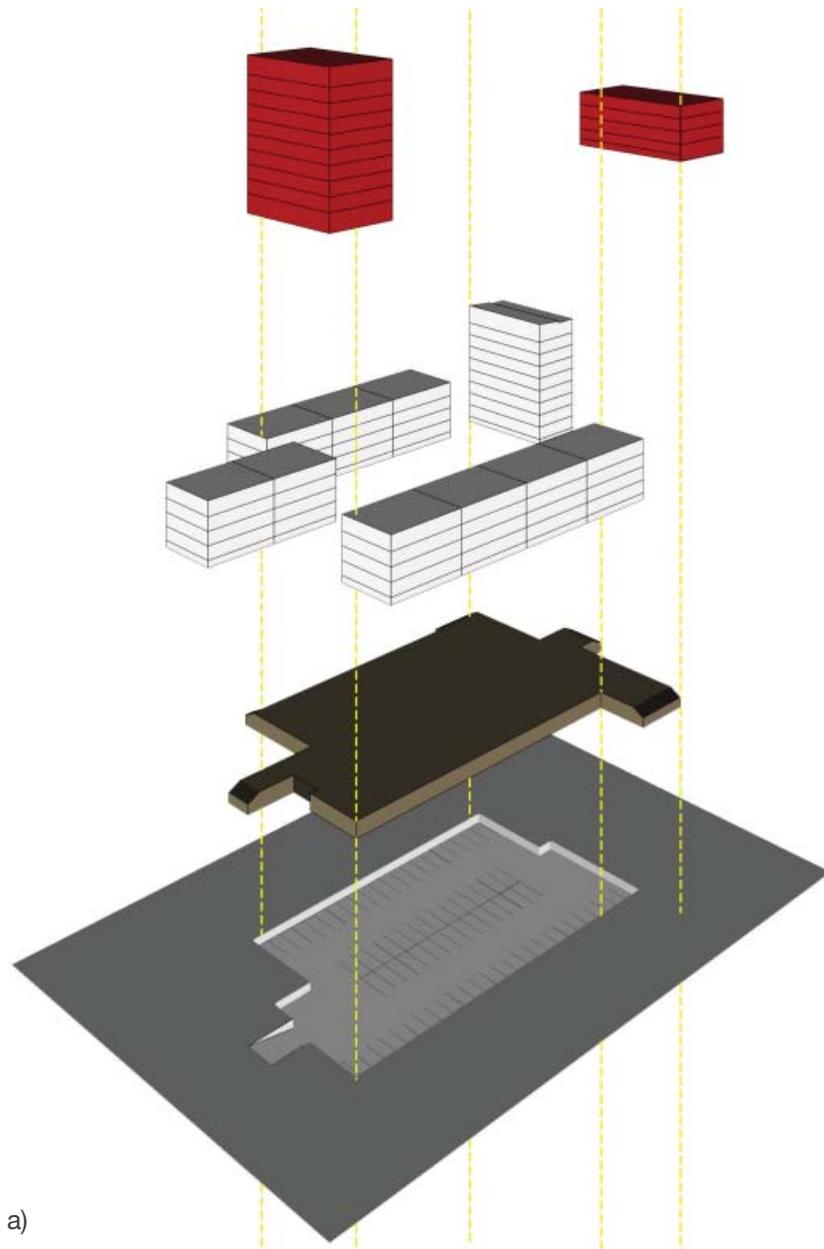
fig. 4.47 Tower Blocks. a) Exploded Axonometric view of block composition, b) Plan of entrance sequence: Block, building, unit.



b)

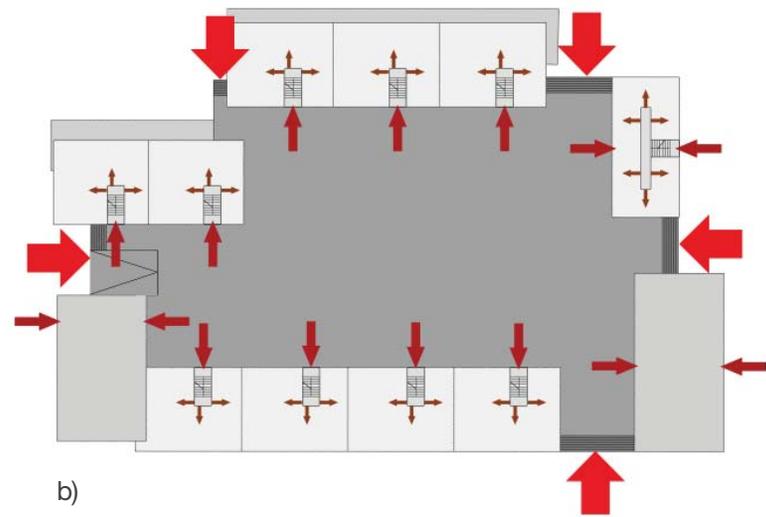
fig. 4.48 Section of Tower Block.





a)

fig. 4.49 Composite Block. a) Exploded Axonometric view of block composition, b) Plan of entrance sequence: Block, building, unit.



b)

fig. 4.50 Section of Composite Block.



fig. 4.51 View of new recreational development zone, skate park.



fig. 4.52 View of new commercial development zone, as it supports new residential blocks.



Endnotes

- 1 Jan Gehl and Jo Koch. *Life between Buildings: Using Public Space*. 4th ed. (Copenhagen: Arkitektens Forlag, 2001), 47.
- 2 Jane Jacobs. *Death and Life of Great American Cities*. (New York: Random House, 1961), 139.
- 3 Ibid, 176.
- 4 Jan Gehl and Jo Koch. *Life between Buildings: Using Public Space*. 4th ed. (Copenhagen: Arkitektens Forlag, 2001), 97.
- 5 Jane Jacobs. *Death and Life of Great American Cities*. (New York: Random House, 1961), 39.
- 6 Jan Gehl and Jo Koch. *Life between Buildings: Using Public Space*. 4th ed. (Copenhagen: Arkitektens Forlag, 2001).
- 7 Ibid, 61.
- 8 Ibid, 33.

CONCLUSION

Having experienced a different historical development to the Western countries, Eastern European estates continue to play a large role in their housing markets. However, they are currently faced with the transition to a market-based system from the previously centrally controlled state-run housing market. As new housing developments create competition, these estates have the potential to become unwanted artefacts. This thesis set out to illustrate that the estates can have the potential to become new and vital neighbourhoods within the city, a necessary action if they are to avoid deterioration and abandonment as the market economy matures. The large capital investment of the existing housing estates makes it unfeasible to consider large-scale demolition as a means for renewal, especially in the context of ongoing housing shortages.

This thesis has presented a critical examination of the unique condition of Eastern European social housing estates in order to establish a model for the regeneration of them so that they can become vital areas within their cities. An example design case was presented, based on the creation of a traditional neighbourhood on the Wierzbno estate in Warsaw.

The evolution of housing estates in Eastern Europe took an opposing trajectory to that of the West as a result of the Soviet occupation post-World War II. The housing estates evolved out of a soviet mandate for city development. It was a matter of uniformity of ownership instead of the social welfare issues of concern in the West. The result of this uniformity left residents out of control over their built environment, or how their cities formed, and created places that lacked community or identity. At present, with the shifting economic conditions and mass privatization of available housing stock, the retention of the estates becomes key to maintaining housing stock for low to mid income residents, as new housing remains financially inaccessible to these income groups.

By the study of a range of social housing projects that have experienced decline and who are currently undergoing renewal, common design concerns became apparent: vast open spaces, separation of functions, isolation from the city, and monotonous building design. The site conditions were as varied as the approaches that were taken for their renewal, ranging from demolition and abandonment of a new housing solution, to phased demolition with a complete reconstruction, to selective demolition with new urban fabric integrated into the existing. In each of the cases, it becomes apparent that for the success of the project, a re-branding of the site needs to be taken so to counter the negative stigma associated with the estate, to encourage new residents to move into the area.

An analysis of the estate of Wierzbno as the site for renewal was explored at various scales of inquiry, in order to establish the foundations for the design by addressing areas that could act as catalysts for renewal. The site's location relative to the new commercial

center and office park, as well as its proximity to the escarpment as a natural landmark, offered important design direction for the proposed urban design.

The synthesis of the concerns of Eastern European estates and the site analysis, proposed a new model for the regeneration. Based on a traditional street system, the existing buildings were integrated with new market-rate housing, creating a new partnership between state and market investment. A set of outlined strategies were presented for the model, such as to connect the site to its surrounding urban fabric, to introduce new programs of retail and office, to occupy the ground plan defining it as public or private space, and to create a differentiation of dwelling types. By using various zones of development, an approach for the implementation of the new plan was taken, bringing focus to key corridors on the site: the new retail Main Street, the new commercial development and the recreational link back to the escarpment. New transport nodes that could offer a further resonance of activity were created to complement the development zones. Sections for the new streetscapes were illustrated, that focused on establishing a legible hierarchy of street priority and usage. The proposal attempts to create a diversity of primary and secondary uses in order to provide mutual support economic support between programs. The new public space of the streets and squares establishes a framework for a community to emerge in order to give character to the new neighbourhood.

The success of the new neighbourhood is based on its integration into the city fabric, so that the estate can function within the framework of the city, no longer acting in isolation. In addition, the legibility of the public, semi-private and private spaces allows residents the use of previously ambiguous spaces and allows for control over the

development of the new semi-private internal block courtyards. Every estate is different, possessing unique architectural and social concerns, and requires various design solutions. Nevertheless, the underlining strategies of the thesis proposal can be used as a starting point for the renewal of other estates. By integrating the estates that compose Warsaw into a continuous fabric, it would provide a greater variety of neighbourhoods with the city, responding to alternate housing ideals of the inhabitants. This differentiation that is essential to establish a successful housing market. In order for these estates to become places that can attract new residents to them, they need to reinvent themselves, a process that requires a radical solution, which effectively disassociates the estate from the negative stigma of its communist past or its undesirable location, etc. It is through the renewal of these estates that a new image for Warsaw can be established.

The focus of the thesis has been the architectural interventions associated with the creation of a new community. The aim for the new neighbourhood was to maintain a large portion of the low-to-mid income housing existing on the site and the project can be understood within the context of subsidized housing working within the framework of the new market housing project. However, the housing policy and issues associated with the necessity and realization of a welfare state are beyond the scope of this thesis. The social and economic implications of a free market would require further study. The result of privatization has been the loss of social rental housing, along with the emerging super owner occupied cities where many residents cannot fully bear the burden of home ownership; there will be a growing concern to create a social housing policy that guarantees a supply of social rental housing within the new free-market society.

Housing remains a key issue in Eastern European cities, as ideals for how people want to live are constantly evolving. Factors such as shifting demographics, new family breakdowns, and immigration along with new cultural influences from the West provide a new paradigm for urban life. The resilience of the traditional urban block lies in its adaptability. Cities are not static, but are places in flux, continually building and unbuilding. In order to remain relevant parts of the cities in which they exist, estates need to grow and change and accommodate for the new trends and ideals for housing, employment and commerce. The estates will remain a large presence within these Eastern European cities, and renewal of these areas must be taken to ensure the growth and vitality of these cities.

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