

# The Illusion of Better Living: Comparative Analysis of Prefab Housing Estates with the Contemporary Realizations in Cracow

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## Abstract

*The disadvantages of the construction system based on prefabricated elements are commonly known. These include the low standard of finish, high energy consumption, and what Jan Gehl especially points out, a lack of life between the buildings. However, we must not forget that the housing of that period was based upon the principles of modernism, which appealed to elementary human needs in terms of space, light and greenery. This article attempt to answer the question as to whether the authors of the housing estates built in Cracow have, for the last 25 years, drawn the right conclusions from the previous years? Have they managed to reject the 'wrong' and continued with the 'right' solutions? And most importantly, has there been a general improvement in the quality of the living space?*

## Keywords

*Prefab housing, public spaces, quality of living, contemporary Cracow estates*

## 1 Introduction

The estates of prefabricated blocks of flats, which sprang up all over the world after the Second World War have also dominated the cityscape of most Polish cities. Despite the passage of 25 years since the political transformation and liberation from the shackles of central planning policy, prefabricated residential buildings still make up some 45 % to 70 % of the urban housing stock. The process of architectural and urban transformation, despite periodic fluctuations, continues (Gyurkovich and Wójcik, 2012:p.45). Since the end of the Second World War, the population of Cracow has grown from 300 000 people to 750 000. Nearly half a million (two-thirds of the city's population) has settled in the new housing estates (Basista, 2001:p.120).

From the beginning of the 90s, there has been a gradual decline of large local cooperative apartment corporations controlled by the party apparatus. These have been replaced by the private sector - individual and professional property development companies. The departure from the international style and the obligatory architectural and urban canons has unlocked architects' creativeness. Finally, it was possible to break with the generally dominant dullness and monotony. The natural sense of otherness and the need to demonstrate individual aesthetics, and social and cultural preferences, which were suppressed for many years, has finally found its way out. It was also one of the side effects of political transformation – the result of material inequality.

The disadvantages of the construction system based on prefabricated elements are commonly known (Chmielewski, 2010). The low standard of finish and amenities, the high energy consumption of the building processes and their operation itself; open areas without special-purpose, low quality of public spaces, and what Jan Gehl (2010) especially points out, a lack of life between the buildings. However, we must not forget that the housing of that the period was based upon principles of modernism, which through the contestation of centuries old urban canons, has appealed to elementary human needs in terms of space, light and greenery. This article attempts to answer the following questions. Have we drawn the right conclusions from the previous years, have we managed to

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recognise the errors and develop better solutions? Can we talk about a general improvement of the living space?

To illustrate the topic, two housing estates located on the north-western edge of Cracow, on two sides of Armii Krajowej Street, have been selected (Fig. 1). They strongly represent their time of origin and demonstrate close dependence on political and economic influences – two sites, two different housing typologies and urban patterns - an interesting clash of old and new.

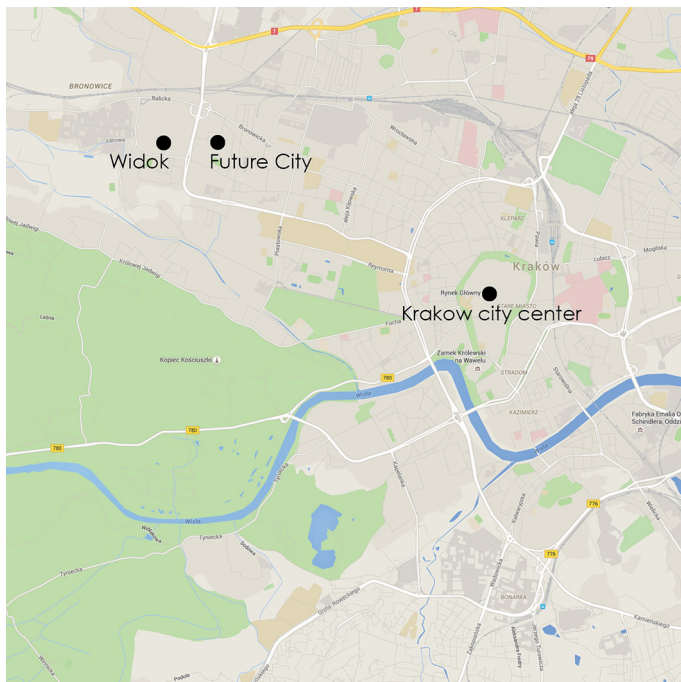


Fig. 1 Location of the housing estates. Image source: Google Maps

## 2 Description of the housing estate – Widok

### 2.1 A brief history of Widok

The Widok estate is located on the west side of Armii Krajowej Street. There are four important dates in regard to the origin of Widok (Fig. 2). In 1959, the communist regime in Poland was looking to locate a new housing cooperative. They picked the empty land located on the north-western edge of Cracow, despite being previously assigned for allotments in the City Plan. It was a perfect location for the creation of the new gate into the city, and its empty character guaranteed the possibility to fully realise the complete programme, which would make it work as a self-sufficient housing estate. In the first half of 1969, the urban plan designed by Architect K. Bień had been selected from the three delivered proposals in the closed competition (Cęckiewicz et al., 1986:p.15). In the communist era, most of the best individual buildings and the housing estates had their origin in competitions, however, they were seldom realised in full. Despite this, competitions were very popular among architects in Poland. They formed a world in itself, an enchanted world, an oasis where one could forget all the restrictions, boredom and poverty of communist reality. In the world of complex hierarchy, in which each had over them several successive superiors, competitions marked the plane of absolute equality (Basista, 2001:p.54).

In the second half of 1969, technical and economic guidelines had been established. Among the most important decisions taken at this stage, it is worth noting a permission given for the realization of the residential building of “broken” shape, based on the individual project and majority of the service buildings: citizens public hall, pavilions, cooperative house, multi-storey

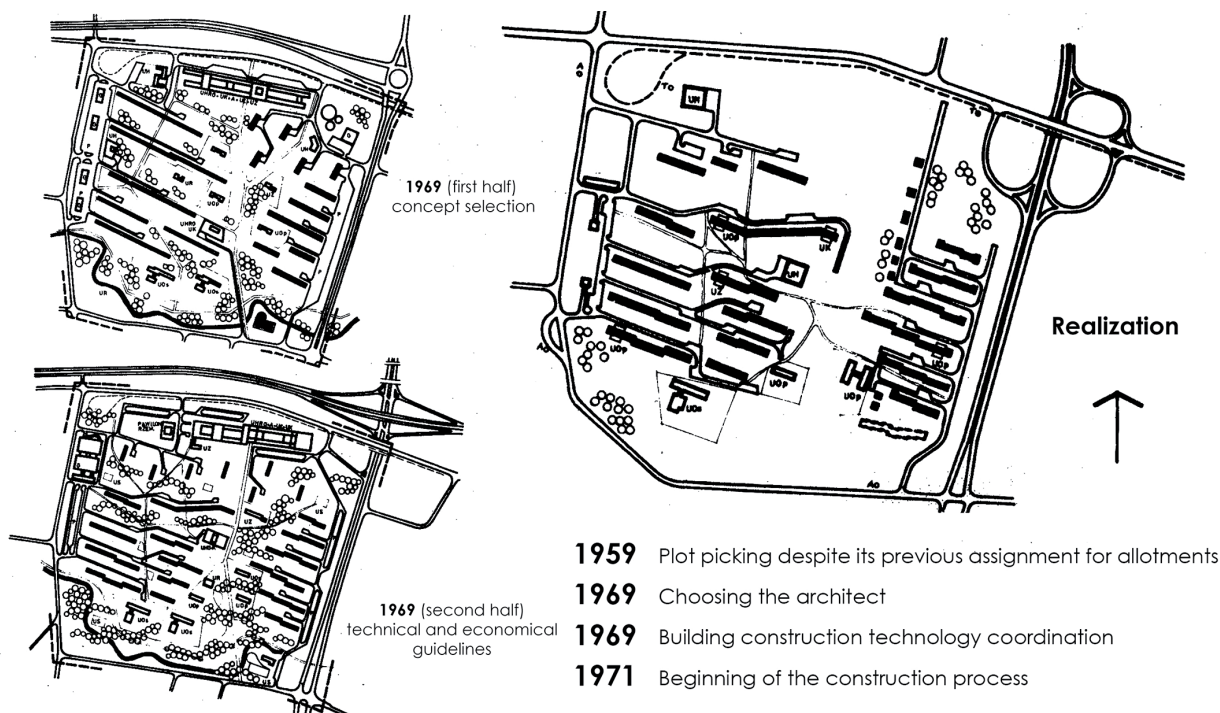


Fig. 2 Key dates in regard to the origin of the housing estate. Image source: (Cęckiewicz et al., 1986:pp.19-21)

car parks and buildings for administration, and workshops. Technologies and deadlines had been decided. Finally, in 1971, construction began. (Cęckiewicz et al., 1986:p.15)

## 2.2 Urban concept

The final shape of the settlement was established through continuous changes made to the original proposal. The most important of them, unfortunately negative, apply to the withdrawal from the realization of an individually designed local centre point; it was later replaced with the service buildings and a much smaller design based on a typical project from the German Democratic Republic. Another important change was the initial intention to implement seven freestanding 24-storey residential towers. In their place, three 11-storey buildings were built, arranged parallel to others on the estate. Unfortunately, this arrangement blocked distant views to the St Bronisława hills and the Kosciuszko Mound.

Despite this, the original concept is clearly visible today (Fig. 3). The focal point is the 'green wedge' that provides a safe walk within the settlement along its north-south axis. Around the wedge, there are residential buildings together with the complex of public buildings such as schools, kindergartens, a cultural centre with a library and retail. On the north-western edge, in close proximity to the tram loop, there is a local shopping centre. It is worth mentioning that the tram line was built a few years after people moved in, creating quite a lot of disturbance at that time. The wedge itself acts like a recreation zone for its inhabitants - playgrounds for younger and older children, the amphitheatre, and the necessary benches to relax can be found here. Due to the immediate vicinity of kindergartens, it is an ideal place for families to walk or play outside its borders. (Fig. 4)

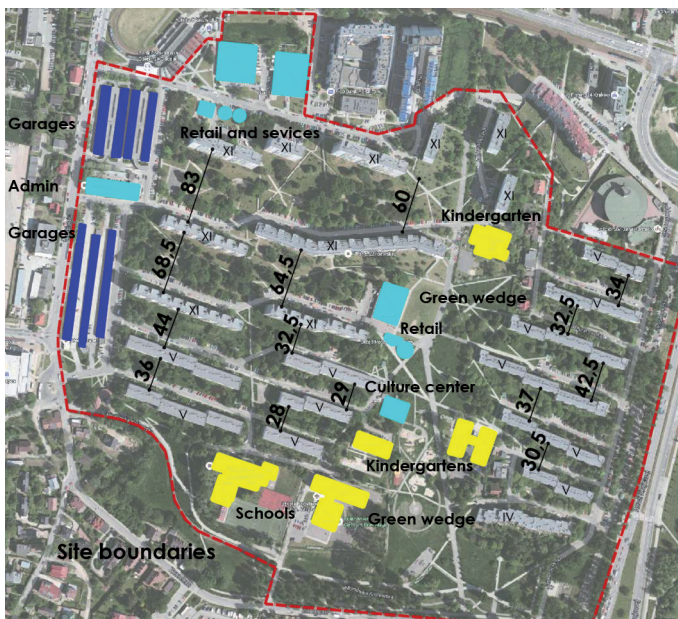


Fig. 3 Widok - aerial view. Image source: Google maps



Fig. 4 The view inside the green wedge. Children from the adjacent kindergarten

There are two main vehicular accesses into the estate from the east and west side, where parking lots are situated. A system of cul-de-sac roads gives access to each building, leaving the central part untouched and reserved only for pedestrians. On the west side, 2-storey, freestanding parking buildings were located. Unfortunately, it is the weakest point of the design, responsible for the creation of the hard and unpleasant edges on both sides. However, it should be understood from the broader perspective – as a coherent idea for a communication system, where pedestrians are separated from cars, and their safety plays a crucial role. We should also take into the consideration that in 1960, there was a rule of just a 40-80 cars per 1000 inhabitants, which later was replaced with the more than one to one rule in 1974; this took into consideration extra parking spaces for guests (Basista, 2001:p.128).

## 2.3 Key figures

The distances between buildings for low-rise buildings vary from 28 m to 44m, and for the high-rise buildings, from 60m up to 83 m. The buildings were located next to each other, instead of placing them as freestanding objects; this was intentional. As the author of the design, K. Bień, pointed out, his goal was to maximize the mutual distances, at the same time keeping the required amount of people per hectare as was enforced by national standards. The gross covered area is just 13 %, and greenery is around 60 %. Despite the considerable height, for buildings located on the north and west side, the floor area ratio for residential buildings is low at only 0.6.

### 3 Future City housing estate

The construction of *Future City* Housing Estate started around 2009. As Figure 5 shows, it was designed as a hybrid – a mixture of modernism and classical principles in urban planning. A system of roads divides the plots into the urban blocks where free standing buildings are placed. Its perimeter is open to maximize sun infiltration. Buildings form the “L” shape with building eight growing towards the north. The distances between buildings are much less generous than at *Widok*, and this varies from 20m up to 40m. *Future City* is a very homogeneous compound, like a kind of modernism that separated the functions. Only at its northwest corner on the ground floor has a space for services been designed, currently occupied by a grocery and restaurant. The new buildings that are now under construction, situated on the east side of the plot, also will have services on the ground floors. There is no cultural centre, library nor kindergarten, as developers minds are focused mostly on square meters that can be easily sold<sup>1</sup>.

A gated small playground has been located in the south-west corner, unfortunately, it is not connected with the main pedestrian axis that stretches through the middle in an east-west direction. The greenery is limited to a minimum and fills the gaps between the buildings; its area is approximately half that of *Widok*, with more than twice the floor area ratio<sup>2</sup>.

The general visual impression of the estate is very positive. Building facades have an interesting and contemporary look; apart from popular plasterwork, wood materials have been used for external wall finishes. Although there is some greenery, omnipresent cars and a lack of people during the day creates an uninviting overall impression. (Fig. 6). *Future City*, to some extent, has been designed similarly to *Widok* as a closed unit. In both cases, we can say more about the act of exclusion rather than inclusion into the city fabric. *Widok* was intended to be a self-sufficient city, which somehow explains the reason that it stood on the selected empty land located on the far outskirts of the city. This allowed the implementation of an ambitious functional programme. Thanks to the presence of schools, kindergartens, cultural and shopping centres, and to a unique communication system that left a central green wedge free of buildings and cars, it is still an attractive alternative

<sup>1</sup> The plot size is nearly 6 times smaller than on the *Widok* estate, thus creation of a self-sufficient city is less possible. However, if we take into consideration other housing estates recently built in Cracow, then we will see that that greater plot size results only in a greater number of flats. Developers are not interested in building liveable cities. They are not even encouraged to do so through the policy of the city planning department. Indeed, the city planners show a very similar point of view. Their planning documents and issued decisions are focused mostly on land and function division – different for each established zone – thus creating isolated islands.

<sup>2</sup> Density, as the professionals have taught us, in the person of Jan Gehl or Jane Jacobs, is key. It is one of the main factors (including diversity) determining the ultimate success of the city. After all, more people mean more life.

on the estate market, successfully competing with newly built residential developments.

The *Future City* should be seen more as a compositional than a functional entity, enclosed within the plot borders. Because it occupies a much smaller area, which results in a reduced programme implementation (limited mostly to residential units), it is more important to see how it integrates and enriches the existing city fabric and to see how the newly combined parts of the city create a better and self-supporting structure.

Unfortunately, only the roads integrate well. The inner axis has no continuation on the adjacent plots; the playground is fenced and reserved exclusively for residents. Attractive recreational areas related to the former course of the Royal Młynówka River, located on the southern edge do not have a clearly defined connection with the settlement. The shop and restaurant more serve its residents. Walking connections to the city are long and unattractive, they do not encourage visitors to come and stay for a while. The estate is partially fenced, further underlining its separate, isolated character.

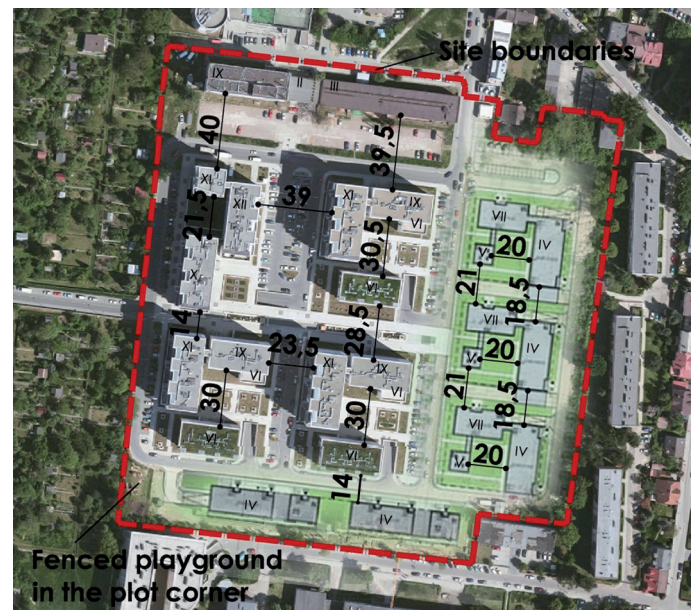


Fig. 5 Collage of two images. Image source: Google Maps, B2 Studio website



Fig. 6 The view along the main compositional axis. Photo source: <http://tabelaofer.pl/wirtualny-spacer,index,id,Cracowfuturecity>

## 4 Basic disadvantages of the modern realizations of housing estates in Cracow

The *Widok* settlement analysis has created the perfect backdrop for the further evaluation of selected, contemporary residential realizations in Cracow. On this basis, major drawbacks of modern housing estates have been identified. The following five points describe them in detail.

### 4.1 Density

One of the flagship examples illustrating the problem of maximizing floor area ratio at the expense the quality of space between the buildings is a housing estate located in Ruczaj district. On the grounds of defective spatial and architectural solutions, in 2009, the settlement received an ironic award called *Makabryła* in the poll organized by the editors of the architectural site *Bryła.pl* for the worst building in the country. Among other things, the housing complex is characterized by a high rate of gross covered area, short distances between the buildings and the lack of any social infrastructure. Small spaces between the buildings – the only areas possible to use for recreational purpose - were left undeveloped. External gardens that belong to the apartments were limited to a small strip along the inner facades of neighbouring buildings; the remaining central space has been paved with concrete blocks. There are no benches, or any other elements of site development, making the space yet more anonymous. Apartment windows do not offer extensive, open views. Buildings are located parallel at a short distance of just 12 meters, thus forcing residents to look at each other. When looking down, the square, resembling a prison exercise yard rather than a friendly garden, appears in view. To crown what is an absurdity, the building has been designed in such a way that it has an internal, open staircase connecting two blocks of flats, resulting is a very gloomy atmosphere inside. The light barely reaches the lowest level, and even worse, some apartment windows face this dark well.

### 4.2 "Urban leverage"

Real estate investors, encouraged by the lack of local plans seek ever new, undeveloped and cheap land, where they can successfully realize their visions, which bring to mind solutions so distant in time and territory as those associated with the American dream of living on the suburbs. Developers attention focused on profit, which under much freedom, can only bring activities aimed at maximizing floor space and a functional programme reduced to just housing units and garages. Deficiencies in social infrastructure, trade and services are compensated by their presence in the neighbourhood, often very distant. Developers choose those locations which exempt them from the requirement for additional functions within site boundaries, according to the principle "what you can't find here you can find in the neighbourhood". It is the best illustrated by the enclosed map (Fig. 7) from the website of the development

called "Sunny wedges". The investor, to highlight the disputable attractiveness of the location, has scaled down the map enough to reach remote attractive locations up to 5 km distant. After all, the car will solve the problem - unfortunately, a large group of people think in the same way. In the approaches to urban planning, we are still stuck in the 60's of the last century.

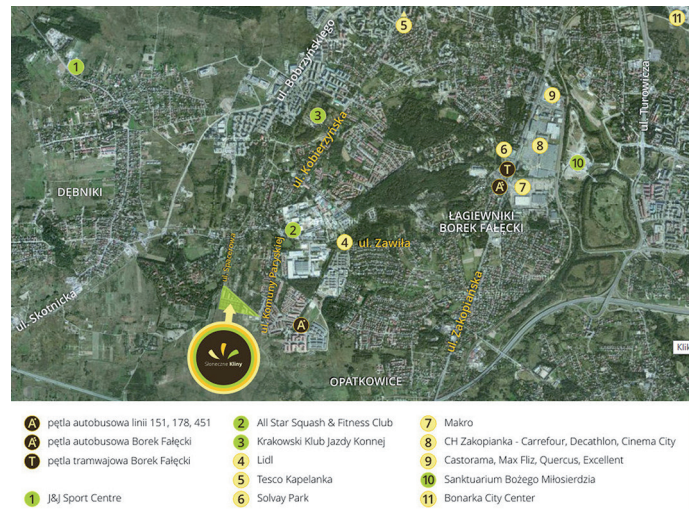


Fig. 7 Map of an attractive locations in a far distances from the "Sunny wedges" housing estate. Photo source: <http://slonecznekliny.pl/>

### 4.3 Filling the gaps

In the search for available free land, developers have dropped any hesitations. The names of the settlements with positive associations such as "Housing estate under the oak" act as a decoy, aimed among other things, to divert attention from the dismal neighbourhood. Residential areas are placed wherever possible. The principle of zoning seems to apply only to the plot itself where mono-functional settlements are built. The immediate vicinity of industrial sites, cemeteries and open car parks are no longer a barrier in the realization of the estates that are detached from the rest of the city.

### 4.4 Gated communities

One of the biggest ills of modern housing in Cracow is the principle of fencing, adopted universally as if it is a canon of urban planning. Not just the buildings, but also the playgrounds have been fenced, which are accessible only to those who pay the appropriate charges. At the settlement gates, you are confronted by numerous warning signs. (Fig. 8) This situation perfectly describes the words of Jane Jacobs, horror of horrors written in the early 60s. "... In case anyone mistakes what the fence means, the signs on the project street also say "Keep out. No Trespassing." It is uncanny to see a city neighbourhood, in a civilian city, walled off like this. It looks not only ugly, in a deep sense, but surrealistic..." (Jacobs, 2014:p.66).

Resident safety is identified with fences, gates, CCTV and 24-hour protection. Such an approach to that topic is similar for the developers as well as for their clients. It is hardly surprising

that such an attitude indirectly comes from the dominant idea of zoning. With no functionally differentiated buildings, its homogeneity results in limited pedestrian traffic during the day. Deserted streets do not create a sense of safety. There are no separate pedestrian routes away from car traffic, which makes the fenced area in the direct vicinity of the building the safest place for children to play. “...*Under the seeming disorder of the old city, wherever the old city is working successfully, is a marvellous order for maintaining the safety of the streets and the freedom of the city. It is a complex order. Its essence is intricacy of sidewalk use, bringing with it a constant succession of eyes. This order is all composed of movement and change...*” (Jacobs, 2014:p.68)



Fig. 8 The view toward the gate into the European Housing Estate showing the number of warning signs

#### 4.5 Small shops

Monofunctional settlements attract small economic initiatives, located usually in temporary booths in attractive locations within the neighbourhoods. A great example to illustrate this is *European Development* – a housing estate located on the south-west edge of the city. In its northern part, a commercial building has been designed. Due to its convenient location, near the main transport hub, some small businesses have operated successfully here for many years. Retail, hairdresser, developer offices, law firm and a private health clinic have been present almost continuously since the beginning of the settlement<sup>3</sup>.

Further south, deep into the estate, on the ground floors of the buildings devoted for the services, the situation is quite different. The rhythm of bankruptcy is far more frequent. Interestingly, successive heroes undertake the same as their fallen predecessors' initiatives; full of faith that they will do it better and a financial flop will not be their fate. Such a situation occurred several times in the case of a grocery store located in

<sup>3</sup> Only the restaurant changed its owner, although its Vietnamese version has been successfully running for several years.

the attractive corner of the neighbourhood. Meanwhile, small shops with vegetables, meat, alcohol situated almost in the same spot on the other side of the street have worked successfully for years. Why is this happening?

Cities need old buildings, whose rents may be much lower than in new ones because the owners no longer need to cover their investment costs. Therefore, the range of services that can function in a new building are automatically restricted to those which are able to finance those costs. It must be a very profitable enterprise or very subsidized one (Jacobs, 2014:p.199). This problem does not apply to temporary pavilions. These are located, as with the *European Estate*, on a free patch of land that belongs to the owner who lives in a detached house built a long time ago. For him, the rent does not have to be high, actually, it is an additional source of unexpected income; not one that has to repay investment loans. The situation with kiosks resembles that of the early eighties of the last century, where all across Poland, not excluding prefabricated housing estates, temporary commercial buildings intended for small trade emerged. (Basista, 2001:p.72).

#### 5 Summary

This analysis of the principles of modern housing estates in Cracow shows that the same errors are still committed. In addition, defects uncommon in mass housing are seemingly ladled out. Today's realizations are characterized by much higher rates for the density and gross covered area of the development, which is not necessarily bad. However, the shorter distances between buildings, a smaller share of greenery, lack of attractive recreational areas, a mono-functional character and security associated with the construction of fences, should be evaluated negatively. In most cases, building typologies are following historical patterns that define the classical urban block with clearly designated building frontages forming the streets. Only formally have we tried to recreate the city. Programmatically, however, we are stuck in modernism, and we still struggle to successfully depart from the fundamental principles related to zoning<sup>4</sup>. Therefore, realized settlements are very homogeneous and thus deprived of life. The lack of any social or cultural infrastructure aggravates this state of affairs making us, even more, dependent on cars. The *Widok* housing estate is not an ideal one; however, it is a good example of the implementation of the comprehensive<sup>5</sup> vision of a self-sufficient city in the park, which, in author's opinion, is far more convenient, friendly and safe. Choked by a freedom, we have unlocked a dormant energy for creativity, which unfortunately has found an outlet only in an aesthetic and formal realm. We have not yet

<sup>4</sup> The departure from the zoning principles, when it occasionally happens, leads to extreme situations where residential areas adjoin, for example, industrial sites.

<sup>5</sup> Despite the failure of the realization of the original proposal.

found the right prescription for the formation of friendly, safe and vibrant cities. The blame and responsibility lie on all participants in the investment process: from the developer to the architect, and ending with urban planners. The apparent escape from the mistakes of mass housing has been laid bare in the tangible form of spontaneously emerging commercial kiosks. History has come full circle.

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