

# HOW WE REALLY LIVE IN PANEL BLOCKS



RS | Roeleveld-Sikkens Architects

Den Haag / Budapest

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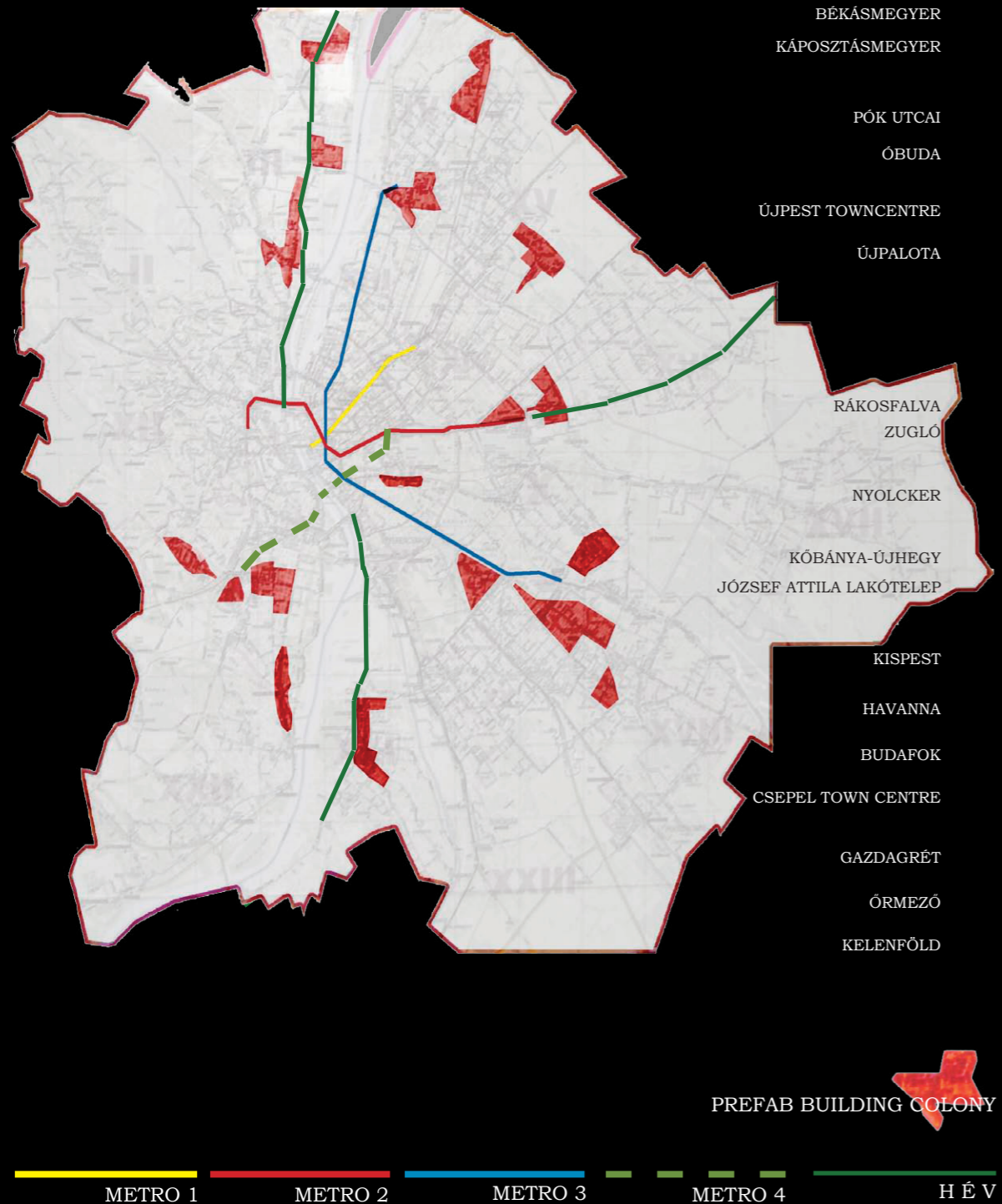
CASE STUDY ON THE CONDITIONS AND POTENTIALS  
OF LARGE HOUSING ESTATES IN BUDAPEST  
- FOR SUSTAINABLE DEVELOPMENT

2006.



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LOCALISATION OF LARGE ESTATE AREAS IN BUDAPEST



I. INTRODUCTION - GENERAL OVERVIEW

Localization - maps

It is already a common place that as much as **one third of the total population** in Budapest lives in prefab panel buildings.

It is though less common to know that against the public opinion the inhabitants of these buildings are in a large scale **content with their homes**.

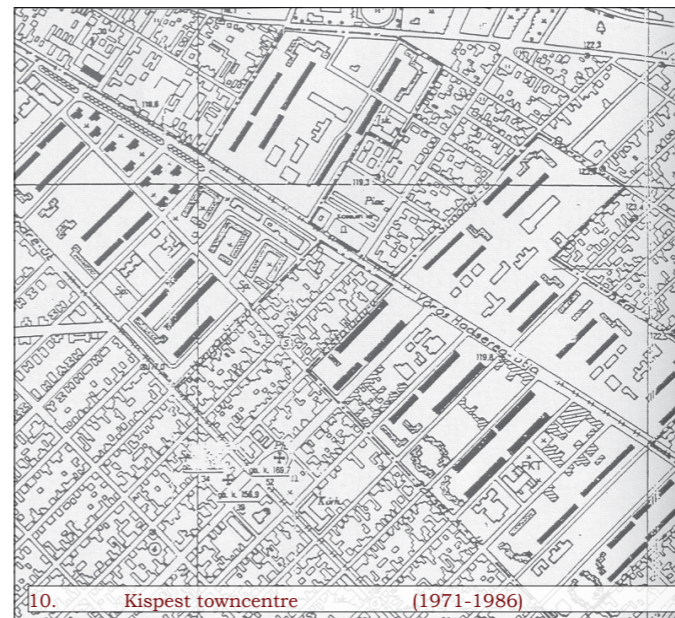
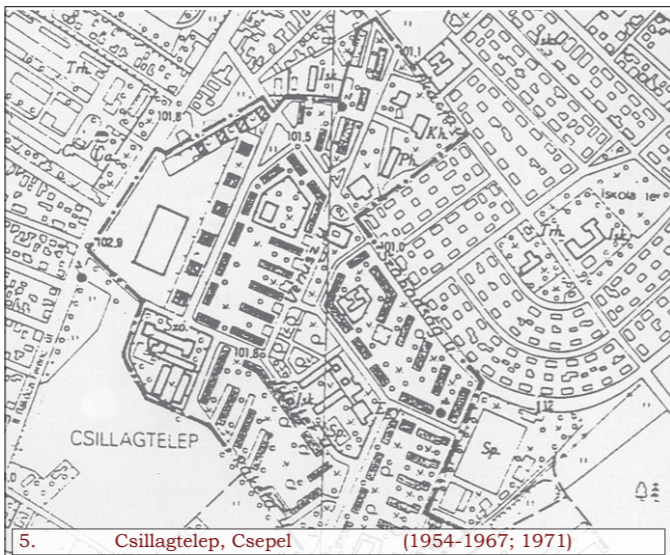
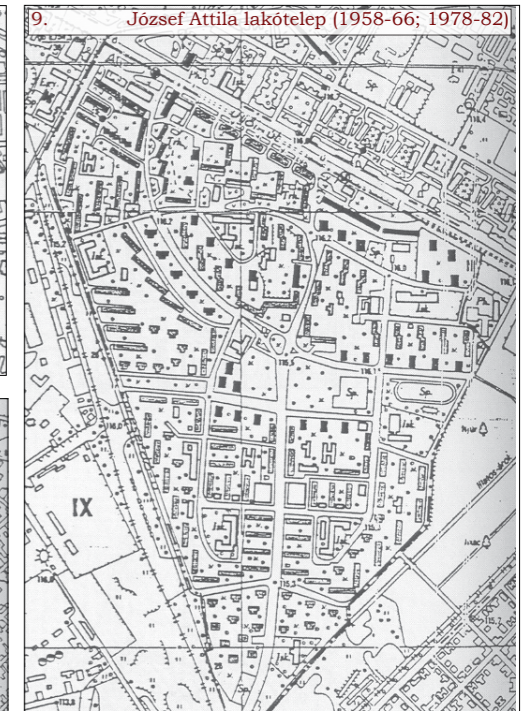
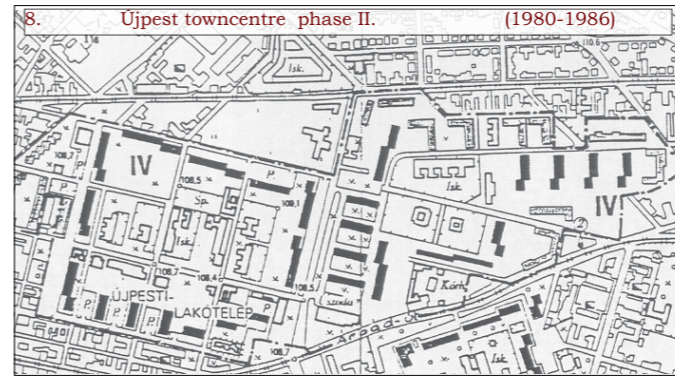
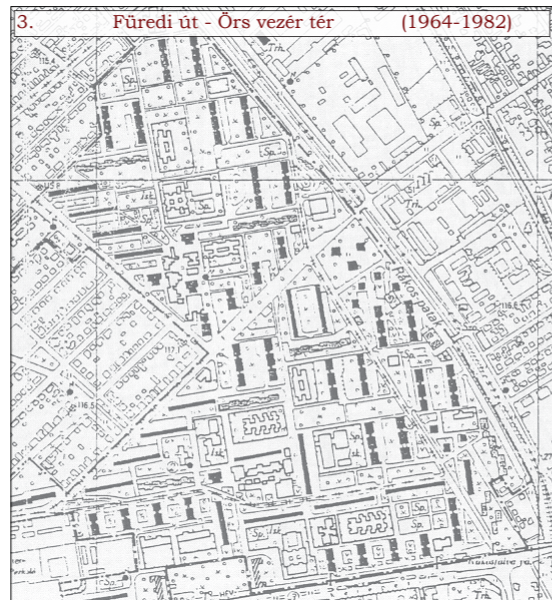
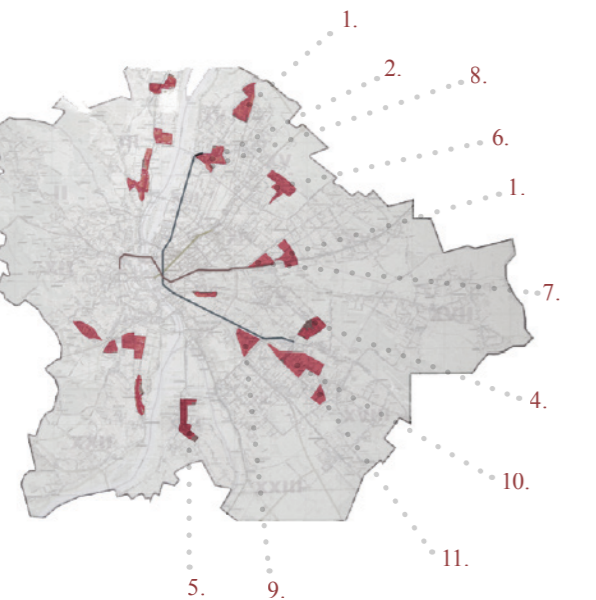
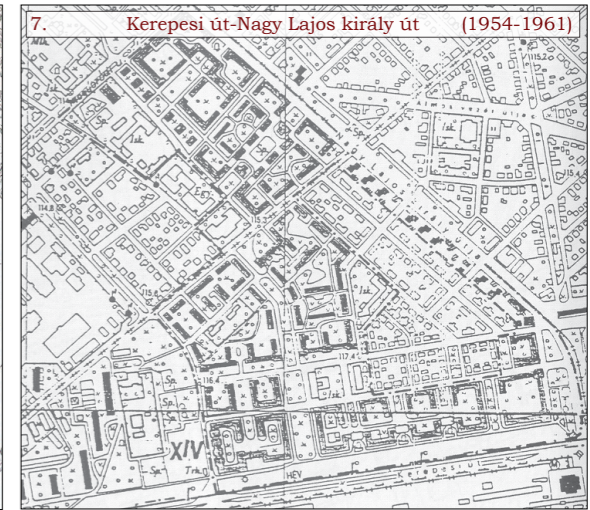
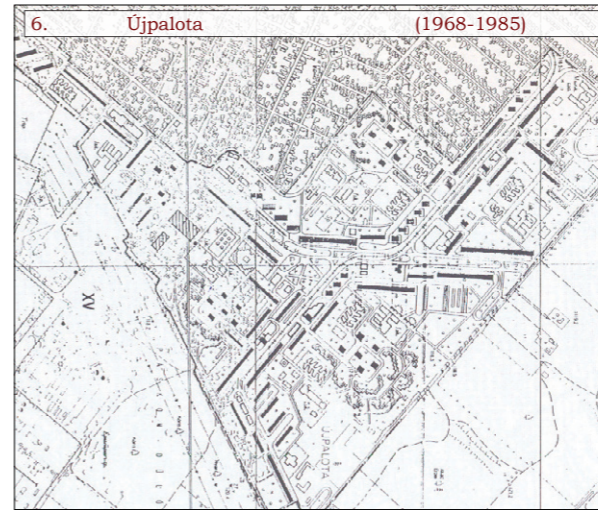
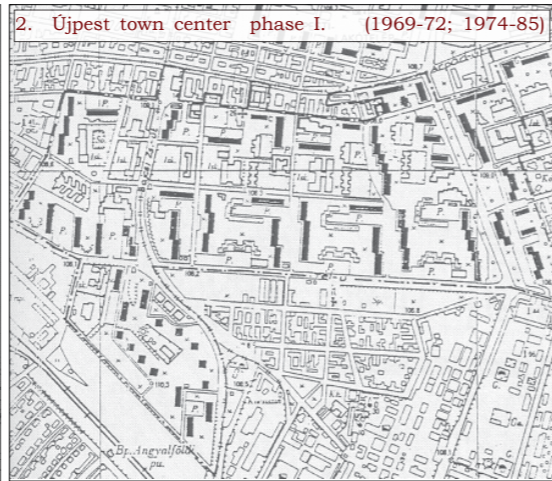
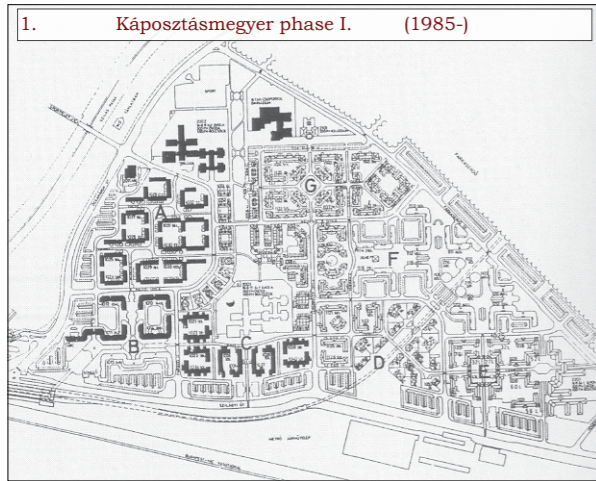
Nevertheless, the proportion of inhabitants does not correspond with the area that the prefab buildings occupy from the total territory of Budapest, which derives from their density.

As a general characteristic it can be mentioned that the prefab buildings were always built up as a **'colony'** meaning both that we rarely see them standing alone but always in groups or as whole districts and that their inhabitants were settled there by governmental decision – thus during this document the name 'colony' will be used for a certain area of prefab buildings that belong together. This is also the expression used nation-wide in Hungary.

Generally, these colonies are settled in the **outer districts** of Budapest, well spread in the municipal boundary and always in good connection with public transport facilities, mainly along the metro or suburban railway (HÉV) lines. This can be explained from the fact that even in the socialist era the economical aspects were highly important, they could only be altered by state aspects and so one would endeavour to reduce the collateral building costs -such as territorial preparation new infrastructure- to the minimum.

Extending the for-mentioned fact, according to localization we can determine three different categories:

- colonies built in the inner city (only 8% belongs here)
- outer districts surrounding the inner city (3 quarter of the prefabs are concerned)
- the rest built up in the further suburbs

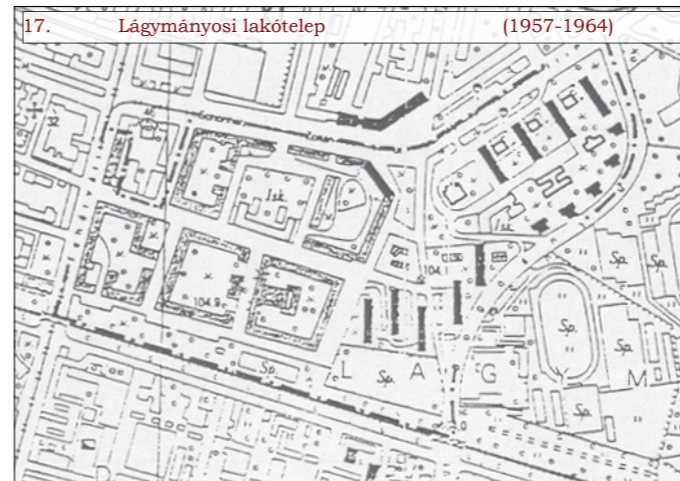




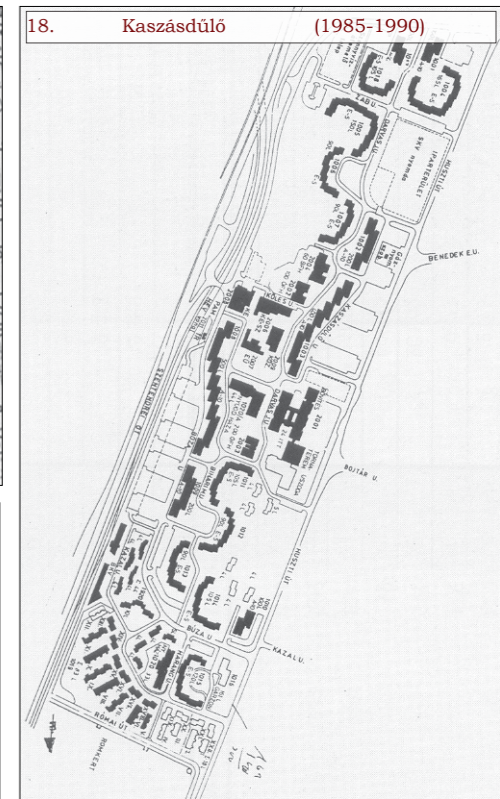
12. Gazdagréti lakótelep (1981-1990)



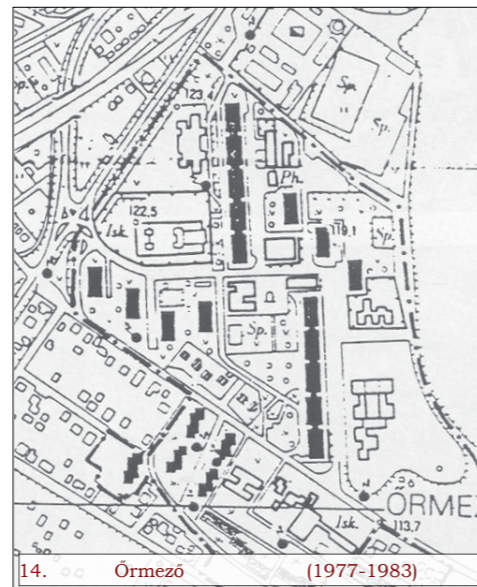
13. Kelenföld lakótelep (1966-1983)



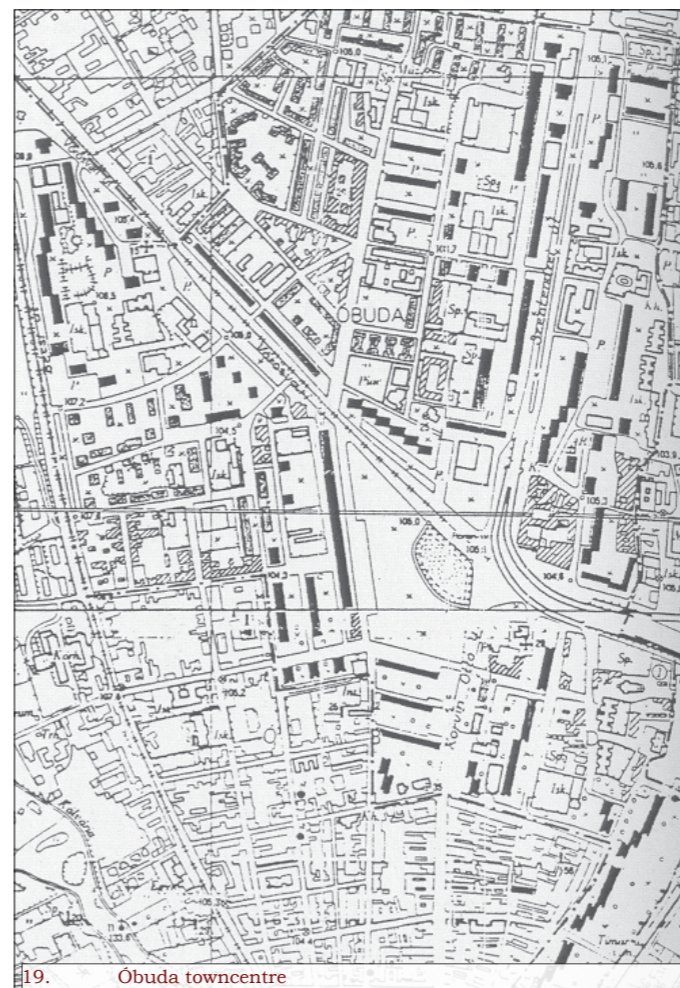
17. Lágymányosi lakótelep (1957-1964)



18. Kaszásdűlő (1985-1990)



14. Órmező (1977-1983)



19. Óbuda towncentre



20. Pök utca lakótelep



15. Békásmegyér phase V-IX. (1972-85)



16. Békásmegyér phase I-IV. (1972-85)



16.

15.

20.

18.

19.

12.

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17.

### Actual situation in numbers

There are **115** so-called colonies in the Hungarian capital altogether.

Table I. Distribution of the population in Budapest (1990)

Zones	Population Nr.	%
1. City Centre	702 955	34.86
2. Industrial Areas	40 925	2.03
<b>3. Prefab Colonies</b>	<b>708 777</b>	<b>35.14</b>
4. Low-rise villas, week-end house	12 708	5.09
5. Family Houses, Garden-City	461 409	22.88
Altogether	2 016 774	100.00

Data source: in 1990, the year after the fall of the socialist regime, a national census was held which is still the most relevant in recent years.

Table II. Alteration in the population growth

Zones	Population Nr.		Change %
	1990	1996	
1. City Centre	702 955	545 114	-22.45
2. Industrial Areas	40 925	54 433	33.01
<b>3. Prefab Colonies</b>	<b>708 777</b>	<b>643 976</b>	<b>-9.14</b>
4. Villas, week-end houses	12 708	137 900	34.26
5. Family Houses, Garden-City	461 409	475 459	3.04
Altogether	2 016 774	1 856 882	-7.93

From Table II. it can clearly be seen that there is a slow reduction in the total population amount and its measure is approximately the same as in the prefab buildings.

### Building typology

As one would think, it is easy to determine a prefab building only by its outlook –a greyish box-shape house with equal windows on each side - but the variety goes much further.

In the late '50s the colonies start to appear as the government's decision to compensate the gap in the real estate market. The first colonies were built with traditional technologies until the mid-sixties when the government decided to import the more effective, reliable and less expensive panel-technology.

It is the year **1966** when the first estate built with industrial technology was completed in Kelenföld.

The typology of colonies thus shows an enormous variety from garden-city-like 3 story-high brick houses to urban high-rise prefabs.

As for the prefab buildings, two specific expressions in Hungarian terminology also exist referring to the shape of the building:

- **the point-block**
- **the ribbon development**

The blocks for edifices built with industrial technology were made in the so-called 'house factories', described in the following chapter.



## II. HISTORICAL BACKGROUND 40 YEARS OF PANEL HOUSING

For understanding both the actual composition of social classes inhabiting the colonies and the position of the edifices in the real estate market, a closer look must be taken on the specific factors that lead to the current situation.

In this chapter the prefab colonies are examined from a historical point of view.

### The State's ideology

Its importance lies in the fact that **in the social era the large estate settlements were to symbolise and manifest everything that the socialism thought of its own dwelling construction methods and policies.**

In brief, towards the public these were: equality among social classes and redistribution.

As an extreme example of this ideology Dunaújváros can be mentioned, an artificially settled town along the Danube, where these large estate settlements became an autonomous city.

During the socialism, the State preserved the demand and supply of the real estate market as his own privilege. As well as on other fields of the economy, the competitive market conditions could not prevail. National Economic Plans were to determine the level of supply in housing, the number and quality of dwellings to be constructed.

According to the announced ideology, the **socialism ensured a home for everyone**; therefore the salaries would not contain the costs of a home building. It was the State's duty to provide housing.



Nevertheless, state dwelling constructions were always exceeded by private construction at an average proportion of 40-60% in favour of the private initiatives. Parallel to the state sector, a private housing market also came to existence. The former meant for dwellings financed and constructed by the State while the latter was characterised by private –mainly family co-operations, named ‘kaláka’– building initiatives, rarely supported financially by State. Consequently two real estate markets would exist next to each other.

Despite its name, in the **private sector** we can neither speak about real market conditions. These houses were only allowed to be built in smaller townships, where obviously no state constructions were found. This market was also limited by the following factors:

- counter march against luxury buildings
- ‘enclosed city’ policy
- principle of “one family = one home”
- strict employment policy
- permanent shortage in construction material in this sector

Due to the hindered private sector and the officially announced policy of the State about redistribution, one used to associate a higher social status to the flats in panel blocks, which image persisted till the end of ‘80s.

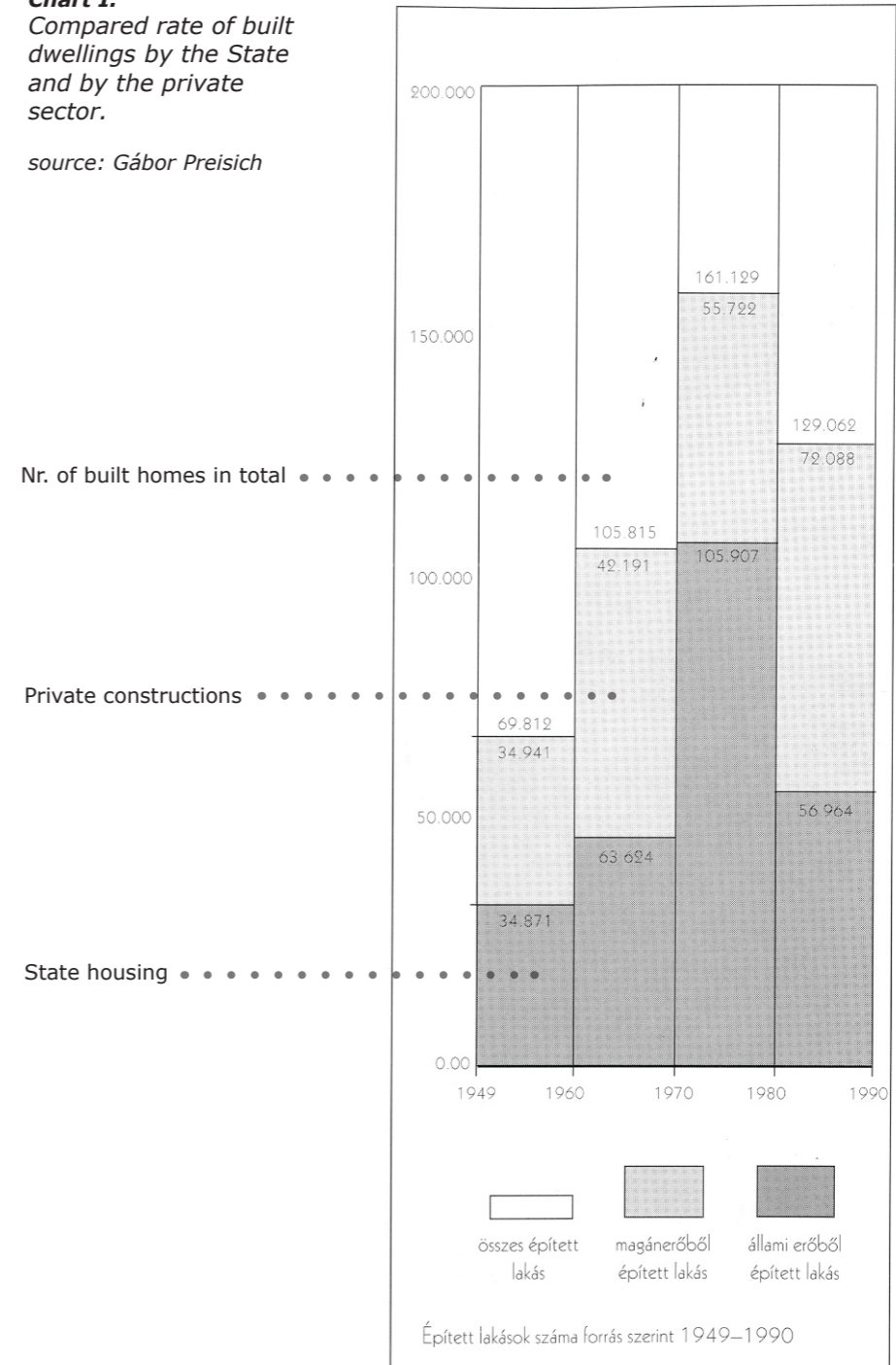
**Table III.**  
Number of dwellings built in the capital and the rate of constructed panel blocks

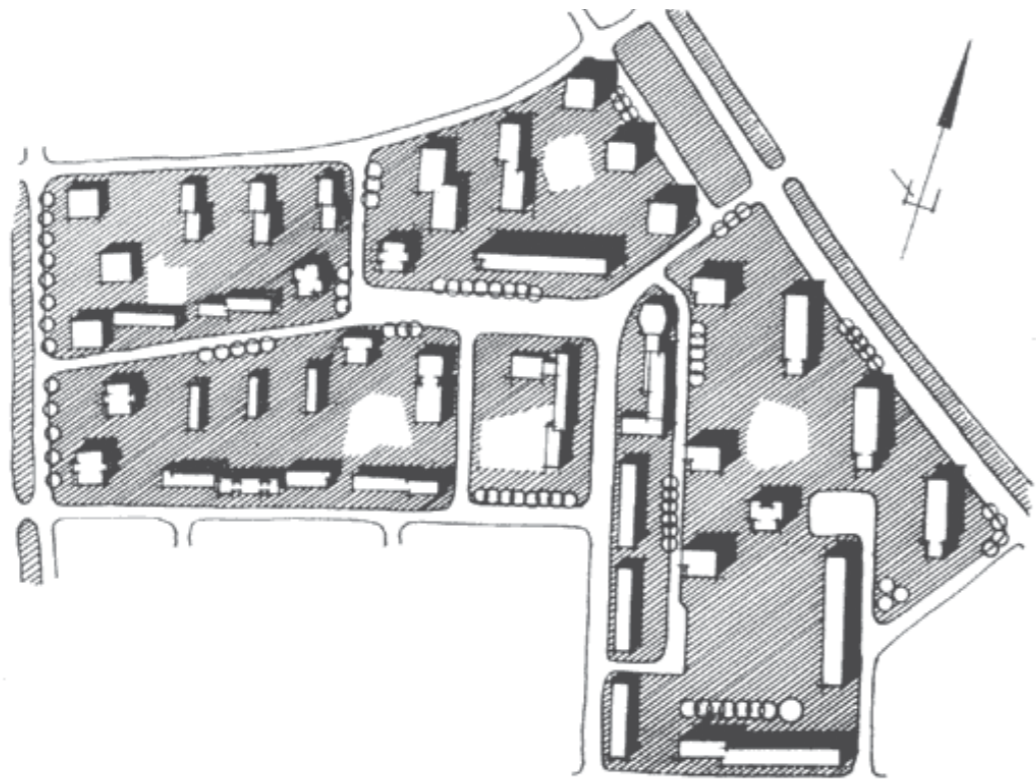
source: Adrienn Csizmady

Decade	Built dwellings		%
	Overall	Panel Blocks	
1949-60	81 483	23 140	28.4
1961-70	109 759	53 474	48.7
<b>1971-80</b>	<b>162 922</b>	<b>127 005</b>	<b>76.1</b>
1981-90	119 129	88 712	74.5
1991-98	27 592	5 919	21.5
Altogether	500 885	298 250	59.54

**Chart I.**  
Compared rate of built dwellings by the State and by the private sector.

source: Gábor Preisich





### “Experimental Panel District” in Óbuda

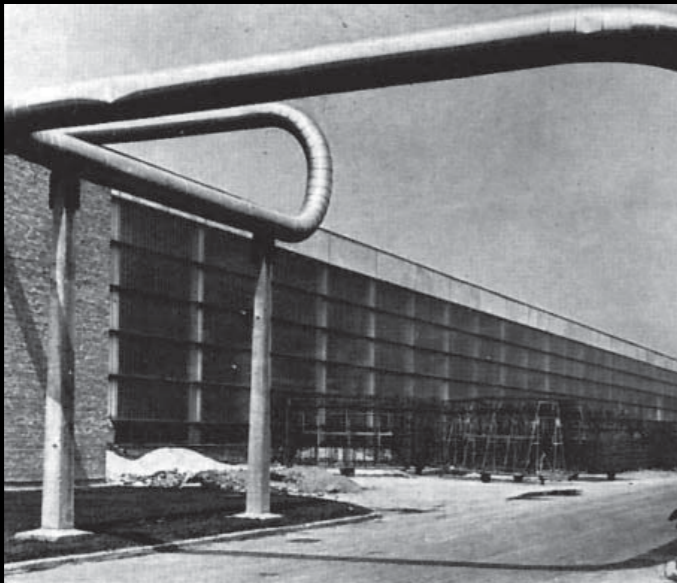
The idea of an experimental panel district originates in a similar project built in Hansa-Viertel, Berlin.

While the German fellow project was meant to be an international exhibition, the Experimental Panel District in Óbuda was concentrating on a national level, namely **to prepare the mass housing of the coming decades.**

The two projects had though one similar aim: to represent the most modern living conditions and flat forms at that time. At the beginning of the sixties, at a predefined site in Óbuda, various building forms and flat types were built, all different from each other and each to define a flat or dwelling type, inserted and combined in vast prefab projects all around Hungary.

The government following the revolution of 1956. envisaged to construct as much as 1million homes within 15 years, of which 250 thousand were to be completed in the following five-year National Economic Plan.





## Panel-factories and type buildings

To accelerate housing development and to industrialize the construction, the government had a strong belief in creating the now notorious "house-factories".

The prefabricated blocks meant for these mainly high-rise buildings were produced in these specialized factories. Almost each county's chief town had such a factory and also a "design-corporation" behind them.

These factories were located (and can still be found in their ruins) in the following Hungarian towns:

- |               |             |
|---------------|-------------|
| - Békéscsaba  | - Miskolc   |
| - Budapest    | - Pécs      |
| - Debrecen    | - Szeged    |
| - Dunaújváros | - Szolnok   |
| - Győr        | - Szekszárd |
| - Kaposvár    | - Veszprém  |
| - Kecskemét   |             |

From the early '70s **type plans** had to be drawn by these large architectural firms, plans that would be used in numerous places all over in Hungary. They were collected into the **Catalogue for Prefab Building Types**.

This results in the fact that any prefab building in Hungary has a type plan in this Catalogue and its floor plans can easily be found only by looking at photos from its façade.

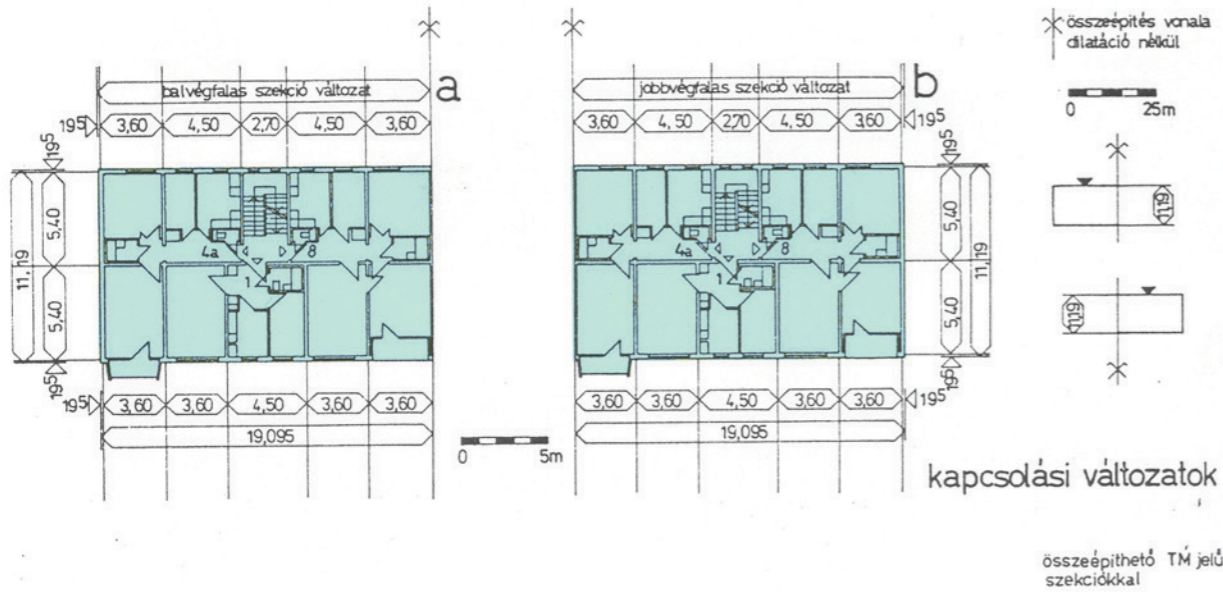
The buildings' outlook is determined by three categories, that have their own varieties:

- number of floors (for living): 5 - 10 - 11
- apartments per floor: 3 - 4 - (4+1) - 6 - 8 - 10
- sections (1 staircase=1 section): 1 - 2 - 3 - 4 - 5

For instance it is known that for a point-block, the most common used combination is:  
11 floors / 6 or 8 apart. per floor / 1 section.

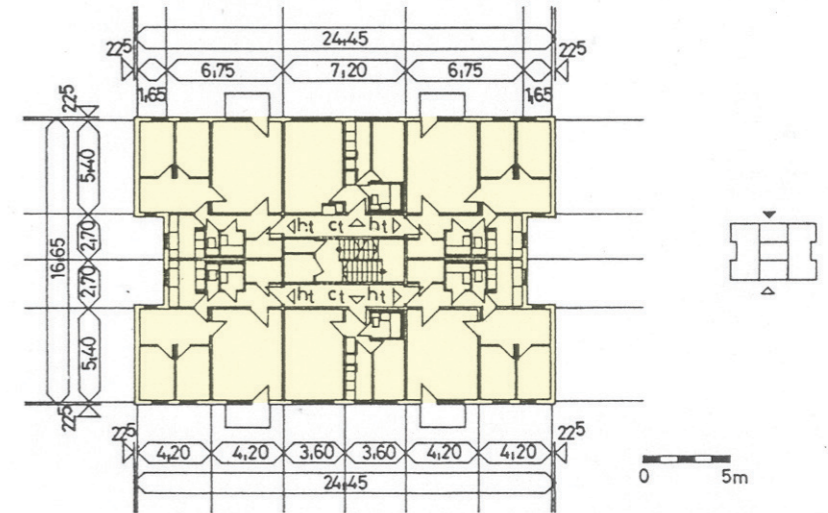
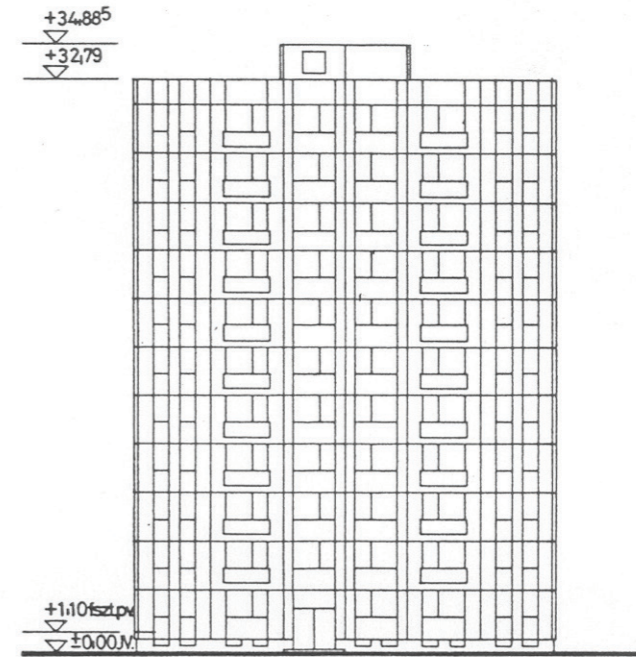
Below are some exemplary types copied from the Catalogue.

MOT II. 58-231/76-K

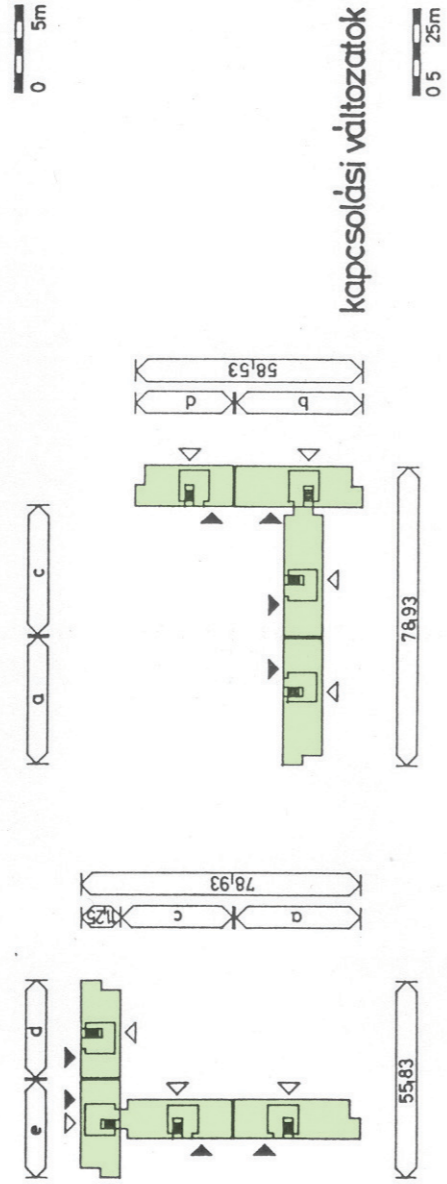
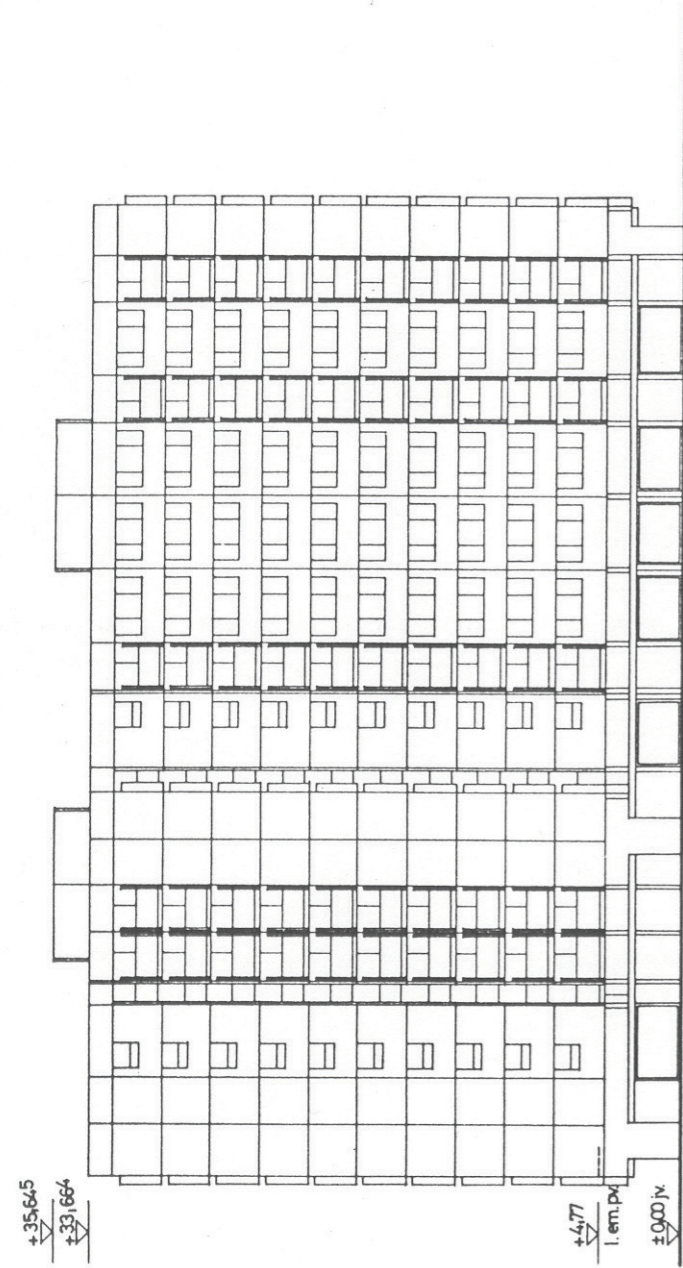


15 flats - average 57.68 m<sup>2</sup>  
5 floors for living - 3 flats per floor

MOT II. 58-231/76-K



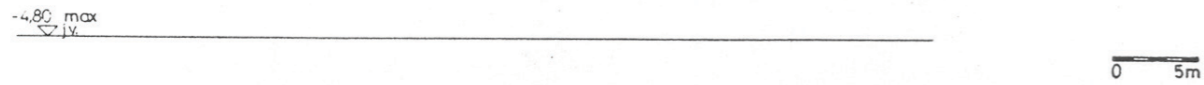
64 flats - average 50.73 m<sup>2</sup>  
11 floors for living - 6 flats per floor  
1 section



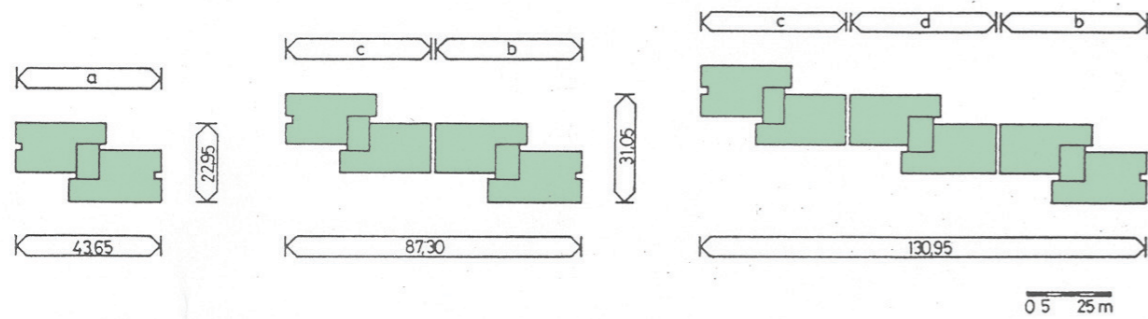
50 flats - average 60.98 m<sup>2</sup>  
 10 floors for living - 4+1 flats per floor  
 2 sections



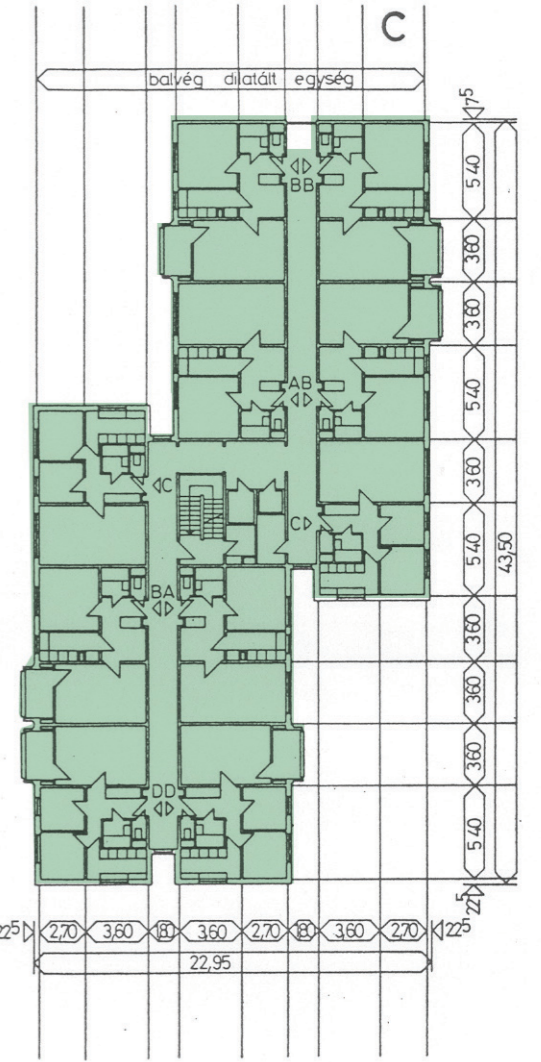
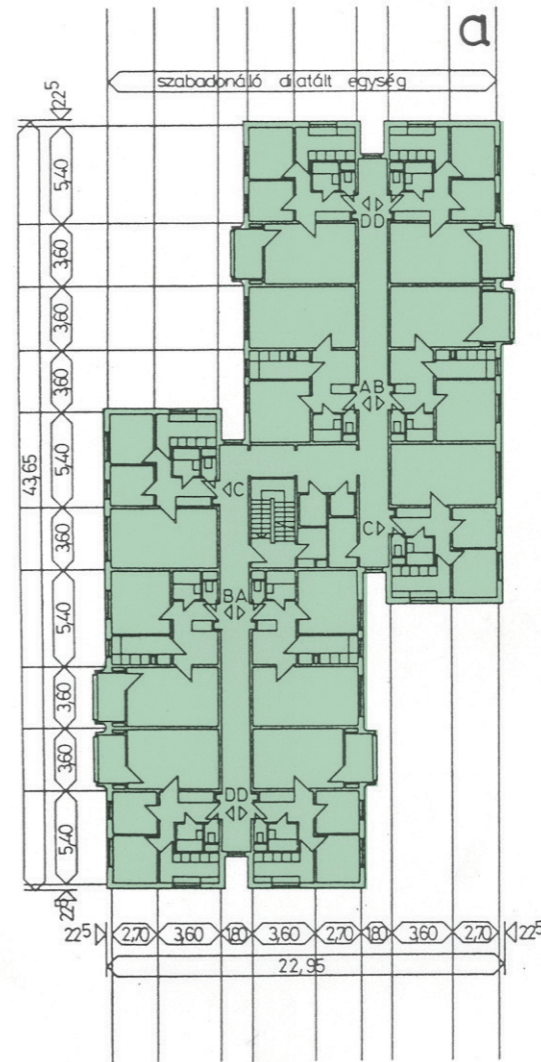
Valamennyi egység tükörfépe is építhető



kapcsolási változatok



100 flats - average 51.62 m<sup>2</sup>  
 10 floors for living - 10 flats per floor  
 1 section





**Gifts' of the socialism  
- Foundation of the present society of panel colonies -**

When the boom of the panel-block construction began in the early '70s, the housing shortage and the low comfort of old buildings –a legacy of the II World War's destruction- could still be perceived. On the other hand, the increase of population at the end of the '60s (a growth of 30 thousand person/year) also put pressure on the State. Consequently, the state's housing program was welcomed throughout the country.

In the name of equality the socialist regime aimed to provide flats for anyone in need. The massive construction was preceded by careful planning, i.e. elaboration of type-plans by means of new standards for living and designing modern furniture. On the outcome a 'modern' flat was born that represented a high rate of comfort at that time – therefore it somehow symbolized honour to possess a flat in a prefabricated high-rise building. Counting into consideration as well that the salaries did not contain the costs that a private house-construction would have required, it can be declared that obtaining such a flat was a *gift* from the State.

**The State's starting point at the distribution was:**

- **the need for new housing (large families, lower income)**
- **position of the employee, i.e. in consideration of his services**

Mainly because of the earlier mentioned qualities in comfort, it was rather the second criteria that prevailed in the distribution of the flats and so was not as equal as announced but a little bit shifted to the intellectual class.

Although only true for the '70s, this has founded the large variety of walks of life inhabiting the panel blocks even nowadays.

Afterwards an alteration in the policy can be observed, and one colony was aimed **for one certain class**. For instance we know that Békásmegyér was built especially for large families, Újpalota at first for those who were dislodged from the inner city. As an aftermath the social status of these colonies are lower and these are the ones that are mainly exposed to risk not only physical but also social deterioration.

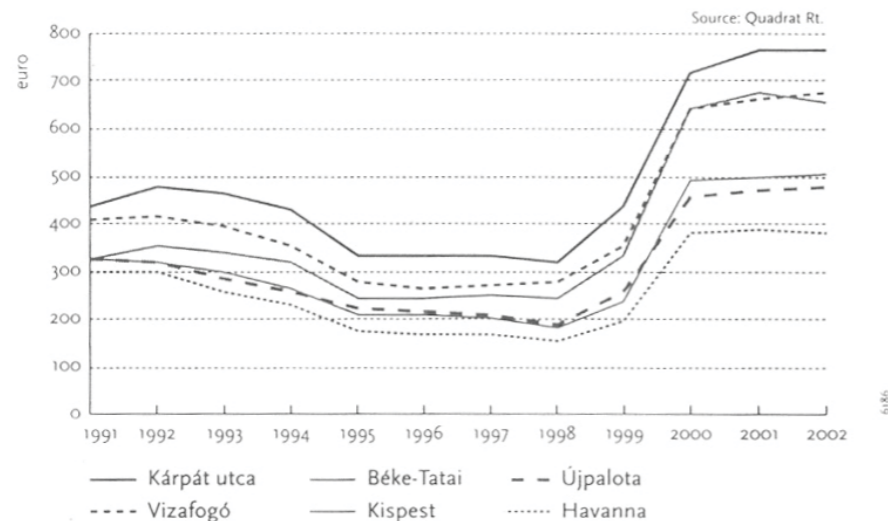
## Importance of 1989.

### CHANGES IN THE REAL ESTATE MARKET

Best described by the following chart can we draw conclusions about the changes generated by 1989.

The image of Havana for instance, is reflected in the housing prices. Its reason is rooted in the bad reputation of the estate (after the classes of society that was moved there in the '70s and the very low public safety –though improved nowadays- it was told to be a true 'ghetto' few years ago).

Prices here are influenced not only by objective facts such as the condition of the buildings and public spaces and the distance from the city centre; marketing and historic prejudice also has a part to play.



### MIGRATION WITHIN THE CITY AND IN THE COLONIES

Due to the aspects mentioned above, a slow but perceptible migration began in the mid '90s and is still going on nowadays.

These aspects are aftermaths of social tendencies that seem to be valid in other Central and Eastern European (CEE) countries as well and it is important to elucidate them so that the deterioration of the colonies can be prevented.

The summarized aspects that have been indicating migration from 1989 on are as follows:

- widening of the real estate market / increasing construction of so-called living-parks financed by private investors
- growth of income in the upper middle-class that allows moving from the prefab buildings
- lack of building maintenance
- high general expenses on heating, electricity
- permanently decreasing judgement on the overall image of a panel colony
- general migration towards the agglomeration.

Though urban experts perceive the migration, we cannot speak of desertion of entire blocks as it happened in Eastern Germany. As the degree of saturation of these buildings is still high, this movement can rather be named to **'change of social classes'**.

Nevertheless, if the image of the colonies and the installation of poorer classes would persist, the social status of the panel blocks would be a strong reason for concern and will likely to bear the same character as their occidental counterparts.



### III. PROBLEMS, ISSUES IN DETAILS

#### Physical environment: buildings

Generally, when one speaks about the rehabilitation of prefabricated buildings, he means the renovation of the physical conditions; let it be either a simple inhabitant or a government aid program.

It is true that one's living quality is mainly determined by the conditions of the building he lives in.

Below are some details to show an overview about the importance of renovation.

#### ESTIMATION OF LIFE EXPECTANCY

Despite common belief that thought the prefabricated buildings to last no more than 30 years after their completion, these buildings are now estimated for a life expectancy of **100 years**, which is basically meant for the reinforced concrete structure.

From a static point of view, these estates built with industrial technologies are stable, reliable structures. Therefore, the renovation process is not meant for stability maintenance but for technical components.

The actual condition issues rather arise from the technical side: the technical systems stand for a life expectancy of **30 years**. Regarding that the first buildings were built in the late 60's the sudden growth of repairing problems can easily be understood.

Pipes and insulation are the most repeatedly mentioned problems and also their renovation is supported financially in the government habitation aid programs of the recent years.

The main reasons for this phenomena originates at the quality of the construction:

- imperfection of the technology
- bad quality of building materials
- unskilled labour





POST-INSULATION TENDENCIES  
when the lack of governmental subsidies and the nature force the occupants to act on their own...



At the joint of the panels the material of the weather strips shrank and created ways for the cold to infiltrate.

In the mid '90s when there was no nation-wide program for panel rehabilitation but when the problem started to arise, the occupants themselves with the help of industrial alpinists tried to solve the problem, creating weird facades with accidentally appearing post-insulation.

This all resulted in the fact that buildings had disadvantages even at the transfer of the buildings.

### THE INEVITABLE RENOVATIONS

The modernization of the following technical components is unavoidable (list in order of importance):

1. solution for a more economic heating system
2. change of insulation
3. change of the complete window - system
4. outmoded electrical net, necessary renovation of elevators

As late as the mid-nineties, there were only a few number of apartments to be in need for a complete renovation. At the millennium, however, the number of flats requiring partial renovation was as high as 18 thousand. According to the following estimation for the future, hundreds of thousand of flats could become uninhabitable, which shows that the renovation cannot be delayed anymore.

*Number of flats waiting to be renovated till 2020 (counting with 30 years of renovation cycles)*

	Budapest	Country	Overall
1991-1995	1 850	746	2 596
1996-2000	15 956	15 139	31 095
2001-2005	41 324	70 779	112 103
2006-2010	52 023	101 106	153 129
2011-2015	51 441	78 534	129 975
2016-2020	28 627	50 345	78 972
Altogether	<b>191 221</b>	<b>316 649</b>	<b>507 870</b>

## Social overview and tendencies

### VARIOUS CLASSES OF SOCIETY INHABITING THE 'COLONIES'

As mentioned earlier, large housing estates in Hungary accommodate a significant part of the country's population. "Although their status is rather low in today's housing market, they represented a relative high standard when they were built. They also eased the chronic shortage of flats after WWII. They were built between the early 1960s and the end of the 80s, with most units constructed in the 70s. With the passing of time not only their size changed but also their population went through a considerable metamorphosis. Whereas in the 1960s generally smaller estates were built with a high status population residing there, estates constructed in the 70s were usually bigger and had a less affluent and lower status population. In the 1980s people who could afford it either did not move into large housing estates or considered it a temporary solution.

...

The mass-scale privatisation in the early 1990s mostly strengthened the original character of the estates. The variance that had existed before was amplified; some estates have emerged as rather prestigious areas while others have slid downwards. Despite the worsening conditions and the scarce national help, housing estates still do not represent the lowest segment of the housing market: their maintenance costs are high – the units are heated by district heating being one of the costliest in Hungary – which keeps the poorest families away."<sup>(e)</sup>



## Surrounding environment

From an urban point of view, the surroundings of the panel blocks, i.e. the public spaces, roads, parking places and public buildings show a large variety in qualities and potentials.

Generally speaking it can be declared that even nowadays the conscious forming or renewal of these public spaces is an unfairly neglected topic in panel rehabilitation in Hungary whereas the image of a colony –for a stranger at least– is largely determined by the outlook or the use of these spaces.

This way of thinking that the surrounding determines the living conditions of the individual is completely missing when deciding about subsidies. There is not one authority that would focus on this problem, nor a governmental program inspiring such ideas, though it would be their responsibility.

### ADVANTAGES

Today, in the days of massive construction of “living parks” one tends to forget about the advantages of the prefab colonies regarding the forming of its public spaces. Despite being high-rise buildings with high density of inhabitants, a few decades ago the planners did care about the surroundings compared to the construction methods of the past few years. These advantages briefly are:

- large open-air spaces among the blocks (either as greenery or parking)
- trees that grown up during the past 10-40 years
- playground for children (though in bad conditions)
- well-dispersed public functions, such as kindergartens, schools, healthcare centres, shops and sometimes even “houses for culture” (albeit with a debatable architectural forming)

Speaking about housing policies nowadays, officials tend to refer proudly to the progress of private housing constructions and investments, and these new flats are also supported by governmental programs targeting young couples who are establishing their first home.



Nonetheless, these **new residential dwellings**, especially those in the downtown area do not offer better living circumstances than the colonies (except for the technical solutions), as they can be all characterized by:

- tiny apartments of 1 or 1.5 rooms (around 30-40m<sup>2</sup>)
- high-rise buildings, sometimes reaching the limit 30m – but in the same urban structure as before, which results in dark courtyards and too close neighbours on the opposite side;
- while in the prefab colonies the average number of flats vary from 15-50-64-100, at these new constructions it is not rare to find housing complexes with over 200 flats;
- the high density of flats is never accompanied with the same amount of greenery as at the prefab colonies nor large open-air spaces for compensation;
- though the technical solutions are now in a good condition but their distribution or their quality is disputable also that in what condition they will be in the next few decades. Besides, window-less kitchens are built in a higher amount than they were in the prefab buildings.

Due to the above-mentioned characteristics it would be a mistake to neglect the advantages of the prefab colonies in favour of the new investments, when by **rehabilitating the surrounding environment of panel-blocks, a pleasant and safe image can be formed** to change the fame of the colonies.





**THE GREEN POTENTIAL**



The amount of greenery is significantly higher in panel colonies than in any other urban territories, not to mention that besides such a density of population. Although the components for a pleasant residential area are usually given, these public spaces are not maintained nor developed by a higher authority. Inviting landscape designers and urban planners for revitalisation could help reconsidering these open-air spaces as real recreation areas, parks or urban gardens.



well-lit facades overlooking on greenery

grown up trees

playgrounds usually in neglected conditions

large open-air spaces





Panel "villages" in Cluj Napoca, Romania



Shrinking cities - Germany



Social problems - les banlieues de Paris

#### IV. BASIC DIFFERENCES ON SOCIAL ISSUES BETWEEN WESTERN COUNTRIES AND HUNGARY IN LARGE ESTATE AREAS

##### Ideology behind the power – aimed classes of society

##### I.

To understand and treat well -both architecturally and from an urban point of view- the evolved situation around the panel blocks, it is essential to examine not only technical issues but also the current social composition and the social tendencies in the background.

Even the architects tend to pass over the **social aspects** of these colonies and they only care about the physical environment: the outlook, the reliability of the insulation or the humanity of the surrounding. These are substantial values but it would be a mistake to forget about the inhabitants themselves, i.e. the social characteristics.

During the socialism, the prefab building construction was **the only form of state housing**. The private market was hindered and there were no other possibilities for building. To obtain the money for the 'panel-block' investments meant for the municipalities to be able to develop or expand their cities. In a way, the prefab colonies were not only habitations but also they were at the same time the main streams of urban development and the colonies gradually became integral parts of the modern city.

It was on the other hand not only pure housing but as well an **infrastructural investment**, for with this vast number of new dwellings it was unavoidable to construct primary schools, kindergartens, food shops/supermarkets and surgeries.

To illustrate that between building panel blocks and city development once had been an equal mark, we only have to look at the centres of Békéscsaba, Veszprém, Szolnok, Zalaegerszeg or as close as the town-centre of Csepel where the heart of the city is composed of prefab buildings.

One of the reasons in the background was that in the era of 'controlled economy' the available financial sources were entirely devoted to set up districts of new, fully comforted prefab buildings and not to rehabilitate old city centres nor to support private housing.

## II.

Therefore one of the most significant characteristics that discern the Hungarian panel-block housing from its Western counterpart is that it

**was NOT meant to be a social housing project,** aimed to help the poorer classes of society but theoretically for *everyone*.

In Hungary, the prefab colonies had been and still are home for a **population of highly varied walks of life**, which is due to a governmental policy for population settlement. This originates in two principles of the State at that time:

- social redistribution
- the prefab colonies were believed to be the solution for the social problems of socialist cities.

That is why we can find for instance a professor living in the close neighbourhood of a plumber. To show the rate of mixed society lets have a look on the following chart.

Zones	Academic qualification %	Physical workers %
1. City Centre	21.6	47.7
2. Industrial Areas	7.8	76.4
<b>3. Prefab Colonies</b>	<b>17.4</b>	<b>50.7</b>
4. Low-rise villas, week-end house	41.6	27.3
5. Family Houses, Garden-City	13.2	57.3
Altogether	19.1	50.7

## Social segregation at the end of 20th century

Owing to this social redistribution, no ghettos or districts of the poor evolved in these prefab colonies – but neither had they developed into districts of high social status. Basically they are estimated to be on **middle-level** both in social judgement and on the real estate market.

Nevertheless, the year 1989 with the fall of the social regime brought in factors that changed housing policies, fragmented the once homogeneous society and the first signs of amortization of the buildings appeared as well.

Presumable reasons:

- there was money to raise the buildings but no one thought to take care of them that withdrew an unavoidable physical amortization
- new, more convenient forms of dwellings emerged in the real estate market that drew away the richer classes or prevented wealthier young couples to move in to prefab flats;
- a sudden change in the State's housing policy

### WESTERN EUROPE

From the mid '80s decline of the social status of the inhabitants in the suburb districts can be perceived. These districts as areas of social housing (e.g. in Paris) were a melting pot for all kinds of nations but generally poor classes. *Slum* in these suburbs means an equal problem as those in the downtowns.

Due to migration and the actual problem of *shrinking cities*, whole districts of panel blocks become abandoned, and stand empty, as for instance in East Germany or in the Netherlands.

### HUNGARY

In Hungary none of the above mentioned tendencies came to being. The mixed social classes inhabiting the panel colonies prevented the rise of ghettos; and although the number of inhabitants in Budapest are decreasing year by year, the demand for flats are still high and there are no abandoned high-rise dwellings nor complete deserted housing areas.

## CONCLUSION

Mainly due to the differences in political aims that created the panel blocks in the second half of the 20<sup>th</sup> century, the composition of social classes - and so the reputation and real-estate value of the large estate areas - are quite unlike regarding the occidental social housing and the Hungarian panel colonies.

Thus it should be enhanced that **complete adoption of Western models would not be correct** as the political and social contexts at the time of construction were and still are fairly different.

The experiences of solution methods worked out for "die Plattenbau" in Eastern-Germany or for "les HLM" in France are of course sought to be considered but before importing them, a careful analysis and comparison over the actual situation and the future impact of such solutions must be studied.

On the other hand, it is to be considered as well that these buildings used to represent dwellings once built at the highest comfort rate and even nowadays they can still be a good choice for less wealthy but larger families who need a middle-size but well separated flat.

The revitalisation is though inevitable, as there are still a large number of the population who simply cannot afford to move from their current panel-block home or for young couples who cannot build their first houses and for who the price of a flat in a prefab building is still affordable.

## Differences in ownership and their aftermath

The solutions introduced in Western Europe could have been more easily achieved or to be experimented for the majority of the properties are still owned by the Government, since they were meant to be social housing.

After construction, apartments could be obtained through various channels in the housing estates. Some belonged to the local councils and were allocated by them based on a set of criteria, almost without any expenses. More costly were the units in buildings constructed by the National Savings Bank (OTP) or a housing cooperative. As these were condominiums or cooperatives, after an initial down payment a long-term loan had to be repaid. Finally, there were apartments that belonged to various state organisations - like the army or the police - and were assigned by them. Thus the social composition of an estate could differ greatly depending on the ratio of council and state organisation owned apartments and condominiums. Better housing estates usually had a high share of condominiums.

The political changes in 1989 in Eastern Europe created a completely different ownership, which now hinders or slows down any of the introduced programs.

"As a result of a rushed **large-scale privatisation** of the housing sector, private ownership rates of CEE countries (sometimes as high as 80-90%) are among the highest in Europe.

Due to the economic and social crisis, and further aggravated by the lack of governmental regulation, the necessary repair and maintenance work remained undone [or can only be reached by a narrow range of occupants -*author's note*].

As there were no clear cut responsibilities for management and maintenance set at the time of privatization, many areas of the residential environment (especially common spaces such as staircases, basement rooms, roofs, surrounding open areas) are now deteriorating and no-one has the legal responsibility for repairing the damaged elements." <sup>(d)</sup>



## MANAGEMENT OF MULTI-APARTMENT BUILDINGS

In Hungary, the rate of privatisation for flats in housing estates are significantly high compared to similar dwelling types all around Europe.

Most of the estate buildings were constructed by the state – however cooperatives and condominiums already appeared in the 1970s – and these state owned units were transferred to the local municipalities in 1990. The vast majority of them were privatised to the sitting tenant with a huge discount.

Current situation:

<i>Ownership in Large Housing Estates</i>	Private	Municipal	Cooperatives
	<b>94 %</b>	<b>4.8 %</b>	<b>1.2 %</b>

The management structure of the estate buildings is diversified. Each building has the right to choose any kind of property manager. The formal municipal buildings were managed by the municipally owned property management companies in the beginning of the 1990s but after a while most of them switched to private managers. Nowadays professional private property managers manage most of the condominiums – or the manager may be someone from the owners – while the cooperative buildings are managed by the cooperatives themselves.

In Hungarian terms, these property managers are called “**common-representatives**” meaning that for each building their duty mainly is to manage the public issues of the edifice and to handle applications for governmental subsidies on the behalf of the occupants.

The major disadvantage of this system can be revealed when it slows down all procedures in rehabilitation: for the majority of the inhabitants (few years ago 100%) have to agree upon the actual proposition.

As another difficulty can be mentioned the negligence or rather indifference of the tenants when speaking about acts for the close environment of their homes. In several buildings there is no well-defined common goal and the lack of will for cooperation among the residents makes the situation even worse.

## FINANCIAL SCHEMES

**Subsidies** for rehabilitation of panel blocks (see in chapter 5.a) have started to appear in recent years, though leaving the majority of the financing to the costs to the owners.

The financial status of the panel-blocks is mostly weak but generally not significantly weaker than other estate buildings e.g. in the downtown. They could not accumulate reserves from the past as were sold to the owners without common financial means and assets – e.g. the commercial spaces in the estates were basically kept in municipal ownership.

Nonetheless, the financial burden of the rehabilitation is too heavy for most of the owners. The only solution is to share the costs among as many actors as possible. That is why the state subsidy – that now provides one-third of the energy saving rehabilitation – may have some success.

Budapest is in a special case due to its **two-tiered government system**: it evolves 23 district municipalities and the capital city. The capital city has a rehabilitation fund to support the renovation of privatised buildings and cooperatives – mostly in the downtown area but also in some panel-block building. If combined with the grant received from the district’s municipality, estate buildings are able to receive up to 60 % of the renovation costs in subsidies (but again it is meant for physical renovation).

## V. SOLUTIONS AIMED AT PANEL REHABILITATION

### Existing governmental programs

1995.

In order to renovate the 'prefab-colonies' the Government announced a program and for the sake of the fulfilment he also applied for **German credits**. This is an ongoing project, still valid these days, though barely successful.

The sources differ both on the amount the Government drew from German credits (from 3 to 4 billion HUF /i.e. from 11.4 up to 15.1 million EUR) and on its results: one says it was pointless as the flats were not creditworthy, the other mentions that the first results can already be seen.

The aim, however, was to finance the renovation of as much as **5000 dwellings** (1% of the total amount of buildings to renew). It is not the State who loans the credit but he assumes two thirds of the principal repayment rate and 10% of the interest burden is to be paid by the owners.

[Mainly social and economical reasons are lying behind that:

1. according to the previous law, 100% of the inhabitants' agreement was needed
2. the average renovation costs per flat were around 1-1.5 million HUF / 3.8-5.7 thousand EUR that the inhabitants with less income could not afford to pay.]

2001.

In February 2001. the actual government in the frame of '**Plan Széchenyi**' launched a support program "for the eco-friendly modernization and renovation of estates built with industrial technology". The municipalities would compete for grants (non-refundable financial support from the state). The state would take upon him one-third of the investment's costs, the rest to be paid by the municipality and by the community of the inhabitants.

Until the elections (mid-2002) **6256 flats** received financial support, which equals a sum of 605.1million HUF / 2.3 million EUR, for insulation works principally.

2003.

The National Dwelling Program, started in 2003, contains more promising steps in connection with prefab building-renovations. The total amount of budget for 15 years is 1500-2000 billion HUF / 5 681-7 568 million EUR, which is to be financed from state, municipal and inhabitants' own sources. At the beginning, it was planned to renovate 60 thousand flats per year from 2006 on. The project renamed now is called: **Panel Plus Program**.

Citation from the official website of the National Office for Housing and Building (March 2006.):

*" The Government lead by Gyurcsány has supported the renovation of flats in prefab buildings with an amount of 16.4 billion HUF / 62.1 million EUR, which contributed to more than 87 thousand dwelling renovations and as such to the amelioration of living circumstances for 250 thousand people. The panel program started in 2001. has so far helped to modernize 400 thousand people's home. Our aim is that by the end of 2013. 80% of the overall large estate settlements in Hungary would be renewed.*

*The Panel Plus Program helps the communities to join the project. The credit can be taken out for 20 years and without the inhabitants' own resources so that the renovation could start the soonest possible."*

## Urban theories – proposals for a realizable solution

Besides the detailed analysis, the other goal of the present study is to offer solution schemes that can be implemented on the described prefab colonies.

When working out these methods, our principals were:

- respecting the colonies as existing residential areas that shall be preserved;
- keep in view the special characteristics of Hungarian panel-block buildings, especially when selecting or applying occidental solution schemes;
- to keep and enhance the existing advantages and to try to improve the deficiencies.

The result can be described in three different categories, each independent on its own but forming a coherent solution altogether. Depending on various aspects as financial sources, co-operation of the actual government or contribution of the inhabitants, different combinations of the three categories can be applied.

It is important to emphasize that each of the proposals is meant for the scale of one colony, not for one building nor the colonies in general of one city.

### SITE-SPECIFIC RESEARCH

*see scheme Nr.I.*

The substance of this scheme is that before any solutions are implemented on a prefab colony, a site-specific research should be elaborated.

This could be done with the help of sociologists and urban planners, who would examine the following components characterising each colony:

### \_COMPOSITION OF SOCIAL CLASSES AND WALKS OF LIVES

- the year of the construction determines the social status of the initial inhabitants (and the presumable condition of the buildings as well)
- studying the rate of unemployment, of age and degrees of education is a simple but efficient tool to describe the actual image / social status of the colony
- these two define the position of the value of dwellings on the real estate market as well

### \_PUBLIC FUNCTIONS

As mentioned earlier, thanks to the planning of the last decades, the public buildings are generally well distributed in the prefab colonies. Although this would not always correspond with the current needs of the inhabitants. By examining the aspects described in the chart, then compared with the amount of inhabitants, it can be declared if there is enough public functions or perhaps too much.

Not only their amount but also the architectural outlook or the position of these public buildings should be reconsidered. (see *Solution strategies*)

### \_PUBLIC SPACES AND AMOUNT OF GREENERY

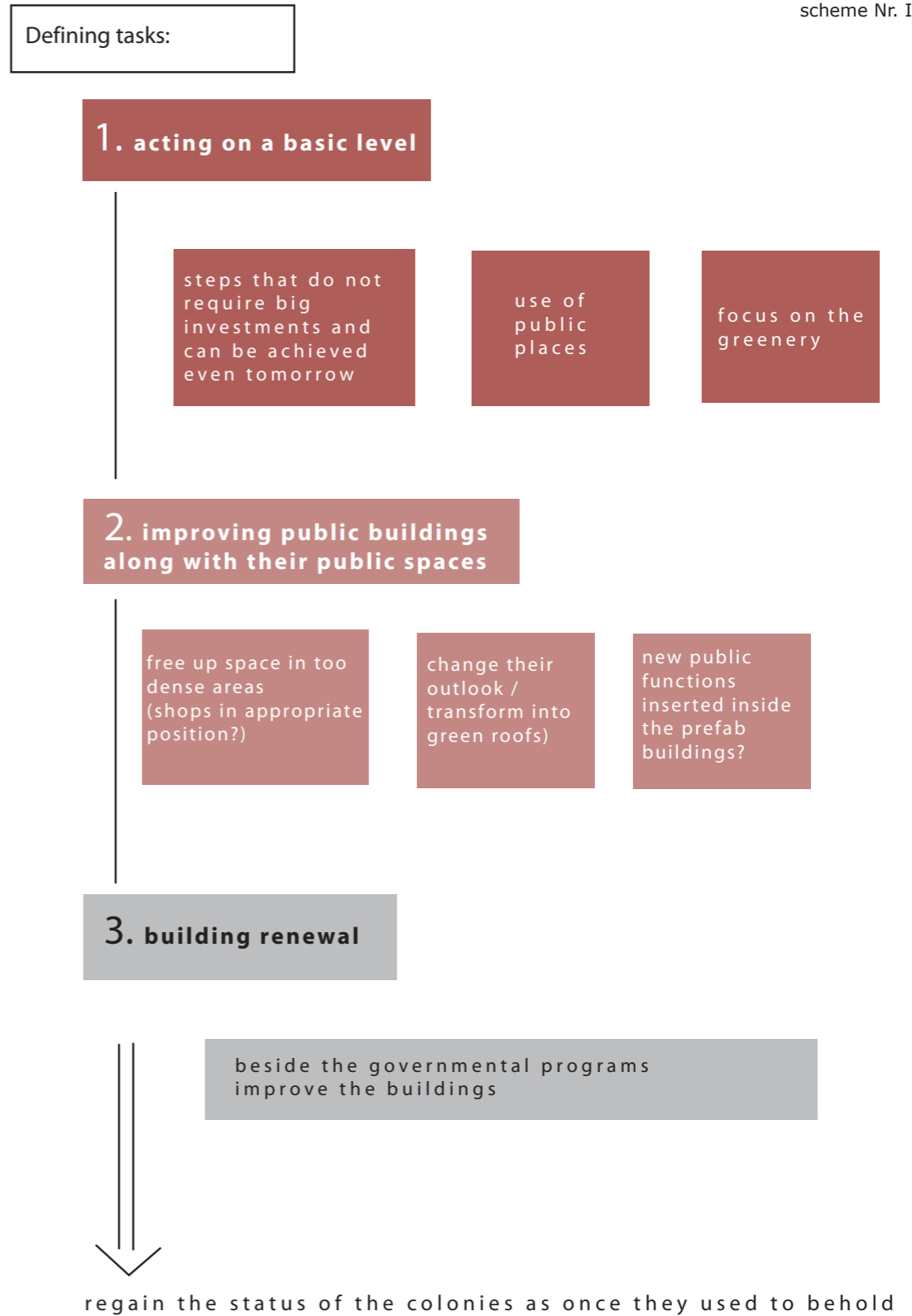
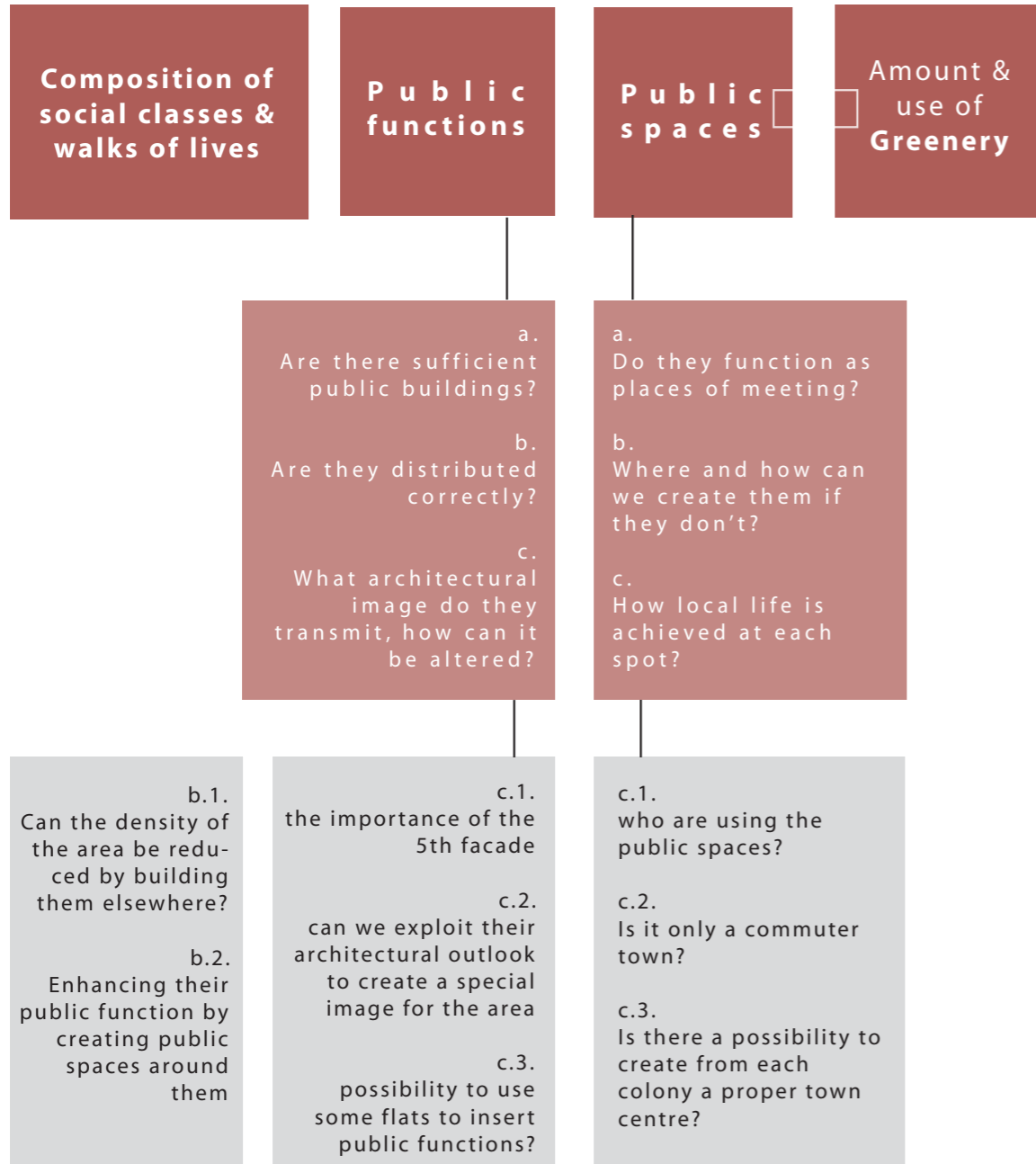
One of the most important components forming the image of a prefab colony is the outlook and use of its public spaces. Generally speaking, these places possess of great potentials but are usually neglected in maintenance or are used as parking. The renewal of the public spaces can change basically the fame of one colony and turn them into a habitable residential area.

The second chart offers different levels of acting, depending the available financial sources and the actors (inhabitants, municipality or the government).

## Working out a method for prefab buildings in Budapest

**ANY OF THE SOLUTIONS MUST BE SITE SPECIFIC  
NOT A UNIFORM MODEL TO BE INTRODUCED EVERYWHERE**

CHARACTERISTICS TO BE EXAMINED AT EACH SITE:



## 1 colony = 1 township

The size of a prefab colony usually equals the number of inhabitants of a whole village

## District in a District

Is it possible to turn them into quasi-autonomic townships?

What makes such a colony to live on its own?

What are the tools to encourage such a process?

### Building Social Communities

= prevention of ghettos?

Coherence in architecture, variety in social classes

Districts determined by different zones of housing types

### New definition of townships according to:

Number of inhabitants

Different, specific architectural image for each colony

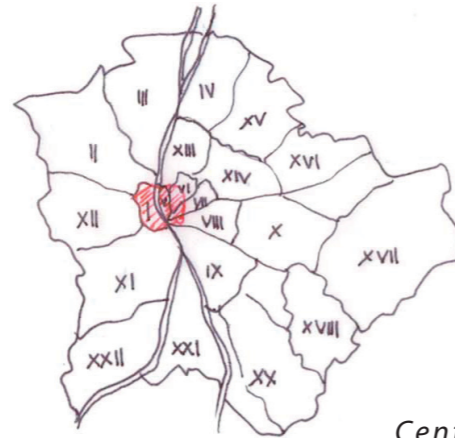
Organization of local authorities?

## Theory of district-in-district

### for prefab colonies

scheme Nr. III.

existing administrative boundaries



Centralized

Decentralized,  
autonomic townships

district in a district:



or: townships in the metropol  
(with their own town-centers)

## THEORY OF PREFAB TOWNSHIPS

see scheme Nr.III.

One of the worries of sociologists is that by leaving the prefab colonies to continue on the decreasing tendency of building quality and social fame, would lead to similar situations in a decade as that can be perceived in the Western countries.

After our researches it became clear that the best prevention of such situations is to improve the image transmitted towards the real estate market or simply to a visitor. This image consists of several components that can be renewed or changed (see *scheme Nr.III.*) but its success largely depends on the leading organisation who carries out such renewals.

In the upcoming period of municipal elections it is expected that the existing two-tiered governmental system of Budapest will be suppressed in favour of one central municipality of the capital. In this case or even in the existing district-divided Budapest, it would be advisable to determine parts of the city into areas that are coherent both architecturally and in terms of its inhabitants – rather than according to districts that are heritage of the previous century. The idea of **authorities governing a certain quartier** seems more adequate to the present situation.

The only chance for breakout in the struggle for 'panel-rehabilitation' is to **treat each prefab colony as autonomic township** and to provide them with a leadership.

If each prefab township possesses of an authority, there is a lot more chance for creating a special architectural image of the colony that may result in the increasing value of the dwellings in the real estate market. At the end, the bad reputation of certain panel-blocks can be restored.

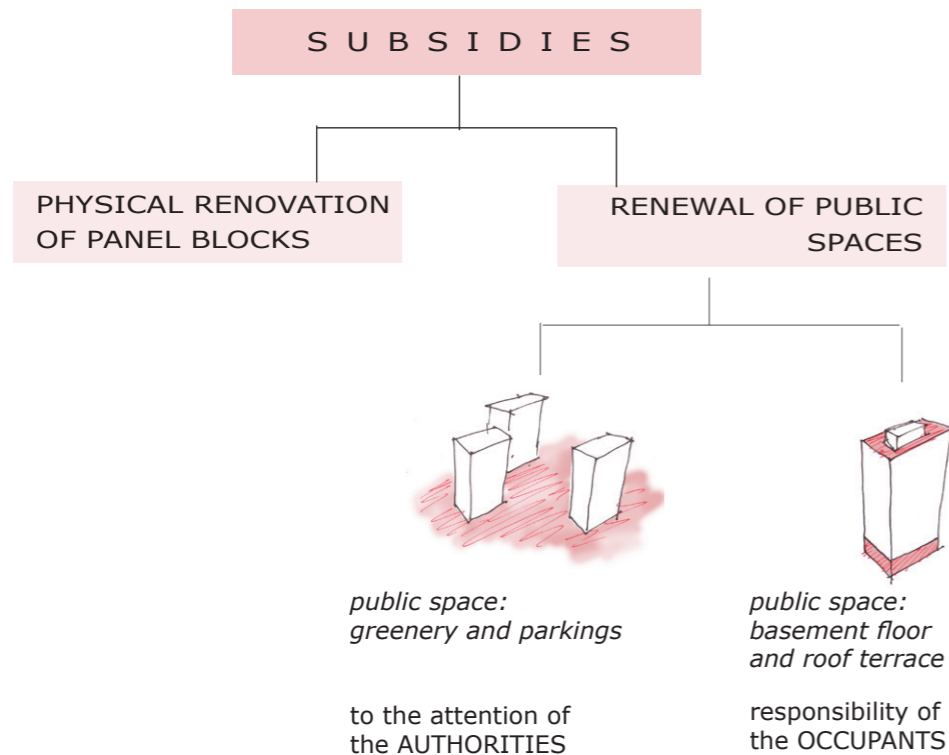
Nonetheless, generating a so-called competition among the colonies for a better image cannot only be task of the authorities. As some foreign examples prove, handing the leadership to private organisations produce similar results, maybe even more effective. Although knowing the allures of the authorities as well as of the private owners in Hungary, this system still needs a lot of careful preparation before implemented...

## SOLUTION STRATEGIES

### \_DIVISION OF SUBSIDIES

The need for rehabilitation in panel-block buildings is somewhat acknowledged nowadays, even governmental subsidies has emerged to resolve the problem during the previous years.

It would be though important to emphasize that the physical condition of a panel-block building has very little in common with the situation and treatment of the public spaces of the whole prefab colony. It is thus substantial to divide, or rather to separate a new category for urban rehabilitation among governmental subsidies.



Not only politicians but private owners as well are not aware of the importance of the second category and by defining a new available subsidy would help to regenerate public space (inside or outside the blocks). It is true albeit that for a general and unified transformation, there is a need for a central leadership for each colony. (see sub-chapter: *Theory of Prefab Townships*)

### \_URBAN SOLUTIONS

With smaller or bigger transformations of the existing urban structure of the prefab colonies, it is easy to gain a pleasant residential area as the potentials are given.

Our tools vary from renewal to abolishment of buildings and to change of functions, but always keeping in mind that it was followed by a careful site-analysis (see sub-chapter: *Site-specific Research*). Each of the given solutions is an answer for a lack or mal-functioning of an urban component. These are:

- **PARKING PLACES:** on the surface they occupy too much space and most of the time their number is still not enough. The construction of underground parking places would be too costly, we propose to leave them on their current level but construct an artificial landscape above them, which would hide the cars and offer a green area for recreation at the same time.
- **COMMERCIAL ESTATES** are in most of the cases not well inserted in the urban environment of the prefab colonies. Either they are occupying too much space that could be used for recreation or their architectural outlook is deteriorating the image of the surrounding. There are various possibilities to place them elsewhere (underground, to the basement floor of the estates) or simply leave them on their current position but connect it with the semi-underground parking mentioned above and cover it with greenery.
- **PUBLIC FUNCTIONS:** the more valuable functions such as libraries, health care centres, etc. and the new ones such as gyms are worth to be placed in the estates themselves, in some of the cases by transforming dwellings for public disposal or to be placed on the unused roofs of the buildings.



one of the potentials: unused roofs

## CONCLUSION

One highly important conclusion of the researcher Tamás Egedy was that the rehabilitation and **revitalization of the prefab buildings are significantly less expensive as their destruction of whatever purpose and the creation of new dwelling districts**. With minimal investment, important results can be achieved in the amelioration of the living conditions.

Other than the physical state of the technical elements: the whole heating or electrical system, the way the public utilities work should be reconsidered as options for a more eco-friendly and also cost-friendly way.

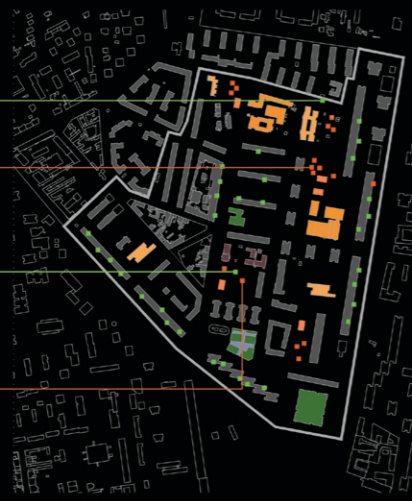
It is essential to declare that the issues around the prefab buildings raise a much **more complex problem than the direct physical condition** of these edifices, various other aspects such as architecture, territorial development and especially sociology are needed to be examined.

Based on these statements, the elaborated method leaves the responsibility in the Government's hands but proposes a different approach from the existing governmental programs, namely to **separate the subsidies into two different groups**:

1. physical maintenance and renovation of **private homes** in panel-block buildings;
2. a program worked out in collaboration with urban planners, sociologists, architects and landscape designers aimed to renew and to enhance the **public components** of a prefab colony, by:
  - declaring "prefab-townships" each comprising a bigger colony,
  - new forming of "interior" and exterior public spaces,
  - encouragement of local communities.

Thus at the end the program gradually transforms the existing bad-reputation of these colonies into a real urban and liveable place, and will be able to prevent further social segregation.

# RELATED WORKS



EXISTING POTENTIALS



TRANSFORMATION

**DES "OUBLIÉS":**  
Les âgés et les plus jeunes! C'est eux qui passent le plus de leur temps dedans et autour de ces immeubles, pourtant ce sont leur lieux communs? Y a-t-il des places à jouer, à s'amuser, à se relaxer?

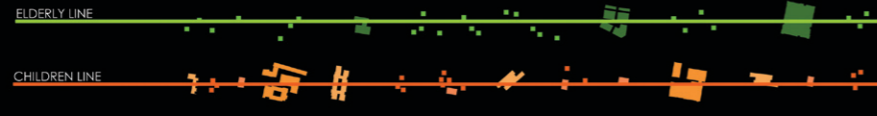
**DES POTENTIELS:**  
Un immense volume de vert entre des immeubles, négligés, des espaces publics démodés.

**LE PROJET:**  
Relier des potentiels et créer des espaces / lieux publics pour ces deux classes d'âge. Deux lignes des fonctions, une pour les âgés, l'autre pour les enfants.

## THE LINEAR COLONISER

### METHOD:

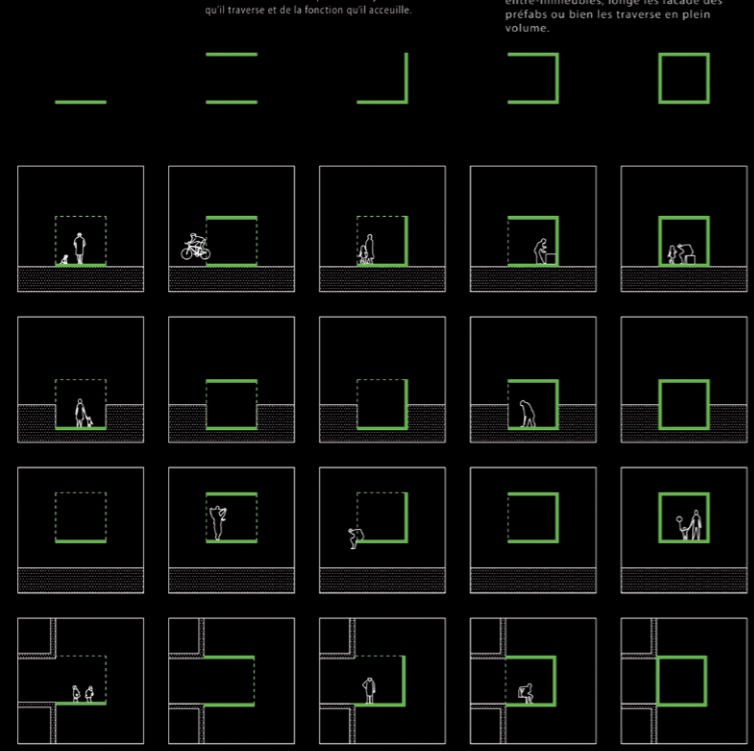
- enhance existing potentials
- create new programmes
- obtain a new identity



### PROGRAM

- OLD
- social actions
- service & commerce
- culture & education
- YOUNG
- social actions
- service & commerce
- culture & education
- MIXED

### SHAPE



Le typologie de "serpent" se varie de tube au chemin tout ouvert - dépendant toujours du lieu qu'il traverse et de la fonction qu'il accueille.

Il change aussi bien son placement vertical: il avance dans les zones entre-immeubles, longe les façade des préfab, ou bien les traverse en plein volume.

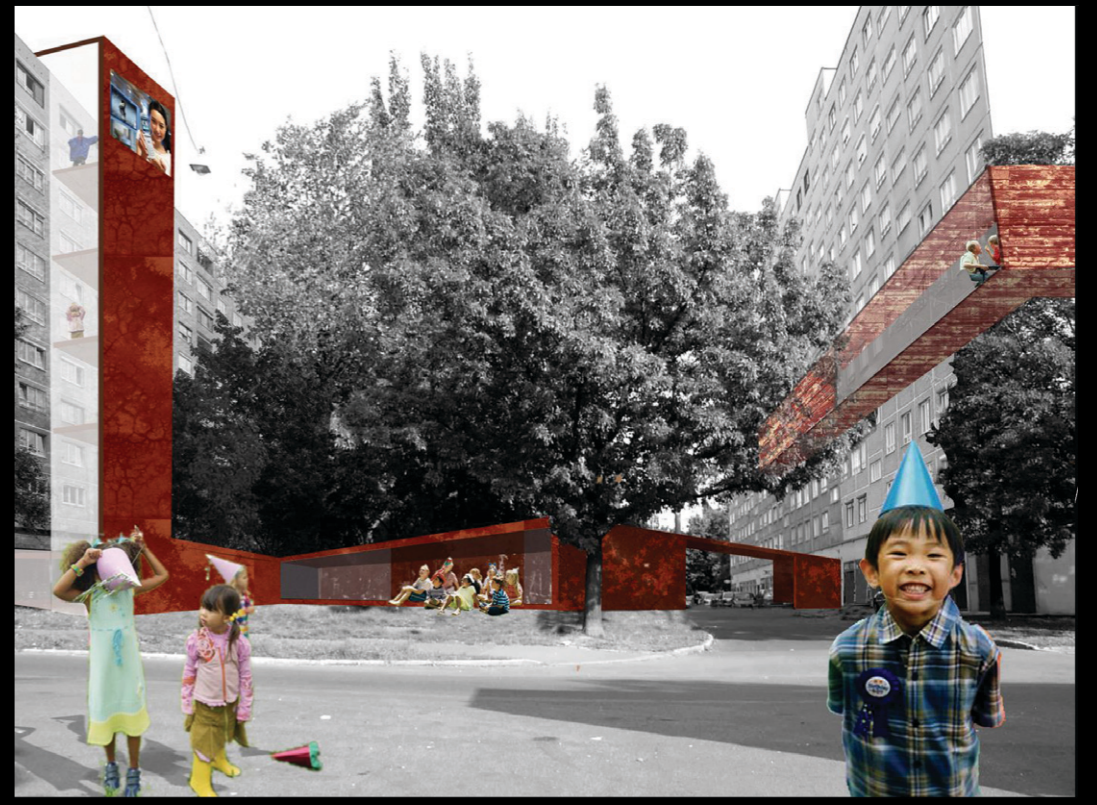
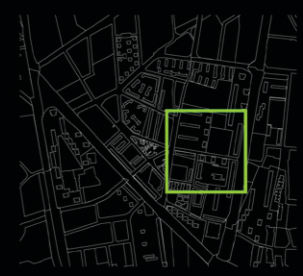
### ACTION



# International Architectural Workshop 2005. Public Spaces in the panel colony of Obuda



- CIRCULATIONS
- SPORTS & SOCIAL PROGRAMS
- SERVICE & COMMERCE
- CULTURE & EDUCATION
- CIRCULATIONS
- SPORTS & SOCIAL ACTIVITIES
- SERVICE & COMMERCE
- CULTURE & EDUCATION







**DIPLOMA PROJECT BY SÁNDOR IMRE**  
PAINTER, PÉCS

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