GUIDEBOOK FOR AN URBAN ECOLOGICAL TOUR ON HOUSING IN THE CITY OF BUDAPEST

Based on the booklets: Professional Tours on Housing

based on the idea of Dezső Ekler

originally written by Gábor Locsmándi József Hegedűs Iván Tosics Zoltán Erő

Metropolitan Research Ltd.
Budapest

Booklet edited and written by:

Gábor Locsmándi Árpád Szabó

TECHNICAL UNIVERSITY OF BUDAPEST FACULTY OF ARCHITECTURE DEPARTMENT OF URBAN PLANNING AND DESIGN

Budapest 2007

THE STRUCTURE AND THE PHASES OF DEVELOPMENT OF BUDAPEST

The evolution of the present city

The city has evolved from two medieval core on the two banks of the Danube: Buda on the hill on the right side, and Pest on the left. After the driving out the Turkish Empire from the country in 1686, both towns began to develop. At the end of the 18th century they had already a series of outskirts in the fields surrounding the towns. Around Buda these were Viziváros (Water-town), Krisztinaváros (Christine-town), Újlak (New-place). Óbuda (Old-Buda) in the North was an independent small town. Around the town of Pest in radial order, a series of outskirts carne into existence and got their names from the members of the Royal family of the Habsburgs: Lipótváros (Leopold-town), Terézváros (Theresa-town), Erzsébet- város (Elisabeth-town), Józsefváros (Joseph-town) and Ferencváros (Francis-town).

Although there was a significant development at the beginning of the 19th century - Budapest had its first urban general plan in 1805 to control the development of Lipótváros - the golden age of the town began with the compromise between Hungary and Austria in 1867. The three towns, Buda, Óbuda and Pest were unified in 1873 as the Capital, which was given the name of Budapest. Through the end of the century, the town became the most important industrial, commercial and cultural centre of the region, the gateway of Europe to Ukraine, the Balkans and to the East.

In this excellent geographic position it was the machine industry and the agricultural industry that made the town rich. (At that time Budapest had the second biggest milling industry in the world.) The surrounding suburbs, as garden towns, had tight connections with the city itself. They served as the residential area for lower-middle class people, served the markets with horticultural products and offered sites for the expanding industrial estates. The population of Budapest was 279.000 in 1875, and it increased to 732.000 by 1900.

Although administratively independent, the fate of the towns and villages in the outer zone was substantially influenced by the capital (e.g. tramlines reached some of these settlements). There were heavy debates about creating 'grand-Budapest' since as early as the beginning of the 20th century, but this idea was always opposed because of financial and political arguments before World War U. The new political power after the war united the capital and its neighboring settlements without taking into account any of the counterarguments. The present form of the city with 22 districts and 2 million inhabitants was created in 1950 through the addition of 16 suburbs to Budapest.

The structure of the city

The evolution of the town described above resulted in a structure that can be best illustrated by a diagram consisting of concentric circles, This model, reminiscent of the Burgess theory of city development, is used here rather for description and not as an explanation of the historical development of Budapest, .

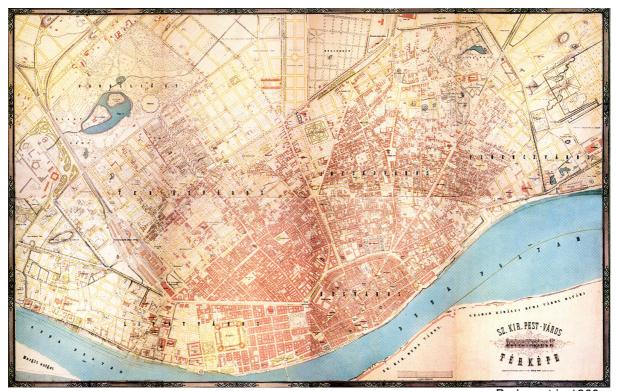
There are three main zones that can be distinguished:

- the city core, mainly with residential, commercial and administrative functions the former inner towns, built up with the traditional form of tenement houses;
- the transitional belt, with a very mixed use of space, consisting of succeeding sectors of residential and industrial character the former industrial areas of Budapest between the inner towns and the suburbs:
- the outer zone, characteristically garden towns (green zones) and residential estates, mixed with some industry the former suburbs and the Buda Hills with their special geographic situation,

The main direction of the development of Budapest was a movement from the city core towards the outer part of the town, One of the specialties of the city development of Budapest is, however, that this "from inside to outside" direction is not exclusive: in many phases of the development there was also an opposite direction observable, leading to the rapid development of the outer parts of the city before the inner parts were completely built in, In some periods the fastest growing parts of the city were to be found actually outside of the given city borders.

Development before World War II.

In 1870 a population of 300000 inhabited the territory of the city (i.e. within the boundaries of today), 80% of which concentrated in the inner part, mostly on the Pest side (65% of the total population). During the subsequent three periods not only the dynamism of development was different but also the spatial distribution of the population changed.



Budapest in 1860-s

In the last quarter of the 19th century the most dynamically developing part of the city was the inner part. From the beginning of this century the dynamism of the outer zone is striking and during the inter-war period the importance of the transitional belt was also increasing. The growth of the population in the Buda Hills was slight in these periods. In this area the dynamism began only much later, in the 1960s.

The period of dynamic development. 1870-1900

In this period the most important source of new development was private capital. The city administration could (and wanted) to influence the development only indirectly, with the introduction of a Building Code (zoning regulations) and the improvement of the basic infrastructure and development of the main traffic lines. Nevertheless, with these cocoordinated regulatory means they could direct private sources to generous urban projects. During this period the creation of Andrássy Avenue, the Grand Boulevard and the restructuring of the medieval core of Pest occured.

The majority of new housing was built in the inner part of the city. Here building regulations allowed a high density of buildings. The typical Budapest-type residential building is similar in essence to those of Berlin or Vienna: wings are arranged around an inner court. The street wing with its spacious, prestigious flats serves the private landlord and the wealthier tenants, while the court wings, having their windows only on the access corridor, are for lower class people. Thus each building reflected the different layers of society. Regulations corresponded with the interest of those who provided the building capital that resulted in a fast, "American type" expansion to the rapidly growing demand of petty bourgeoisie and the low income immigrant workers.

The exhausting of the tenement-building capital: 1900-1920

The economic and political crisis at the turn of the century led to the end of the regular development from inside to outside within the inner city. Housing investments were decreasing as the withdrawing of private capital was only partially replaced by the self-building efforts of workers in the suburbs. Because of the growing housing problems the municipality of Budapest was forced to start a public housing program. The very limited number of public rental flats was built mostly in the transitional belt where land prices were lower.

Individual construction - i.e. garden cities with detached houses - was practically excluded by proscriptions from the territory of the city of that time. Long term plans intended the areas between the inner city and the city border to serve as a reserve for future tenement building activity. Workers could find cheap plots only outside the city, in the neighboring suburbs, i.e. in the outer zone. As a consequence, the development of the outer zone - especially the settlements on the border of Budapest - accelerated, while within the city itself, in the transitional belt large territories remained empty. Worker families moving to the city from other parts of Hungary could more easily find housing in the vicinity of the city than within. This curious type of development can be called the "Eastern European type of expansion".

The upswing and decline of private capital investments: the inter-war period

During the inter-war period the conditions for private capital investment in housing changed several times. In the early '20s and in the years pre- ceding World War *il* conditions were unfavorable: rents were strictly controlled and also the security of tenants was protected by the State. Moreover, the economic crisis at the end of the '20s and in the early '30s made private capital investments in housing economically disadvantageous. Nevertheless, in the intermediate periods market elements of regulation gained ground.

In the relatively short periods of market regulation all zones of the city were developing quite rapidly. A new wave of tenement building took shape in some parts of the inner city Also the residential sectors of the transitional belt were developing, mainly with relatively higher quality individual housing built by the middle classes. The bulk of new housing was built in the outer zone was of law quality and was almost without any provision of infrastructure. The interest of the homeless families was to acquire plots at the cheapest possible price and this created favorable conditions for speculation on the part of the real estate agents, who parceled out plots without any conveniences. As a result, in 1941, only 18% of the flats in the outer zone were supplied with running water in sharp contrast to the situation within the city, in which the figure was 87%.

Although state and municipal construction were minimal during the course of the inter-war period (especially compared to the huge social housing projects of Vienna, Paris, London), in certain circumstances smaller social housing estates were erected in order to relieve the growing social tensions of the housing market.

The main periods of development after World War II

As a consequence of the changes in the political-economic system, the conditions of the development of Budapest changed totally by the end of the '40s. The most important changes of the 1950s were the complete restructuring of the institutional and planning system and the establishment of Great Budapest. In 1952, the nationalization of all houses consisting of more than 6 rooms practically dissolved the private rental sector, and more than 60% of all flats became public tenement. According to the logic of the Socialist planned economy, the sectorial interests and institutions became much more important than the territorial ones. The development of all infrastructure sectors was slowed down in order to concentrate the financial means towards rapid industrialization. Budapest had lost a lot of its local independence and became subordinated to the central bodies and the monopolistic state building industry.

The establishment of the socialist housing system: the 1950s

In the new political system, housing was regarded basically as a matter of state provision. Most of the market-type housing forms of the previous housing system were abolished or brought under the direct control of the state (see e.g. the nationalization of the private rental

sector in 1952). Even self-building was not favored politically, at least in the cities.

In the '50s only a limited amount of new state housing was built, mainly in the transitional belt (on reserves, i.e. places left empty by the previous periods of city development) and in the outer zone (as a political gesture of the new political system towards the settlements that were joined to the capital).

Increasing new building and the conflict between the state and private provision form the 1960s

In the '60s, the state strengthened its role in housing by introducing new building. Housing policy restricted self-help provision in several ways (through limited supply of building plots and materials, strict building regulation, etc.) in the urban housing markets.

Concerning the spatial structure of new state housing, almost all gaps of the inner part of the city were filled in and also the development of the transitional belt sped up. This is the period of the 'first, inner ring of big state housing estates'.

The 'Golden Age' of public housing: the 1970s

From the beginning of the '70s the role of state provision further increased in connection with the economic boom that characterized the East European economies at that time (state investments into housing increased in Hungary, and the budget share of the housing sector was also growing: the share of state building within the GNP was around 18-19% between 1955-70 but 26% between 1971-75). Parallel with this, self-help provision, although decreased, was strengthened through the dynamic improvement in the quality of privately built houses. This change was in connection with the fact that excess income from the second economy was increasing.

In the 1970s, state housing estates became larger than ever and their location changed unfavorably: most of them were built in the outer zone, close to the border of the city. This is the period of the 'second, outer ring of big state housing estates'. Technology became the most important factor of housing: prefabrication was almost the sole form of large scale constructions. In Budapest, four 'house-factories' produced prefab elements, but elements arrived to the capital also from so far as 120-200 km.

The impact of the economic crisis on housing: the 1980s

Since the early '80s, state housing provision has been undergoing a crisis. To finance the building activity of the state became problematic, even with the increasing involvement of private sources of people in need of accommodation. Because of this state support of private forms of housing - i.e. self building - increased. Areas reserved for many years for state building were released for private development. Plots were sold off after the development of infrastructure.

The growing difficulties of the state budget immediately affected the financial resources for city development. The site-preparation (development of basic infrastructure) for bigger state and privately financed housing estates was slowed down in the course of the second half of the '80s. Also major transport investments - of crucial importance in connection with long-term housing plans - were postponed. The central state withdrew almost totally from the role of direct investor in housing; new state rental construction became insignificant another important factor of the changes was the substantial decrease of state subsidy given to loans for new building. As a consequence of this, the interest rate of new loans increased from 3% fixed interest to 25-30% variable interest. Although there is a social subsidy system which favors young couples buying or building new flats, most of the people have no means to absort growing construction costs.

Recently the proportion of flats built in new housing estates is radically decreasing. Although the prefabrication sector forced this form of construction for a long time, by the beginning of the '90s, this tendency had almost disappeared. The gradual take-over of the private provision forms also means the upgrading of the potential territories for new building and renewal in the inner part of the city

The change of the political/ and economic system: the 1990s

Some signs of the changing political and economical environment could be detected already before the general changes of these systems. Certain kind of small scale privatization was

present in the housing sector since the late '70s. Moves on the market of private flats increased after the annulment of the limitation on ownership (i.e. giving up the 'one family only one fiat' idea). The public rental sector has changed fundamentally as the earlier state owned housing became the property of the local municipalities. Since economic conditions worsen gradually their housing policies has to face a lot of difficulties.

Forms of finance and construction after World War II

The different forms of finance and construction after World War II can be characterized as follows:

- state built housing: new state rental housing, new construction for state employees (Ministry of Defense and the Ministry of Interior etc.) and new construction financed by the budget for special allocation.
- privately financed: centrally planned housing, constructed by the state building industry, financed by the National Savings Bank (NSB), sold to individuals either on the basis of a waiting system or on auction.
- *individually built* detached houses or condominiums, built in most cases with NSB loans but totally on behalf of individual families.

Recent changes on the Budapest housing market

Changing public responsibilities

With substantial changes of the political and administrative system in 1990, the situation of public housing, the role and responsibility of public bodies at different level has been completely altered. According to the Local Government Act (Autumn 1990), municipalities were given the responsibility of public housing, together with the building stock formerly owned by the state. In Budapest - where in a two tier local government system the 23 district municipalities have significant independence from the Capital - the districts are the new owners. Although the 'transfer of state property' created a clear legal situation, the total lack of central subsidies for public housing brought tremendous problems to the local governments. As a result of the situation described above, the district municipalities of Budapest became the most important landlords in Hungary: more than halt of an state rental units are situated in Budapest. Nevertheless, approximately 1/5 of this stock is considered to be sub-standard (units lacking toilet and/or bathroom and smaller than two rooms), while 42% of the stock has at least two rooms and an basic amenities. In the inner town, around 1/3 of the housing stock - that is approximately 400 blocks of old houses (100000 flats) - needs substantial rehabilitation. This means that a huge amount of deferred maintenance accumulated in the last decades in the housing stock. This deferred maintenance is a result of the lack of capital during the inter-war period, the extensive nationalization of the private rental housing sector in 1952 and can be regarded as a direct consequence of the fact that housing maintenance has been pushed into the background for many decades.

Privatization

One obvious and direct consequence of the new self-government system is their increasing importance of local governments in urban development. It is clear that districts have a much greater right of disposal over their assets, including public rental housing, empty plots, etc. This has lead to a completely new situation in the housing sector and in city planning.

In the early 1990s, however, substantial changes occurred in the state rental sector, regarding the ownership relations and the volume of the sector, as well. The most striking tendency was the privatization of the state owned stock.

The regulation of selling public rental properties was changed almost every year since 1985, to favor of the sitting tenants. By the end of the 1980s, discounts became very substantial (up to 85% of the value of the flat) and also the financial terms of paying the required selling price became favorable (only 10% of the selling price was required to be paid in cash, the remaining was lent with a fixed interest rate of 3% per year). For this reason, and also because of the uncertainty on rent increases the number of sales applications grew rapidly in 1989 and 1990. A 'Housing Act' (Summer 1993) has defined the sales price at maximum 50% of the market price, but declared an obligation for the municipalities to sell all flats to the tenants - except those in buildings protected as heritage buildings or located in areas for

renewal with adopted local plans. The result of all these has been a dramatic decrease of the public housing sector in the rental stock. Now it amounts to not higher than 8 per of the housing stock cent and is of the worst quality.

A dramatic drop and increase of housing construction in the 1990s and 2000s

Despite the economic difficulties and the temporarily unsolved political dilemmas between state and municipal responsibilities, it was clear that it would be impossible to terminate all organized forms of new construction in Budapest. (Even Vienna, a city with a housing surplus of several thousand units, decided to continue organized new construction on a level of 4.000 units per year, in order to be able to continue rehabilitation of old houses without any pressure of quantitative character.) In Budapest the argument for new construction was the still existing housing shortage. In the early 1990s two ideas (or "dreams") prevailed: to construct smaller, human scale garden city like estates by private or semi-private investors with the help of some subsidy on the plat price (given by the local government) and of construction period loan with favorable interest rates and the rehabilitation of inner city, mainly in the form of district investment and organization. The essential question in both cases was how to provide the necessary funding.

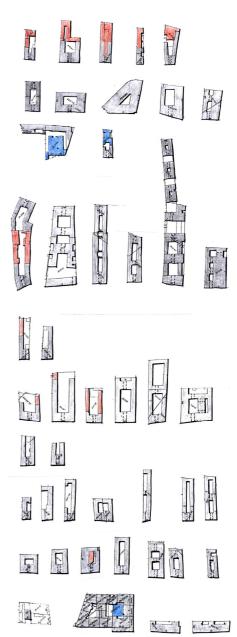
Only the second, urban renewal, program produced some successes until the late 1990s. A rather successful rehabilitation program is going on in the 9th district (Ferencváros), where the majority of the housing stock remained public property, and a PPP company manages the project on behalf of the district government. Also an Urban Renewal Program and Fund was created by the Municipal Government of Budapest (together with similar programs of some districts) that helps also the privatized condos in their smaller scale renewal operations.

An upsurge of private housing development, predominantly for sale, has been facilitated by the introduction of mortgage loan systems and by deep central state (so called "subject") subsidies for new housing in the late 1990s – later also for the purchase of old dwellings. A definite increase in the number of newly built dwellings started in the 2000s. While in 2000 only a few thousand building permits were issued, in 2005 and 2006 the construction of about 30000 new flats was under way in the form of closed or semi-closed "residential parks" – in some cases with awfully high densities and with extremely small flats.

ERZSÉBETVÁROS # 1

"Erzsébetváros" (Elisabeth-town), which evolved to the East of the medieval city of Pest, was the first new, suburban-type settlement after the Turkish occupation. Its development started in the early 1700s as a horticultural area serving citizens of Pest. The Jewish community of the town settled down here, close to the city walls The majority of its East-West directed streets followed the lines of the former byways between fields and perpendicular streets have been opened by the owners of the gardens. Fields have been gradually subdivided into building plots, and a small town came into life. The main street, Király Street, became the most important commercial street of Pest to the early 19th century. Later on the town was cut in two: the areas North of Király Street was named Terézváros (Theresia-town). The present high density of the quarter is the result of the gradual rebuilding or intensification in the second halt of the century Two major interventions brought a new image to the area: the opening of the Avenue (1875-85), and the Grand Boulevard (1880-95). These grandiose urban development projects rot through the original urban texture, and became focal points of building activity. Much later the idea of a new avenue came to the first step of realization. The "Madách-avenue" project, with its entrance built in the 1930s, became the never-ending problem for urbanists of all times - until now:

- After several plans in the 1960s and 1970s, a detailed plan for four blocks was carried out around 1974. This was the last plan which suggested a large scale demolition of the existing housing stock. In the same year the first rehabilitation program was worked out, taking into account the fact that in March of 1974, a decision of the Political Committee of the Party favored the rehabilitation solution against the total demolition.
- Block 15., in the centre of the quarter, became the first site for "block- rehabilitation" programmes in Budapest Planning began in 1980, construction was finished in the middle of the '80-s but the project is still incomplete. The economic failure of this project halted similar rehabilitation programmes for a long time
- The softened version of the idea of Madách Avenue carne back in the '90s in the form of Madách Promenade i.e. a pedestrian shopping street and the opening of dense urban structures mainly for office and retail development.



Tenement house typologies in inner Elisabeth town (drawing by Perczel Anna)

ÚJLIPÓTVÁROS # 2

Since the end of the 18th century the strip of land along the left bank of the Danube, to the North of the medieval city Core, has always been consciously marked as the area for extension of the Pest city centre. According to contemporary ideas this area, Lipótváros (Leopold-town), should have served as a new, higher status residential district By the end of the century the area between Pest and the line of Margit Bridge really became a place with prestigious residential buildings and the most important centre of state administration with the Houses of Parliament, the Supreme Court, the National Bank, the Stock Exchange, etc... The area north of the Grand Boulevard, between the Danube and the railway line was a favorable location for industry, incuding warehouses. So the history of this quarter - called later Újlipótváros (New Leopoldtown) - can be best characterized as the transformation of the industrial belt north to the town to a residential area. First, industry seemed to be winning the battle. A sign of this was the construction of a railway-line connecting the industrial properties to the main railway network of the country. This new railway went deep in the heart of the town, crossing even Grand Boulevard, which was built during the same period.

Ambitious plans demonstrated the desire for an elegant river front since the 1870s Nevertheless, at that time industry occupied the area. The expansion



Budapest in 1833

of the residential sector became characteristic for this area only several years later. Housing began to reclaim the land and the industrial use was forced back gradually to the North, block by block In the 1930s very high quality urban planning and architecture created the ensemble around Szent István Park. The site became a favorite residential area for upper-middle-class people, and it is a still very high prestige area.





Although a series of plans were made, and development began in the 1960s at the bead of Árpád Bridge, the river-front remained primarily industrial, with its hidden railway station, Vizafog6. From the end of the 70s, when housing estates began to fill up empty Bites in the transitional belt, the residential area gradually grew. Today the site of the railway station is built in, but the station building itself still stands... It was once again the middle class that helped to replace the dead industry here: the rebuilding of the area was decided under the pressure of higher status interest groups of the 70s and the majority of the new flats were allocated to them.

Újlipótváros: new part of the inner city since the 1920-30s

In the course of this late residential expansion, high quality modem architecture and a relatively sound environment were created. The "framed" blocks are formed by 5-6 storey separated buildings, which have a large garden in the in the middle. This pattern has a characteristic urban streetscape, and large green areas at the same time. This type of building was made possible by the revised Building Code in the course of the 1920s.

The end of the '30s was the last period of prosperity for private capital investment in tenement housing Újlipótváros was built clearly by private developers and investors - although on the basis of a very strict public control over the urban plan The site became very popular for its spacious public spaces, elegant buildings, rationally arranged flats and its equipment (central heating, floor heating, special elevators, etc.) considered high-tech at that time. Unfortunately in the last decades even these buildings have slowly deteriorated due to inappropriate and insufficient maintenance. Even so, due to its location and the general high quality of the built environment, this site can still be considered as the best urban residential area of Budapest



ANGYALFÖLD #3

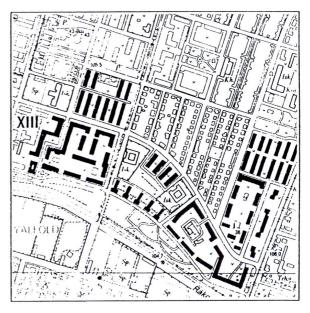
Parceling out of land between the road and the railway line to Vác started in the 1880s. The area around Váci Road was already an important industrial zone, when the opening of a new tramway line to Ujpest along Lehel Street also promoted the location of industries into this area. The peripheral condition of the area has been coupled with negative aspects including the location of an ancient cemetery, rifle range, and later a lot of barracks, a mad-house etc... The low-quality environment, cheap land, and growing number of industrial workplaces close at hand resulted in the establishment of the characteristic workers-district environment of Angyalföld (Angels' Field) Narrow strips of arable land to the north of the present Hungáriaboulevard and to the west of the goods-station Rákosrendező were subdivided after 1890 according to a simple grid plan. Subdivision patterns, however, show that most owners parceled and sold out their land by themselves. The building code prescribed a low-rise development without front gardens and with houses facing the street in semi-continuous rows. In the period after World War II, Angyalföld became very important in political terms. The development of the "workers' capital" was in high priority of the municipal government - even considering the fact that it was the electoral district of the First Secretary of the Hungarian Socialist Workers' Party, János Kádár. New residential areas were formed here through the early housing programs.

An important development of the area commenced with the construction of Árpád Bridge in 1941 (between Angyalföld and Óbuda). and the third circular boulevard of Pest, the Hungária Boulevard surrounding the town in the middle of the transitional belt, the completion of this line was the most important strategic development activity in the 1990s. The area is a serious competitor to the downtown areas of Pest; it has cheaper land, much better circulation and simple construction conditions are very advantageous for those commercial projects (commercial office development, headquarters of enterprises and state institutions, hospitals, shopping centers, etc) that do not really need the proximity of the city.

Tömöri Street: a housing estate of the '40s

A large area with an unfavorable location (requiring serious preparation work before building) remained empty and was "discovered" in the 40s as an area suitable for public multi-storey development.

The Tömöri Street housing estate was one of the examples of new housing estates built especially for blue-collar workers. The industrial district of Angyalföld received a new housing estate as a symbolic "gift" of the prewar political elite. (This kind of gesture often occurred under the later socialist state as well.) Flats were, however, of very limited quality: 90% of them had only one room and a kitchen. The estate of 372 flats was built in between 1943-56.



Fiastyúk Street housing estate: the '50s

The design of the Fiastyúk Street blocks goes back to the neo-classical traditions: though it was constructed in 1956-60, some reminiscence of the Soviet "socialist-realist" style of the early '50s can be detected. Anyhow, housing estates of that time were based always on very sophisticated architectural composition A small urban square with a statute of a "workers girl" reading is surrounded with high-rise tenements. There are 2280 flats in the estate, 67% of them with only one room and a kitchen, 95% of them with bathrooms.

After the 1956 revolution, an impetus was given to new state housing. Between 1957 and 1967, some 6.400 new flats were built here replacing the former ill-famed favella settlement, Mária

Valéria estate. The plan of the whole estate is based on a loose version of the English "neighborhood unit" concept: housing areas are divided into relative large blocks with child-care buildings in the middle of them surrounded by 7-10 storey high-rise and 4 storey blocks of flats. The service centre along Pöttyös street has only been partially completed. The large centrally located park with sport-grounds and Határerdő Park provide green areas for leisure. Good landscape design increases the environmental qualities of the housing estate.



the demolished Mária Valéria Estate



The average size of flats is around 50 sqm which was the standard of that time. Since it was not able to exceed the standardized average size, the construction of large flats was impossible. Thus most flats have two rooms, officially one living and one bedroom, but in

most cases both are functioning as bedrooms even now. The composition of the population is balanced: the rate of intellectuals is about the Budapest average. A special characteristic of housing projects of the sixties is the rapid decrease of younger inhabitants. Adult children leave the small flats after marriage, and in most cases the elderly remain. Playgrounds and nursery schools are empty. It is now the old who take advantage of the relatively law building densities and the now fully grown trees. In course of the privatization process most residents bought their flats.





the new housing estate in the late 1960s

General data

Population density (persons/ha)	341
Av. number of persons/dwelling	2.9
Av. net living space (m2/person)	18.2
Av. net floorspace of dwellings (m2)	53.0
Floorspace index (floorspace/total areas)	0.9

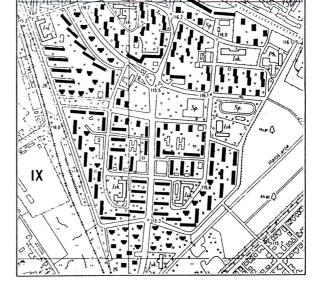
Proportion of dwellings

- with one room	13.0%
- with three or more rooms	12.0%
- with bathroom	100.0%
Proportion of population	

- aged above 60	12.3% 188%
- finished primary school	79.7%

- finished secondary school	33.9%
- finished university or high school	16.0%











the housing estate in 2007