

PAPER • OPEN ACCESS

Recipe for a City

To cite this article: Elzbieta Weclawowicz-Bilska 2019 *IOP Conf. Ser.: Mater. Sci. Eng.* **471** 112048

View the [article online](#) for updates and enhancements.



IOP | ebooks™

Bringing you innovative digital publishing with leading voices to create your essential collection of books in STEM research.

Start exploring the collection - download the first chapter of every title for free.

Recipe for a City

Elzbieta Weclawowicz-Bilska¹

¹ 24 Warszawska street, 31-115 Cracow University of Technology, Poland

eweclaw@poczta.onet.pl

Abstract. Transformations of historic spaces in European cities have always been subject to certain principles and rules – different in different eras – regulating their structures. The results of expanding and transforming urban settlements in Poland show that, particularly in the last dozen or so years, a clearly discernible principle would be difficult to find in the image of Polish cities. Absence of a universally accepted urban planning doctrine is probably one of the reasons that there is no harmony, beauty or composition in currently created large cities in Poland. The problems have been discussed on the example of one of the major and most beautiful cities in Poland – Kraków. Its spatial structure is the result of many centuries' work, and it encompasses both historic urban schemes preserved in full and fragments of urban and rural settlements starting from the early Middle Ages. A rapid growth of the city area has been going on in several stages since the mid-20th century. Dynamic expansion, affected by several stylistic trends valid in the late 20th and early 21st century, such as socialist realism, modernism and postmodernism, has totally changed the spatial form of the city. The city population has trebled during that time, and its area has grown almost seven times. The efforts aimed at rebuilding, expansion, modernisation and ordering the city that were undertaken after the political regime change in 1989 and following the changes in the Act on Spatial Development introduced in 1994 and 2003 and in the building code – in 1994, have failed to meet the city residents' expectations. Poland's accession into the European Union in 2004 brought on a certain acceleration in the process of modernisation, rebuilding and transformation of the city. It has been – and still is – provoking a succession of environmental, social and, first of all, spatial conflicts. The most serious problem is the air pollution in the city, resulting both from dust and chemical emissions, the limits of which are exceeded for seven months a year. Additional inconveniences of the urban life in Kraków are related to the fact that there are approximately 300,000 commuters coming to the city on a daily basis, who use up a considerable portion of the scarce municipal services. The contemporary growth of development in Kraków and its surroundings – at the time when sustainable growth and spatial order make a universally accepted paradigm – must be considered an unfulfilled promise. It seems that basing city growth in Poland on the self-regulating free market forces has been a mistake. The introduced legal and planning regulations were excessively liberal. This, combined with the fact that only a small percentage of urban areas have valid land use plans, makes the system defective and insufficient. Moreover, the frequently introduced changes and modifications of the system only further expose its inefficiency. The dominant position of investors, rather than urban planners, in creation of urban spaces, both in housing and services, does not promote harmonious growth or high quality public spaces.



1. Introduction

Transformations of historic spaces in European cities have always been subject to certain principles and rules – different in different eras – regulating their structures. The results of expanding and transforming urban settlements in Poland show that, particularly in the last dozen or so years, a clearly discernible principle would be difficult to find in the image of Polish cities. Absence of a universally accepted urban planning doctrine is probably one of the reasons that there is no harmony, beauty or composition in currently created large cities in Poland. The problems have been discussed on the example of one of the major and most beautiful cities in Poland – Kraków. Its spatial structure is the result of many centuries' work, and it encompasses both historic urban schemes preserved in full and fragments of urban and rural settlements starting from the early Middle Ages.

A rapid growth of the city area has been going on in several stages since the mid-20th century. Dynamic expansion, affected by several stylistic trends valid in the late 20th and early 21st century, such as socialist realism, modernism and postmodernism, has totally changed the spatial form of the city. The city population has trebled during that time, and its area has grown almost seven times.

The efforts aimed at rebuilding, expansion, modernisation and ordering the city that were undertaken after the political regime change in 1989 and following the changes in the Act on Spatial Development introduced in 1994 and 2003 and in the building code – in 1994, have failed to meet the city residents' expectations. Poland's accession into the European Union in 2004 brought on a certain acceleration in the process of modernisation, rebuilding and transformation of the city. It has been – and still is – provoking a succession of environmental, social and, first of all, spatial conflicts. The most serious problem is the air pollution in the city, resulting both from dust and chemical emissions, the limits of which are exceeded for seven months a year. Additional inconveniences of the urban life in Kraków are related to the fact that there are approximately 300,000 commuters coming to the city on a daily basis, who use up a considerable portion of the scarce municipal services. The contemporary growth of development in Kraków and its surroundings – at the time when sustainable growth and spatial order make a universally accepted paradigm – must be considered an unfulfilled promise.

It seems that basing city growth in Poland on the self-regulating free market forces has been a mistake. The introduced legal and planning regulations were excessively liberal. This, combined with the fact that only a small percentage of urban areas have valid land use plans, makes the system defective and insufficient. Moreover, the frequently introduced changes and modifications of the system only further expose its inefficiency. The dominant position of investors in creation of spaces for housing and services does not promote harmonious growth or high quality public spaces.

2. Urbanization in Poland in the 20th and 21st century presented against the background of how European cities were created

Since time immemorial, cities have been built in compliance with certain prescribed principles and rules.

In Greek cities, where planning was based on geometric patterns, the important factor were proportions symbolising a harmonious spatial arrangement [1], like – for example – in the designs of Hippodamos of Miletus, a mathematician and architect. Vitruvius defined the fundamental requirements regarding the location and design principles of city space with the use of a few concepts: *ordinatio* – order, moderation; *dispositio* – adequate arrangement of components; *eurythmia* – rhythm, repetitiveness; *symetria*, which he understood as a harmonious compatibility of parts; *distributio* – economy; *decor* – beauty [2].

Urban layout was decided by a proportional arrangement of simple geometric figures, which were considered the foundation of beauty. According to Aristotle, “*cities should be built in such a way that they give protection to their inhabitants and at the same time they make them happy*” [3].

In the Middle Ages, cities established in *cruda radix*, mainly in Central Europe, represented various forms: “These newly established cities have numerous shapes, which ancient scholars tried to classify

into types. However, they were unable to find a stable rule that would be a guiding principle in selecting one model over another” [4]

This was the time in which the greatest number of cities were established in Poland. They were founded on the German law or its local variations. In their formal aspect, they referred to an ideal symbolism, where a clear and well balanced layout of streets represented the order of Heaven.

In Renaissance, ideal cities were designed by superb artists, such as Filarete, Alberti, Scamozzi or Leonardo da Vinci, who infused the artistic value into their creations. Beauty was reflected in mathematical and geometrical proportions. The numerical structure ensured the rule of order in the space. Although a lot of these designs were never implemented in practice, they have a certain appeal to us even today, with their aesthetic values, simple geometric layout, balance of forms and clarity of the arrangement, such as e.g. the well preserved Italian Palma Nuova or Polish Zamość.

Baroque city creators – Domenico Fontana, Michelangelo Buonarroti and Palladio – based their ideas on solutions developed in the ancient Rome and the achievements of Renaissance. *“The greatness of the Baroque urban design is to be found in that it creates its masterpieces with a great impetus, grand in scale, and they remain equally splendid when adjusted to the existing conditions and reduced to a modest size, they always exhibit monumentality – both in the large and in the small scale”* [5]. Axial layouts, monumentality and dominance of form over function ruled absolutely, the most illustrative example of which is Versailles.

In spatial solutions of the classicism and later on, we may still see the striving for symmetry, monumentality, carefully balanced proportions and axial layouts drawn mainly with straight lines, but also with the use of an oval, the example of which may be the most beautifully designed English Bath by John Wood the Elder and his son.

The rebuilding of cities which took place in the 19th century was still following the previously binding rules in its striving to order the city space by introducing long and wide avenues – running parallel or radiating, equal sizes of development and generally accessible parks, such as e.g. in Haussmann’s Paris, Cerdà’s district of Eixample in Barcelona or in Vienna. Dynamic construction of new cities, rebuilding of the structure of existing cities and changes in the settlement network resulting from the introduction of railway and industrial growth in the 19th century led to a much greater development density and a change in size of many cities. It contributed to a great extent to abandoning the ideas which had been hitherto obligatory in urban design, and this resulted in the crisis of the city.

Modernism, seen as a remedy to this crisis, in its initial period based urban development on three basic forms: the dispersed city, linear industrial city and concentric-radial city. In the second half of the 20th century, the rational approach to space broke with the traditional scheme and burst the compact structure of the city, which led to the dominance of car transportation and clusters of housing estates with less dense development. Introduction of functional solutions reflected the way of looking at the city as a machine for living bereft of aesthetic values.

Postmodernism evoked once more the traditional city, but the ideas and trends that were simultaneously binding sometimes prevented the return of the old, so the come-back was not universally successful.

Modernistic projects in Poland referred mostly to small-scale schemes within the existing cities, but they also defined two new cities whose construction was initiated in the first half of the 20th century – Gdynia and Stalowa Wola. After the 2nd World War, they were further expanded in compliance with the principles of socialist realism and later on in compliance with the so-called socialist modernism. The socialist realism brought on the return to the Baroque ideas – axial layouts with wide avenues and spacious squares suitable for public rallies. The surrounding buildings of roughly equal sizes flanked large enclosures of urban blocks filled with greenery.

The dynamic expansion of big cities which took place in Poland in the 60s and 70s of the 20th century happened mostly in areas situated at a considerable distance from inner cities and the new development took the form of ever bigger housing estates with a scattered, sometimes extensive, layout – most frequently a parallel arrangement – of simple buildings, initially 5-storey, but getting

increasingly higher and longer over time – up to 11- or 12-storey and 500 meters long, “*wavers*” in Gdańsk in Przymorze and in Nowy Port, or in Poznań in Żegrze. The areas inside the housing estates were allotted for services (education, commerce, crafts and sports), which were usually realised with a very considerable delay, and some of them had not been completed until the time of the economic system transformation in 1989.

The episode of postmodernism brought little change to Polish cities; it was more related to revalorisation of historic complexes, such as e.g. in Elbląg. The most recent attempts to reconcile it with modernism have not produced any positive results.

In the period following introduction of free market economy and regaining of independence in Poland, we may distinguish three characteristic periods [6]. The first one, in years 1989 – 1997, was characterised by decline of numerous industrial plants, return to the city and unreserved acceptance of postmodernist principles. They were implemented only in a limited scope due to the poor financial situation of municipalities and absence of private capital. At the same time, the number of people living in big cities dropped owing to adapting areas outside cities for residential function. Frequently, municipal authorities sold all communal areas to cater for current needs, as was the case for example in Kraków. Besides improving the communal infrastructure systems, which was successfully done in very few cities, the result was the emergence of commercially erected single residential buildings, so-called infills in the urban fabric, and free-standing services facilities, primarily of religious function, and also first hypermarkets built outside cities and in their outskirts.

In the second period, encompassing years 1998 – 2006, we witnessed increasingly more discernible commercialisation of urban space. Construction projects financed by foreign capital, particularly in big cities, focused on large-format commercial facilities, which were erected in greatest numbers at that time, both in the peripheries and in the centres of cities. The number of built flats distinctly rose, to approx. 100,000 a year, which, however, still did not satisfy all the needs. Local governments started looking for investors, which was additionally helped by the newly established privileged areas. Further efforts were being undertaken to improve municipal services and the city space management. They were partly financed with money obtained from pre-accession funds and other European programmes.

The third period – years 2007 – 2017 – is marked by an increased participation and significance of the public sector in the city expansion, and this was made possible due to the European funds. At the same time, the dominance of private sector is clearly growing, primarily with reference to residential construction, but recently also with reference to creation of new jobs. Investment activities of local governments aimed to improve the quality of public spaces are becoming more vigorous, but they are mostly focused on central and historic areas of cities. Various urban spheres have some of their parts revitalised. The increasingly more liberal legislation regulation city planning, absence of planning documentation and the activity of commercial developers give big Polish cities and their surroundings the air of being developed in a random and chaotic manner. Similarly to the majority of big cities in the world, Polish cities grow very dynamically but also spontaneously. *“In Polish reality, a lot of cities lose physically the development features that have for centuries defined urban spaces. It seems that some Polish cities drift towards “formlessness,” and their structure, instead of becoming increasingly more crystalized, falls into deformation and destruction”* [7].

3. Polish legislation regulating urban design and spatial planning in the 19th and 20th centuries.

The greatest boom in urban development took place in Poland in the 13th and 14th centuries, when over 80% of the currently existing cities were established. Their foundation and erection was in most cases based on the German law, which in turn drew from the Roman law. The law regulated all city problems in a comprehensive way. Provisions included therein prescribed the rules of marking out the layout of the city and organizing all the necessary services and public utility facilities. They were applied on a permanent or periodical basis from the 13th to the 18th century [8]. Apart from the most commonly used Magdeburg law, there was also the Lübeck law – used for the Hanseatic cities – and their local variations, such as Chełm, Środa or Poznań law.

In years 1795 – 1918, Poland had lost its statehood. The creation and development of building laws and regulations for Polish cities was taking place during the period of partition, so – initially – growth and expansion of cities in the territory of Poland was regulated by the laws binding in the three different occupant countries.

The first normative documents written in Polish were published on the 18th July 1883 as Provisions of the building law or the city of Kraków and Provisions of the canal law for the city of Kraków/ [9]. The Building Law for villages, small cities and towns of the Kingdom of Galicia and Lodomeria was published in the territory under the Austrian rule in 1899. The law made reference to Fire law for cities and towns of 1786, which was in force in Poland before the partition.

In the 2nd Polish Republic, when numerous cities ruined during the war were being rebuilt, the binding law still included regulations of the former occupying countries. The situation continued until 1928, when the Ordinance of the President of the Polish Republic introduced *Polish Building Law*. The law laid down the principles of developing housing estates, development plans, division of building land into lots, consolidation and transformation of land plots, as well as expropriation procedures. It also included detailed provisions for municipalities, rural communes and public health resorts with reference to the building requirements and procedures.

In the period after the 2nd World War, the laws referring to urban design were passed in 1961. The building law was limited to the regulations governing the building process, and the problems of spatial management were transferred to the law on spatial planning, which evoked the decree of 1946 on spatial planning and management of the country. Subsequent new acts on spatial planning were regularly adopted every 10 – 20 years, and the previous ones were continually modified and updated.

In the period immediately following regaining of independence in 1989, the existing regulations were modified by minister's ordinances allowing alterations in certain construction activities [10]. The law on spatial planning was changed twice. The modification that took place in 1994 [11] was aimed to remove from the law the features characteristic of the command-and-control economy, i.e. to adapt it to the free market reality. An important change was introduction of the obligatory document called Study of Conditions and Directions of Spatial Development encompassing the whole of spatial problems in the whole territory of cities and communes, which – inter alia – determined the rules of spatial order and the requirements related to the environment protection. The only document necessary in the construction project planning was the local land use plan, which – once it was passed by the commune – became local law. The document did not have to encompass the whole city, but only a fragment, and the size of this fragment could be freely selected.

Another change of the rules governing spatial planning took place in 2003 [12] following the administrative reform of the country. The law obligated specific units of self-government and central administration to prepare planning documents in the regional scale. At the same time, it laid down a very long and complicated procedure of drafting planning documents, but also introduced an option – where there were no local land use plans – of carrying out construction projects on the base of an administrative decision. The fact that the financial burden of preparing local land use plans was to rest on the shoulders of the communes made them rather reluctant to use this legislative path.

The new building law, on the other hand, passed in 1974 and updated 10 times, was changed after 20 years – in 1994, already in the new conditions of the market economy.

4. The case study of Kraków. Changes of the city spatial structure over history, with special emphasis on the second half of the 20th century

Kraków, the former capital of the country, is one of the oldest and – due to its preserved cultural heritage – also one of the most beautiful cities in Poland. It is situated in the valley of the Vistula river in the area where it cuts through the limestone areas of the Kraków-Częstochowa Upland at the junction with the Carpathian advance.

The city was established following the Magdeburg law in 1257, on the area of 0.5 km², at the site of a former settlement. It had kept its organisation system until it became part of the Austrian Empire

in 1795. Since the Middle Ages, it has been functioning as an urban scheme due to two royal cities established in its close proximity – Kazimierz to the south in 1335, and Kleparz to the north in 1366.

Another urban establishment in the area of Kraków took place in 1784. The town of Josefstadt was founded on the southern bank of the Vistula, which in 1915 was integrated into Kraków as its district called Podgórze. Integration of the cities on the two banks of the Vistula resulted in the need to build a few road bridges in the first half of the 19th century, which were subsequently followed by several railway bridges.



Figure 1. Historical Cracow inside the Plantations –bird’s eye view [13]

The city was undergoing modernisation and reconstruction in the 19th century, which resulted in construction of new town houses and expansion of the city around the Old Town in larger urban blocks than the ones marked out in the Middle Ages, with inner green areas and gardens. Another development was establishment of a city park at the site of demolished mediaeval fortifications, which was called Plantations’figure 1’.

Subsequently, the old Vistula bed was filled up and another band of municipal green commons was created at the site –Dietl Plantations. The next green strip of the so-called second ring-road around the city was completed in the 30s of the 20th century by creating a few-kilometre-long avenue to replace a former railway embankment –The Avenue of the Three Poets.

Works aimed at improving the living conditions in the city were carried out since the early 20th century, they were related both to the infrastructure and to new green areas established on the boulevards along the Vistula, newly constructed as part of the river regulation project, which also included building flood-control walls.

In 1900, 91,323 people were living in Kraków, on the area of 832 hectares. E. Howard, who stayed in Kraków in 1912, called it a naturally developed garden city.

The city continued to grow systematically after the country regained independence in 1918. Incorporating subsequent areas into the Austrian fortress-city, which Kraków had been during the

partition period, led to an unprecedented growth of the city, so at the time of the outbreak of the 2nd World War the area of Kraków was almost 50 km² and it was inhabited by 259 thousand of people.

The post-war era saw further intensive growth in territory and population. A new socialist, workers' city of Nowa Huta was established in 1949 and after several years connected to Kraków. The area of the city was 230 km² at that time, and the population amounted to approximately 400 thousand people. The period was characterised by industrial development and its accompanying growing need of housing for the working class. New housing estates were built for the workforce employed by the industry in the obligatory style of socialist realism in the district of Grzegórzki and in the western part of the city (Rydla housing estate) as well as in Nowa Huta, whose part built in the aforementioned style is now listed and protected 'figure 2'. Another stage of dynamic growth in the city's housing stock happened in the 60s and 70s. The housing estates built at that time were situated in the outskirts of the city (Kozłówek, Bronowice) or in the area between Kraków and Nowa Huta. The housing needs determined implementation of modernist principles in creation of the housing estates – large areas of undeveloped land were left as reserves for future services and recreational and sports facilities, which were planned but remained unbuilt due to the lack of funds.



Figure 2. The centre of Nowa Huta – bird's-eye view. fot. Anna Kaczmarz, [14]

Another considerable enlargement of the city area took place in 1973. Today, the area of Kraków amounts to almost 327 km², and the population to 765 thousand people. Additionally, approximately 160 thousand commuters come to work in Kraków on a daily basis and approximately 200 thousand students study at the local universities.

The preserved mediaeval old town was entered onto the UNESCO List of World Heritage in 1978, as one of the first 12 sites in the world, and a buffer zone was created around it in 2010.

Following the political regime change in 1989, the city started to function in the free market reality, which led to commercialisation of its space. There have been attempts to create development within the framework of public-private partnership, but not very numerous or successful. The city is now dominated by large commercial centres, which have been built both in the areas outside the city (hypermarket Nico – 1993), in its outskirts (Makro Cash&Carry – 1995, Ikea – 1998, Centre of

Zakopane – 1998) and in its developed areas (Galery M-1 – 2001; Galeria Krakowska and Galeria Kazimierz – 2005 – 2009). Today, there are 15 large commercial centres in Kraków and a lot of hypermarkets.

At the same time, the amount of residential areas in the city has also grown. After the first period of free market economy, when residents – confused by the new rules – tried to satisfy their housing needs in the communes surrounding Kraków, which turned out troublesome for various reasons, we are now experiencing a dynamic return to the city and densification of its development. Housing complexes built by private investors, such as the one built in the vicinity of Cracow University of Technology, the so-called *European housing estates*, the *Avia housing estate* in Nowa Huta and others have been built on the areas which have not been covered in the land use plan, since – as of the 20th February 2018 – barely 51.7% of the city area have been covered by planning documents of this type [15]. “*Kraków is losing its character of a city that offers comfortable living to its residents. The areas that are now being rebuilt are excessively densified, which is happening at the expense of the existing green areas. Additionally, there are no binding standards that would precisely determine a maximal development increase*” [16]. Rapid acceleration in developing the city space takes place mainly by reducing the amount of green areas, which are still approximately 40% of the city area, but most of them are inaccessible to the public.

The areas of arranged greenery in the whole Kraków occupy 9% of the city territory [17] and municipal parks only 1%, i.e. 397 ha, although the authorities are now striving to increase this area to approximately 500 ha. What is more, the areas covered by nature reserve protection amount to only 0.15% of its area, i.e. 48.6 ha [18]. The green area per one inhabitant in Kraków is also small when compared with other Polish cities. It occupies the last place when it comes to the amount of forested areas, with its 25 m² per inhabitant, and 24 m² of green areas per person [19]. Still, in many areas of Kraków, where the Study provides for parks, the land remains unprotected against development by local plans and plots belong to private persons or companies, who plan their development.

Poor ventilation of the Vistula valley is deteriorating even further as development is taking up more and more new areas in the existing so-called unarranged green commons of the city as well as the free areas inside the socialist-era housing estates. Rapid development of vehicle transportation – observed in numerous post-communist countries – combined with not the most efficient public transport system, additionally contributes to the pollution in the city.

High levels of air pollution continue to prevail in the city for approximately seven months a year, and they are reduced only by wind and rainfalls. In 2016, Kraków was classified as the eleventh most polluted city in the European Union [19].

5. Results and discussions: The case of Kraków in the light of the paradigm of environment protection and spatial order

Kraków is the second largest city in Poland. It has numerous preserved historic urban schemes surrounded by newer urban fabric which accumulated around them over time. Today, even urban development schemes and individual objects erected after World War II begin to be entered onto the list of protected heritage. The wide Vistula valley, limestone boulders and monadnocks, single hills and artificially created mounds, as well as the high grounds of the Carpathian advance, they all make for a varied landscape of the city.

The development erected in the last decades in the city area has led to urban structure densification and reduction of green areas, which directly affects the climate in the city. The excessively dense urban structure itself has become a nuisance. Absence of the most basic standards for residential areas, particularly with reference to services and greenery, results in the fact that the currently built developments do not meet even the minimal requirements for housing, thus negatively affecting the general living conditions in the city. In Poland, there are no precisely formulated standards for the environment we live in, nor any binding urban planning standards. Each urban designer and spatial planner defines them individually. To make matters worse, the Chamber of Urban Planners associating space designers and urban planners was dissolved a few years ago. Organizations of specialists dealing

with city design have been criticising this situation for years. The poor spatial situation in Kraków, as well as in other Polish cities, is made even worse by the fact that such small percentage of urbanised areas are covered by local land use plans. Additionally, the ease of obtaining and the short waiting time for administrative decision activating the construction process, which is the consequence of the present situation, is very convenient for investors and residents alike, so they protest against drafting land use documentation. On the other hand, self-government organs, particularly in small communes, accept the status quo, as they do not have sufficient funds to finance preparation of the land use plan.

The observed spilling of the city into the neighbouring communes refers mostly to residential areas, business locations and warehouses, and it takes on the form of urban or suburban sprawl. The outskirts of the city and the suburbs fall victim to random and unplanned development, they continuously grow and at the same time become more densely developed. The sprawling city causes various complications related to public transport. Living in such a city becomes difficult.

Extensive suburban structure of development is the most uneconomical manner of city growth. It requires building new roads and providing land with the necessary infrastructure, particularly the sewage system, the absence of which radically contaminates the environment. All this proves to be a huge burden for communal finances.

People living in the peripheral or suburban developments are deprived of services, so they use these which are to be found in the city, where they go using their private cars, thus increasing the traffic and aggravating air pollution. Large areas of single-family residential developments in communes neighbouring on the city also adversely affect the environment in the city (urban breeze circulation). The reason for this are frequently applied individual heating systems based on solid fuels of poor quality.

Additional problem making residents' lives difficult is the location of large commercial centres in the city – mainly in its peripheral areas, but also in the more central dense urban fabric. Their presence leads to a distinct increase in vehicle traffic in the surrounding areas contributing to traffic congestion and traffic jams.

Geographic location of Kraków in the Vistula river valley makes ventilation of the city difficult, which results in the fact that it is veiled in smog during the heating season. Kraków is one of the leaders in the European Union ranking list of cities with the most polluted air. The result of dust pollution is, apart from the obvious consequences for health, the discernible reduction of air transparency in the city.

6. Conclusions

The planned and the actual situation of a contemporary city has been illustrated with the example of Kraków, but it is also true for many large cities in Poland and most probably elsewhere. The reasons why it is so being complex and varied. Certainly, on the one hand, it was the initial enthusiasm for the free market ideas, the drive to have and develop one's own business. On the other hand, however, it is the lack of strong connection with others, absence of common identification of needs and objectives of city residents, who – as a result of the socialist history – constitute in fact various, sometimes very different, communities. Most certainly, the underdevelopment in the aspect of general civilisation as well as poverty of the countries for many years remaining behind the iron curtain also contribute to the problem, and so does the desire to level out the differences as soon as possible. The problems are also aggravated by the neoliberal ideology ruling in Poland absolutely for the last few years, which is reflected in the defective, insufficient and far too liberal legal and planning solutions. The dominance of developers in creation of residential and services space does little to promote harmonious growth of the city.

Cornelis van Esteren, the author of the plan for Amsterdam, said once in the interwar years that *“Cities may not be better or more orderly than the societies which have created them. This fact will not be changed by the expertise or personal opinions of the urban planner. The city is the image of the society that lives in it, and each city plan is a sediment left by a certain social arrangement.”*

References

- [1] Platon: State, Book IV 422E p. 121 for: J. Rykwert J. Temptation of place. The past and future of cities. Krakow 2013
- [2] M.P. Witruwiusz: On the architecture of books ten, ed. P. Biegański and others, Warszawa 1955
- [3] S. Giedion: Space, time and architecture. The birth of a new tradition, Warszawa 1968, p. 749.
- [4] L. Benevolo:, A city in the history of Europe, Warszawa 1995, p. 81,
- [5] A. Maśliński: Baroque. Apogee of modern art, ch. 1: In the field of urban planning, [in:] Studies on the art of the Renaissance and Baroque, vol. III, ed. A. Maśliński, Lublin 1995, pp. 18-42
- [6] J. Sepioł: Free Poland architecture [in:] Free market - a better city? 25 years of free market experience of Polish architecture. Materials of the Conference Free market - a better city? October 15, 2015, as part of the International Architecture Biennale, Krakow 2015 (in Polish)
- [7] R. Blazy: Deformation of the city. Technical Transactions 9/2017. Architecture and urban planning pp. 5-21
- [8] M. Bogucka, H. Samsonowicz: The history of towns and townspeople in pre-partition Poland. Wrocław. Warsaw · Krakow. Gdańsk · Łódź.
- [9] T. Biliński: Construction law yesterday and today. Construction review 2/2009 pp. 24-29
- [10] Announcement of the Minister for Spatial Planning and Construction of February 28, 1991 Journal of Laws of 1991 No. 30 item 127
- [11] The Land Development Act of July 2, 1994. Journal of Laws of 1994 No. 89, item 415
- [12] The act on planning and spatial development of 27. March 2003. Journal of Laws. No. 80 item 717
- [12] [http:// www. gorpol.pl](http://www.gorpol.pl) access 22/02/2018
- [13] <https://krakownaszemiasto/> access 22/02/2018
- [14] <https://www.bip.krakow.pl> access 22/02/2018
- [15] Interview with prof. B. Bartkiewicz Krakow is pouring out, because life in it becomes difficult [http:// gazeta.wyborcza. pl](http://gazeta.wyborcza.pl) 22.09. 2016
- [16] D. Wantuch: Municipal greenery, or 9 percent of Krakow's area. [http://krakow. wyborcza.pl/](http://krakow.wyborcza.pl/) 26/03/2015
- [17] P. Ogórek: Cracow. A great plan for greenery arises and arises, and greenery decreases. Naszemiasto.pl 2018-02-04
- [18] 33 out of 50 EU cities with the worst air is in Poland. <http://wiadomosci.gazeta.pl/>, access 20.02. 2018