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MATEUSZ GYURKOVICH

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IN SEARCH OF THE URBAN COMPOSITION OF SUB-CENTRES IN POLYCENTRIC EUROPEAN METROPOLISES

GYURKOVICH, Mateusz¹

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Abstract

In spite of its tempestuous history, Europe managed to preserve and save the crucial elements of the urban structure of most cities which determine their *urbanity*. The uncontrolled growth of polycentric metropolitan areas and some attempts to demarcate new *sub-centres* based upon economic, demographic and transport premises only passing over the principles of urban composition characteristic of European cities, jeopardize this state of affairs. This article includes theoretical ruminations on the role of the elements of urban composition in the construction of the image of a city centre and, consequently, a *sub-centre*. Cracow, treated as a case study, exemplifies the historical development of a polycentric European metropolis. The final conclusions are based on these ruminations supported with the chosen example. They indicate selected elements of urban composition which developed in the European culture over a span of millenniums – they are still necessary for the creation of the well-functioning centre and a *sub-centre* of a contemporary, polycentric European metropolis.

1. Introduction

These days, as a result of transformations and processes related to globalization and the mass migration of rural populations to the cities which has proceeded with varied intensity since the 18th-century Industrial Revolution, we can observe the intensifying growth of urbanized areas. Expanding metropolises compete or cooperate with each other on the national or international arena. Today's cities – or rather urbanized areas – act as contemporary man's natural living environment. In the course of their centuries-old development, European cities have developed some unusually diverse, hierarchical spatial structures (Benevolo L. 1995). They helped to put a

¹ **Mateusz Gyurkovich, PhD. Arch.** Institute of Urban Design, Faculty of Architecture, Cracow University of Technology, ul. Warszawska 24, 31-155 Krakow, Polska. Contact e-mail: mgyurkovich@o2.pl

built space in order in a clear manner obvious to all its users². With the development of colonialism, there were more or less successful attempts to adapt these models in culturally different regions of the world. It was not always possible. The simplified Cartesian grid, using the heritage of the Greek *polis*, Roman camps and numerous medieval towns, was applied on a broad scale in the New World and contributed to the fast urbanization of those areas. In the second half of the 20th century, however, the decline of hierarchically composed pedestrian public spaces in the growing American cities led to a serious crisis in these structures (Jacobs J., 1993; Koolhaas R., 1997)³. In spite of the unfortunate implementation of the principles of modernist urbanism in numerous cities on our continent (on a large scale in its pauperized and distorted version, especially in the countries of the former Eastern Bloc), it has been possible to preserve and save the crucial elements of the urban structure of most centres which determine *the urbanity of cities* in Europe so far. The uncontrolled growth of polycentric metropolitan areas and some attempts to demarcate new centres (*sub-centres*) based on economic, demographic and transport premises only passing over the principles of urban composition characteristic of European cities can change this situation for worse.

2. Selected theories & concepts connected with the problems of urban composition

Wondering which areas within a polycentric metropolis may be acknowledged as a *sub-centre*, one must begin with the very idea of a city centre or – more precisely – determine which of the existing elements of an urban structure help to demarcate it. Numerous theories and concepts, especially those developed in the 20th century, are very helpful. New trends and ideas appear in the history of the development of architectural and urban thinking which are reflected in the implementations of cities or architectural and urban complexes in the next decades. Many of them are rejected as incorrect propositions which do not satisfy the physical, mental and social needs of man who should always remain the subject and whose aspirations, desires and comfort ought to be the imperative value in the creation of architecture and urbanism. Observation of the history of the development of European cities – we are knowledgeable about this culture – excellently shows the durability and fleetingness of various values as well as draws our attention to the formation of some timeless elements of urban composition, particularly legible in the central areas of cities.

²Even though Leonardo Benevolo claims that we cannot talk about one obligatory type of a “European city”, all of them were based on similar social, political and religious models and grew from the same Greek, Roman and then Christian tradition. As a result, certain values reflected in the spatial structures of urban organisms should be acknowledged as universal and characteristic of the Western culture.

³There is a multitude of books and scientific studies which analyze the causes of this problem and try to find a remedy for the existing situation. The most famous publication was *The Death and Life of Great American Cities* written by Jane Jacobs from the perspective of social sciences. Its first edition in 1961 sparked off a scandal. One of Rem Koolhaas' most famous works – *Delirious New York – A Retroactive Manifesto for Manhattan* – may be treated both as the praise and criticism of this extraordinary, one-of-a-kind, dynamic urban organism. The whole of Manhattan is uncritically considered as the centre of New York although many of its fragments do not deserve the name of *central districts*.

When the theoreticians and propagators of modernism⁴ rejected the centuries-old traditional urban structure in the first half of the 20th century it brought about some catastrophic spatial, social and economic results (Jencks Ch., 1982; Cohen J-L., 2008). They are still a complaint of many cities, also in Europe. The amorphous spatial structure of modernist districts does not continue historical layouts and, instead of helping to build identity and their inhabitants' attachment, only increases their alienation and confusion (Gehl J. and Gamzoe L., 2001; Lynch K., 1960 and 1984; Gyurkovich J., 1999; Krier R., 2006; Krier L., 2011; Kantarek A., 2008; Wejchert K., 1974; Zuziak Z., 2008). The pertinent idea of separating vehicular traffic from pedestrian movement introduced by modernism, unsupported with suitable spatial shaping of the framework of transport sequences, led to chaos and the actual domination of cars in many cases. The atrophy of urban features related to this phenomenon and monofunctionality in modernist central areas led to depopulation and pathologization.

A lot of significant theoretical works were written in the wake of negating these tendencies. *Image of the City* by Kevin Lynch (Lynch K., 1960)⁵ seems to be the most important of these books. Sometimes it is treated as the most important book on urbanism after Camillo Sitte, first published in the XIX century (Sitte C., 1965). The author did not urge anyone to form cities and districts in a historical manner⁶ – his work refers mostly to the situation of American cities at the beginning of the 1960s. However, Lynch confirmed and preserved the universal values of a city which persist regardless of fleeting fashions and trends as well as the degree of the development of civilization⁷. He introduced some elements shaping the image of a city, referring to the perception of its physical form, which helps to find and define its urban composition in the consciousness of the users of an urban space. They include *roads*, *outskirts*, *neighbourhoods*, *nodes* and *landmarks*. None of these types of elements appear individually – they overlap and intermingle; moreover, they can change their type as a result of the diverse circumstances of being perceived by an observer.

It seems that more objective analyses and orders of individual elements of the spatial structure of a city could be applied on the basis of Kazimierz Wejchert's theory of urban composition, published in the mid-1970s⁸. His work dedicated to: *all those who may contribute to the creation of the beauty of (Polish) cities* (Wejchert K., 1974) develops and enriches Lynch's theory. It takes the issues of perception and the formation of defined impressions in an analysis of the most important elements of urban composition into consideration as well as draws a reader's attention to the necessity of conscious and composed shaping of urban and landscape complexes. He thinks that the main elements of a spatial structure influencing an observer are:

⁴With Le Corbusier and his – fortunately – unimplemented plans for Paris and Barcelona at the head.

⁵Acknowledged as the leading work on urbanism – as W. Kosiński writes in the introduction to its Polish edition from 2011.

⁶As the main eulogists of postmodern urbanism – the brothers Krier – frequently did, *ibid.*

⁷G. Cullen's book, which was first published in England one year after Lynch's work – in 1961 – is similar in its ideological expression but based on different premises and methods of research (Cullen G., 1986).

⁸Considered one of many continuators of Lynch's thought – cf. Kosiński W., *op. cit.*

elements crystallizing the city plan (they can also belong to further basic groups), *streets, neighbourhoods, border lines and belts, dominants of a spatial layout, outstanding elements of a landscape, nodes and distinguishing marks*. He notices that historical spatial layouts in many existing cities, understood as *elements crystallizing the plan*, will still make significant fragments of a spatial structure which seems especially important in the case of European cities. They are usually central areas with clearly formed public spaces (streets, squares, including pedestrian ones) which have some *spatial dominants* and accents (*distinguishing marks*), buildings and elements of the development of the space of a city that are important in formal, symbolical or functional respect.

3. Cracow as a case study

Cracow is the second biggest city in Poland and its former capital (from the early 11th century till the early 17th century) which now has well-founded pretensions to being its cultural and scientific centre⁹. Similarly to many other cities on the European continent, its urban development – from the earliest times, pre-foundation 9th-century settlements focused around the fortified ducal stronghold at Wawel, until the second half of the 20th century – may serve as a case study for following the role of the urban composition of a city centre and the related centres of satellite towns which complement its offer. A fortunate circumstance is that from among big Polish urban centres it suffered the least in the warfare years 1914-1918 and 1939-1945. It could be confirmed by the fact that Cracow has got the biggest number of objects officially acknowledged as monuments in Poland.

3.1 The urban development of Cracow in the Middle Ages

The Grand Foundation of Cracow under Magdeburg law was held in 1257¹⁰ which definitely combined more than ten earlier settlements, loosely connected with each other and with the castle and stronghold on Wawel Hill, into one urban organism (Encyklopedia Krakowa, 2000). The urban plan, based on the foundation privilege, is considered as the most imposing implementation of the pattern of the ideal medieval town with a geometrical layout in the European scale. Its centre is the Main Market Square called the largest medieval square in Europe by many researchers. It is a nearly perfect square (c. 200 m x 200 m) whose side is equal to four modular units applied while demarcating the city (1 rope = 45.45 m). The frontages include eleven street entries – one in the middle and two in both quoins. The asymmetrical number of entries is related to some irregularities resulting from the previous settlement layouts. From the south, there is a characteristic funnel-shaped solution of the quoin with the single entry of Grodzka Street which made it possible to connect the newly founded city with the

⁹Cracow – the capital of the Province of Małopolska; area within the administrative borders: 327 km²; c. 760,000 permanent inhabitants (with the metropolitan area: c. 1,500,000); c. 150,000 students (high percentage of outsiders) attending several dozen state and private universities; data according to www.malopolska.pl

¹⁰ The foundation privilege of June 5, 1257, whose original is kept at the State Archives in Cracow, was issued by Cracow's Prince Boleslaw the Bashful (with the participation of his mother Grzymislawa and his wife Kinga) .

earlier settlement of Okół located between it and Wawel Hill by the Vistula River which remained outside the city walls till the second half of the 14th century.

The remaining irregularities in the plan resulted from some earlier sacral implementations and the related small subsidiary settlements. What is characteristic, the city plan is twisted at a little angle in relation to the east-west axis lined with medieval churches. Owing to this presumably conscious measure, every church had a little square originally meant for cemeteries. St Mary's Church, dominating above the Main Market Square, is also bent in relation to its frontage which increases the dynamic of this urban composition. Dominants in the shape of Cracow's tallest church towers and the Town Hall tower (symbolizing sacral and secular power) informed about the location of the most important – central part in the spatial structure of the city.

After World War I, the Main Market Square finally assumed its current image of a vast space with the longitudinal, monumental Cloth Hall, St Adalbert's Romanesque Church at the exit of Grodzka Street and the freestanding Town Hall tower in the west side. Lots of buildings, mainly those related to trade and municipal administration (the Town Hall, the Big and Small Scales etc.), stood there for centuries. They were successively demolished by the Austrian occupiers from 1795 to 1918 but their relicts survived beneath the surface of the square and now they are exhibited at *the Underground Museum*¹¹.

The principles of a regular, geometrized grid were applied while planning the basic part of the double sequence of urban quarters surrounding the centrally situated market square in places undisturbed by the abovementioned pre-foundation layouts. The town, located amongst marshes and surrounded by ramparts, made a perfect example of a harmonious combination of theoretical urban assumptions and the existing conditions. Owing to the scale of this layout and its complicated urban structure, resulting from the earlier settlement network, the plan of Cracow is recognized as an individual spatial creation even though it is based on some earlier Silesian layouts, mainly Wrocław. In spite of the implementation of numerous competitive and undoubtedly attractive urban squares over a span of centuries, the Market Square still remains Cracow's most important public space – a place of special historical, cultural and social importance, an obligatory destination for tourists.

The 14th century, especially the reign of the last kings of the Piast dynasty – Władysław Lokietek and his son, Casimir the Great¹², was a period of strengthening the state and its capital after almost two hundred years of regional division. Władysław Lokietek managed to extend Cracow eastwards thanks to the plotting of Gródek after the pacified rebellion of Commune Head Albert (1311-12). Casimir the Great founded a number of towns across the entire Polish Kingdom, including Nowe Miasto na Okole (1338), almost immediately connected with Cracow

¹¹ *The Underground Museum*, a branch of the Historical Museum of the City of Cracow, is situated in the renovated cellars of the Cloth Hall and the relicts of former edifices in the north and the east. At the time of excavation works, a lot of new, unknown facts in the history of the Market Square were discovered. A huge 11th-century necropolis, closely surrounded by some wooden buildings, is the most interesting find. Perhaps that is why the square was not developed. The architectural and restoration design of the museum – Prof. A. Kadłuczka with the Archecon team – cf. e.g.: Gyurkovich M., *Impact of Multipurpose Culture Spaces on Postindustrial European Cities*, IFoU TOURBANISM – Barcelona 2012 – paper and conference publication.

¹² Władysław Lokietek (1306-1333); Casimir the Great (1333-1370).

and surrounded by new ramparts, as well as Kazimierz and Kleparz – today's central districts which should be treated as the first satellite towns of the metropolis of Cracow.

The foundation of Kazimierz under Magdeburg law in 1335¹³ referred to the Grand Foundation of Cracow. Located on the Vistula flood bench between two arms of the river, south of Wawel, by the trade route leading to the salt mine in Wieliczka and farther on to Hungary, Kazimierz connected the already existing settlements. The suburb of Stradom, situated directly at the foot of Wawel, was administratively incorporated to it. The chessboard layout of the streets included a big central rectangle, oriented in accordance with the cardinal points, whose size resembled Cracow's market square (140 m x 190 m). Its centre¹⁴ had the Town Hall, the Cloth Hall, some stalls and the Town Scales. The Parish Church of Corpus Christi was located in its northeastern quoin analogously to the position of St Mary's Church at the Market Square in Cracow. This town of handicraft and commercial character, surrounded by walls with four gates, was conceived as a satellite unit protecting Cracow and Wawel from the south. Wooden bridges were built outside the town gates. In 1340, the area of Kazimierz was enlarged by adding the village of Bawół located on its east side. The centre of this village became another urban square and then – after the arrival of a Jewish community at the end of the 14th century – the centre of the Jewish Town¹⁵, separated by a wall, which grew in the 16th and 17th centuries and occupied the northeastern part of Kazimierz as well. As a separate satellite town whose population amounted to about five thousand at its climax (excluding the Jewish Town with another five thousand inhabitants), Kazimierz functioned until the end of the 18th century when it was absorbed by Cracow together with Stradom and the Jewish Town. The legible urban composition of the city surrounded by its walls, including a complex of pedestrian public spaces lined with the most important municipal objects and spatial dominants (churches, the Town Hall, synagogues, commercial buildings), made it possible to develop its central and peripheral areas. This division is still visible.

The third and last element of this polycentric urban structure which functioned continuously for nearly 450 years¹⁶ was Kleparz founded by King Casimir the Great under Magdeburg Law in 1366 by the name of Florence on the north side of Cracow's city walls. The existing wooden pre-foundation settlement developed around St Florian's Church on the basis of the trade route connecting the capital with Wielkopolska, Silesia and Mazovia¹⁷. Similarly to the cases of Cracow and Kazimierz, the centre of Florence (the current name – Kleparz – was adopted at the beginning of the 15th century) was an extensive market square with approximately equal sides which was planned out so that the existing parish church would stand in its northeastern

¹³The foundation charter issued by King Casimir the Great on February 27, 1335.

¹⁴Today's Wolnica Square is just the northeastern part (approximately a quarter) of the former Market Square in Kazimierz whose ruined buildings were partially liquidated in the 17th and 18th centuries and then replaced with new structures in the 19th century.

¹⁵Today's Szeroka Street with the Old Synagogue (the late 15th century) closing its perspective.

¹⁶Before it was finally combined into one urban organism in the years 1791-92.

¹⁷Which was a stretch of the Amber Trail connecting the Baltic Sea with the Mediterranean.

corner. The Town Hall and numerous trade buildings were raised in the centre of the market square. The chessboard layout of the quarters of buildings, with proportions similar to the abovementioned towns, was never surrounded with ramparts. The city's spatial dominants were the towers of several churches and the tower of the unpreserved Town Hall – from the south it bordered on the city fortifications of Cracow with the Barbican and the Florian Gate which can be still admired. Its external east and west borders were transport routes which gradually transformed into urban streets.

Thus, in the twilight of the Middle Ages, Cracow was a complex of three towns – a tricity – located along the north-south axis, acting as the economic, religious and cultural centre of Poland with well-organized urban structures and of high military importance. The polycentric urban layout Cracow-Kazimierz-Kleparz was in its prime in the 15th, 16th and 17th centuries which was related to the general economic and political situation of the country. Despite the considerable growth of the suburbs and some changes in the development of the areas around these urban centres over a span of several centuries, they remained the central elements of the metropolitan layout. Apart from a number of economic privileges, the clarity of the urban composition of their central parts¹⁸ contributed to such a state of affairs. In spite of many similarities, the clearly defined spatial structure was a little different for each of the centres. Their scale varied, too. It was probably conducive to their individualization and the preservation of their identity despite shared economic objectives and limited distances¹⁹ adequate to the means of transport used in the Dark Ages.

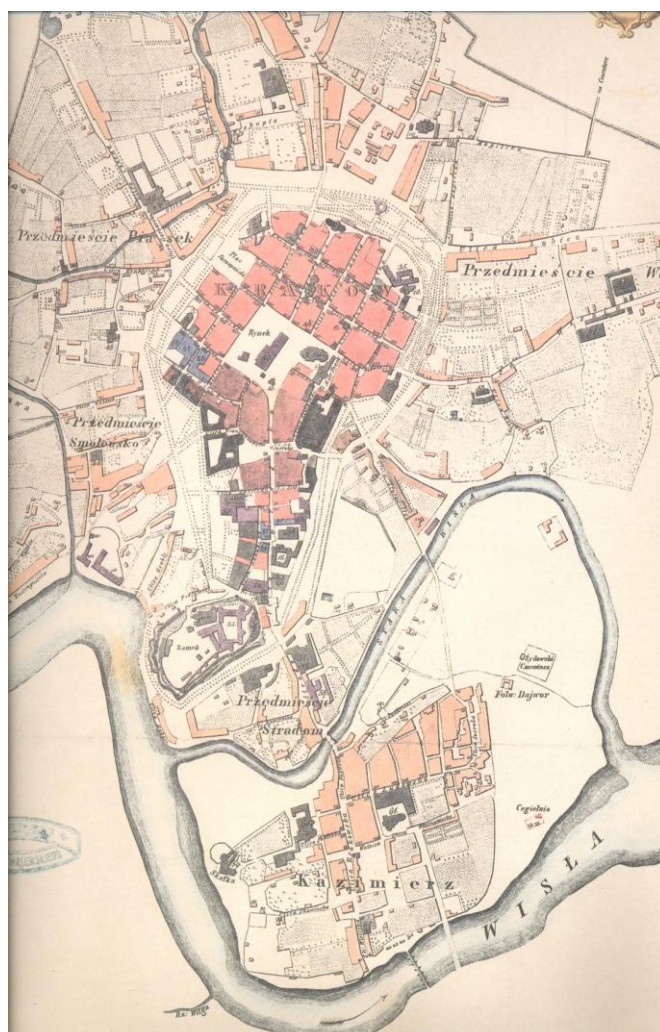
3.2 Important elements of the polycentric layout of metropolitan Cracow from the late 18th century till the 20th century

From among numerous small towns and villages growing in the next centuries on the grounds of today's City of Cracow and its metropolitan area, two centres, founded and developed by foreign powers, deserve special attention. They wanted to bring Cracow under manage as a result of diverse historical vicissitudes and to create some towns nearby which would compete against it and discredit its economic, political, cultural as well as symbolical role as the former capital city of Poland. As history showed, those intentions were not successful; however, they contributed to the formation of new satellite urban layouts around the metropolis and influenced today's image of the city. The illustration below (Fig.1) shows a fragment of the Cracow's plan from 1836, when the spatial structure of three-city metropolis can still be readable.

¹⁸ At that time, the surrounding villages were incorporated to Kazimierz and Kleparz which fortified Cracow from the south and the north. East and west of the city, some urbanized units came into existence as well. At the end of the 18th century, the authorities attempted to integrate the medieval tricity with the surrounding units on the basis of the City Law of 1791. This new urban organism was divided into four districts: the City Centre, Garbary, Kazimierz and Kleparz.

¹⁹ At present, all the three historical urban structures are included in the two central districts of the City of Cracow.

Figure 1. Plan of Cracow metropolis from 1836, drawn by Teofil Zebrowski



Source: DANTE, Kraków, ISBN 83-89500-01-9.

The first town was Podgórze, stuck between the south bank of the Vistula and Krzemionki Hill opposite Kazimierz, which continued the development of Cracow and the related centres on the north-south axis. The town was founded by the occupying Austrian authorities which captured the areas south of the River Vistula after the first partition of Poland in 1772. In 1784, the Austrian Emperor Joseph II Habsburg conferred the rights of a free royal town upon the former settlement transformed into the suburbs of Kazimierz. The villages and suburbs, limited by the harsh geographical conditions, developed mainly along the main transport sequences. They were related to the bridges leading to Kazimierz as well as the eastward trail to Wieliczka and Niepołomice and the westward route to Zator and Silesia. The Austrian Podgórze, which was expected to compete economically against the Polish tricity (Cracow-Kazimierz-Kleparz) on the other bank, received urban regulation by 1789 which facilitated the formation of its centre with a market square (more of a triangle) and an east-west transit tract running along its northern

frontage. The development of the new town, however, proceeded very slowly. In the years 1817-32, St Joseph's classicistic Church was raised on the southern end of the market square situated on a hill. Podgórze's Market Square received its present shape as a result of some transformations before 1844²⁰.

After Cracow was incorporated to Austria in 1846, Podgórze remained a separate town. However, the occupying authorities included it in Stronghold Cracow surrounded by a bulwark and a system of forts. It facilitated the creation of numerous transport investments connecting it with the other districts of Cracow implemented by the Austrian occupiers and the autonomous Galician authorities by 1917. Industry developed in the city and on its outskirts; railways and tramways were laid. In the years 1905-1907, the old parish church was replaced with a new, neo-Gothic structure, whose cupola was patterned after the tower of St Mary's Church²¹, which is one of the most important dominants in today's city panorama. In 1915, Podgórze was finally incorporated into Cracow. In spite of that, it still preserves its strong identity emphasized by such elements as church towers, the public space of the market square with trades and services or the old east-west transport route (currently Kalwaryjska and Limanowskiego Streets), important public buildings (schools, offices) and its scale of development which differs from the historical centre of Cracow.

The last example of a significant urban layout which left an irremovable stamp on the urban structure of Cracow is the socialist realist workers' city of Nowa Huta whose construction was commissioned by the Soviet Union. In 1947, the communist authorities of the Polish People's Republic took a political decision to implement a gigantic metallurgical plant on the grounds of the villages: Mogila (with the historical Cistercian Abbey which dates back to the 13th century), Plaszow and Krzeslawice located near Cracow on it's eastern outskirts. Historians argue if it was related to a lack of support for the new, pro-Soviet authorities from the inhabitants of Cracow. Nevertheless, the decision to begin constructing the plant and postwar Poland's first new city from the foundations – Nowa Huta located in its vicinity was about to change the demographical relations in the province for the benefit of the *ruling* working class. From 1949, the implementation of city development proceeded according to an urban design prepared at Cracow's Miastoprojekt by a team supervised by Tadeusz Ptaszycki. In this concept, we can distinguish some elements of the American doctrine of *neighbourhood units* and the idea of *the garden city*. An independent urban organism came into existence. For a short time, it was administratively independent from the main city and equipped with necessary public objects, schools, shops and service establishments. For the same reasons for which it has been constructed, the demographical priorities of new power, Nowa Huta was joined to Cracow, as one of it's six districts, as soon as 1951. There is a considerable number of scientific and popular science papers on the history and spatial development of Nowa Huta, which was expected to become a model *workers' city* (Biedrzycka A. -ed., 2007).

The urban composition of the city, where one can even look for some inspirations from multi-axis Baroque layouts, is based upon five transport arteries converging in Central Square. The main axis is Avenue of Roses extending north of the square. More than sixty years after the commencement of construction, not all the sequences of its urban composition remain legible to

²⁰ Before that, most buildings had been partly wooden one-storey house.

²¹ Designed by Jan Sas-Zubrzycki.

the users of this urban space. In spite of the protection of the entire urban layout, introduced several years ago, we must not forget that some elements of the original design – buildings as well as architectural and landscape solutions – have never been implemented (Biedrzycka A.-ed, 2007)²². Some have been replaced with other, later ones. Numerous supplementations, which were not always adjusted to the existing context, have been introduced, too.

The strong, totalitarian urban composition of the centre of Nowa Huta, despite its later degradation, still makes a strong impression and builds the identity of this place. It seems that many inhabitants of this district identify themselves with it more strongly than with the centre of Cracow. After twenty years of being rejected as a symbol of a foreign regime, it is in fashion again. We can observe the return of cultural institutions and an increase in municipal initiatives, such as architectural and urban competitions, related to the development of public spaces in the central parts of Nowa Huta, organized by the city²³ (Dudzic-Gyurkovich K., 2012). Considering the long distance from the historical centre, it may cause the rebirth of satellite urban centres and the enlivenment of the centuries-old tradition of polycentrism in Cracow.

3.3. *Can Cracow become a polycentric metropolis again?*

Above, the author presented an abridged history of the spatial development of contemporary Cracow's most significant districts with a defined urban composition. It depicts the process of absorbing closely located, smaller urban organisms and settlement layouts into one central unit, characteristic of most medium-sized and big European cities. Nowadays, the market squares of Kleparz, Kazimierz (reduced and partially redeveloped) and Podgórze (in its original form), situated within walking distances from each other, jointly create the system of the open public spaces of the historical city centre on a par with other squares and greens. Although they played an important role in the previous centuries, they do not stand out above the spatial structure of Cracow or offer competition to the Main Market Square.

An interesting example is Nowa Huta located so far away – by local standards²⁴ – that it can remain an independent city. The administrative decision to incorporate it to Cracow commenced the east-westward development of the areas between it and the city centre which has lasted for almost sixty years. Plans concerning the creation of a new city centre halfway between both units, prepared in the 1970s, have not been implemented. The heart of the district, designed in the stylistics of socialist realism, forms a harmonious and independent whole without any direct spatial relationships with the remaining, important public spaces of Cracow. With a possible

²²E.g. the planned City Hall at the main axis of Roses Avenue (in place of today's City Hall Park) or the Community Centre at the closure of Central Square, and the artificial lake on the grounds of Nowa Huta's Meadows.

²³E.g.: *An ideological architectural and urban competition for a concept of revitalizing the public space in the axis of Avenue of Roses and Central Square* in 2011 in which the author of the paper have took part.

²⁴The distance from the Main Market Square to Central Square in Nowa Huta, measured in a straight line, is c. 6 km – according to www.maps.google.pl. The centre of Wieliczka – a historical town which preserved its independence and remains the capital of a separate district – is located in a similar distance (7.5 km).

increase in the significance of this centre in the economic²⁵ or cultural²⁶ dimension, it could become a complementary satellite centre²⁷ for Cracow as it happened in the past.

Cracow is also the capital city of the Province of Malopolska²⁸, a regional metropolis of high economic, political, educational and cultural importance. Such a background should develop a metropolitan polycentric layout, especially on the basis of closely situated urban centres of economic significance for the region, such as Skawina and Wieliczka which border on Cracow or Myslenice and Krzeszowice located within 35 kilometres from the metropolis centre. Undoubtedly, however, the impact of Cracow and its historical centre is strong. It still fulfills a number of central functions which may be regarded as success on one hand. On the other hand, it leads to many spatial as well as transport and environmental problems²⁹. The lack of a binding plan of the spatial development of the city is a serious obstacle in the creation of a coherent spatial policy for the metropolitan area.

4. Conclusions

Owing to the presented theories and publications from the rich subject literature (Chung Ch. et al, 2001; Mumford L., 1989; Krauel J, 2009; MVRDV,1999; Rogers, 1997;) as well as the analysis of the historical development of a European city exemplified by Cracow, one can attempt to isolate central areas in a polycentric metropolitan structure on the basis of the composition of its physical form. It seems that a city centre ought to be characterized by a compact, composed spatial layout. The historically shaped centres of European metropolises usually have such layouts in spite of all the wartime devastation. Sequences of centrally situated public spaces with significant dominants and public buildings or decorative structures (monuments, fountains etc.) are the fragments of a city its community identifies with. Through their prism, a city is also perceived by strangers – mostly tourists, sometimes invaders (Gyurkovich J., 1999 and 2010 ; Kantarek A. 2008). In the former case, its spatial symbols are admired; in the latter – ruthlessly destroyed which has recently been exemplified by the war in former Yugoslavia³⁰.

It seems that the centres of urban units which aspire to become the sub-centres of a contemporary European metropolis should also adopt certain features characteristic of a

²⁵ which is unusually complicated at present considering the dense network of malls surrounding Nowa Huta and Cracow as well as the shopping centres inside the urban structure.

²⁶ Combined municipal actions and the efforts of private cultural foundations and institutions in Cracow aim at this.

²⁷ Even though located within its administrative borders.

²⁸ Area: 15,183 ha, inhabited by c. 3,270,000 people – one of the most densely populated regions in the country – www.malopolska.pl

²⁹ Located in a syncline between some elevations, Cracow is characterized by extremely unfavourable climatic conditions in comparison with other Polish metropolises – www.malopolska.pl

³⁰ The destruction of a historical bridge in Mostar at the end of the 20th century or the bombardment of the militarily unimportant centre of Dubrovnik as well as a number of historical Catholic churches, Orthodox churches and mosques prove that contemporary war criminals' methods are identical with ancient barbarians'.

historical city. In the case of Europe, it is impossible to separate the present and future from the past and identity of a place which is a genuine trump card in the era of globalization and unification. Most satellite centres are developing on the basis of small settlement layouts (even villages) or get reestablished in economically and logistically favourable places. In search of the centres of these sometimes vast spatial layouts, besides analyses of economic and sociological nature as well as various urban-planning indicators which are presented and discussed in the remaining articles in this volume, we must unconditionally take an analysis of their urban composition into consideration. So, what are the features of a sub-centre? In the case of a European metropolis, it should have a pedestrian public space or a sequence of such spaces (depending on the size and importance of a given centre) equipped with attractive commercial ground floors including a multitude of restaurants, bars and small shops³¹ (Bauman Z., 2000; Gehl J. and Gamzoe L., 2001; Lorens P.-ed., 2005; Sassen S., 1991). The location of such a space in the urban structure of a city should be indicated by high-rise dominants in its vicinity as well as properly directed axes (streets, avenues, promenades, linear systems of collective transport). Some public buildings, important to a given city and its community, or complexes of such edifices related to culture, religion and administration which make a natural extension of open public spaces should stand in the neighborhood, too³² (Bojanowski K. et al., 1998; Gyurkovich J., 2010; Kantarek A., 2008). The entire central layout ought to bear the traits of a composed structure *crystallizing the city plan*. The four abovementioned basic elements of an urban composition (public spaces – *nodes*, streets – *axes*, *spatial dominants*, characteristic public buildings – *distinguishing marks*) are necessary yet insufficient conditions of recognizing a given spatial structure as a *sub-centre*³³. Without them, it will not acquire features needed for the creation of identity and identification which make inseparable values of the European city.

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³¹ Which distinguishes such a place from shopping malls, probably with a more attractive and richer offer, which destroy the spatial structure of a city instead of building it.

³² Which can be seen in the 18th-century plan of Rome – so-called Nolli's Plan of 1748.

³³ The remaining ones are the abovementioned economic, demographic, logistic and planning elements presented in the other papers in this volume.

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