

CHAPTER 2, URBAN PROCESSES

The city - past, present, future

Contemporary polis and agglomeration (models of urbanization, monocentrism, polycentrism, compact city and sprawl)

What is inclusive, compact and mixed-use city?

Between urban and rural



11TH CTV

back to the sense of the city

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QUANTITATIVE ANALYSIS OF THE SOCIAL DIVISION OF SPACE AND SEGREGATION IN MEXICAN CITIES: CASE CULIACAN ROSALES, SINALOA, MEXICO

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Key words: Social division of space, segregation, Main Components, housing

Abstract

The analysis of the social division of space in urban contexts for understanding how fragmented this urbanized space and elements spatially reflect this division, this can certainly help clarify what are the main causes and potential effects of their dynamics has in relation with other social phenomena.

Although the phenomenon of the social division of space and segregation is inherent in the growth and development of all cities, in Latin America is evident from a morphological perspective because the forms of production of the houses are different, and because endowments spaces public of the best equipped areas of infrastructure and equipment are antagonistic depressed. This phenomenon and the problems it generates is so complex that for study and analysis should be addressed in an interdisciplinary way and framed in long-term processes.

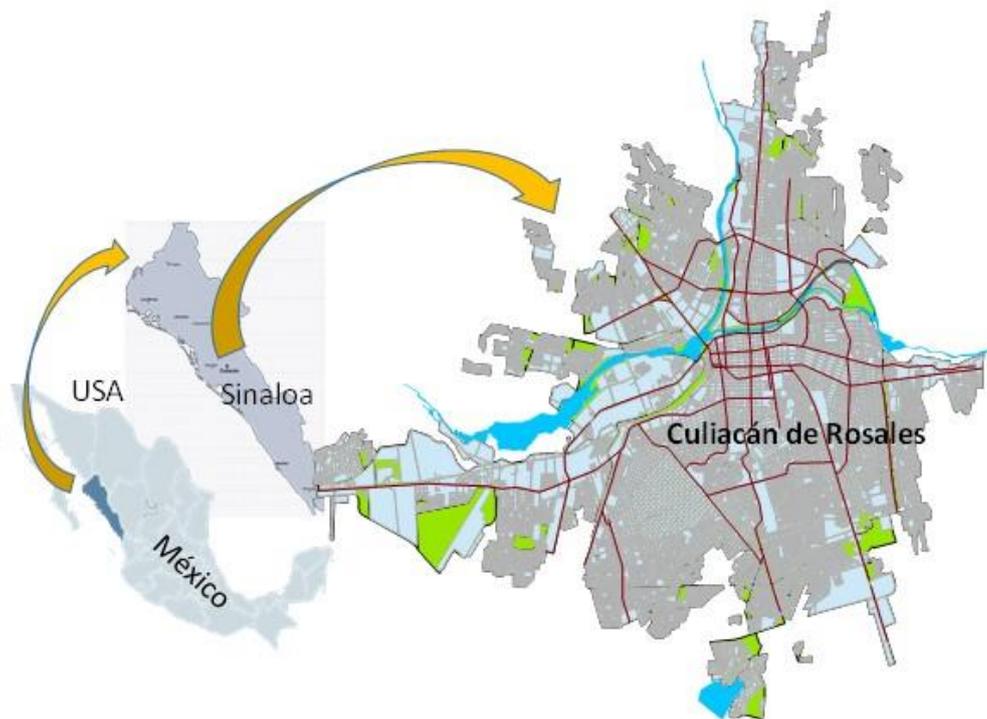
For the development of this work we have been used factor analysis with the method of the principal components to reduce the size of a large amount of variables related to housing produced, socio-demographic aspects and levels of education of the population living in the Culiacan Rosales, Sinaloa, Mexico.

Introduction

This paper is a first approach to the analysis of the urban phenomenon of the social division of space and segregation in Culiacan Rosales, and is part of the project applied scientific research, approved and funded by CONACYT¹ "geo-referenced analysis of the social division space in Culiacan Rosales, Sinaloa", Mexican city of agricultural base Sinaloa state capital located northwest of the Mexican republic (image 1)

We now know that the study of the social division of space in urban contexts for understanding how fragmented this urbanized space and elements spatially reflect that division which can help clarify which are the main causes and potential effects of their dynamics has in relation to other social phenomena. Not an easy task because we have understood that this is a complex phenomenon that accompanies the growth and development of cities and is a product of the interaction between the multiple manifestations of different socioeconomic population groups and levels of social heterogeneity that occur within these Saudi

Figure 1. Geographical location of Culiacan, Sinaloa, Mexico



Source: Prepared with information Digital Map of Mexico, www.inegi.org.mx

¹ The National Council of Science and Technology (CONACYT) is an autonomous body responsible for regulating and administering the grants the Mexican government grants to promote , strengthen , develop and consolidate scientific research , technological development and innovation in the country overall.

The social division and segregation of urban space

According to Martha Schteingart, urban research that studies and analyzes the social division of space became important in the cities of Latin America until the early nineties when *a significant amount of work on this subject were developed in the central region of Mexico the importance of the subject due to so unequal and inequitable manner in which the dynamic process of occupation of urban space (cf. Connolly et al., 1991; cf. Conapo, 1998; Suarez Pareyón, 2000; Garza, 1999; Rubalcava and Schteingart, 2000a and 2000b; Rodriguez et al., 1995; Duhau , 1998; cited by Schteingart, 2010, 9)*".

Although the phenomenon of the social division of space and segregation can also be observed in European cities, according to Carlos Marmolejo (2011), Latin America is evident from a morphological perspective because it is visible not only because the forms of material production housing are different, but also and above all because the endowments of public spaces in the areas of welfare are antipodes of depressed, so for study these urban issues should be addressed in an interdisciplinary way and framed in long-term processes (Veiga, 1999).

According to Emilio Duhau (2003), when the social division of space is studied in urban contexts should try to understand aspects such as levels it reaches, ie how socially divided is the urban space; how urban space spatially reflects this division; how can you explain their dynamics; and what effects or consequences with respect to other social phenomena. In this sense the studies made so far conclude that, in any city, the social division of space is the result of a dynamic long-term process in which multiple factors among which the principal is related to the logic of the market housing market and how it transforms the urban space reproduction incorporating the distribution of basic services, property, public facilities, the immediate environment and behavior of urban externalities.

Population dynamics of Culiacan Rosales

Of the five most urbanized cities in the state of Sinaloa and the northwestern region of Mexico, Culiacan Rosales is the main city since has experienced growth and unprecedented development because of the benefits it gives to host state powers which will inject dynamism always highly positive encouraged by the steady increase in population coming mostly from rural communities who migrate to the city due to low profitability that provide agricultural work on their land temporarily and multiple opportunities offered state capital city.

According to the census of population and housing INEGI from the sixties beginning to be seen population growth in Culiacan Rosales has had its effects on extensive land consumption.

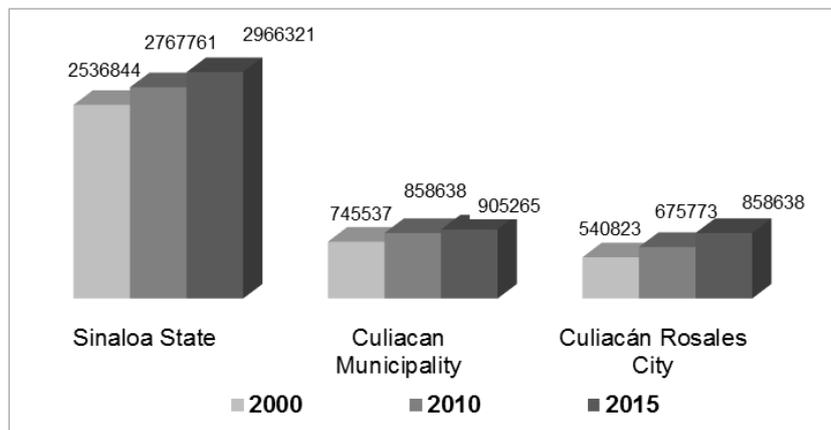
As shown in table 1 in the decade of the seventies the city had 169.657 inhabitants in the next ten years, growing at a rate of 7,32 percent, grew towards 306.824 inhabitants. In the next thirty years the city continued with a high growth rate such that by 2010 the census of INEGI registered a population of 675.773 inhabitants; amount currently in the through intermediate count every five years after 1995 this institute has published the city of Culiacan Rosales it has a population of 858.638 inhabitants, as shown in the graphic 1.

Table 1. Increase Population of Culiacan, Rosales, Sinaloa

INCREASE IN POPULATION OF CULIACAN ROSALES, SINALOA		
CENSUS	TOTAL	GROWTH RATE
1970	169.657	7,32
1980	306.824	5,89
1990	408.890	2,98
1995	505.131	3,81
2000	538.835	1,52
2005	580.776	1,33
2010	675.775	3,36
2015	858.638	

Source: Own elaboration based on Census and accounts OF population and housing. INEGI

Graphic 1. Population dynamics of Culiacan, Rosales, Sinaloa



Source: Prepared based on information from the Census of Population and Housing. INEGI.

Methodology

For the development of this work we have applied the factor analysis with the method of the principal components to reduce the size of a large amount of variables related to housing produced, socio-demographic aspects and levels of education of the population living in the city Rosales Culiacan, Sinaloa, Mexico.

The aim of factor analysis with principal components method is to find out how likely is adequately represent the information contained in a large amount of variables from its reduction to a smaller amount of synthetic variables constructed as linear combinations correlated with the original variables with minimal loss of information contained in the original variables.

Principal Components is a very useful method when required to analyze urban problems involved in a lot of variables because it offers a high degree of flexibility by allowing save the results as new variables that can realize further analysis.

Although there is much systematized information related to urban spaces that allows, through complex analytical processes through specialized software² a reading of the phenomenon of social division and segregation that they exist, in this work have only been using variables Census Population and Housing 2010 INEGI, shown in table 2, presenting information related to the size and construction quality of private homes inhabited (VPH), population distribution, education level, availability of basic services³ and assets⁴; with the goal to build three synthetic indicators: 1) housing produced, 2) socio-demographic aspects and 3) the level of education, to help us show the social division and segregation that is present in urban areas of the city Culiacan Rosales.

Table 2. Groups of variables used for reducing dimension with principal components

HOUSING PRODUCED	SCHOLARSHIP	SOCIO DEMOGRAPHIC
VPH_PISODT	P15SEC_CO	POB0_14
VPH_1DOR	P15PRI_CO	POB15_64
VPH_2YMASD	P18YM_PB	POB65_MAS
VPH_2CUART	P15YM_AN	POCUPADA
VPH_3YMASC	P15YM_SE	PDESOCUP
VPH_EXCSA	P15PRI_IN	PSINDER
VPH_DRENAJ	P3A5_NOA	PDER_SS
VPH_C_SERV	P6A11_NOA	HOGJEF_M
VPH_LAVAD	P12A14NOA	HOGJEF_F
VPH_AUTOM	P8A14AN	PE_INAC
VPH_PC		
VPH_TELEF		
VPH_INTER		

Source: Census of Population and Housing. INEGI.

After repeating several times the reduction procedure variables with the method of principal components, including or eliminating variables, is resulted a major component which satisfies the requirements of the research and summarizes satisfactorily the information contained in the variable group original. The correct interpretation and reading of variables represented in this Principal Component lead name to identify him. In our case study indicators product obtained with Principal Components analysis of three groups of variables originals named we have: 1) Housing Consolidated (VIV_CONSOL), 2) Primary School (ESC_BASICA) and 3) Employed population (POB_ACTIVA) which later is explained in more detail its origin. With these indicators thematic maps of the city of Culiacan Rosales at the level of basic geostatistical Areas (AGEB⁵) using Geographic Information Systems (ArcGIS) in which clearly shows the social division and prevailing segregation in this city were developed. Soon they are presented and analyzed these thematic maps.

² ArcGIS, MapInfo, GeoDa, Digital Map, Segregation, SPSS, Excell, and others.

³ In Mexico are considered basic services piped water, sanitary sewer connected to the public network and electricity.

⁴ In the 2010 census are regarded as assets in housing availability television, refrigerator, washing machine, telephone at home, automobile itself, personal computer and internet.

⁵ A Basic Geostatistical Area (AGEB) is a geographical area occupied by a set of well-defined blocks of streets, avenues, walkways or any other feature of easy identification in the territory and whose land use is primarily residential, industrial, services or commercial and they are assigned only within urban localities (INEGI , 2010).

Consolidated Housing

The analysis of the variables that were represented in the Principal Component, shown in table 3, suggest the name of Consolidated Housing (VIV_CONSOL) as these show that households have floor of concrete or ceramic; they have 2 or more bedrooms and 3 or more rooms⁶, indicating that they are great; in the environment there is the infrastructure that provides basic services piped water, sanitary sewer and electricity; and also they have major assets as own car, washing machine, personal computer, landline at home and internet service. These features certainly indicate they are finished homes that have been consolidated in the urban space where they are seated.

Table 3. Principal Component Matrix

CONSOLIDATED HOUSING (VIV_CONSOL)	
VPH_PISODT	.979
VPH_2YMASD	.991
VPH_3YMASC	.993
VPH_EXCSA	.978
VPH_DRENAJ	.980
VPH_C_SERV	.981
VPH_LAVAD	.997
VPH_AUTOM	.988
VPH_PC	.939
VPH_TELEF	.965
VPH_INTER	.903

Extraction method: principal component analysis.

a. 1 extracted components.

The spatial distribution of these houses we can observe in the thematic map shown in image 2. Negative values of census tracts, represented with light colors indicate that households with opposite characteristics are located in these spaces Culiacan Rosales described; ie , have one or two rooms -are smallest ones; they have some deficiencies in infrastructure and provision of services; and do not have all assets. Households with these characteristics more precarious and critical are located in small spaces the periphery just north and south of the city. These are irregular settlements that are urbanizing process where families self-constructed your home.

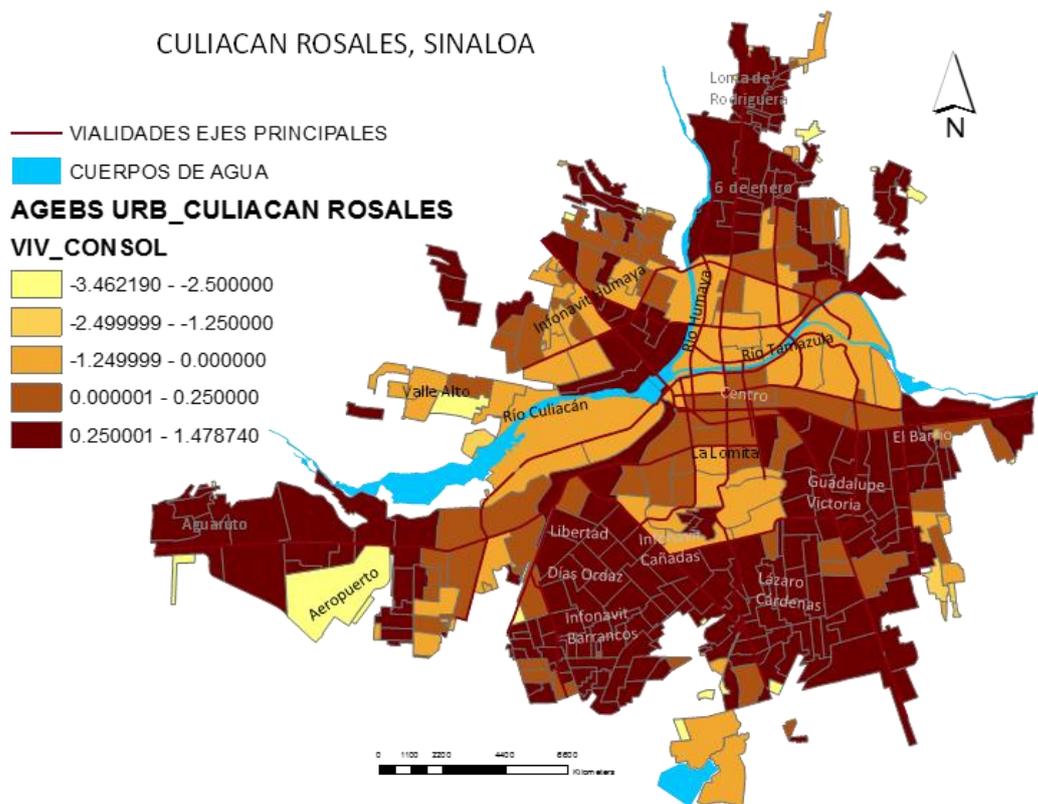
⁶ According to the conceptual framework defined by INEGI is considered as room to living space delimited by fixed walls that rise from the ground at least to a height of two meters, and ceiling of any material having sufficient surface to accommodate an adult bed at least four square meters, where everyday activities such as resting, sleeping, eating and cooking are performed, among others. They are not considered rooms bathrooms, hallways, open galleries and lobbies.

The intermediate color represents urban spaces (AGEB) where housing is made by homebuilders in large blocks with sizes and standardized quality. In these urban areas is the three rivers development and the island Musala.

The darker color represents neighborhoods as January 6 north, Libertad, Diaz Ordaz, Guadalupe Victoria, Lazaro Cardenas, Barrancos and Cañadas at south. These settlements had an irregular origin with self-help housing and that over the years and continuous efforts of its inhabitants have been consolidated. In similar situation are housing settlements as Loma de Rodriguera north, El Barrio east and Aguaruto the west that had an origin of rural town and that the extensive growth of Culiacan Rosales City has “con-urbado” and are now part of the urban area of the city.

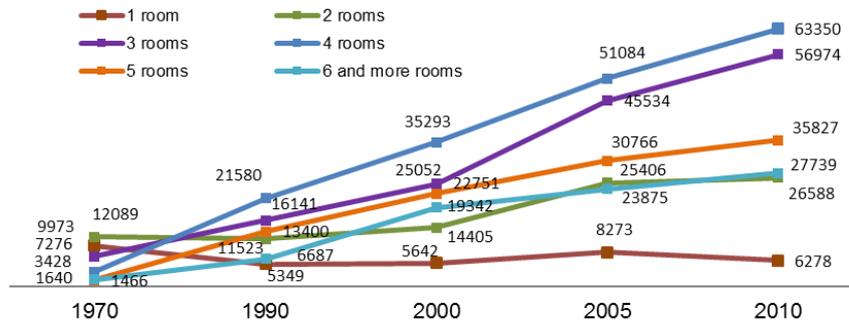
A more detailed analysis of census statistics on the size of housing built analysis contained in the 2010 Census is shown in graphic 2. Here we can see that Culiacan Rosales has a total of 216.756 VPH of which the 2.90 percent had only a room, 12.3 percent have two rooms, 26.3 percent have three rooms, 29.2 percent have four rooms, 16.5 percent have 5 rooms and the remaining 12.8 percent are households with 6 and more rooms. According to the chart 2, the trend is towards the houses with four rooms that are identified with the building housing developers in subdivisions and large assemblies consisting of two bedrooms, living- dining, kitchen, utility room and one bathroom.

Figure 2. Segregation housing characteristics



Source. Prepared by the outcome of the main component

Graphic 2. Size of private dwellings



Source. Prepared based on information from the Census of Population and Housing. INEGI.

Level of schooling

The analysis of the variables of schooling group are represented in the Principal Component are shown in table 4. This shows that relate to school-age population not attending school (NOA), illiterate (AN), unschooled (SE), who did not finish primary (IN) and the population if finished primary and secondary education (CO). These variables thus show the level of schooling⁷ of different population groups living in the city of Culiacan Rosales and so is the name that has been put to this indicator.

Table 4. Principal Components Matrix

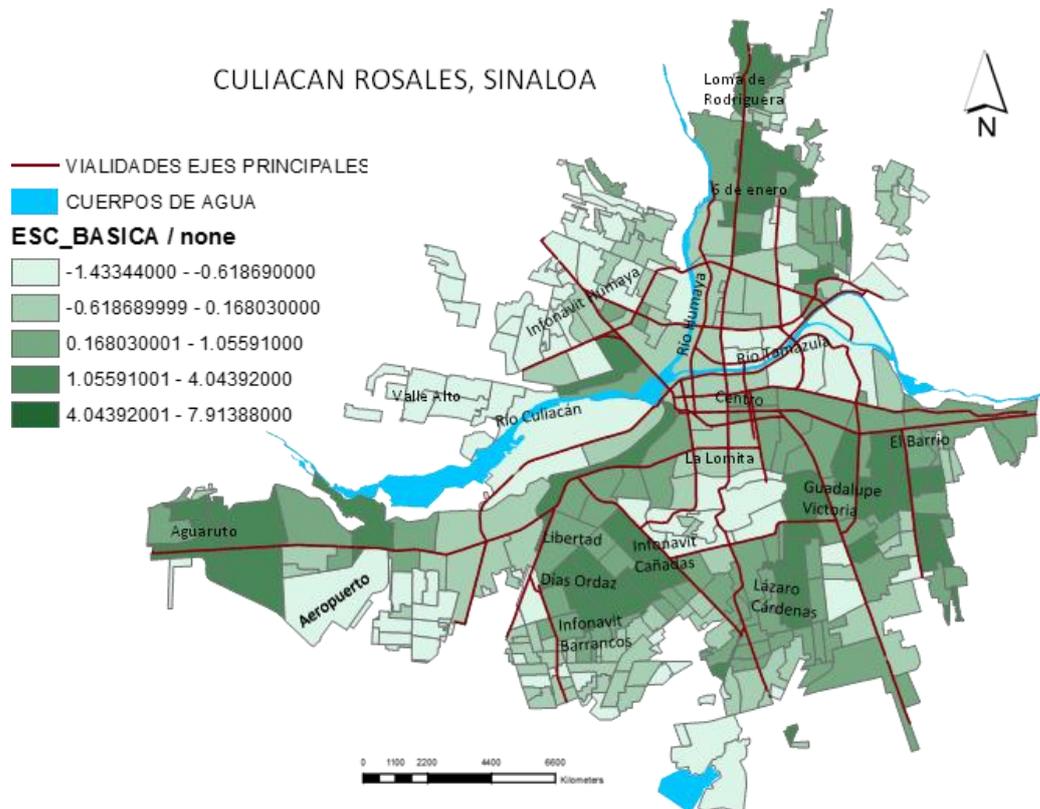
Scholarship level (ESC_BASICA)	Components	
	1	2
P6A11_NOA	.598	.603
P12A14NOA	.754	.372
P8A14AN	.590	.582
P15YM_AN	.836	-.366
P15YM_SE	.840	-.404
P15PRI_IN	.861	-.330
P15PRI_CO	.826	-.119
P15SEC_CO	.656	.068

Extraction method: principal component analysis
a. 2 components extracted

⁷ In the Mexican educational system required 6 years of schooling to achieve grade, 3 years to complete high school, 3 years more to finish bachiller and 5 years more to finish a degree, that is , it takes 9 years schooling for completing basic education and 8 years more, 17 continuous years at least to finish and complete a degree.

The distribution of population groups with different levels of schooling we can see in the map shown in image 3. In this map the lightest color represents urban spaces (AGEB) where the population has a higher educational level –Bachiller, college career, and even masters-. In these spaces average housing settlements built by building developers in housing complexes that have adopted, justified by violence and insecurity are located, the mode of gated community living people of high average level that has made a college career. Among these spaces is high valley, the west, the island Musala east located in urban development three rivers, the surrounding colonies to La Lomita, who originally lived there the population with greater economic power and now have been the descendants they have done university studies.

Image 3. Segregation by level of education



Source. Prepared by the outcome of the main component

Moreover in urban areas of the city marked with darker colors the population lives with lower levels of schooling, reached at most complete basic education is considered to complete high school. These spaces are the Loma de Rodriguera neighborhoods to the north, Aguaruto to the west, the Diaz Ordaz, Cañadas, Barrancos, Lazaro Cardenas neighborhoods to the south and to the east El Barrio neighborhoods, which correspond to the origin as described above.

Table 5. Principal Components Matrix

Employed Population (POB_ACTIVA)	Component 1
POB15_64	0.927
POCUPADA	0.95
PDER_SS	0.863
PE_INAC	0.756
HOGJEF_M	0.832

Extraction method: principal component analysis.

a. 1 extracted components.

Employed population and social security

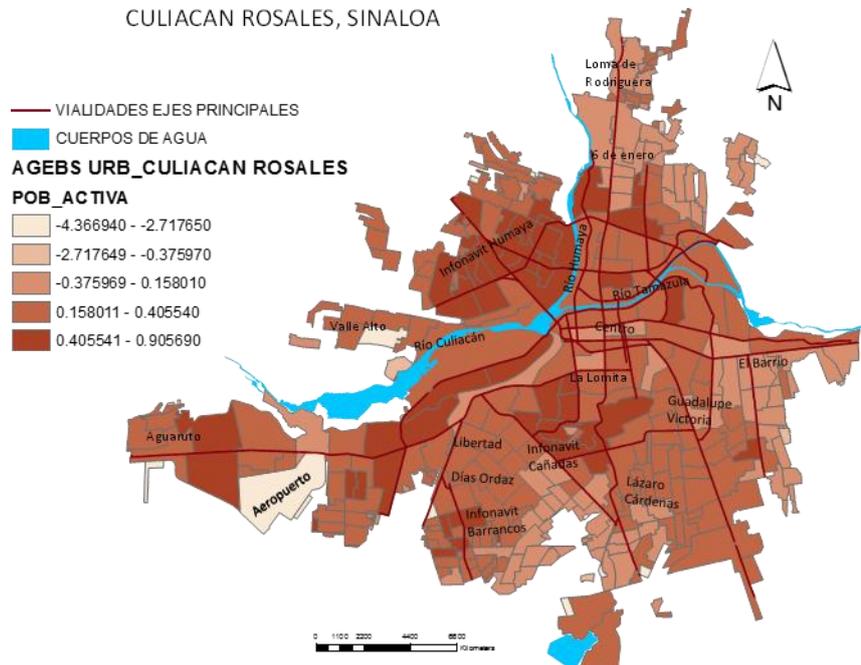
The analysis of the variables social group and occupation variables are shown in table 5. This shows that relate to age population -15 to 64 years, the economically active population is occupied in some formal productive labor activity and therefore has no affiliation to social security provided by the agencies responsible for these areas as the Mexican Social Security Institute (IMSS), the Institute of Security and Social Services for State Workers (ISSSTE) and the Popular Insurance, mainly. I also consider this group to people who do not work as adults 65 and older, people who have some permanent incapacity that prevents them from working and young people under 15 who attend school.

We also consider variables in this group of women who are heads of households, among these are single mothers, divorcees and widows. Therefore this indicator has appointed him Employed Population (POB_ACTIVA) partly because we are analyzing the economically active population living in the city of Culiacan Rosales, Sinaloa.

The distribution of the active population in urban areas of Culiacan Rosales can be seen in the thematic map shown in image 4. In this light colors represent urban spaces, AGEB level, where the non-working population lives and which therefore have no social security. The population in this situation is located on the outskirts of the city both north and south, east and west, surrounding the city as the Loma de Rodriguera, El Barrio and Barrancos neighborhoods, among others. By contrast the population engaged in formal employment that has social security therefore is located in AGEB marked with darker colors. Some of the neighborhoods where people live with these characteristics are found in the Humaya sector, the Lomita, Guadalupe Victoria, Lazaro Cardenas and Libertad to the south and to the east of Culiacan Rosales city.

Image 4. Indicator of occupation and social security

CULIACAN ROSALES, SINALOA



Source. Prepared with the result of Principal Component

Final thoughts

In the elaborate thematic maps can be seen clearly social division and segregation that is present in the city of Culiacan Rosales as in all Mexican cities that has studied this social phenomenon. In this first approach to the analysis social division of space, taking as a case study agricultural city of Culiacan Rosales, capital of Sinaloa, through the analysis of variables of VPH, the demographic of the population, availability of infrastructure and assets we see that small houses built with a single room are located on the outskirts of the city in irregular colonies newly established where basic services have not yet reached by the absence of infrastructure or are present but noted serious deficiencies, but also they are located within the city in consolidated neighborhoods where the population has a low level of schooling and are segregated "islands" divided and contrasting with urban spaces immediate environment equipped with the best infrastructure and facilities the city offers.

In educational level of the population is also causing social division and this is reflected in the urban space when we observe that people with similar levels of schooling live in neighborhoods, housing developments and subdivisions with homogeneous morphological and social characteristics.

As for the availability of assets in the VPH although some are not considered essential for the development of everyday life availability of car or truck own, landline or home , personal computer and Internet use are indicators good quality of life and necessary to enjoy the benefits

offered by the city and achieve the appropriate level of well-being that the fact of living in the city.

In addition the assets are the complement of the housing that the current consumer society in which we live (Bauman, 2007) has made necessary and indispensable for people who inhabit them to enjoy a good quality of life. However, in situations of clear inequality, as those in the urban spaces of our cities, reflect a strong social division as seen in urban areas of the city of Culiacan Rosales, Sinaloa.

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HOUSING TYPES AND CHOICES IN SAUDI ARABIA

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Key words: Housing needs, Saudi Arabia, Housing, Housing preferences

Abstract

Recently, and because of oil revenues, Gulf countries achieved great developments and made huge steps to be an advanced countries. These revenues encouraged Gulf countries to develop their economy, infrastructures and policies. Among Gulf countries, The Kingdom of Saudi Arabia has made a noticeable progress in recent decades in enhancing and developing the economy and urban form.

Presently, there were different types of housing such as Villas, Duplex villas, Penthouse and so on. These housing divided, according to various factors such as Family income, requirement and needs, also take into account of the customs and traditions in the Saudi community.

This study will discuss some of these changes like Housing sizes and use, actual needs, ability and the reasons behind these changes. Moreover, it is divided into two main parts, Theoretical review and analysis of data collection. The research techniques used are analysis of E-Questionnaire.

Finally, the study would help to understand some of the expectations and needs of the Saudi Residents in the biggest cities in Saudi Arabia, for example the majority of households prefer to live in an independent and separate housing like (Villa).

Introduction

The Kingdom of Saudi Arabia was united in 1932 AD and the population was 2 million Residents, however; only 20% of them live in urban areas.

With the stability and the discovery and exportation of oil at the end of the 1930s the improvement of economic and social conditions as well as rapid construction boom in the cities of the Kingdom, the population of the Saudi has doubled the proportion of urban city raised up to 48% at the end of the 1970s .it has doubled again up to 80% in 2000 and is expected to reach 88% in 2025¹.

Population information

According to 2010 census², the population of Saudi Arabia reached 27.1 million people (an increase of 19.7% over 2005).

The Saudi population gain of (68.9)% of the total population, an increase of (13.2%) over 2005, these populations are distributed by sex to similar percentages between males and females, (50.9%) of male respondents in 2010, compared with (50.1%) in 2005.

The population growth rate according to the latest statistics is estimated at (2.1%), and this rate is less than (2.5%) which was between (1992 and 2004), the cause is attributed to the low level of fertility as a result of the increase of education, especially for women and the use of family planning methods³.

One of results of statistical information in 2010, we find that the vast majority of the population are young people and youths, where (26.4%) of the population in the (less than 15 age group) and about (57.7%) of those who are (less than 30 years). This class will be the reason for the increasing demand for housing in the next years.

Government interest in providing housing

Government of the Kingdom of Saudi Arabia has focused on providing decent housing for citizens and to enable them own them, so the government made a number of residential programs to the help of citizens to own homes. One the most important of these programs is the Real Estate Development Fund (REDF)⁴, which was founded in 1974 and it was designed to give real estate financing without interest and long installments repayment periods were made affordable. This fund and a number of other programs have had a significant impact in raising the percentage of ownership among citizens in the past, and due to the doubling of the population and increasing demand for housing significantly, the Government of the Kingdom has issued a number of important decisions in the housing sector over the past years, Some of the most important in las years:

- In 2011, Firstly, The Housing Authority was supported by an amount of 250 Milliards S.R5., equaling 133.3 Milliards USD, for building 500 thousands housing units, besides raising the maximum limit for Real-Estate Development Fund loans to 500 thousands SR. In the end of March, the establish the Ministry of Housing.

¹ Alsharq Al-Awsat News 13 May 2013, Article_728409,Web

² The Official Website of "Central Agency for Statistics in Saudi Arabia GaStat." Arabic Web: <http://www.stats.gov.sa>

³ Central Agency for Statistics GaStat. "Highlights of Demographic Survey (2007)." Web

⁴ The Official Website of "Real Estate Development Fund in Saudi Arabia REDF."Arabic Web : <http://www.redf.gov.sa>

⁵ (1 US Dollar) = (3,75 Saudi Riyals)

- In July 2012: the Cabinet of Ministers, presided by King Abdullah approved the laws of real-estate mortgaging & financing and the financing renting, as well as monitoring the financing companies.
- In March 2013, the Saudi Cabinet of Ministers approved to impose charges on " the vacant lands " inside the urban area of cities.

Types of housing in Saudi Arabia

Introduction

Until the 1960s, most newly constructed houses in Kingdom of Saudi Arabia were traditional. They were built from indigenous materials relying on the construction experience of local people. In small communities a new home was the result of organized cooperation among local workers with construction experience taking the real needs and financial resources of the family into consideration. The construction of these houses was facilitated by the following factors:

- Inexpensive local building materials.
- Inexpensive labor; local people contributed to help each other.
- Small houses with multi-purpose rooms.
- Flexible designs that allowed for additions to of the house according to the needs and financial ability of the family.
- Recyclable building materials; either reused or disposed without negative environmental impact.

These traditional houses have improved in value and design. Guided by the experience of local builders with the benefit of generations of experience behind them, technological improvements have been adopted to improve the use of locally available building materials and the availability of different types of building materials. Consequently, these traditional houses have proven to be very adaptable, for example, to changes of climate. At the same time, despite such changes, fundamental principles have been maintained. For example, Islamic principles, which call for the keeping of traditions and the security of the family, are reflected in the designs of the buildings. They continued to be as they have been for hundreds of years, built in the same fashion without substantial changes.

The first significant departure from traditional houses appeared in 1959. New materials and technologies, such as concrete and cement bricks, were used for the first time. These materials are stronger and quicker to use than the traditional vernacular building materials. As the number of emigrants to the cities from both inside and outside the Kingdom increased, residents started using modern materials and technologies. These abundant materials and technologies were used to build new houses, which were similar in design to the traditional ones. As a result, houses in a transitional style appeared. These houses were later known as "popular houses". They were characterized by the openness characteristic of traditional houses but with a different layout. The floor plans of these transitional houses were influenced by the allocation of roads and more uniform land units.

The contemporary period

Contemporary houses emerged in 1953 with the Millaz project (in Riyadh), which the first large housing projects in Saudi Arabia. This project contains detached houses and apartments. The Millaz project became the model for planning roads, dividing areas of housing lands, and detached houses.

In addition, expansion of uses the new building materials and technologies, such as cement and concrete, helped to make larger areas of construction, The rapid economic and social changes that have occurred in all regions of the Kingdom, led to the emergence of new constructional prototypes, such as modern detached houses, as well as duplexes, many blocks of apartments and luxury houses (Bahammam, 2001).

On the other hand, the Saudi families homes tended be large previously, and thus sable to have big extended families. Although this habit is still existed up to the present time, the cultural changes that was accompanied by a high average per capita income, forced families to establish separate private homes⁶.

At present

In terms of Types of housing, The Apartments was the most common types of Saudi family occupied (about 33 %) as they were about 961584 Apartments by the end of 2007 AD, followed by the Traditional House (about 28 %) the number was 815531 houses, followed by Villa (about 25%) the number was 742048 Villas. The rest of 14% were distributed on other types of housing as Floor in a Villa o Duplex. This type has witnessed some developments compared to their counterparts in 2000, the proportion of Villa increased compared with ordinary Traditional House portion. The Apartment has claimed the proportion of one-third of families of Saudi Arabia occupied houses.

And In terms of the building material of housing, the Concrete was the building material of the most of the occupied houses (about 78 %) and the number was 2,265,588 Concrete buildings by end of 2007, and then around 605088 houses Bricks and Stones building (about 21 %), other building materials buildings was just (1%). There have been developments on the quality of the building material of some of these compared with houses in 2000. In terms of the proportion of Concrete compared with other construction materials, such as Stones, Mud and Bricks building.

Methodology and Case study

Data collection

The Information that was used in the analysis of data collection based on e-questionnaire, this questionnaire published by the researcher in 2014/2015. Preliminary results The questionnaire was widely spread in a number of cities in Saudi Arabia this was noted according to the number of participants and their geographic distribution. The number of posts was more than 1,000

⁶ Okaz News 2 December 2012, Article_Con20121202552324,Web

reasons. It was observed that (32%) of the sample were born in other towns and cities rather than cities of the case study.

For the purposes of the study data was divided into four main groups: the first group discusses the social and economic characteristics of the sample, the second group focuses on information about the current housing and its suitability, while the third group discusses the future of housing types and favorite residences. The fourth group discusses the preferences of the population and their views on the housing sector and the solutions put forward in the media.

Social and economic characteristics

The results showed that 78% was male participants. The participations were varied in terms of age, marital status, level of education and type of work as 50.7% of them was the age group between 26 to 35 years, then those who are less than 25 years at with an average of (23.1%) followed by the age group of 36 to 50 years (21.1%) and finally are over fifty years (5.2%).

A rise in the proportion of universities graduate and post-graduate participants can be noticed about (76.8%) due to the use of electronic questionnaires that rely on technology and electronic appliances. The rest was for those with a diploma or middle and high school.

(64.4%) of the respondents were married and the singles were (33.1%) while the rest was for those who are divorced. The family members results were varied as the highest rate (35.7%) was for families consisting of three to four members, followed by families consisting of 5 to 6 members (25.5%) then families consisting of more than 6 members (23.8%) and finally the small families of one or two (15%).

(44.3%) of sample work as government employees and (23.8%) work in the private sector, followed by the students (16.9%) the rest was split between trade, self-employment, housewives and retirees,,,, etc.

Given the monthly income the disparity in income among the participants can be seen as, (4.3%) of participants income does not exceed more than 3,000 Riyals per month, and the income ranged between 3,000 to 10,000 riyals per month was about (28.2%). The income between 10,000 to 20,000 Riyals per month was (35.4%) as the highest rate. The monthly income of more than 20,000 Riyals per month was (9.5%) and the rest was (22.6%) for those whom their income through grants or university Scholarship in addition to government support programs such as hafiz⁸.

Based on the financial information, a rise in the number of bank personal loans (46.4%) can be detected and the reasons for getting this loan is to buy a car, to work of an investment project, to marry or to equip a house. The low rates for those who used to buy a house or residential land, by contrast, it was found that the number of applicants for a mortgage does not exceed (11%) and (4%) of them who has applied to get the request of real estate financing was rejected by the lack of conditions which should be met by the applicant. Some of participants said that the reasons for applying for mortgage lies in their inability to afford the high installments for these loans monthly and that the terms are difficult and do not apply to them as well that many

⁸ The Official Website of "hafiz " (Financial support program for the researchers of work) <https://www.hafiz.gov.sa>

of them have other financial obligations and personal loans currently prevent them from having this support.

Current housing

Current housing characteristics

Research results have showed that (51%) of housing is the apartments of all sizes, followed by residential villas (26.9%) and (9.8%) is a floor in the villa or part of the residential villas as well as the type of villas in residential buildings. (6.6%) was for Duplexes, palaces and houses with spaces that exceed 1,200 square meters by (3.4%) and finally public housing by (2.4%).

The type of sample housing ownership, the houses owned by a father, husband, or husband's family was the biggest portion about (46%). and the reason for this high percentage that people who live with their families from the participants exceed (40%) as well as the fact that some (70%) of respondents aged less than 35 years old.

Rent Housing comes in second place (41.8%), followed by participants who own their homes by (10.2%) and (2%) was distributed between the housing provided by the employer and housing provided by charity companies. On the other hand, (13.3%) of the participants stated that they have more than one house and (80.5%) are owned and the other remaining rent housing.

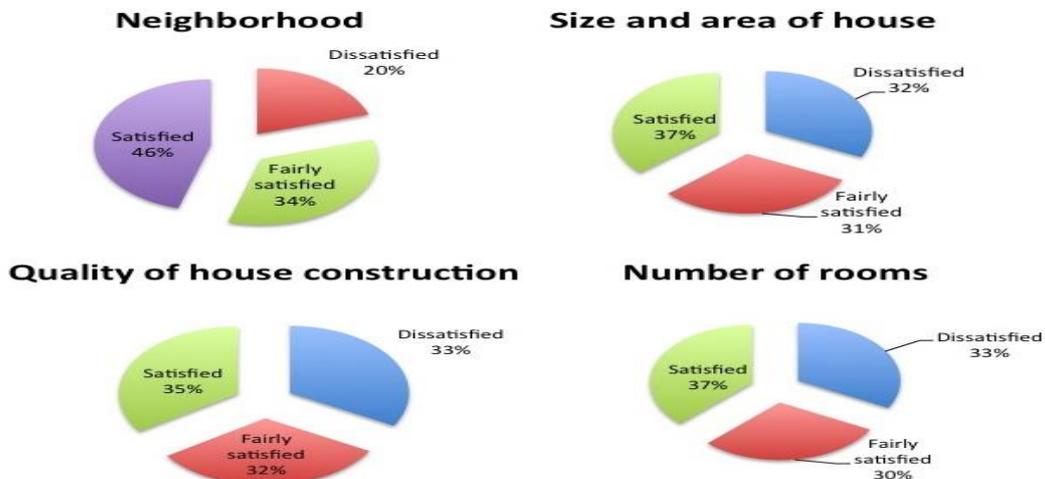
Residences that contains more than six rooms constituted the largest portion (23.4%), the four rooms' houses (21.29%), then residences of the six rooms and three each by (11.2%) and finally chambers or two rooms' houses by nearly (6%) each. The results also showed that (40%) of the houses have two bathrooms or less and (38.2%) with between 3 and 4 bathrooms (21.8%) of the housing of five or more bathrooms.

In the last decade, many Saudi families and even foreign families use drivers and servants, so 40.8% of respondents have either a driver or a servant, even both, and most of their drivers or domestic labor live with them in the same house, which requires providing a decent place for them.

Appropriateness of the current housing

This question is divided into four themes, the participants need to present his satisfaction on a scale of 1 to 3 so that as (1) is dissatisfied (2) fairly satisfied and (3) satisfied, and the results show that (Figure 2):

- (45.5%) were satisfied with their Neighborhood, however (20.2%) were dissatisfied.
- (36.6%) were satisfied with the home size, whereas (32.2%) were dissatisfied.
- (37.6%) were satisfied with the number of rooms and the design of their homes while (32.8%) were dissatisfied.
- (34.5%) were satisfied with the quality of construction and finishing in the housing, though (33.1%) were dissatisfied.

Figure 2. Appropriateness of the current housing

Source: Author preparation

The previous findings revealed that almost one-third of the participants are only considering their current homes appropriate for them. Among this section participants were asked if they consider the current residence temporary housing and the result was that (75%) consider the current housing is temporary housing, while (66.8%) of them expect to move from their residence during the next five years. This is related to the participants' age group, as the major category is young people.

Future-housing preferences

Room Preferences

In this part, the preferred numbers of Rooms and Bathrooms data in future house were analyzed. The results of the sample analysis has showed that residences containing between five to six rooms were the first priority by (47%), followed by residences with rooms between seven to eight rooms (25.6%) in addition to (8.4%) who are those wishing to have homes with more than eight rooms. Meaning (81%) are looking for housing spaces exceeding 150 Square meters. The majority of the rest (17.9%) has chosen medium housing space and number of rooms between three to four rooms. Small housing with one room and two are undesirable from the majority (1.1%). Noting that in 2004 and based on the statistics issued by the Central Agency for of Statistics⁹, showed that small units consisting of two or less represent the vast majority rate (64%). As for the toilets, less than (60.3%) of respondents prefer housing which contains between three to four toilets, followed by housing containing between five to six bathrooms (23.8%), then two bathrooms or one (8.2%), and (7.7%) for residence with more than 6 bathrooms. It can be noticed that the greatest preference for homes with five to six rooms and three to four bathrooms.

⁹ Central Agency for Statistics GaStat. "Highlights of Demographic Survey (2004).", Web Article

Favorite types of housing

In this part of the questionnaire four types of housing have been identified i.e. the most widespread in the kingdom of Saudi Arabia based on the statistics provided in the interests of official statistics in the Kingdom. participants were asked to arrange these types according to their preference as the first choice to fourth choice, these housing types were as follows (Table 1):

- The villa type is the most preferred and chosen as the first choice of the participants (86%).
- The second best option by (53.3%), was the Duplex.
- The Floor in a villa or villa Roof¹⁰ was chosen as the third preferred option by (43.7%).
- The apartments was the least favored housing types as it was the last choice of (72.1%) of participants.

Table 2. Favorite types of housing

Villa	Floor in Villa- Villa Roof	Duplex	Apartment	Total
86,0	3,4	4,7	6,0	100
5,2	35,4	53,3	6,1	100
3,2	43,7	37,3	15,9	100
5,6	17,6	4,7	72,1	100
100	100	100	100	Total

Source: Author preparation

It can be noted that the priority goes to detached houses compared to semidetached residences such as apartments, and also there is a preference for detached Duplexes rather than semidetached ones. Privacy and the size of house were some of the main reasons due to this preference.

Preferences and viewpoints

This group contains four sections about some favorite residence characteristics as well as the participants' views on some of the topics for the housing sector which are related to the study.

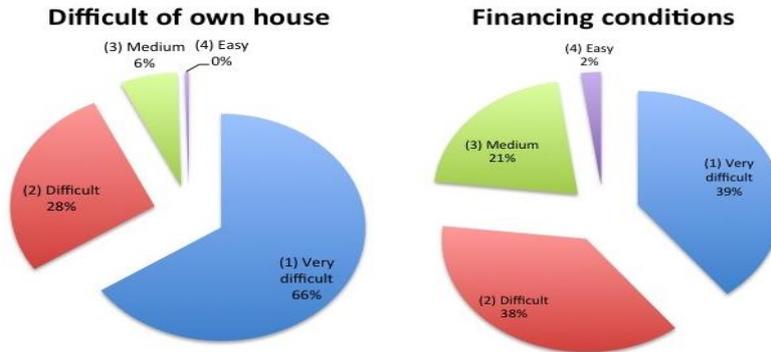
The first sections

There were two questions for the participants to understand how easy or difficult to get housing and requirements for obtaining a mortgage, where the answers are selected from a scale of (1 to 4). (1) Is very difficult gradually to (4) easy (Figure 3)

Results have showed that the majority of the participants, (93.1%) agree that owning house is currently ranges between (difficult and very difficult), in addition a high percentage also emphasized that (76.8%) agree that financing conditions are not appropriate to their situation for obtaining a mortgage.

¹⁰ Villa Roof : Existing in residential buildings but with the design and features of the villa and be in the top floor

Figure 3. Difficult of own house and financing conditions



Source: Author preparation

The second sections

This section included some questions about the importance of housing ownership for the participants? And what are the most important factors affecting their decision to purchase the house? As the sale of residential apartments has risen in the last decade, participants were asked about their views to own this kind.

The results have showed that the general orientation of the participants is to have a house (98%) even if it has been providing programs to rent housing in the long term with reasonable rent. (54.4%) of participants do not prefer to own an (apartments), on the other hand, nearly (75%) of the participants prefer to wait to be able to buy (villa or duplex) even they are able to buy apartment.

the most important factors that influence their decisions when buying a residence, a number of important factors has been put forward such as location, price and quality of construction and they were asked to choose the most influential factor and the results were as follows:

The location is the most influential factor (40%), followed by the building quality (21.5%), price rates (17.9%) and housing space and number of rooms (16.3%) while after-sales services was the least influence (just1.7%) (Figure 4).

Figure 4. Important factors



Source: Author preparation

The third section

This section was to get feedback from the participants in some of the reasons that caused the current situation of home ownership difficulty, through their choice of a scale of (1 to 4), where (1: that has nothing to do) and graded to (4: has a strong relationship), and the results were as follows: (88%) of the respondents has agreed on that the high land prices are the main reasons. In addition to (78%) of participants agreed that housing prices were high, generally as a result of rising land prices. While approximately (50%) viewed that poor planning in the housing sector has and a strong influence in addition to (46%) of the them considered that the non-availability of housing at affordable prices is one of the strong reasons for the difficulty of repossession (43%) agreed that the difficulty in obtaining adequate funding is the reasons of (the strong relationship).

Fourth section

This section included the views of the participants and their assessment of housing solutions, especially the most prevalent in the media, both applied solutions on the ground or going to be applied or proposals have not been applied yet, through their choice of a scale of (1 to 4), where that (1: has nothing to do) and graded to (4: has a strongly related), and the results were As follows: there are proposals for solutions as more than (50%) of the participants agreed on the importance and preference for her, as follows: (71%) of respondents have chosen to impose laws limiting the rise in land and housing prices as one of the best solutions that will help solve this issue. (66%) agreed that the tax decision on land, which is supposed to be applied in the middle of this year 2016, is one of the important decisions. Close percentages (59%, 56%) of respondents have chosen to build new cities and support the villages by the private sector and development in order.

Some solutions, such as the work of a partnership between the Housing Ministry, the private developers and the sector, in addition to the delivery of housing grants to developers to be developed and built, and also the work of a partnership between the banks and the Municipality of the region, have been selected as suitable solutions respectively (48%, 46%, 36%). And for solutions for changing some of the requirements of the municipality such as the raises did not find the great welcome among participants as it was selected as an excellent solution by (32%). The least favorite solutions as an appropriate solution was chosen by just (15%) all of the participants were to minimize the size of lands.

Conclusion

The importance of the involvement of the population in the development of these plans, to reach satisfactory solutions to all parties, hence the importance of this type of studies, which would contribute reducing the proportion of extra accommodation unit offers, which reached nearly a 1,3 million units in various cities in the Kingdom during 2015 ¹¹, as a result of inadequate supply of community housing mainly economically, in addition to the lack of suitability to their needs. In addition; this type of studies contributes significantly to the integration of the needs of the

¹¹ Al Eqtisadiyah News 21 March 2016, Article_1042879

population and Housing facility. In this context, and based on the discussion of the results of the study:

- Find awareness programs aimed at decreasing houses size and good use of space in the residence.
- Review and evaluate the current financing solutions where the results showed the suffer of many of housing seekers of the unavailability of adequate financing solutions.
- Development new housing types appropriate to the current stage, the integration between the separate housing such as residential Villas, apartments, to provide a product satisfies the customers at reasonable prices.
- Take care of residential projects and the quality of housing construction sites, as the study has showed the great importance of these two factors as well as other factors such as price and space.
- Work towards raising the proportion of residents who would accept having apartments, through passing laws for owning this type, and activating the union of owners and all that would encourage the customers about this type of housing.

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THE LOST SPACE - ON THE BLURRY BOUNDARIES OF URBANITY

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Key words: city, suburbs, space, boundary

Abstract

The boundaries of the modern city are defined by administrative divisions – boards informing about the lines created artificially on a map and not by physical “barriers” – walls, gates, frontages. At the same time, dynamic urbanization of suburbs takes a spontaneous and often chaotic nature which satisfies the immediate needs of today's generation. This is often done without any reflection on the future order and shape of urban spaces. These are the lost spaces where the essence of urbanity has been eliminated – i.e. a clear hierarchy of public interiors which the local community is organized around and which the accepted forms of private buildings have been subordinated to. Numerous, often radical voices and opinions meaning to improve the *status quo* appear among contemporary and renowned artists. The article attempts to provide a synthesis of a certain range of issues related to the blurring of urban boundaries' readability and the need to return to the distinctive definition of today's urban structures and spaces.

Horizontal and vertical forms of overexpansion of the development in modern urban structures

The development of today's cities is accompanied by urban processes which, not fully regulated, conduce to the sprawl of spatially disordered suburbs. The progressive urban sprawl and constant, economically driven, migratory propensity of people from agricultural areas as well as the influx of people from smaller towns to large and rapidly growing urban centres has eventually led to the emergence of clearly visible forms of urban overexpansion. This is noted by Léon Krier – known for his criticism of modernist ideology, an advocate of *New Urbanism*. In *The Architecture of Community* he indicates the two basic forms of hypertrophy of urban structures: “1) *Urban centres tend to overexpand vertically. This phenomenon leads to an excessive density of buildings, activities and users, which in turn results in an explosion of land values and rents.* 2) *Suburban peripheries are overexpanding horizontally, driven outward by the low cost of land, resulting in very densities of buildings, uses and activities. These two forms*

of hypertrophy condition each other. The resulting functional problems are interdependent and cannot be solved in isolation¹. This linkage between the tendency of city centres towards vertical forms of development and horizontally expanding suburbs results from economic diktat, reflecting the prevailing socio-economic and globalization relations, which ultimately leads to spatial pathology and obliteration of the essence of classically defined urbanity. While the phenomenon is more readily adjusted in terms of planning in inner-city areas, or in the case of the revitalisation of post-industrial areas, suburbs seem to develop more on the basis of spontaneous investment activities, usually based on a small, individual capital. This leads to the blurring of spatial readability of city boundaries, creating areas of urban-rural fringe development. These areas have been deprived of the development typical of the traditionally defined typology of the urban tissue, creating a kind of caricature – of “neither a city nor a village”. The modern state of suburban development is frequently considered to be incapable of creating the values typical of urban space. It can be perceived as the lost space for the formation of the continuity of existing city structures. The urban boundary is of administrative dimension here (i.e. signs and information boards) and does not have a real spatial context resulting from the clear continuity of the urban tissue expansion. Striving for a balance between the periphery and the centre should be based on the principle of polycentric spatial policy which normally requires regulations in the field of property rights. According to Krier: “*The urban economy will no longer grow by expansion into the surrounding countryside or the overdevelopment of historic centres, but by the redevelopment, maturing, opening up, completion, and internal growth of the suburbs*”². The architect perceives a contemporary form of the suburban overexpansion as a kind of parasite on a healthy urban body. A number of the views presented by Krier, calling for a return to the traditional understanding of architecture and urban planning, faces criticism, mainly among the contemporary artistic circles who declare themselves successors of the twentieth century modernist thought. Nevertheless, his thinking is gradually winning more and more supporters and physical reflections in implementations (e.g. Poundbury in England, Cayala in Guatemala).

The significance of the housing expansion in the process of blurring urban boundaries

Contrary to the demands calling for the crucial adherence to the traditional urban and architectural patterns proclaimed by Krier, a significant part of modern suburbs develops around larger cities or metropolis in the manner which is a consequence of the lack of clear plans for further development. This state defies urban regulations empowered in local law that would allow for the creation of the development which could create a semblance of urban space – a square, a street with frontages or a courtyard. Such suburbs are usually characterized by loose and chaotic housing development – mainly single-family, less often terraced or multi-family one with low intensity factor, based on property right strongly exhibited in the architectural expression. Blurring of urban boundary occurs in the ultimate spatial effect due to the lack of

¹ Krier, Leon. *Architektura wspólnoty*. Gdańsk: Wydawnictwo słowo/obraz terytoria, 2011, p. 99.

² *Ibid.*, p. 108.

clear, specific guidelines having citygenic consequences for the organization of private investment development. Suburban development has become an unnatural urban form of private housing development, giving urbanites the opportunity to escape more and more burdensome contemporary urbanity. In *A Pattern Language* even states that: “*The suburb is an obsolete and contradictory form of human settlement*”³. He justifies this with the fact that: “*Many people want to live in the country; and they also want to be close to a large city. But it is geometrically impossible to have thousands of small farms, within a few minutes of a major city centre*”⁴. The essence of understanding the problem of excessive growth suburban development lies in the need to shape properly understood housing environment and human life. As early as in the mid-twentieth century Walter Gropius – the founder of Bauhaus – made certain observations in this field in his *Scope of Total Architecture*. Trying to figure out the essence of the ideal housing, he point out to a particular internal conflict existing in human nature. It consists in meeting basic needs both in urban and rural environment. He writes: “*Violently conflicting opinions concerning the ideal type of housing persist: the root of the controversy is the old antithesis of city versus country. Man requires contrasts for stimulation and relaxation, and the urbanite’s longing for the country as well as the country dweller’s longing for the city are elementary drives constantly in need of satisfaction*”⁵. Gropius stressed that with the advent of progressing development, both of these needs are met by alleviating mutual differences (“*by bringing the comforts of the city to the country and returning the charms of nature to the city*”⁶). Gropius’s observations, referring to the psychological background of the dispute about the nature of the ideal form of housing, allow one to understand that the growth of the suburbs and the character of their development stems not only from the purely economic reason in choosing the place of residence, but above all because of the compromise allowing one to live in close proximity to nature, but also to remain close to urban structures and make use of their facilities. The state of modern suburban development is the result of human expectations and aspirations embedded in the framework of economic possibilities. This promotes the development of architecture which is often referred to as suburban. The authors of the publication *Learning from Las Vegas* – R. Venturi, D. Scott Brown, S. Izenour – describing among others the phenomenon of the so called peri-urbanisation (also referred to as *urban sprawl* – i.e. dispersive urban development spread), emphasise that: “*Many people like suburbia. (...) Most suburbanites reject the limited formal vocabularies architects’ values promote, or accept them 20 years later modified by the tract builder: The Usonian house becomes the ranch house. Only the very poor, via public housing, are dominated by architects’ values. Developers build for markets rather than for Man and probably do less harm than authoritarian architects would do if they had the developers’ power*”⁷.

³ Alexander, Christopher. *Język wzorców*. Gdańsk: Gdańskie Wydawnictwo Psychologiczne, 2008, p. 30.

⁴ *Ibid.*

⁵ Gropius, Walter. *Pełnia architektury*. Kraków: Karakter, 2014, p. 159.

⁶ *Ibid.*, pp. 159-160.

⁷ Venturi, Robert; Scott Brown, Denise; Izenour, Steven. *Uczyć się od Las Vegas*. Kraków: Karakter, 2013, p. 206.

Sources of suburban decline – lost urban spaces

The sources of pathology in the current state of urban development can be traced down to planning trends that were established in the second half of the twentieth century. Their development was closely rooted in the progressive currents of Modernism aimed at rejection of compact development, and thus abandoning classically defined city and urban space in favour of the worship of a single-unit buildings or buildings-monuments located in open space. At the time this process served for a good cause – it was to be a response to the overly dense development known from the period of industrial development of the nineteenth and early twentieth century which had created unfavourable conditions for the housing environment for decades. The aim of the spatial revolution was to – as emphasized by Gropius: “*deconcentrate, not to dissolve the city*”⁸. The consequence of the quest for new solutions for urban space was the implementation of development models non-existent before in history. The traditionally conceived space of compact urban districts became displaced by the models of the so-called “housing estate development”. The continuity of the development structures making up urban space was replaced with the compositional juxtaposition of buildings in open space. This gave rise to a process of blurring the boundaries of traditionally regarded districts, and thus the essence of urbanity. New orders abandoning the past and historically established continuity of the development of urban structures, progressive ideas of CIAM, and Le Corbusier's “three essential joys of urbanism”: sun, space, and greenery, relatively quickly turned out not to be an entirely successful experiment that was never fully accepted in the general public perception. Nostalgia for the traditionally conceived city, elements of identification and transfer of social relations to the new forms of development and housing failed. Charles Jencks points to the demolition of part of the housing development Pruitt-Igoe in St. Louis from 1972 (designed by Minoru Yamasaki, 1952-55) as a meaningful symbol of this failure. Here he sees the moment of the fall of sterilely rational, modernist concept of architecture and the new ways of shaping the development of the modern city⁹. In turn, the author of *Cities for People*, Jan Gehl sees the reluctance to modernist principles of shaping urban space common among people in that they have reduced the possibility of creating a kind of friendly environment to establish relationships and to build the correct principles of social coexistence. Gehl indicates the reason for this state of affairs, writing: “*Modernists rejected the city and city space, shifting their focus to individual buildings. This ideology became dominant by 1960, and its principles continue to affect the planning of many new urban areas. If a team of planners was asked to radically reduce the life between buildings, they could not find a more effective method than using modernist planning principles*”¹⁰. These principles were guidelines for the creation of regulations that often became the deciding factor determining the nature of urban but also architectural solutions. Urban space and the architecture that created it began to be governed with parameters, coefficients, meters and not proportions, line segments, composition or appropriate scale. Not only does the effect of blurring the urban space occur on the expansively growing suburbs, but it is also visible within the newly implemented residential areas where new building complexes that are not

⁸ Gropius, Walter. *Op. cit.*, p. 174.

⁹ Jencks, Charles. *Architektura postmodernistyczna*. Warszawa: Arkady, 1987, p. 9.

¹⁰ Gehl, Jan. *Miasta dla ludzi*. Kraków: Wydawnictwo RAM, 2010, p. 4.

related to each other in a consistent and logical whole arise according to investors' economic diktats. This space can also be considered to be lost due to the fact that it sets and reinforces the apparent way of development which one calls the "city" for the next few decades. Such a substitute of the "city" has lost its *raison d'être* as the plan presenting the continuity of the development structures has been rejected – the fundamental element of urban design. This is pointed out by Rem Koolhaas who claims that: *"What has finally killed urbanism is not the fact that so many people made so many desperate mistakes, but fact that very few of the processes and operations that take place today can take place in the form of a plan, the classic product of urbanism"*¹¹.

Suburban landscape – the crisis of defining the rural-urban fringe

On Polish soil there is a particularly visible phenomenon of "suburbanisation" of rural and agricultural areas around the growing urban agglomerations. This process has been commonly called the "residentialisation" of the countryside. This phenomenon encompasses the transfer of urban forms of development but also urban amenities and standards as well as the urban model of life to rural areas¹². Expansive suburban sprawl encourages, in turn, "indigenous" urbanites to move to the peripheries, away from the urban hustle and bustle and the hypertrophy of downtown development. This would confirm the above-quoted Gropius's prophetic observation of *"bringing the comforts of the city to the country and returning the charms of nature to the city"* as well as the issue of constant need to satisfy two starkly contrasting "instincts" deeply rooted in the human psyche, related to human habitat: *"the urbanite's longing for the country as well as the country dweller's longing for the city"*¹³. Thus, being a result of aggressive expansion and hypertrophy of the surrounding urban structures, the process of "residentialisation" of the countryside leads to the blurring of the so called "townscape" which since the 50s and 60s of the twentieth century has become as important as the natural or cultural landscape of the country for a small number of conservative architectural and urban planning circles. For such figures as Gordon Cullen, explanation of the idea behind the "townscape" in publications from 1961 entitled *"Townscape"* and *"The Concise Townscape"* or in the articles published in *"Architectural Review"* was a kind of reflection and dissenting voice of some of these circles against new doctrines derived from modernist trends related to the ways of shaping cities. According to Philip Wilkinson: *"The rich variety of cities that had grown organically, with their seemingly random mix of large and small, old and new buildings, entranced Cullen. And he was convinced that when others understood it, they would be entranced, too—the traditional organic city was for him an immense source of sheer visual pleasure. The opposite of this was what Cullen called "Prairie planning": the same house design repeated endlessly against a background of uniformly wide streets, dull street furniture and featureless, unfenced gardens"*¹⁴.

¹¹ [Quoted after:] Miessen, Markus. *Koszmar partycypacji*, Warszawa: Fundacja Nowej Kultury Bęc Zmiana, 2013, p. 87.

¹² These issues were addressed in the assumptions of III Region-City-Country Conference whose theme was the question: "In the countryside, which is where?" The conference organised by the Department of Urban and Spatial Planning, Faculty of Architecture, Silesian University of Technology in 2016. [retrieved at: <http://konferencje.polsl.pl/rmw/default.aspx>].

¹³ Gropius, Walter. *Op. cit.*, p. 159.

¹⁴ Wilkinson, Philip. *50 teorii architektury, które powinieneś znać*. Warszawa: Wydawnictwo Naukowe PWN, 2011, p. 179.

The current absorption of a growing number of new rural areas around the developing agglomerations and the consequence of their development in a way that has neither the connotation of the cultural code of urban space nor the rural character of the forms of rural housing does not allow for identification and classification of this kind of action as building the continuity of the idea behind “townscape” as defined by Cullen. Blurred, incapable of creating the visual message of space, the rural-urban fringe can be thus considered to be the lost space in the context of the lack of opportunity to form a clear image of a townscape.

The aspect of scale in shaping urban space

Rem Koolhaas claims that: “*Now we are left with a world without urbanism, only architecture, ever more architecture*”¹⁵. His term “*Junkspace*”, reflecting the character of modern urban space, has gone down in history as criticism of today’s architectural and urban planning actions. He writes: “*Junkspace is the sum total of our current architecture: we have built more than all previous history together, but we hardly register on the same scale. We do not leave pyramids. According to the new gospel of ugliness, there is already more Junkspace under construction in the twenty-first century than has survived from the twentieth... It was a mistake to invent modern architecture for the twentieth century*”¹⁶. Expansively sprawling cities almost always “live and breathe” their historic centres, which have a clearly defined spatial plan – urban planning. Here blurring of the urban boundaries takes place through thinking about architecture as an autonomous structure, as if effectively connected to the city’s infrastructure. The context is omitted; it does not create a consistent continuity of the space between the complexes of interconnected buildings. More and more often the city is defined by a group of detached buildings competing for the first place in the creation of an architectural event. Thus the space created between the buildings-icons may be considered the lost space which defines the visual context of individual buildings and not the context of the place created with their participation. *Genius loci* – the mythical spirit of the place did not extend its care to such heritage of contemporary times. Questions about the future of cities remain. Isn’t the re-evaluation of the principles of shaping space, based on human friendly scale known from traditional European cities, the beginning of the collapse of urban culture? In his theoretical considerations, Koolhaas refers to the problem of Bigness perceived as the problem of size or rather (according to Charles Jencks) the absence of a theory of Bigness which he considers architecture’s most debilitating weakness¹⁷. In “*S, M, L, XL*” Koolhaas states that: “*Bigness no longer needs the city; it competes with the city; it represents the city; it pre-emptes the city; or better still, it is the city. If urbanism generated potential and architecture exploits it, Bigness enlists the generosity of urbanism against the meanness of architecture. Bigness = urbanism vs. architecture*”¹⁸. The issue of Bigness typically refers to overexpansion of city centres developed within the twentieth century city structures as well as at the turn of the century and which continue to this day. They are based on economic locational diktat of a profit-driven investment to which technical and

¹⁵ Jencks, Charles; Kropf, Karl. *Teorie i manifesty architektury współczesnej*. Warszawa: Grupa Sztuka Architektury, 2013, p. 342.

¹⁶ *Ibid.*, pp. 407-408.

¹⁷ *Ibid.*, p. 344.

¹⁸ *Ibid.*, p. 347.

aesthetic properties of architecture are conformed. The essence of defining urban boundaries is also becoming a matter of scale. Its skilful use is the art conditioning urban planning actions based on a sense of appropriateness, proportion, directions as well as on building a friendly atmosphere for man's living and functioning in the public space. Extreme overexpansion, both vertical in the case of urban centres and horizontal in the case of suburbs, can ultimately lead to the effect of obliteration of the sense of urbanity. Not defining the space of the city, undertaking actions which blur its boundaries, one is abandoning the essence and identity of the city – killing its *Genius loci*.

The essence of the city – determinants of urban space

In *Life Between Buildings*, Jan Gehl addresses the issues of large, medium and small scale in spatial planning and cross-correlation between the distinguished scales. Departure from the loosely built-up suburbs and return to the principle of building urban space with a traditionally conceived layout and hierarchy of streets and squares is a way to stop the effect of blurring the boundaries of urbanity. As pointed out by Gehl: *“In the entire history of human settlement, streets and squares have been the basic elements around which cities were organized. History has proved the virtue of these elements to such a degree that, for most people, streets and squares constitute the very essence of the phenomenon “city.” This simple relationship and the logical use of street and squares – streets based on the linear pattern of human movement and squares – based on the eye’s ability to survey an area – have in recent years again been taken up”*¹⁹. Gehl also refers to the principle of the development of cities based on a system of streets and squares. Their differentiated structure can be occasionally found in the newly designed suburban areas or functionalist building projects, with the difference that it is in a *“diluted and spread-out”* fashion. The so-called “streets” have become roads, and the so-called “squares” have become nondescript areas of open spatial character, devoid of human dimension and people’s desire to stay there. An urban layout, insufficiently defined by the density of development, can also become a kind of lost space, although it was shaped on the traditional grid of hierarchised streets and squares. The process of blurring the boundaries of urbanity is closely linked with the way space is assembled by introducing the principle of continuous building line – the framework for urbanity. One of the main tasks for today’s urban districts is to return to walking and cycling. The introduction of pedestrian routes and reducing car traffic fosters building cities according to the old rules of planning, which restores the subjectivity of urban interpersonal relationships. In Europe, such activities started in Copenhagen already in the 60s of the twentieth century. It was soon realized that the reduction of traffic is in many cases a factor which stimulates the attractiveness of urban spaces. One of the primary factors contributing to blurring of the urban boundaries is the introduction of excessive availability of traffic to urban structures. Finding the compromise between non-intrusive vehicle traffic and pedestrian areas (promenades, plazas, squares) seems to be a key way for the formation of modern, human-friendly urban spaces today. In *“Cities for People”*, Jan Gehl indicates the uniqueness of Venice which was designed as a city for pedestrians throughout the whole period

¹⁹ Gehl, Jan. *Życie między budynkami*. Kraków: Wydawnictwo RAM, 2009, p. 89.

of its existence. According to him: *“Venice [is] of particular interest today as the model for working with the human dimension. Venice has everything: dense city structure, short walking distances, beautiful courses of space high degree of mixed use, active ground floors, distinguished architecture and carefully designed details – and all on a human scale. For centuries Venice has offered a sophisticated framework for city life and continues to do so, issuing a whole-hearted invitation to walk”*²⁰. For many architects and urban planners Venetian model of the city has become field of research in pursuit of the essence of urbanity. It is especially visible in Leon Krier’s theoretical considerations on traditional architecture and urban planning and among Rob Krier’s development of some of the districts in Berlin. Stopping the process of blurring urban boundaries can effectively occur when one manages to create a city defined as a set of mature autonomous districts remaining in mutual spatial relationships – i.e. striving to create the so-called polycentric city. An advocate of such a method of developing urban structures – Leon Krier – claims that: *“The basic module of a polycentric city is an autonomous district conceived as a city within a city”*²¹.

Conclusions

Transformations that have taken place under the influence of twentieth-century doctrines derived from modernist trends, focused on the search for new models of development and ways of spatial organization of cities, eventually led to the departure from the traditionally understood and historically established urban planning of the city. These processes imposed on the progressive phenomenon of globalization and the migration of population from rural to urban areas have become the cause of an unprecedented form of overexpansion of urban structures. In addition to stacking the development of city centres upward, there has appeared not fully controlled planning phenomenon of the outgrowth of suburbs – known as urban sprawl. This leads to specific spatial consequences in the city, or rather to the lack of them. An expansion takes place in suburban areas and in rural-urban fringe of mainly individual residential development, appropriating a growing number of new areas and leading to the effect of blurring the physical boundaries of urbanity. These areas should be considered lost spaces for urban structures due to the fact that in the majority they are unable to produce a place aspiring to become the urban centre with compact, defined boundaries resulting directly from the accepted forms of development. Apart from economic diktat, this phenomenon is also psychologically inherent in human nature. The desire to search for the perfect form of a house or flat which would combine the closeness of nature and urban conveniences of life in a community and comfort associated with the widespread availability of services is for most people a decisive factor in choosing a place to live. An example which illustrates this phenomenon in Poland is the process of the so called “residentialisation” of the countryside in the vicinity of major urban centres, which leads to a situation when in the records of local plans there are more rural areas earmarked for detached houses than the ones being purely agricultural land – for crops. Consequently, the phenomenon of scattered development does not allow for the formation of a clear, permanent image of a townscape – the phenomenon whose reconstruction conservative

²⁰ Gehl, Jan. *Miasta... Op. cit.*, pp. 12-13.

²¹ Krier, Leon. *Architektura wybór czy przeznaczenie*. Warszawa: Arkady., 2001, p. 124.

circles of architects and urban planners sought to be guided by. The example here could be the theoretical and practical accomplishments of Leon and Rob Krier. Undoubtedly, the problem of the scale of development is becoming to be the issue responsible for the essence of contemporary urbanity as it directly affects the effect of blurring the boundaries of urbanity and the way of defining urban spaces. The sense of the existence of a friendly, intimate or monumental space in which man can find a place to live depends on it to the greatest extent. The traditional system of streets and squares, their hierarchy is for most people still, as stressed by Gehl, the essence of the phenomenon which one calls the city. In the era of modernity streets have been replaced by notions of roads and squares have become open and undefined spaces. In order to avoid the phenomenon of blurring of the boundaries of modern urbanity and restore traditional space in cities, one must return to compact development of a suitable, friendly scale as a guarantor of a framework for life in urban communities. One can find open spaces around them which are able to satisfy the human need to stay close to natural environment. Perhaps this state of affairs is no longer to be achieved in the present since too many bad solutions found their precedent in the legal and economic basis of existing implementations, which have their authorisation in democratic social systems. Krier and many other conservative architects and urban planners believe that a reasonable solution in this situation appears to be urban growth based on an organic expansion of the development structures achieved through the multiplication of autonomous districts with their own centres and visual aesthetic identity based on pedestrian traffic – i.e. building a modern city on the basis of polycentrism. Otherwise, not only will we still call contemporary urban space “*Junkspace*”, following Rem Koolhaas’s words, but we will “admire” and affirm it too.

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URBAN DESIGN COMPETITION AS A TOOL FOR PLANNING THE FUTURE OF CITIES - CASE STUDIES IN POLAND

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Key words: urban design competition, Compact city, parametric design

Abstract

The compact city paradigm is very often described as compact (dense), mixed use settlements. Masterplans for crucial areas in cities play a major role for future development of cities. The most strategic and important sites are often a subject of urban design competitions – calls for proposals for future development ideas. Some of the competition entries are only a subject for a brainstorming discussion about the future of the cities or its parts. Some of winning entries become basis for real masterplans which are implemented later. In this article several case studies of competitions and its results have been presented. Also, a methodology classification has been proposed. Also a classification has been proposed. Three case studies of urban design competitions has been discussed: Wygoda settlement' in Białystok, Gizynek settlement in Stargard Szczeciński and city centre of Goleniów.

The findings of the research on this case study help us understand whether competitions might be used as a tool for future city 'modeling'. The author is a researcher and also an architect and urban designer, as well as the author of many competition entries.

Introduction

Throughout history, urban design competition has been recognised as an efficient and leading assessment system to promote, assure, lead and appreciate spatial qualities in cities. Urban design competition is considered as one of the most prevalent means in the creative processes of major public and private urban developments (Kazemian, 2010, p. 571). Competitions have long been used as a method of seeking out the best designs (Chupin, 2011, p.174). Competitions generate exceptional designs, that are also exceptionally representational or meaningful as a product of early Italian Renaissance (Lipstadt, 2009, p.13).

In the field of architecture and urban design judging is usually a disciplinary tradition - most of jury members are practicing architects, urban designers, art critics and sometimes also clients or stakeholders representatives or future users or managers of designed buildings or areas.

Judging competitions is not an easy task (Chupin, 2011, p.175) if we consider that some of the criteria refer to aesthetics of a featured site or building (which might be liked or not) and some refer to other aspects, such as functionality, cost effectiveness, energy efficiency and other. Although competition judgment is commonly spread in everyday practice, judgment has been little theorized (Chupin, 2011, p.173)

Chupin defines an architectural competition as a means through which competitors submit design proposals or ideas to design problems in an effort to receive some kind of prize, whether it is an award or implementation of the project represented by the winning proposal (Chupin, 2011, p.174).

In the field of architecture and urban design we may define three types of competitions: architectural competition, urban design competition and urban-architectural design competition. The author believes that this definition comprises all types of competitions. What differs is the subject of a competition: it is either a design of a building (architectural scale) or a design of an area (urban design scale). It is common that urban-architectural competitions are announced. In some cases the architecture of designed buildings depends on urban design e.g.: train/bus interchange station depends on the urban layout of the site (the location of its entrances depend on the site). And on the other hand, an initial idea for an urban design of a site has an impact on the buildings.

As Wezemaal et al. write about observation of urban competition juries some of the most relevant evaluation and assessment criteria are not given by the jury in advance but emerge during the decision making process as a result of interaction (Wezeamel et al., 2011, p.172). The competition process should be seen as a democratic opportunity through the infusion of a rich set of alternatives to a given problem by a public, as well as through a judgment process (Chupin, 2011, p.174). The thesis that competition judgment is a process becomes a fact in some cases. Sometimes competition results may be surprising to outsiders or even, at the end, for the jury or client/ stakeholder who initiated the competition procedure. In some cases the winning proposals do not necessarily meet all initial criteria.

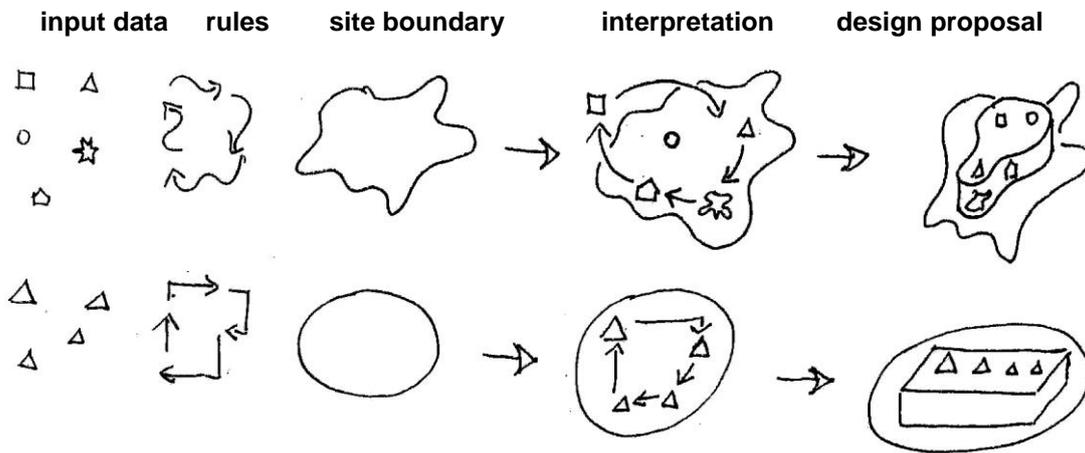
There are several types of urban design competitions: usually competition design rules describe what kind of competition we are dealing with. The author suggests a division into two types of competitions: competitions for ideas - very often international and open and competitions for design (in the article referred to as "for precise design"). The properties and characteristics of both competition types are presented in Table 1. Similarities and differences between conceptual design competition and precise design competition are also presented as diagram (Figure 1).

The most important determinants of a competition's possible success are: the amount of data in competition materials, expectations about the effect of the competition and finally competition type (open/ closed/one stage/ two stages etc.). The more detailed data regarding the site, such as: information about the site, research on close neighbourhood, professional information about the site e.g. questioners concerning the inhabitants' expectations about the site etc., the more precise the competition submissions should be. Also, the proposed design should better respond to the local needs.

Table 1. Characteristics and types of competitions

<i>Competition type</i>	For ideas/ conceptual	For precise design
<i>Input data</i>	Basic information	Precise information
<i>Competition type</i>	open	Open/limited/closed
<i>Participants</i>	Anyone or All professionals (architects, urban designers, planners)	Limited number of professionals or professional office which meet precise criteria
<i>No. of submissions from one participant</i>	unlimited	Limited (usually only one submission)
<i>Competition entry drawing scale</i>	Not very precise - scale may vary depending on the proposal	Very precise - all drawings must be submitted in a scale or the entry will be disqualified
<i>Site boundary</i>	Not very precise	Very precise
<i>Competition rules</i>	Not very precise	Very precise
<i>Budget for implementation</i>	Not revealed	Very precise
<i>Target to achieve</i>	Not precise	Very precise
<i>No. of stages</i>	Usually 1 stage	1 stage or 2 stages
<i>Design proposal</i>	Design proposal or design framework/ design principles visualized as a design proposal	Precise detailed design proposal
<i>Effect</i>	Public discussion/ further development of the concept	Further formal legal design (getting implementation)

Figure 1. Diagram showing similarities and differences between conceptual design competition (above) and precise design competition (beneath)



Source: Tomasz Bradecki

The advantages of conceptual competitions are usually simple rules and a small amount of input data about the site and also a variety of possible solutions presented in the entries. The disadvantage is the fact that usually the competition organiser does not get a final, precise solution or an answer that would show a way to solve a particular problem. Some of the

solutions proposed in open competitions may appear as perfect but they cannot be implemented in reality nor in near future. Very often the organiser reveals the competition results and these results become either a subject of public discussion on the future of the site, or a subject of a further, more detailed masterplan of the site which incorporates most of the conclusions from the competition results.

The advantages of competitions for a precise design are: precision and accuracy of the submitted designs. In many cases if a submission does not meet the criteria set in the competition rules - it is simply not being judged. In many cases the winning proposals are implemented later on: the winning team is committed to design a final, multidisciplinary, detailed project and gets either a planning approval or a building permit. In that case the authors become responsible for their design until it is finished (approved or built).

The time of transformation which happens nowadays in Poland provides an opportunity for implementing big investments, including large-scale master plans in some areas which might be a subject of urban design competitions. Especially, if the perspectives of EU funding call for seeking innovative solutions, including the ways of transmitting historic and cultural heritage in architecture and landscaping forms (Stangel, 2014, p.205). Although such potential urban design competitions in Poland do not occur very often. In many cases there are no competitions at all. As an example, in 2014 there were 401 tenders or competition announcements set by the state authorities, but only 13 were competitions and the rest were tenders with the price for design as the main and/or the only criterion (Lorbecki, 2015, p.68). At the same time (2014) there were 3706 calls for architectural designs out of which only 52 were competitions.

Kazemian states that urban design belongs to an extremely complex and responsive decision-making process, often in ill-defined, ill-structured, unstable and uncertain situations. (Kazemian, 2010 p.569) and so in many cases in Poland it leads to resignation of the winning entry: very often there is no 1st prize. If we consider that urban design projects are complex undertakings which require several stages and adjustments of preparation before they ever get implemented (Stangel 2014, p.), we should also keep in mind that some of the urban designs proposed in competitions are adjusted several times and often do not get implemented at all or are implemented only partially.

Competition case studies

The author presents a few urban design competition case studies which have been recently committed in Poland. The choice of the case studies was personal: all the competitions represent different types of competitions and the author participated in all of them. Also, the author is an active urban designer and architect and has observed most of competitions having been organised in recent years in Poland.

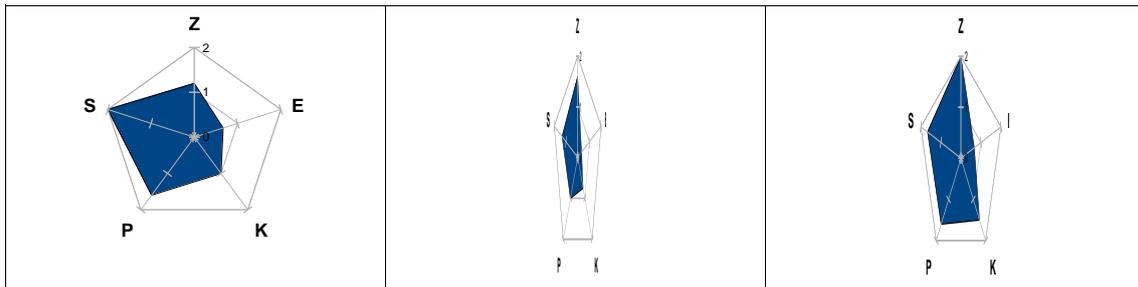
The case study of urban design competition for ca. 100 ha site called Gizynek in Stargard Szczeciński shows that planning the future for the city may start at the competition stage. The competition has been launched in 2014. Lorbecki states that this competition is an example of good practice (Lorbecki, 2015, p.), since the initial idea as well as the competition rules were very open for future ideas. Even though there was an existing spatial development plan for

Stargard and main framework proposed for the site - all participant were allowed to propose their own vision for entire site which would change the spatial development plan. In this case 1st prize has been granted to proposal which actually needed a change in spatial development plan For the purpose of a competition results' analysis author discussed the winning proposals and used a comparative method which could help in quantitative and qualitative judgment.

Proposed method bases on quantitative analysis of design proposal based on five fields strictly connected with compact city paradigm: built environment (land development), ecology, diversification of the functional structure , spatial composition and transport solutions. All the categories (Z - development, S - structure, P - space, K - communication, E - ecology) are related with land development and they are mainly based on land use specification, which shows the share, in percentage terms, of particular structures - development, communication, greenery - in the developed land. However, due to the role of each structure, they have been put in various categories. Each category uses the following grades: 0 - not present/negative grade, 1 - moderately present, 2 - present in a distinctive way. The method based on network diagram, which illustrates predominance of selected criteria: development, structure, space, communication and ecology. The most optimal diagram would be a full diagram, i.e. one that would complete the whole network up to the maximum values. However, achievement of certain optimum values might contradict others, e.g. high amount of biologically active space and high intensity and compactness of development. (Bradecki, 2014). The competition results has been interpreted and compared by the author using the parametric evaluation method. Results presented in Table 1 represent graphic and parametric evaluation realized by the author. The method is time-consuming, and some of the parameters are interpretation of competition entry data, which is a weakness of the method. Its strenght is the possibility of parametric comparison of competition entries.

Table 1 Example of parametric evaluation of functional and spatial structure diversification for a given area - visualized on a network diagram: example categories (Z - development, S - structure, P - space, K - transport solutions, E - ecology). Different competition entries for competition in Giżynek

Ist Prize	II nd Prize	Authors' competition entry
		



Source: www.ronet.pl (4), 1st prize: Michał Stangel, Marta Ulfik, Filip Piaścik www.ronet.pl (5), 11nd prize: Maciej Hawrylak (www. szczecin.sarp.org.pl), Tomasz Bradecki, Paweł Gembalczyk , Barbara Uherek-Bradecka, Barbara Czuba www.ronet.pl (7)

Another case study is the conceptual urban design competition for over 100 ha site called settlement Wygoda in Białystok. The competition was announced in 2015. The organizer suggested that all possibilities are acceptable (including changes to the local development plan) as long as main goals were achieved on site. The competition entries were different and represented different approaches for all important areas of the site (see table 2). The competition finally led to open public discussion for site development.

Table 2. Different competition entries for settlement Wygoda in Białystok

quivalent prize	quivalent prize	Honorable mention
		

Source: Kaja Chrosczilewska, Marcin Dzienisik, Urszula Cryer i Philipp Feldschmidt - ronet (1), Marcin Szewczyk, Konrad Onderko, Paweł Wręczycki ronet (2), Tomasz Bradecki, Paweł Gembalczyk, Kuba Wręczycki ronet (3)

In that case also a similar comparative method has been applied to verify the winning entries. Although the method seems to be promising and can show the potential of every design proposal, still it showed its weakness: in two case studies the 1st prize were not represented by the optimal or potentially better diagram in relation to other prized entries. The possible reason for its weakness is probably fact that both judgement process and design cannot be reflected by numbers and scales.

The case study of masterplan for Goleniów show slightly different approach. In that case an urban design competition has been launched in October 2009 by the local authority to get proposals for 'the heart of the city'.

The competition was semi conceptual/semi precise. The effect of the competition was a detailed masterplan for the site. After revealing the results of the competition authors of the winning entry (Bradecki, Stangel, Uherek-Bradecka) were committed to design a refined masterplan

which included guidelines from public consultation and local authorities guidelines. Some of the ideas suggested in competition entry were kept and some were changed. Lessons from final masterplan for Goleniów designed winning team (Bradecki, Stangel) showed that although initial idea was good, still details and some solutions must be changed (see Figure 2). During the work on the masterplan authors proposed three different variants of the final layout and finally only one has been chosen. This process was similar to two stage competition type, but the difference was that there was no competing team in second stage. As far as author knows no further effect of the competitions result have been noticed. A tender contract for local development plan of Goleniow city centre have been announced, but there were no information whether the masterplan guidelines will be incorporated into final plan.

Figure 2. Initial competition design for Goleniów (left) and final proposal designed in second stage (right)



Source: Michał Stangel, Tomasz Bradecki

Conclusion

Planning for the future of the cities may be advised by urban design competitions. Every single competition should be fit to the site and situation. The more data can be prepared to set the competition guidelines the better result we can get. On the basis of his Polish experience the author suggests that in most cases two-stage competitions can give better results than one-stage competitions. In some cases, a broader view of the city and a proper long-term strategy may be more important for the cities' future than realizing a single target (building or public space) which does not fit enough. The perspective of realizing a proper public space may be a good reason for several different approaches. In such cases public consultations before and after a competition are obligatory, as long as realistic 'on site' experience is concerned. There are no statistics that would prove the thesis. However, in many cases proper organisation of the competition can do much more than a series of various steps: competition, consultation, after competition design and/or other. Since a design competition and competition judgment are a process, the author believes that two-stage competitions offer the best opportunity for the right judgment and choice for the jury, and allow the designers to adopt a multi-aspect, multi-step approach to designing. Thus, this kind of procedure allows competition organisers to achieve better effects and we may assume that the future of the site benefits from it as well.

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NEW URBAN PROCESSES IN ENCARNACIÓN CITY, PARAGUAY. THE WATERFRONT DEVELOPMENT AND URBAN RENEWAL

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Keywords: urban development; revaluation; waterfront; segregation.

Abstract

The purpose of this paper is to analyze the recent transformations experienced by the city of Encarnación (Paraguay), as a result of its new urban development, influenced by the effects of the additional work done on the Yacyreta hydroelectric dam, built by Argentina and Paraguay on the Parana River. Based on an exploratory and descriptive research approach, I argue that there has been a change in the patterns of urban land occupation, not only because of the growth of the reservoir located in the Parana River (new waterfront) and the consequent relocation of the population affected, but also due to the emergence of urban renewal processes, regeneration, and high-quality public works. All these changes have resulted in a new urban configuration of the city and an architectural modernism that is generating new public spaces, sanitation, infrastructure, and new opportunity structures for urban life. Among them are the creation of extensive beaches on the riverfront and new business areas. However, on the other hand, the massive displacement of poor people toward other urban or peripheral areas has rapidly enabled a new fragmentation of the city.

Among other conclusions, we will argue that, despite having highlighted the benefits of the urban transformation that the city is undergoing, Encarnación is experiencing a differential change of its urban space characterized by accentuated and discontinuous interventions in different socio-spatial spheres and the creation of an increasingly more segregated city, causing a disconnect between the new, highly qualified central areas and the new urban peripheries.

Encarnación City

The socio-urban consolidation of the city of Encarnación is recent, but the city originated in 1615, on the shores of the Parana River, as a Spanish colony. Today the city is the municipal capital of the department of Itapúa and is home to a predominantly urban population of 118,300 inhabitants, and is the third largest city in Paraguay, after Asunción and Ciudad del Este.

Since 2009, the old urban make-up of Encarnación city is undergoing major changes as a result of additional work being carried out on the Yacyreta dam. These changes are occurring not only at a territorial level, but also on an environmental, social, economic and cultural scale. Raising the level of the reservoir from 76 to 83 meters above sea level has led to the flooding of large areas of the city and other traditional areas such as Villa Baja, an area considered to be patrimony of the local and cultural identity.

Figure 1. Map of South America: Location of Encarnación City.



Source: Author.

The flooding, on the other hand, has generated impacts of varying complexity, not only because of the consequent displacement of the affected population, but also on the urban renewal and expansion programs. The works have generated new, high-quality, public spaces and the

treatment of the river's waterfront have enabled the creation of extensive sandbars, creating a landscape that the city previously lacked. On the other hand, coastal avenues, docks, squares, hotels and large bridges were built in different parts of the city, thus weaving the new urban identity of the city. The articulated set of these works can be understood as "large urban projects" of economic and social complexity (Lungo, 2011).

The current urban structure of Encarnación is largely characterized by the effects of the hydroelectric dam Yacyretá, including coastal treatment programs and the relocation of the population that lived within range of the reservoir. However, interventions have also originated from a municipal level and have accompanied this change on a legislative level, in coordination with the actions of private enterprises that include the construction of, for example, residential buildings, new shops etc.

Due to the extension of its residential areas and since its consolidation as a city, Encarnación has increased its urban growth. However, because of the effects of the additional works done by the Yacyreta dam, the heterogeneous pattern of occupation of the urban space, it is becoming increasingly diverse, with a strong contrast emerging between the development of new urban centers as well as growing, peripheral populations.

The Great Transformation: the Yacyretá effect and urban discontinuities and continuities

The Yacyretá dam, built on the Paraná River, located 90 kilometers from the city of Encarnación¹, is a hydroelectric project of large dimensions, and one of the greatest engineering works worldwide. In 1973, the signing of the Binational Yacyretá² Treaty marked the beginning of work done on the dam and generated great repercussions throughout the region. However, 33 years later, its full operation in the region generated the formation of a 140,000 hectare lake.

In recent decades, and in an accelerated manner, Encarnación has modified its urban morphology due to the effects of the Yacyretá project and the processes derived from it (urban renewal, displacement), a process that is generating a particular dynamic in the city and will continue to do so. Some major problems are developing in the vast territory that has begun to develop as a consequence of the city's fragmentation, resulting in a marked inequality between services and infrastructure available in city centers and the lack thereof in these new, precarious territories.

Once the final design level (83 m) of the artificial dam on the Parana River was reached, about 800 hectares of the area of the city of Encarnación were flooded. The growth of the lake also increased the flow of the city's internal streams, which created a new waterfront. Therefore, the streams that crossed the urban ecosystem generated sub-reservoirs, often doubling the width of the river.

¹ The dam also affects the Argentine city of Posadas, located along the Parana River, in front of the city of Encarnación. Both cities are connected by the international bridge San Roque González de Santa Cruz, inaugurated in 1989 and built to accompany the expected effects of the dam.

² A year later, in 1974, the Yacyreta Binational Entity (EBY) was created, an autonomous, Argentine-Paraguayan agency responsible for managing the hydroelectric project.

In Encarnacion City, the EBY has conducted more than 27 kilometers of works in defense of the city's coast. This colossal project has involved the participation of some 15,000 workers, employed by 120 construction companies contracted by EBY. Furthermore, a significant injection of resources has been made in the context of these actions, destined both to the relocation and socio-economic rehabilitation of the affected population, as well as to environmental treatment projects and other big urban works, among which are: the creation of a new waterfront and public spaces of high environmental quality, such as parks (300 hectares of green space), and beaches for the recreation and leisure of the population, all actions that have helped to give the city a more modern appearance.

Amongst the positive effects frequently mentioned is Encarnación's recently acquired title as the "city of the 7 bridges," being that the lake formed in the Parana River has caused an increase in its main stream, the Mboi-Cae, fragmenting the original urban layout of the city and transforming its morphology. Thus, the lake has transformed the traditional downtown area of Encarnación into a peninsular area, almost completely physically separated from the rest of the city. The emergence of this new "river front", implicated the construction of new bridges that connects the new urban weft, creating together with other works, an urban reform of the city. This has been officially interpreted as opportunities for urban and regional development, highlighting some positive connotations for both tourism and the quality of life of the population. The new commercial, recreational and cultural urban features (such as the expansion of infrastructure networks), further strengthen this official point of view. So these interventions find their sustenance in the "strategic embellishment and tourism", generating classist environments or reorganizations of classes in the urban territory. (Boito and Espoz, 2014, pg. 75).

As a result of this millionaire investment as well as of the royalties received from EBY, the city has been able to build long-awaited works for infrastructure such as: the port and airport, several public buildings, hospitals, and other works and urban facilities that did not previously exist. Furthermore, it has allowed for the expansion of water networks, sanitary installations, construction of a sewage treatment plant, as well as the creation of infrastructure extending from the southernmost part of Encarnación to the urban sector of the Cambyretá municipality.

In compensation to the flooding that occurred in the commercial "low zone" of the city, EBY had to build the new commercial circuit of Encarnación, which currently houses all relocated traders. A significant portion of traders were considered by the company to be street vendors and, as a result of their new status as beneficiaries, were allocated sale venues. The construction of the "new commercial circuit" of Encarnación involved the relocation of 691 commercial shops. Another 476, mall-like stalls were constructed on a area located at the head of the international bridge. These actions were also complemented by self-relocation and compensation implemented to cater to 623 establishments and small crochet stores, as well as other industrial and service establishments located in the different neighborhoods of low areas of Encarnación. The EBY estimated that it has had to replace more than 2,500 shops of various kinds throughout the city of Encarnación (PTY, 2011, pg. 29).

The Mboi-Cae and Quiteria area have developed a new environmental interface that hybridizes urban landscapes with the natural environment (Acuna, Ishibashi, & Segovia, 2013, pg. 41). In this context, the incorporation of renewal projects - that encompass coastal treatment processes

developed on the basis of maintaining an urbanistic vision that its base that is respectful of the aesthetic value of the riverfront - to the city have generated numerous development opportunities within the real estate market. This situation has created a new structure of opportunities for the development of numerous real estate projects that are capitalizing public works, creating a synergy with the real estate market and boosting new areas of urban revaluation. As Cuenya (2011) states, the new physical and social landscapes that include changes to the city's central, modify the profitability of urban land use.

In recent years, in parallel to the revaluation of the new shoreline, the city of Encarnación has begun to experience a progressive expansion of urban growth towards peripheral areas, some of which are far away from the urban area of the city, bordering other municipal districts or overflowing its limits. However, the presence of residential settlements of different socio-economic backgrounds is observable in the new areas of coastline that the EBY has created. In fact, parts of the San Pedro housing complex constructed for the relocated/vulnerable population is located on the edge of the renewed Mboi-Cae basin, as is the situation of the San Isidro housing complex, which is located along a bank of beaches on the Parana. Similarly, the Pacu Cuá and Mosquito neighborhoods as well as several other settlements have emerged amidst revalued territories located between the international bridge and the new Encarnación Coastline.³

Coastal treatment, with its consequent public works and landscape renewal, have caused a revaluation of urban land and therefore are fragmenting the market value linked to land and homes in these areas. The central urban area of the city and its historical center is also suffering from pressures exerted by the real estate market, due to the fact that the area has well-developed infrastructure, equipment and services, besides surplus land to attract investment⁴.

EBY's actions on parts of Encarnación City have created new opportunities for urban and social development through a process of renewal and replacement of infrastructure and services. However, the implementations of many development projects have been sectoral and deterministic (Acuña et al 2013), creating an imbalance between different areas of the city. Talesnik & Gutiérrez (2002, pg. 23) argue that the rehabilitation of the coastal borders (waterfront) through urban renewal operations entail negative consequences, such as the displacement of some of the population and social inequity in urban spaces.

The new riverfront is not the only area that has undergone modifications, by means of transformations of a modernist architectural aesthetic, but the city limits have also experienced changes due to a new populations emerging in the city limits, inhabiting neighborhoods that lack a fluid connection to the neuralgic areas of the city, located in districts with rural characteristics, where there is a shortage of goods and services for sustainable urban life and various forms of habitational adversity. This situation has generated new urban dis-continuities and continuities that are affecting Encarnación city today.

³ In this sense, we can say that features of social heterogeneity persist within the settlement patterns of Encarnación's urban spaces, at least in some areas subject to revaluation.

⁴ In fact, the international developer Puerto Madero Corporation SA was in Encarnación, making a diagnosis of investment possibilities and viability.

Figure 2. Map of Encarnación City



Source: Google Map

The relocation process and its effects

In order to execute the necessary, complementary works of Yacyretá, it was necessary to oust people of the areas close to the flood zone, situation that required the relocation of thousands of families to other parts of the city. In this context, EBY has gradually built housing complexes to compensate displaced households, families that had previously lived in areas located under the level of affectation of the river and who increased in number due to the hydroelectric project experienced delays. By 2005, EBY had recorded a total of 18.004 families (9.031 in Argentina and 8.973 in Paraguay), representing a population of approximately 80 thousand people relocated. (PARR, 2009, pg. 3).

The relocation process in Encarnación has been intermittent and, although there are no scientific studies on the effects that this phenomenon has had on the city, there exist some technical reports on the subject, including the Resettlement and Rehabilitation Action Plan (PARR). The EBY has built 6.854 homes in eight large housing complexes that have been erected both inside the city and outside city limits.

In general, studies conducted on relocation programs show that the decisions made during the planning portion of the project have tended to be the main factor that offsets the effects of losing the most predominant good: housing (Bartolome, 1985, pg. 11). However, the fact that families were relocated to new neighborhoods built in areas poorly articulated to the urban center, and where there are no services and basic infrastructure, is an imbalance that unleashes new

problems. Thus, the fact that resettlement sites are located far from city centers (in low cost real estate) is often an adjustment variable that guides the location of the housing complexes.

The PARR report (2009, pg. 10) shows that out of the total of the housing complexes built, 5 have been built in the city of Encarnación: Buena Vista for families that own their properties, with 601 homes; The Arrabales with 25 homes, Ita Paso with 674 homes; San Pedro with 1.972 homes and San Isidro with 1.661 homes. Meanwhile in the neighboring municipality of Cambyretá they have built 2 housing complexes: Arroyo Pora with 1.504 homes and San Francisco with 85 homes. Additionally, there was one housing complex built in the municipality of Carmen del Paraná, with 329 homes, aimed at families that both owned and rented their properties.

Table 1. Number of homes built by housing complexes

Township	Housing complexes	Number of houses
Encarnación	San Isidro	1.661
	San Pedro	1.972
	Ita Paso	674
	Los Arrabales	25
	Buena Vista	601
Cambyretá	Arroyo Porá	1.504
	San Francisco	88
Carmen del Paraná	Carmen del Paraná	329
TOTAL		6.854

Source: Calculations based on PARR. 2009. Yacyretá Binational Entity

From 2006 onwards the implementation of the Yacyretá Completion Plan (PTY), has accelerated the construction of housing, which has been implemented in stages, contributing to the completion of the relocation process. In Encarnación, more than 50% of the homes built have been completed under the PTY. However, the location of many of these houses- close to other districts - is viewed unfavorably by the population affected, as well as the habitational socio-community components (drinking water, urban transport, schools, health center, etc.), all of which function poorly.

Throughout this intermittent relocation process, several acts of resistance to the relocation process have been registered, in the form of different types of social struggles (such as protest camps, marches, and protests) without marked positive results. The work of Hansen and Oliver-Smith (1982) show that, behind processes of resistance against any form of resettlement, is the importance of the value of "place" in a culture. In fact, "Any compulsive resettlement constitutes a drama in and of itself and, thus, brings to light the basic mechanisms that sustain the social framework of a community, particularly those linked to the physical and social environment" (Bartolomé, 1985, pg. 12).

The alienation associated to "place attachment" (Cernea, 1989) is an often notorious effect of relocations, together with the dismantling of social networks and community ties previously

available in the context before relocation. However, we note here that the impact caused by the relocation is not homogeneous; displaced families are exposed to multiple risks and are affected differently according to their differential ability to overcome the constraints presented.

The relocation process was executed by resettlement department of the EBY, and entailed a detailed logistics in order to carry out the move. In order to generate social support for the resettlement process and help families adapt to their new homes, EBY implemented the Resettlement and Social Support Plan (PRAS). This plan included a significant allocation of resources and technical assistance to social rehabilitation such as: social and community support, the restructuring of social networks in order to reestablish strategies for subsistence and economic and employment inclusion, support for community workers, and access to basic health services, formal education, etc.

In general terms, the relocated population living in these housing complexes is characterized as being families living in conditions of impoverished and social vulnerability. These conditions include characteristics such as: large families; low income; high level of unemployment, etc. The main problem that affects this population are such where the household economy is assuaged by a recurring difficulty to acquire monetary income. On the other hand, the repeated complaints and demands of the resettled population are widely disseminated, from the dissatisfaction experienced with some aspect of the housing, the resettlement locations, or irregularities in the provision of services, to a more widespread discontent with the responsibility that this “new, legal life” imposes on them, such as paying for services like water and electricity, for transportation, taxes, etc. Unlike their previous way of life, the change involves a new increase in their expense structure.

On an urban level, the location of the housing projects is another aspect of crucial importance that greatly affects the population, being that it has enabled the creation of new fragments of city, extending the urban layout toward peripheral areas, far from their places of origin. The uprooting, the socio-spatial segregation and the emergence of new vulnerabilities inherent to these new living conditions, have resulted in repeated protests and social upheaval.

In this context, it is necessary to refer to the dimension of urban segregation understood as a social process resulting from the separation of certain social groups that end up with little or no interaction with the rest of society or other social sectors (Roitman, 2004, pg. 9). Furthermore the Marxist perspective of segregation as provided by Castells (1999) is a useful tool for understanding how this segregation is the result of the contradictions of the capitalist system, and therefore of the class reorganization of the city.

Neighborhoods in the context of urban regeneration: Pacu Cua and Mboi Caé

The traditional neighborhood Pacu Cua was affected by the construction of the International Bridge, and much of the neighborhood was relocated in 1999. Now it is located on the banks of the Parana River and extends to a length of 1,000 meters, from Japan Avenue to the beginning of the Bridge, an area with an outstanding panoramic view of the river. Among the complementary urban effects it has experienced are, the disappearance of the ferryboat where

the boats previously arrived, the consequent decline of commercial activity, also affected by the construction of the Bridge, and more recent works related to the infrastructure provided by Yacyretá (such as work on the waterfront, public squares, and public spaces in general).

The population of the district Pacu Cua is characterized by being households that experience high levels of socio-economic vulnerability, and survive by means of informal labor activities characterized by instability, with a high proportion of female employment.

As a result of the works done by the Yacyretá Entity, the immediate surroundings to coast line are sites that are benefiting from the construction of works related to various commercial activities, such as restaurants, bars (private enterprises) and other entertainment activities that take advantage of the Paraná waterfront (canteens, beaches, green areas, squares, etc.).

The Mboi Caé neighborhood is located to the north of the city, bordering the train line and close to the Juan Pablo II Avenue. It extends from the Quiteria neighborhood to the Mboi Caé stream, reaching all the way to the river. As a result of the completion of the coastal treatment of the Mboi sector of the Parana River, the area is characterized by an improvement of the waterfront, the presence of drainage canals, sanitation, parks, etc. Like the Pacu Cua neighborhood, the Mboi Caé was affected by the relocation of families living in some of these neighborhoods. Both districts share similar characteristics and can be considered as being popular settlements that remain in revalued areas of the city.

Before the coastal treatment, the fundamental characteristic of Mboi Caé's terrain was its low market value due to waterlogged soil, instability of relocation, legal uncertainty of land tenure, lack of services etc. Currently the Mboi Caé district is strategically located within the urban context of Encarnación, on the banks of the Parana River and the Mboi Caé stream, which has widened its flow and, despite the works and improvements made by the EBY in the sector, is an area characterized by the poverty of its residents. It is estimated that about 900 families live in the district, many of them in precarious social and living conditions, and whom subsist by doing various informal and independent jobs (handmade pottery, brick crafting, and other activities such as workshops and small shops), which are also not included in EBY's care plan.

Despite the existence of problems related to structural poverty and shortages in terms of adequate living conditions, amongst the residents of this neighborhood, there is a widespread consensus that evaluates positively its current location. The Mboi Caé neighborhood is a settlement that is located within an area of urban renewal-appreciation and, as in other areas of the new riverfront that border the town, is experiencing a boom in the construction of new and large homes, as well as an increase in land offered by real estate companies.

Among the major works of urban regeneration provided by Yacyretá, in the area of Mboi Caé, is its sandy beach (700 meters in length), and coastal cliffs. Additionally, the municipality has provided the paving of streets and accesses to the neighborhood, as well as the development of some private businesses, with various facilities (restaurants, pubs, health centers, etc.). With a unique natural landscape and an extensive sand beach, the Mboi Caé neighborhood, located on Costanera Avenue, has acquired notoriety.

As a result of its landscape value and the influx of tourism during warm seasons, the beach and its surrounding area have acquired complementary services and infrastructure, becoming an attraction for investors and the real estate sector. Realtors estimate that the properties have

increased in value by around 200%, influenced by the infrastructure and other works implemented by the Yacyretá Entity in the surrounding coastline. As result of the speculation regarding future works done in the area, a piece of land (around 300 square meters) in the Mboi Caé area has increased in value from 30 or 50 million Guaranies (\$Gs) to 150 and 200 million \$Gs.

All these works are restructuring urban areas and are generating a renewal and revaluation of urban land, with consequences that are difficult to ponder, such as speculation, conflicts, social substitution in the occupation of space, residential displacement, segregation and urban gentrification, among other potential effects.

Conclusions

The urban transformation of the city of Encarnación has received the singular impact of the Yacyretá hydroelectric project as well as from the infrastructure replacement works that accompanied its construction, including: housing projects, new business areas, coastal treatment works, construction of beaches and public spaces, etc. All of these actions have derived in a new urban system and in territorial objectifications that have impacted in the city's urban space as a whole.

The relocation of thousands of families and the disappearance of entire neighborhoods has been an emblematic part of these transformations. EBY's actions, implemented at a local level, triggered large-scale effects such as: territorial restructuring, displacement, space fragmentation, urban renewal, re-functionalization, intervention and revaluation of new areas. These actions make up the context within which various intervention programs have made use of a discourse on development that is focused on works on the waterfront and proposes a necessary break with the previous urban order.

The new urban configuration of Encarnación City and its riverfront, appealed to an architectural modernism, that in terms of the positive (and often valued) effects, spurred the construction of new, high-quality public spaces, environmental sanitation works, new infrastructure, renewed public spaces and new opportunities structures for urban life. Among them is the creation of extensive beaches on the riverfront, allowing for a shift towards tourism as an important economic activity of the city.

Despite the positive effects of these urban transformations, the Encarnacion City is also experiencing a differential change of its urban space, including the existence of intensive and discontinuous interventions into differential, socio-spatial areas, creating an increasingly more segregated city that is an expression of the disarticulation between new, central highly-qualified urban areas and the new periphery.

Traditionals neighborhoods that were left out of the riverfront area are today the target of pressures exerted by the real estate market, by the advancement of the legal city and therefore the demand of those with greater purchasing power. All these processes and transformations make up the base for the emergence of an urban residential space that is becoming increasingly segregated and differentiated.

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ARCHITECTURE OF CULTURE AS A WAY TO THE REVITALISATION OF CITIES OF TODAY. WHAT CAN WE LEARN FROM THE POLISH AND SPANISH EXPERIENCE?

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Key words: public buildings, architecture of music, public space, architecture of culture,

Abstract

Once again the architecture of culture has begun to play a significant role in the structure of cities, redefining their space, creating their character, and shaping their modern face. This trend has become particularly evident in Europe after year 2000. Cultural objects have been en masse constructed both in big metropolitan areas, as well as in small towns.

Based on the observation and the analysis of architecture of music realisations, we can extrapolate conclusions which will allow to ascertain when these buildings became a functioning part of the urban structure. We also get the opportunity to learn from the mistakes: despite significant financial expenses, the architecture of culture has failed to meet users' expectations, becoming a dead space in many cases.

The study of the presented examples forces us to discuss directions and purposefulness of investing in the architecture of culture. Introducing clear goals will provide guidance for creating the city of the future.

Introduction

Besides architecture intended for shows, edifices for culture are the most characteristic new buildings in contemporary cities. They play more and more crucial role in the process of shaping of urban spaces. Edifices, often of quite an iconic character, are able to provide a strong stimulus necessary to revitalise a specific part of a city, or to create completely new areas, attractive for residents.

The tempting vision of an easy way to create new city centres, basing on more and more sophisticated buildings of culture, is often dangerous. Cities, allocating enormous funds, create structures in a rescaled form, missing the expectations and needs of their users, and thus failing to meet the hopes placed in them.

After 2000 we are able to observe numerous new implementations which demonstrate that in case of complex investment processes, it is necessary to keep a relevant measure and proportion – otherwise, edifices or complexes of buildings of a high citygenic power become a real nuisance to cities, and a bottomless well for the municipal budget. This problem is aptly described by Magdalena Kozień-Woźniak: 'The project lasts and expresses problems of the city in its style and form (...). It does so when it is not utopian or abstract, but when it stems from specific problems of the city.'¹

Due to a large number of individual buildings of entire complexes for culture erected from scratch, places which are perfect for illustrating the processes happening there, their negative and positive effect on the city, are Poland and Spain, with the projects implemented there.

City of culture – city of ghosts

The hill of Monte Gaias on the outskirts of Santiago de Compostela was supposed to start fulfilling the role of a new city centre in 2013. The old town had been entered on the world heritage list in 1985. Cidade da Cultura was to constitute a counterweight for the historical centre, predominantly associated with the pilgrim traffic. This project, located on a hill, was dubbed by the authorities of the Spanish Galicia a gift of its inhabitants for the generations to come, which would maintain tourists' interest in this part of Spain.

Today we have the year 2015; the rocky hills designed by Peter Eisenman emerge from the fog. In the middle of the structure there is a gigantic gap, quite frightening, which is the only sign after a concert hall that was to be organised here to hold 1300 viewers, and which right after the final discontinuation of the construction process in 2013 assumed already 2000 seats. The Galician city of culture had been planned with a great swing – a 70ha plot of land was to be covered with buildings of the total floor area of ca. 100,000m². The entire structure, after its completion, was to service most of all the city whose population in 2015 was below 96 thousand.

Figure 1. Cidade da Cultura de Galicia – general view



Source: Photo by the Author

¹ Kozień-Woźniak, Magdalena. *Forma i miejsce - projekt sali koncertowej szkoły muzycznej w Jastrzębiu Zdroju*. "Housing Environment" 15/2015. Cracow: Publication of the Chair of Housing Environment, 2015. p. 84-91.

In 1999 an international architectural competition was held, to which the best contemporary architects were invited, with such noteworthy names as Santiago Calatrava, Ricardo Bofil, Rem Koolhaas, or Jean Nouel. The competition was won by Peter Eisenman, who was absolutely on a roll at the time and for whom it was another prestigious competition he had triumphed in (in 1997 he won the competition for the memorial to the Murdered Jews of Europe). The design was awarded for its respect for the existing landscape and for the cohesion of such a unique concept. It assumed cutting off the peak of the hill of Monte Gaias, and recreating it in the form of buildings with a grid of medieval streets of the historical centre of Santiago de Compostela, along the paths of pilgrims heading for St. James' tomb, recreated on the building. Thanks to this measure the architect obtained edifices which in the entire complex resembled a rocky hill intersected with numerous ravines and lines which reflected the street layout of the nearby town. Some critics of architecture additionally notice a form of a shell emerging here, which is the attribute of St. James, but this association seems to be somewhat exaggerated. Undoubtedly, thanks to the original form and scale of the project it was written about by global media, also those which are not interested in architecture on a daily basis. Authorities of Galicia and the city itself quite openly counted on a repeated success equal to that of Bilbao and the Guggenheim Museum.²

Having spent 600 million euro, nearly four times more than initially assumed, it was necessary to revise the plans. After several suspensions of the works, at the end of 2013 it was decided to withhold the works completely. Instead of a state-of-the-art culture centre attracting enormous crowds of tourists, not necessarily connected with the pilgrim traffic, visited by 12 million people a year, St. James' city acquired contemporary ruins near the old town.

Many factors contributed to the failure of the entire project. Some blame the designer, who allegedly calculated the budget erroneously. Eisenman himself explained that since the launch of the works, their scope had risen several times, which had obviously contributed to the increase of the costs. Others believe that politicians who ruled at the time are guilty as they wanted to create a new tourist attraction in an easy way, not considering the costs of construction or of operation of the facility in the future. Nevertheless, it seems fair to state that the fundamental cause of the failure of the project was its scale – the total lack of cohesion between the proportions of the old and the new, and the lack of a coherent development vision for the city which was to be provided with such an enormous culture centre in such a short time, to make matters worse very badly linked with the existing urban tissue. Considering the global financial crisis, which overlapped with all these problems, all conditions that had to be satisfied for this ambitious project to be a spectacular disaster were fulfilled. The failure was all the more painful as due to a misguided political decision a poor region of Galicia had to spend ca. 60 million euro a year for the maintenance of the already erected buildings, which constitutes nearly 30% of the budget allocated to culture, transport, and education.³

² Fique, Simon. *Ciudad de la Cultura: Modernity and Architecture in Santiago de Compostela*. "Consilience: The Journal of Sustainable Development" Vol. 8, Iss. 1. New York 2012. p. 34-49

³ Newhouse, Victoria. *Site and Sound: the architecture and acoustics of new opera houses and concert halls*. New York: The Monacelli Press. 2012. p. 234-237.

Figure 2. Ciudad de la Cultura – view from the centre of the complex of the never finished concert hall



Source: Photo by the Author

Broken ‘spaceship’

The north-western part of Spain abounds in numerous spectacular buildings, which due to the crisis remain unfinished, or there are no funds to maintain them, which leads to the deterioration of their technical condition. Similarly to Cidade da Cultura de Galicia, the problem is the size of the buildings, the unbridled programme, and the fact that the majority of the structures do not address the current needs.

Figure 3. Auditorio Palacio de Congresos Príncipe Felipe in Oviedo – general view



Source: Photo by the Author

A building of a slightly different character and situated differently than the aforementioned Cidade da Cultura, is El Palacio de Exposiciones y Congresos in Oviedo – an edifice designed by Santiago Calatrava, extremely futuristic in its form, resembling a spaceship rather than an edifice of a congress centre. A characteristic white shape made of concrete, steel, and glass, with strongly marked structural accentuations, characteristic for this architect, exposed to the local climate, believed to be one of the most demanding in entire Spain, is aging very quickly. Already 5 years after the opening of the facility, which took place in 2010, there are many visible traces of its wear and tear. The initially snow white congress hall now has a dirty grey colour, the walls are decorated with numerous graffiti, and the entire complex looks as if it was abandoned. It is quite surprising, as compared to Cidade da Cultura the programme of the building provides for more commercial functions. Besides the congress hall for 2144 seats, it holds exhibition space, 2 large multifunctional halls, 12 smaller conference halls, seats of offices of the authorities of Asturia, a hotel with 150 rooms, and a large shopping gallery with an underground car park for 1777 cars.⁴ The entire complex, which could be a gem of many capital cities of large countries, was erected in a city with the population of ca. 222 thousand. The costs of construction, initially estimated at the level of 76-79 million euro, according to unofficial reports were 5 times higher, despite the failure to complete a movable dome over the congress hall. Due to some design errors it will be immovable forever. This error cost the office of Santiago Calatrava the total of 7 million euro, which was adjudicated as a compensation for the developer and workers injured during the construction.

Figure 4. Auditorio Palacio de Congresos Príncipe Felipe in Oviedo – the main entrance to the auditorium



Source: Photo by the Author

⁴ *Sitio Web Oficial del Auditorio Palacio de Congresos Príncipe Felipe de Oviedo.* (access on 16.02.2016, <<http://www.auditorioprincipefelipe.es/es/calatrava/palaciocalatrava.php>>)

In 2001 it was probably difficult to predict the financial crisis which came several years later and had a negative effect on this investment. Another issue is that this project was way too big in the concept of the contracting entity, as well as its creators, from the very beginning. The lack of a dialogue with the environment and the total strangeness of form of the new edifice are responsible for the fact that both parties: the designers and the investors seem to do whatever they can to forget about this extremely expensive mistake.

Spanish 'Brasilia'

The problem of establishing relations between a newly erected building and its surroundings was tackled much better by Oscar Niemeyer. In Aviles, a city located to the north from Oviedo, he designed Centro Cultural Internacional Oscar Niemeyer. It consists of an auditorium with a multifunctional hall for 1000 people, a small hall for chamber concerts, and exposition space in the foyer, a dome holding a museum and additional exhibition spaces, a tower holding a restaurant and a drink bar, a multifunctional building with the seat of the administration, coffee shops, conference halls, as well as tourist information. All these buildings are arranged around a spacious square, which is to support all sorts of artistic activities. The centre was erected on the grounds of a former port, located right by the historical old town, separated from it by a road and a river, intersected by an interesting footbridge and bridge, quite interesting in their form. The white reinforced concrete architecture of the new buildings, here and there emphasised by bright red or yellow, contrasting with the renaissance old town, does not overwhelm with its bulk, it constitutes a complementation of the urban tissue in the form of a new attractive urban space. Despite quite a complicated access from the side of the city, Centro Niemeyer has had a positive effect on the post-industrial grounds located the closest to the centre, reviving them to a great extent, and improving the position of this town with its 85-thousand population in the international scale.⁵

Figure 5 and Figure 6. Centro Cultural Internacional Oscar Niemeyer – general view



Source: Photo by the Author

⁵ Etherington, Rose. *Centro Niemeyer by Oscar Niemeyer*. "De Zeen." 2011 (access on 1.03.2016, <<http://www.dezeen.com/2011/03/24/centro-niemeyer-by-oscar-niemeyer/>>)

The International Culture Centre seems to be functioning in compliance with the intention of the author and the investors. It constitutes a certain magnet for tourists and numerous people of culture, science, business, and politics. This institution gets involved in numerous cultural projects. Within international programmes such personalities as actor Kevin Spacey, director Sam Mendes, or writer Woole Soyinka, winner of the Noble prize in 1986, have worked here. The supervisory board of Centro Cultural Internacional Oscar Niemeyer consists of such celebrities as e.g. Stephen Hawking, Woody Allen, and Vinton Cerf.

Contrary to the examples provided in the previous paragraphs, one could speak of a great success here. It was made possible thanks to good collaboration of the design team, the investors, and inhabitants of Aviles. Since its very beginnings, the design approved for implementation addressed the needs of this place; its scale was appropriate for the city of this size, and the municipal authorities had a clear plan of how the institutions which was to occupy the new buildings should function. Centro Niemeyer focuses on the diversity of the artistic expression, and apart from cooperation with such powerful institutions as the Cervantes Institute, it also engages in the organisation of small cultural events. Thanks to the seat perfectly adjusted to the needs, even these most minute activities make the buildings alive and become a rightful part of the urban space. The project is definitely an example of successful revitalisation of post-industrial grounds.

Katowice Culture Zone

Just like Aviles, the Katowice Culture Zone is an example of successful revitalisation of post-industrial grounds. It is also a great reference for the comparison of the scale of the project, which in its size resembles the Galician City of Culture, although it is located in a city that is 3 times as big, round which there live nearly 3 million people - potential users.

Silesia, the most industrialised region of Poland, was subjected to changes during the political transformation after 1989 in a very special way. Numerous industrial plants started to have financial problems, which led them to bankruptcy. This was the fate of e.g. the oldest mine in Silesia, 'Katowice', in operation since 1823, located in the city centre, only several steps from 'Spodek', an iconic building designed by Maciej Gintowt and Maciej Krasiński. In 1999 the plant was liquidated, some of its buildings were demolished, and in return for its debts the city took over a gigantic plot of land in the very centre of the city. In several years, after thorough analyses, it was decided to allocate these grounds to the Katowice Culture Zone, which is to group institutions of culture important for the city itself and for Upper Silesia. The project holds new seats of the National Symphony Orchestra of the Polish Radio, the Silesian Museum, and the International Congress Centre. Unlike the Spanish projects, here it was decided to conduct an international architectural competition separately for each new edifice. Undoubtedly, this decision was influenced by the fact that the plot was located near 'Spodek' and the historic buildings of the former mine. Staging of the investment allowed to minimise the risk that affected the Spanish projects, due to which despite much higher funds invested in those constructions, they still seem to be unfinished.

Figure 7. International Congress Centre in Katowice –‘the green valley’ on the roof



Source: Photo by the Author

The competition for the design of the seat of the Silesian Museum was won by an Austrian office of Riegler Riewe Architekten, which proposed a minimalist structure of glass cubes fitted in the existing building of the former mine. The main exposition hall with the floor area of over 6 thousand m² is located underground, which constitutes an interesting reference to the history of this place. The building was erected in the years 2011-2013⁶. The next competition selected the winning authors of the new International Congress Centre. In terms of the scale of difficulty, it was the most complicated topic, because the plot where the Centre was to be placed is located in the direct vicinity of the modernist ‘Spodek’. A design by a Warsaw-based design studio JEMS won the competition. The architects juxtaposed the oval shape of ‘Spodek’ with a black cuboid form of a new building, in the place where until the 1990s there was a waste heap of the nearby mine. The colour of the edifice directly corresponds with hard coal, the symbol of Upper Silesia. The interiors, partly finished with perforated sheets in the same colour, are brightened up with warm wood. The most interesting element of the new edifice is the ‘green valley’, which intersects the building in one third of its length, demarcating an axis that links ‘Spodek’ with the quarter of Bogucice. Via a green flat roof there lead black concrete stairs, which from the side of ‘Spodek’ constitute a kind of gate to the entire complex. The edifice was put into use in 2015 after 5 years of construction.⁷ The last competition selected a designed of the National Symphony Orchestra of the Polish Radio, who was a local architect, Tomasz Konior. The competition jury chose a design characterised by a simple and functional floorplan, which

⁶ Mozga-Górecka, Maja. *Muzeum Śląskie*. "Form Follows Freedom. Architektura dla kultury w Polsce 2000+." Cracow: International Culture Centre, 2015. p. 216-223.

⁷ Malkowski, Tomasz. *Międzynarodowe Centrum Kongresowe*. "Form Follows Freedom. Architektura dla kultury w Polsce 2000+." Cracow: International Culture Centre, 2015. p. 234-243.

additionally secures good acoustic isolation for the centrally arranged concert halls for 1800 and 300 people. It was ordered to redesign the elevations, which were to refer more to the cultural heritage of Silesia.

Figure 8. National Symphony Orchestra of the Polish Radio – Concert Hall



Source: Photo by the Author

The architect decided to reach for the motif of a clinker brick, so characteristic for traditional multi-family Silesian houses. Persons who enter the building are surprised by the black reinforced concrete external wall of the main concert hall, where imprints of the shuttering are clearly visible. This brings into mind an enormous lump of coal. The large concert hall is a true masterpiece in terms of acoustics. The vineyard-style hall came into being thanks to the cooperation with Nagata Acoustics. According to many specialists' opinions, the effect is one of the best concert halls in Europe.⁸

The entire project composed of the edifices referred to above is stringed along a path running from 'Spodek' to the Silesian Museum. Between the buildings there are public spaces, parks, and piazzas. The Culture Zone is still an unfinished work, the city plans to erect several new buildings. Nevertheless, even now one could speak of a considerable success of this project, which restored the grounds of this fallen colony to the city residents. According to the municipal authorities and the designers who participated in the development of the Katowice Culture Zone, it is an expression of longing for urban space subordinate to a pedestrian, which is very scarce in the Upper Silesian agglomeration. It does not, however, seem to be the key factor that decided that this complex satisfies the hopes placed in it. Once again, the appropriately

⁸ Malkowski, Tomasz. *Narodowa Orkiestra Symfoniczna Polskiego Radia*. "Form Follows Freedom. Architektura dla kultury w Polsce 2000+." Cracow: International Culture Centre, 2015. p. 224-233.

selected scale of the project, without any unnecessary swank, should be mentioned here. The budget of the entire investment at the level of ca. 250 million euro makes it much cheaper than its Spanish counterparts, and at the same time it fulfils the tasks posed before it. The architecture that came into being here does not fall behind the projects implemented abroad. What seems to be extremely important is the appropriate operation of the institutions that function here, which treat their new seats as a chance for development, and not just an unnecessary burden on their budgets.

Summary

Undoubtedly, centres of culture are extremely important elements of modern cities. It seems that the situation will not change in the future. These buildings testify to the potential of local populations, as well as the strength of the civilisation and cultural impact of countries. The examples referred to in this paper clearly indicate that there is no one universal method that could be adopted to make use of this potential. Nevertheless, it should be remembered to select an appropriate scale of new structures, so that they could satisfy the local needs. It is necessary to remember how European cities were developing over centuries. Organic development with respect for the tradition of the place is also a recipe for the future. Attempts to evade this reasonable approach in the European reality end up the way they did in Santiago de Compostela. The European city of the future should focus on a creative development of the heritage it stems from. Attempts of revolutionary changes, disregarding the scale of the place, are responsible not only for failing to make use of the chance for development, but also have a negative effect on the existing urban structure. Frequently it takes long years to rectify wrong decisions; nobody wants to assume political and design responsibility, not to mention the financial one.

This paper aims to demonstrate changes over recent years in the process of designing of complexes of public facility buildings intended for institutions of culture. A factor that undoubtedly took its toll was the financial crisis from 2008, which in a very brutal way annihilated many plans, especially in Spain. New centres of culture must be definitely erected, their strong citygenic role provides a strong stimulus in the process of revitalisation of urban spaces. Just like in every task, the essence of success is looking before you leap. Otherwise, in cities of the future we will be haunted by deserted quarters, which nobody will be able to develop, in spite of billions of euro spent for this purpose.

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SOCIAL CONFLICT IN RESPONSE TO URBAN SPRAWL IN RURAL AREAS. URBAN RECONFIGURATION OF THE MEZQUITAL VALLEY AS INFLUENCE AREA OF THE MEGALOPOLIS OF MEXICO CITY

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Abstract

The urban sprawl of metropolitan areas involves complex processes of coexistence between urban and rural dynamics, the functional redefining of central urban areas and rural areas or urban-rural surrounding transition generates land conflicts. In this paper the context of Mexico City megalopolis and its expansion process, will be discussed in the new specialization of the central city to tertiary services and increasing the value of land, it has resulted in the expulsion of the industry and social housing to the increasingly distant urban periphery. The urban development by strength of small towns that surround Mexico City, has generated various social conflicts that claim the right to a healthy environment and territory. The aim of the paper is to

analyze the process of urban expansion of the megalopolis of Mexico City to the region of Mezquital Valley, with main emphasis on urban and industrial growth and the emergence of social conflicts in response to these territory changes. The research method is the quantification of urban growth detected by statistical data and monitoring social conflicts related to urban expansion in Mezquital Valley. By the work has been revised three emblematical and recent cases of this social movements: the *Ciudades del Bicentenario* project, movements against cements industries and the MSW management project *SIGIR: Valle de México*. The main conclusions were that urban expansion has generated social and environmental impacts, for populations that are exempt from the benefits of central urban areas. These new peripheries require a comprehensive urban planning, which are considered social needs and environmental rationality. Otherwise they become bonded areas that grow in marginal conditions and are affected by the progress that generate them benefits away from them generates new problems.

Conformation of Mexico City megalopolis

The concept of megalopolis was introduced in 1961 by J. Gottman, to describe a region in exercising their area of influence on diverse metropolis, and other medium cities, that depend of the great urban areas. The characteristics proposed by Gottman of a megalopolis area: the growth of cities, the division of labor within a civilized society, the development of world resources. The author comment that the megalopolis is a particular new type of region, but is the result of age-old processes, that had conform this complex urban areas. They contain several metropolitan areas and acquire an own personality (Gottman, 1961: 4).

Another definition of megalopolis is offered by Lang & Dhavale, which considered the existence of trans-metropolitan clusters, in which a special connectivity is observed. Based on the concepts of *space places* for physical distribution of built environment. And the *space of flows*, or sets of connection that links places via transportation systems and business networks. A way to test realizer geographical complete is by considering places and flows in space (2005: 4-5). In their work they presented the megalopolis as a unit of analysis necessary in the present, which is determined by the global economy, based on the elements of place and flows to determine its location and boundaries.

The authors defined megalopolitan areas as: areas that combines at less two, but may include dozens of existing metropolitan areas; Totals more than 10,000,000 projected residents by 2040; Derives from contiguous metropolitan and micropolitan areas; Constitutes an organic cultural region whit a distinct history and identity; Occupies a roughly similar physical environment; Links large centers through major transportation infrastructure; Forms a functional urban network via goods and service flows; And, creates a usable geography that is suitable for large-scale regional planning (Lang & Dhavale, 2005: 5-6).

Given the above characterization we found that Mexico City and the eight surrounding metropolitan areas, can be classified as a megalopolis, since they meet the characteristics of delimitation proposed by the authors. Mexico City has presented an increasing expansion throughout the twentieth century, due to being the most important urban area of the country.

Conformation as metropolis expanded at first a regional crown formed by the municipalities of eastern and northern Mexico State. But its expansion and regional influence has led to the creation of a megalopolitan area consisting of the metropolitan areas of Cuernavaca, Cuautla, Puebla-Tlaxcala, Tlaxcala-Apizaco, Tianguistenco, Toluca, Tula, Pachuca, all present adjacent municipalities to the metropolitan area of Mexico Valley.

Table 1. Metropolitan areas that conform the Mexico City megalopolis

	Metropolitan Area	Population 1990	Population 2000	Population 2010	Municipalities 2015	Urban average density (hab/ha)	Land area (km²)
1	Cuernavaca	587 495	798 782	924 964	8	70.7	1 189.9
2	Cuautla	279 697	372 256	434 147	6	51.1	979.6
3	Puebla-Tlaxcala	1 776 884	2 269 995	2 728 790	39	76.6	2 392.4
4	Tlaxcala-Apizaco	303 779	408 401	499 567	19	34.7	708.1
5	Tianguistenco	92 830	127 413	157 944	6	56.4	303.4
6	Toluca	1 110 492	1 540 452	1 936 126	15	64.8	2 203.2
7	Tula	140 438	169 901	205 812	5	30.1	591.4
8	Pachuca	276 512	375 022	512 196	7	76.3	1 196.5
9	Mexico Valley	15 563 795	18 396 677	20 116 842	76	160.1	7 866.1
	Total	19 544 427	23 660 117	26 591 424	181		16 240.7

Source: Self elaboration whit data of CONAPO, et. al. 2012.

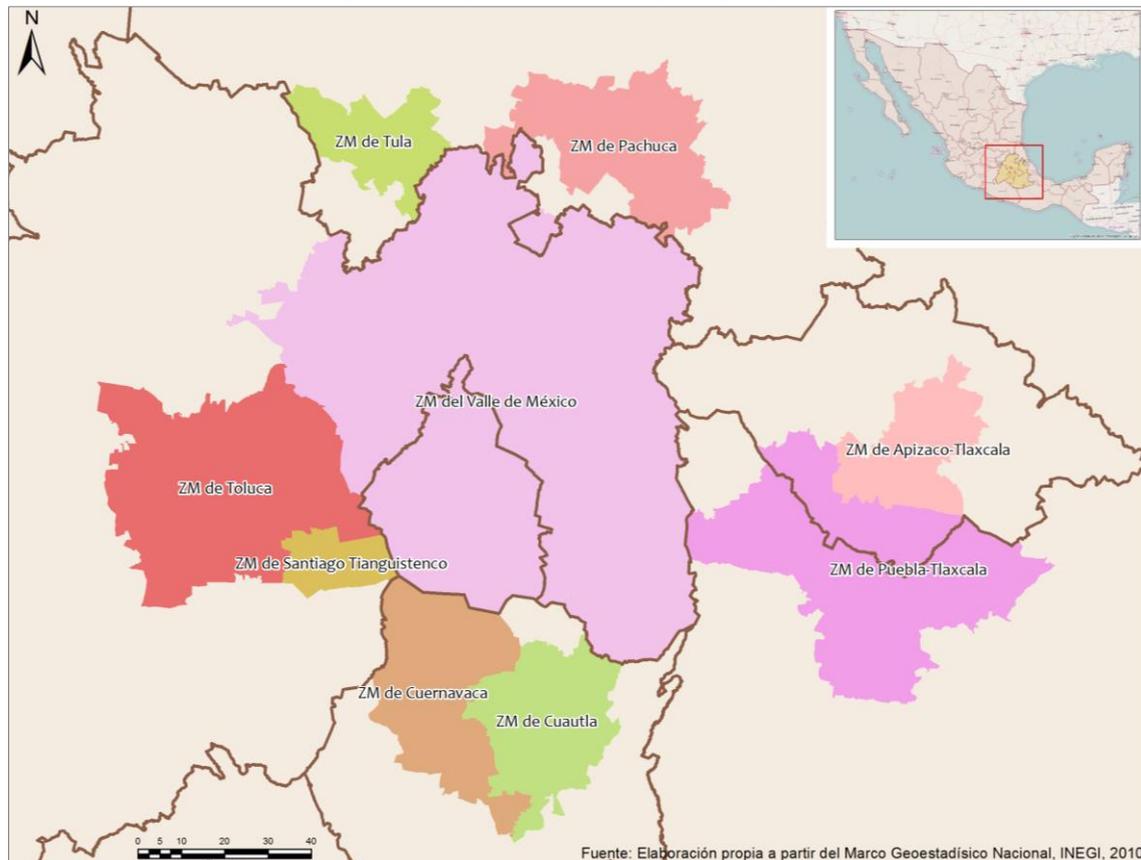
The megalopolis has a population of over 26.5 million habitants, by 2010, in addition to a complex communications network. The municipalities that compose it keep different characteristics in terms of economic activities that they develop and the population density. In the regions urban and rural areas are confronted, while Mexico City is demanding more space for urban development. By the eighties began a process of de-industrialization of Mexico City, due to the vocation towards tertiary activities. As a result the surrounding areas received the industry that the capital city expelled.

As Escamilla & Santos pointed: the expulsion of industry activities out of Mexico City as generated "a transformation of peripheral agricultural areas use discontinuous patterns of urban-rural land; circulation intensifies goods, people and capital by technological advances in transportation and communications; trendsetting manufacturing location to the periphery... where the concentration of productive activities and urban population concentrated in some cities, later redeployed in intermediate cities, process called *concentrated deconcentration*". (Escamilla & Santos, 2012, pp. 7) This concentration, involves the surroundings metropolitan areas and another intermediate cities, which has been receiving productive activities and population, making grow the area or influence of the capital.

The principals areas to receive industrial facilities was corridor Toluca-Lerma, Puebla and Mezquital Valley, in this last one, it has concentrated high pollution industry. In addition to this the site has been the natural destination for the urban sprawl of Mexico Valley metropolitan area. In this process several social conflicts have taken place, as a result of the constant

tensions that arise between the habitants of this area and the new urban configurations that take place on its territory.

Figure 1 Map of Mexico City megalopolis



Source: Self Elaboration whit data of Marco Geoestadístico Nacional (INEGI, 2010)

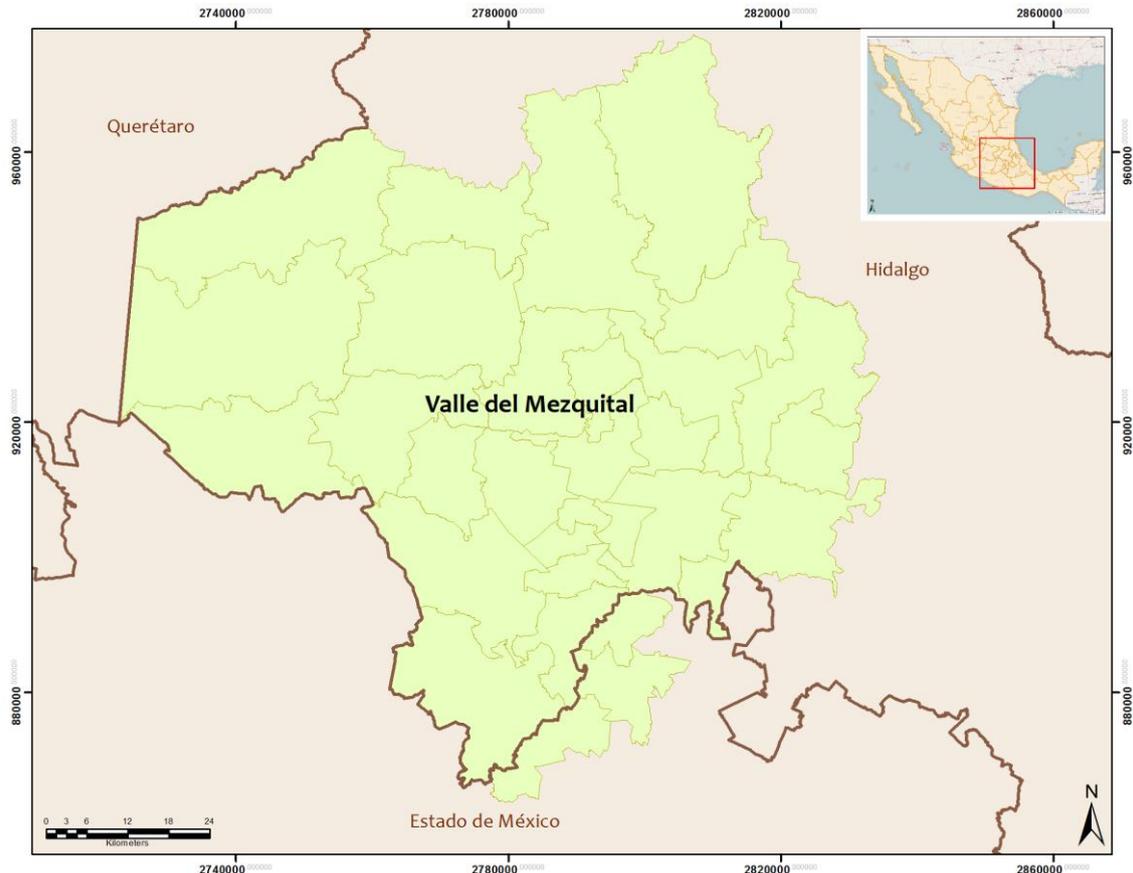
Urban and Industrial development of Mezquital Valley as an impact area of Mexico City's megalopolis sprawl

Mezquital Valley, also called Tula-Tepeji industrial corridor, is a micro region catalogued as that, for its cultural, physical and functional characteristics. Is located 60 kilometers far to Mexico City. Its extension includes 27 municipalities of Hidalgo State and 3 of Mexico State (see Map 2), whit a population of 1,050,810 habitants. From 1990 to 2010, its population increase was 147%, highlighting the municipality of Huehuetoca a 392% increase in population in the period. Other municipalities that stand out in terms of population growth are Tula, Tepeji, Ixmiquilpan and Actopan. Similarly it is in those municipalities where it has the largest concentration of industries and jobs of the micro region.

Unlike the constant in the rest of the megalopolitan area on Mezquital Valley, productive activities dominated industry, taking 36% of the population employed, predominantly on commerce and services. While the population employed in commercial sector is 33% and 30% service sector. In the period 1989-2009, the number of workplaces totals increase 385%, while

the number of employees increased by 342%, the above speaks of an accelerated economic and employment development. These workplaces increased 225% in the industrial sector. While an increase in commerce was 430% and services 565%. Resulting in an increase of 36,869 employees in the three sectors 1989 in 126,030 employees for 2009.

Figure 2 Map of location of Mezquital Valley



Source: Self Elaboration whit data of Marco Geostadístico Nacional (Inegi, 2010)

However wages in the three sectors have increased very little, considering inflation and the purchasing power of the population by 2010, and comparing wages between 1989 and 2009 in the industrial sector increased remuneration for employees was only 9.66%. For the commercial sector the increase was 27.5% and for service sector the increase was 20.9% in twenty years. As we can observe the micro region has experienced major changes in the period of study, from the transformation towards industrial activities, to the increment of the population, generated by the location of social housing in the area. Analyze social movements come from the conflict of interest inherent in the confrontation of urban development and rural. Below we review three of these conflicts that have taken place in recent years in the area of study.

Social conflict as response of urban sprawl

In the last twenty years the Mezquital Valley, has become a peripheral housing area of Mexico City. Its proximity allows transfers are made on a daily basis allowing access to low-cost housing a large number of working people who could not afford the high rents in Mexico City. Similarly, the industrial growth of the area population generates attraction, by manufacturing employment.

However, although the conditions may seem favorable for the area, the affectations that region of Mezquital Valley suffers from the growing urban sprawl brought about the influence of the megalopolis are innumerable. In the last ten years, there have been social movements of resistance in opposition to urban development megaprojects that affect human and environmental health, and impact the territory. In Mezquital Valley there are numerous industrial parks, an oil refinery, a thermoelectric plant, seven cement plants and is also an agricultural production area that for decades has used the sewage from Mexico City to irrigate their crops.

These conditions have led to a concentration of pollutants in the area, which was considered the most polluted region in the world by UNESCO in 2005. "The seriousness of the matter can not be quantified only in its environmental dimensions, but now in human... the pollution of this region is present in soil, water and air, causing diseases such as cancer, the first recorder case of anencephaly, and communes respiratory and skin diseases" (Proceso, 2005, pp.1). Environmental issues in the area have affected human health, industrial activities and housing in outlying areas that demand public services, these developments have created social tensions on various issues affecting communities.

Social Movements as effects of urban sprawl: Ciudades del Bicentenario

The problem of population growth concentrated in Mexico City megalopolis, is a challenge for the governments involved in this territory. Mexico City undergoes a process of gentrification led to rising urban land, which has forced the expulsion of low-income population into even more remote peripheries. Initially (1980s) the urbanization expanded on neighbor municipalities in the State of Mexico, monopolizing of poor housing towns like Nezahualcoyotl, Ecatepec and Valle de Chalco. The subsequent expansion in the early twenty-first century, is given to municipalities of Hidalgo, affecting Pachuca metropolitan area and to Mexico State, particularly in Toluca metropolitan area. Currently the Federal and Mexico State governments have developed a social housing program called *Ciudades del Bicentenario*.

The former aims to create: "population centers selected for their location, their ability to receive significant population increases, to be able to accommodate infrastructure and strategic facilities and being in position to have any means of sufficient communication network to allow regional and national articulation. The purpose is to concentrate infrastructure and equipment in strategic population centers for land use planning... This must be model cities, self-sufficient, properly planned and highly competitive" (GEM, 2007, pp. 3). The *Ciudades del Bicentenario* are projected to accommodate 2,125,000 habitants and 492,000 social housing by 2020, the development of six of these urban centers is projected in Mexico State (in the municipalities of

Almoya de Juarez, Atlacomulco, Jilotepec, Huehuetoca, Zumpango and Tecamac) (GEM, 2007, pp. 10-15). All of them located in rural areas, being subject of rapid urban development. In this section we will refer to the one located in Huehuetoca, belonging to the region of the Mezquital Valley and which has led to a social resistance against the project.

The *Ciudad del Bicentenario* located in Huehuetoca plans to built 104,100 houses, for 447,700 inhabitants, and the installation of industries in 822 hectares, which will generate about 61,600 jobs (GEM, 2007, pp. 13). Yet eight years into the project are multiple critics towards it, since the integral development has been limited to the residential building, without a strategic planning services and efficient mobility to workplaces, and have not captured the alleged industries for job creation. The municipality has not received a significant increase budget to attend basic services (water, sewer, electricity, garbage collection, security, etc.): “They present in water shortages terminus generals, deterioration of structures and some equipment, and mobility problems. Thousands of homes are uninhabited and/or abandoned” (Alcántara, 2013, pp. 1).

Opposition to the project by groups organized in Huehuetoca and neighboring municipalities, comes from the detection of flaws in the plan, such as those mentioned above. It is reported that the development has concentrated a large number of new homes in the area, which are in competition for basic services that the municipality must provide, but do not have the economic or operative capacity for its endowment. Also the emergence of different social pathologies such vandalism, theft and robbery and social rupture: Usually it is low-income families, where adults require travel long distances daily to workplaces, leaving children and adolescents alone most of the time, so that about broken families. The location of these large housing developments in rural municipalities with deficient infrastructure for mobility, congested roads. For residents of these new housing complexes, daily transportation to workplaces, represent a major economic and time investment, which becomes the deterioration of their quality of life.

So far, the development of *Ciudades del Bicentenario*, has only meant the rise of real state markets near the project (Espinosa-Castillo, 2014, pp.9), for the benefit of private companies. Communities in opposition denounce the dispossession suffered from their lands and natural resources: “The implementation of this strategy has generated diverse populations within the state territory, have been deprived of the use and enjoyment of the various natural assets that have protected and conserver ancestrally, because the purpose of government of Mexico State is to take these goods to consolidate catastrophic urban and industrials mega-developments named *Ciudades del Bicentenario*, hidden under a discourse of modernization, economic development and competitiveness” (CDHZZL, 2015, pp. 7).

Once started the projects, the state government has not followed up on their development, so this type of housing is not sustainable, as was the claim. The result is the appropriation of agricultural soils in the generation of homes that do not contribute to personal development of its habitants and generate conflicts whit first residents, who see their territory transformed into rapid urbanization without direct benefits for communities and for new residents who don't have the basics services that need.

Social movements against cement plants

Mezquital Valley has large areas of limestone and other quarries, it is why mining for extracting various rocks has been a traditional economic activity. The first cement plant in this area, settled in the early twentieth century in Atotonilco, then followed installing cement plants in Mezquital Valley. Currently exist three in the municipality of Atotonilco, one in Apaxco, one in Huichapan, one in Tula and another in Santiago de Anaya. Their environmental impacts are felt in different processes, as it is a opencast mining activity, the extractive process generates dust that promote airway diseases and deposited in soil, vegetation, water and crops. The second part of cement productive process involves spraying the stone from the application of heat cement kilns used as fuel oil derives, like industrials and waste tires. Since 2012 the incineration of municipal solid waste (MSW) from Mexico City began, causing the impact of air pollution increases.

Conflicts against the cement industry began in 2009 in the municipalities of Atotonilco and Apaxco, as a result of poor management of industrials wastes to be incinerated on Holcim cement kilns. Community detected chemical leakage from Ecoltec (the plant of transfer industrial waste, to be incinerated in the cement plant). These leaks were seen as strong smell of chemicals in the environment and the wastewater discharge Ecoltec, towards river. The consequences were the death of cattle that drank river water, then two strong explosions inside Ecoltec plant, but the event that most alarmed the community was the death of eleven farmers who died by accidentally inhaling toxic fumes from Ecoltec downloads. These events led to the formation of a social movement whit people of both municipalities which kept Ecoltec plant, closed for two years. Currently continued the resistance against the harmful effects of four cement plants in the two communities and the waste transfer plan Ecoltec.

Another conflict arose in Huichapan in 2012, when the incineration of MSW from Mexico City began in the Cemex cement plant. The residents of the municipality perceived strong and unpleasant odors from the plant, this triggered a series of protest and actions that gradually led the government to order stop the incineration of MSW at the plant. However the cement companies located in Hidalgo (Holcim, Lafarge, Fortaleza, Cemex and Cruz Azul) work whit state government legalizer MSW incineration and overcome social resistance by legal means.

The lasts conflict came against cement plants in the community of Santiago de Anaya in 2013, as resistance to the installation of the cement plant of the Fortaleza Group. In the installation of this industrial facilities, did not have the necessary permits from state and local governments, in addition to the irregularities during construction. The neighbors have denounced what they were overrun their land for the installation of powers lines, as having suffered damaged to their homes. So far the authorities have not given a favorable response to the residents, after the damages they have suffered.

Allegations of communities to cement industries are of a various kind, ranging from the invasion of a property, environmental pollution, the effects on human health, to the loss of human lives. Lack of planning leads to the coexistence of communities whit these industries, mostly settled in the middle of urban areas. But another important discontent community factor, is the collusion between business and government to carry out productive projects, even at the expense community well-being.

Conflicts for the management MSW: SIGIR-Valle de México.

In 2014, three municipalities in Mexico State signed an agreement for the creation of a body for the management of MSW, the called Intercity System of Waste Management (SIGIR-Valle de Mexico) was agreed by the municipal presidents of Huehuetoca, Apaxco and Coyotepec. The purpose is handling 160 tons of garbage daily, which are produced by 166, 474 inhabitants of the three municipalities. The agreement establishes the creation of a public organism that charged for the disposal of each ton of garbage a price proposed by the self organism, not by the municipalities. The organism will have own juridical personality, its own assets and budget, while municipalities undertake the purchase of the land for the operation of SIGIR-Valle de Mexico, pay staff salaries and operating costs. As well pay for the ton of waste dispose by the organism (AHAC, 2014, pp. 9-10). The organism may also market the MSW and foment the marketing of products derived from waste (AHAC, 2014, pp. 21).

Upon learning of the existence of the agreement between the three municipalities concerned citizens began the opposition to it, that's the risk by means of waste incineration, a situation that has had a bad antecedent in Apaxco for the presence of Ecoltec and Holcim cements. The landfill for SIGIR-Valle de Mexico, will be located in Apaxco (Gallegos, 2015), being the only one of the three municipalities that as a cement plant, the MSW allocated to the plant for incineration. The opposition also contemplated that the costs of maintaining the SIGIR-Valle de Mexico, represent an arbitrary measure of the municipalities, which are subject to the cost that a particular wants to impose, taking as an added benefit the marketing of the sale of recyclable and merchantable waste.

The organism would be available any decision on the handling of waste and generate property for marketing and disposal in cement kilns: "the goal (of SIGIR-Valle de Mexico) is realize any activity related to the service public of clean, collection, transportation, treatment and disposal of solid waste" (AHAC, 2014, pp. 8-9). In that sense run any inherent action to it as gathering, reception, transportation, storage, use, recycling, processing, marketing and disposal of MSW, special management included hazardous domestic waste. Having the faculty of hiring third parties for such activities. A group of citizens in Apaxco begun a program of zero waste, that consist in the recollection, commercialization, recycling and composting of waste. The pilot program has been successfully applied in Santa Maria barrio of Apaxco. The aim is to demonstrate to local government, can be a sustainable way to manage the MSW, obtaining a profit of the activity and avoiding the pollution of incinerated waste in cement kilns. (Carrasco & Vargas, 2015, pp. 104-105)

The waste transfer centers is a initiative also applied in another states; Hidalgo is to work with these schemes for waste management, "In march 2016, the Environment Secretary announced the creation of two waste transfer centers that will be located in Huichapan and Mineral del Monte. The first will receives waste from six municipalities, while the second will provide services to eight. The claim is that these transfer center modernize the treatment of waste, turning it into electricity, by thermic treatments" (Jimenez, 2016, pp. 1). In regard is with incineration or co-processing of waste, highly pollution activities. "Besides aims the construction of such facilities in Tula, Tepeji and Ajacuba" (Jimenez, 2016, pp. 1).

This form of MSW treatment is a way to profit from waste. The initiative is driven largely by cement companies that charge to local governments by incineration. The expectation of those companies is to promote a National Waste Law, where these are considered as raw material subject to exploitation as fuel on cement kilns.

Conclusions

Population growth and attraction of Mexico City megalopolis is inevitable, since pre Columbian times this human settlement has been the main urban area of the country, represents an economic and cultural dynamism. Its influence is undisputed on a national and international level, becoming one of the largest and most important cities in the world and a point of financial influence in Latin America. Its economic, political and social development has been so rapid urban sprawl, which brings environmental and social problems, which become territorial conflicts.

The lack of interest in a rational and responsible territorial planning towards the environment and communities causes conflict and confrontation. In words of the affected communities: "From our experience, we observe the existence of a constant dispute, mainly between indigenous communities and government authorities, for control of common goods, among which water and earth" (CDHZZ, 2015, pp. 6). Conflicts in the study area continue to rise, it is therefore necessary that the authorities seek ways of development that take into account the needs and welfare of its inhabitants.

Acknowledgments

Members of different social movements of Mezquital Valley, which have provided information necessary for conducting this research are appreciated: ProSalud Apaxco, Atotonili, Comunidades por la Vida, Ciudadanos de Atitalaquia pertenecientes a la Asamblea Nacional de Afectados Ambientales (ANAA), Movimiento Indígena de Santiago de Anaya and Ciudadanos Unidos por el Medio Ambiente (CUMA Huichapan). Likewise we thank the Mexico's National Council of Science and Technology (CONACyT), by funding provided for the development of the research project: *Movimientos Sociales por la Defensa del Territorio. Caso de los movimientos sociales en contra de la industria cementera en México, 2000-2017*. Convocatoria de Investigación Científica Básica SEP-CONACyT 2014.

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Appendix

Table 2. Municipalities that conform Mezquital Valley Region

	State	Name	Population 1990	Population 2010
1	Hidalgo	Actopan	40 613	54 299
2	Hidalgo	Ajacuba	12 704	17 055

3	Hidalgo	Alfayucan	16 830	18 879
4	Hidalgo	El Arenal	12 650	17 374
5	Hidalgo	Atitalaquia	17 626	26 904
6	Hidalgo	Atotonilco	19 327	31 078
7	Hidalgo	Cardonal	17 731	18 427
8	Hidalgo	Chapatongo	11 108	12 271
9	Hidalgo	Chilcuautila	13 697	17 436
10	Hidalgo	Francisco I. Madero	25 554	33 901
11	Hidalgo	Huichapan	33 479	44 253
12	Hidalgo	Ixmiquilpan	65 934	86 363
13	Hidalgo	Mixquihuala de Juarez	31 137	42 834
14	Hidalgo	Nopala de Villagran	13 456	15 666
15	Hidalgo	Progreso de Obregon	17 156	22 217
16	Hidalgo	San Agustin Tlaxiaca	19 941	32 057
17	Hidalgo	San Salvador	25 674	32 773
18	Hidalgo	Santiago de Anaya	12 457	16 014
19	Hidalgo	Tasquillo	15 090	16 865
20	Hidalgo	Tecozautla	27 224	35 067
21	Hidalgo	Tepeji del Rio de Ocampo	51 199	80 612
22	Hidalgo	Tepetitlan	7 430	9 940
23	Hidalgo	Tetepango	6 871	11 112
24	Hidalgo	Tezontepec de Aldama	31 651	48 025
25	Hidalgo	Tlahuelilpan	11 508	17 153
26	Hidalgo	Taxcoapan	18 264	26 758
27	Hidalgo	Tula de Allende	73 713	103 919
28	Mexico	Apaxco	18 500	27 521
29	Mexico	Huehuetoca	25 529	100 023
30	Mexico	Tequixquiac	20 784	33 907
Total			714 837	1 050 703

Source: Self elaboration whit data of INEGI, 1990 and 2010.

CONSIDERATIONS ON THE COLLECTIVE MOBILITY VS INDIVIDUAL MOBILITY: NEW ACTORS AND FORCES

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Key Words: Mobility, Transport, Urban Expantion, Metropolis.

Abstract

In this article it is analyzed as it is that the metropolitan transport appears like a multitude of intense flows of origin-destination of goods and persons who make possible the interconnection between the different areas of the metropolis for the achievement of the basic activities in the ambience of the cities. Also addressing the issue of infrastructure and equipment increasingly complex and demanding of resources along with a supply of varied modes of transport. It also discusses about the causal links between transport and urban expansion in the case of the metropolitan transport, as well as of its link and interinfluence with other fundamental dimensions, that we will address in detail such as the environmental and social-urban, among others.

Introduction

Commonly the metropolitan transport appears as a multitude of intense flows of origin – destination of goods and persons who make the interconnection possible between the diverse zones of the metropolis for the accomplishment of the basic activities in the area of the cities, as well as also of the derivatives of the intense interrelationship with his territorial immediate area (SHEN, 1999). They appear likewise in the perspective of this topic, the infrastructures and the

equipments increasingly complex and plaintiffs of resources close to an offer of varied manners of transport.

Particularly inside the metropolitan fleet there stands out significantly the presence of the particular cars. (FIGUEROA, 2008). Likewise, the intensive territorial expansion of the cities has carried increasing demands of road infrastructure and mobility, needing to destine for such purpose the largest resources of the local and even national collectivities, though finally in case of our cities only they have been achieved to settle in a partial way and not always suitable the above mentioned demands, provoking accumulated deficiencies that generate determining structural that influence or limit the future possibilities of the public urban actions in this one and other fields, particularly to metropolitan level. (TOLEDO, 2000).

The management and planning of the transport of our cities it has needed to resort to increasing sophisticated processes and technologies that, nevertheless permanently are left behind with regard to the pressures of the demand, likewise for the peculiarities, determining of the complex reality of our metropolis and of his contexts regionally, and nationally (GUTIERREZ, 2009).

The discussion on the links of causality between transport and urban expansion in case of the metropolitan transport, sends us to the necessary complex existing interrelationship between both phenomena. It does not fit doubt that in our metropolitan spaces, multitude of interventions in the field of roads and transport have provoked important impacts in the consolidation, transformation and urban expansion.

Equally we know that, modifications of urban development order have provoked requirements and adequacies in the metropolitan transport. In this regard the discussion of the one who continues to whom, in the discipline it has been replaced necessarily with the complex vision of the interinfluence and interdetermination of both phenomena, as well as of his entail and interinfluence with other fundamental dimensions, that we will approach thoroughly here in after, like the environmental one and the sociourbana, between others.

Other one of the relevant characteristics of the metropolitan transfers is that for the users appear as an unitary reality, though in many occasions for the authorities and even for the operators it appears in fragmented form since politician-administrative officer involves to different circumscriptions, which it incorporates in his management and planning additional levels of complexity (ZICCARDI AND NAVARRO, 2012).

The traditional vision of the metropolitan transport, which is reflected in some of the affirmations and previous reflections, has seen metropolis strongly impressed by the transformations suffered by the dynamics of our observed from the decade of the eighties, some of these changes were in preparation already in the previous decades and added to the transformations and joined the changes of the end of the last century and in the first fifteen years off this new millennium.

Let's take a closer look in some of the characteristics and more interesting inflexions, in our opinion, of the transport and the in force mobility at present in our metropolis and that give frame to the discussion regarding the collective mobility vs the individual mobility.

Polarized, segmented and heterogeneous transport

Reality and future of transport in our cities increasingly we have moved away from the notion of "a metropolitan transport". Beyond from the necessary existence and complementarity of the diversity of modes of transportation prevalent in our cities we cannot ignore the extreme and growing polarization of the forms cover the transfers in our metropolis.

From the extreme case of Sao Paulo that boasts the third fleet of helicopters between the cities on the planet living with the re-vamped, in its urban setting "collective pirates" (BACELIS, 2013); through coexistence polarized in the majority of our metropolis of social sectors with hypermobility from options of individual motorization, with large excluded sections of the motorized mobility depending in many cases for their transfers on feet and local pedicab services.

The significant in our metropolis is increasingly exacerbated the segmentation of transport services, playing and, occasionally, amplifying the increasing exclusion and social-economic polarization of its inhabitants. Unfortunately, something similar happens with the provision of road infrastructure and the appropriate equipment (NAVARRO, 2010).

However, the important thing is to start by acknowledging the existence of this social segmentation off the transfers, analyzing it from focusses that allow its approach, evaluating their impacts to assess accordingly the relevance of reproduce it or alleviate it.

The context of Metropolitan mobility

Metropolitan mobility more than territorial variables is determined by various processes and factors other than its internal logic but that conditioned this logic; factors and processes these to that on many occasions the fundamental importance of not grant them. Among the most outstanding factors and direct influence is the available supply of means of transport within the local economy

It depends on the degree of complexity, integration and diversification of its industry provider of equipment, transport supplies; the internalization of the external supply of transport equipment options and, of course, of the relative levels of national wealth, as well as its macro-economic policies and income distribution.

Beyond extreme situations existing in this respect, by example between countries as Brazil and some of the Central American, even among the Latin American countries of greater relative development we have that despite the similarity of some of its macroeconomic indicators, these nations possess extremely heterogeneous structures in its offer of equipment and resources for the transport (FIGUEROA, 2008).

Thus, for example in the aforementioned case of Brazil, this nation possesses not only an important structure of offer of bus equipment, but also a relevant tradition, institutional infrastructure, experience of management, planning and training of human resources for urban public transport.

This sets an important contextual feature highly positive for their decision making to metropolitan transport. Other Latin American Nations of greater development, not to mention other, do not fully possess these advantages.

Another contextual factor, linked to the previous one, has to do also with macroeconomic trends that they are beyond the scope to the possibilities of the local governments of the metropolis. It is the case known about the significant impact of the processes of globalization and commercial opening in the markets and local self-propelled manufactures. This way in diverse countries as Chile, Mexico, Costa Rica, Syria, China between others, the increase of its self-propelled park overcomes 10 %, provoking that the number of vehicles doubles every 7 years (GAKENHAIMER, 2008). This impact perhaps with less spectacular nature, also it happens in other Latin-American countries and of the Third World.

Nevertheless, the forceful fact that we cannot avoid in ours metropolis is the existence of the significant increase of the self-propelled offer impressing the circulation and transport congestion, increasing the transfer times and generating significant negative environmental impacts (WORLD BANK, 2012). But this unavoidable situation must consider also the opportunities that open the globalization and the commercial opening.

It is the case of the possibility of renewal on behalf of the metropolitan transport park, as well as also that of generation of “thresholds of offer” in certain niches, which allow to consider strategies for the rationalization of the operation and/or the promotion of the transport replacement in crucial sectors of the service like the taxis, the collective auto transport and that of load.

As well as also the disposition of a scale of options in the international technological, offer for the management of the transit, the mobility and the optimization of the systems of transport and road infrastructure. (NAVARRO, 2003). The recent experience, in the context of globalization and commercial opening, grants us two educations with regard to our topic that we cannot avoid.

The first one indicate us the serious difficulties of going against the macroeconomic tendencies and of facing the complex aspirations of the population towards the individual motorization.

The second marks the biggest difficulties of just let the market forces and the macroeconomy, the metropolitan transport; here's the unavoidable need for make integral strategies that include among others of its components use the positive elements of the economic situation (FIGUEROA, 2008), to mitigate or control the more negative effects imposed by the natural inertia of such economic dynamics.

Diversity and strength of the social agents linked to transport

The emergence and evolution of our metropolis has been given at the same time the emergence, development and consolidation of the agents transporters. In addition, the emergence, evolution, and organizational structure of these agents is as varied as the historical matrix socio-political and idiosyncratic of our Nations, but some of the most outstanding shared

traits of agents transporters (dealers, entrepreneurs, operators, etc.) directly linked to the activity are:

- Have strong roots in the communities.
- Leading or represents a very important sector of direct and indirect employment.
- Have a strong presence in local institutions and, occasionally, in the national, beyond your individual or business organization.
- Have managed to link their economic interests, in different cases, with other areas of the metropolitan development.

Complementarily for the analysis of the mobility and of its alternatives, the power and preeminence in our nations of the agents by implication linked to the transport (ZICCARDI, 1994) is, sometimes, dangerously minimized or completely avoided; as well as these agents have added to its already traditional and historical force the acquired one by its excellent economic importance in the current conjuncture, being this crucial power and preeminence, as it happens with the self-propelled businessmen and the suppliers of team of our countries to establish viable stages for the future of the metropolitan mobility.

The above bring us to the conclusion obliged to consider with objectivity, the place, features, interrelationships and strength of the agents linked directly and indirectly to the transport service when we consider the strategies for the management and development of the metropolitan transport. Ignore the above have resulted from the failure of excellent technical initiatives and administrative aimed at improving the metropolitan transport, from here its undoubted relevance.

Mobility, environment and sustainability

No doubt the close linkage between the predominant alternatives to meet the requirements of mobility in our metropolis and their serious environmental problems, particularly with regard to the quality of the air.

This not only in metropolis with geographical conditions as the Santiago de Chile or of the city of Mexico, where up to four-fifths of the main mass of air pollutants are caused by automotive transportation (PROAIRE, 2010), but also in other major metropolises like Buenos Aires, Argentina, Sao Paulo, Brazil, Lima in Peru, and Caracas, Venezuela.

On another scale but in the same way, the problem has presence in cities like Monterrey, Guadalajara, Ciudad Juárez and Puebla in Mexico, as well as in similar cities in the rest of Latin America. We also know the limitations it imposes on the sustainability present and future of the metropolis these alternatives of mobility prevalent that in our contexts are associated with patterns of occupation extensive and scattered the metropolitan space that enhances the social costs, territorial and environmental of urbanization.

Probably together with the reasons for social equity, rationality in the use of urban resources are the environmental criteria the most powerful that sustain the impulse of public transport options particularly the mass and less polluting.

The importance of the environmental arguments for the promotion of these alternatives of collective transport in the midst of a reluctant context, promoter of the car and the particular options, takes root in the most accessible consensus that can be constructed between the members of the metropolitan communities, as has been demonstrated by the experience of some of the major Latin American cities, in comparison with the other above-mentioned criteria of social equity and rational use of the urban resources, which are facing major obstacles or even compelling interests against.

Emerging trends in the mobility and globalization

Mobility in some of the main cities of our region during the transition to the new millennium, seems to manifest some modifications of the historical trends that were observed in its historical development from the second post-war period (HENRY, 2008). Among the most important we can highlight:

- The decrease of the accelerated growth of motorized mobility rates.
- The increased presence of female mobility.
- The greater dynamism and diversification of the youth mobility.
- And in the cases that determines it its demographic structure, a greater presence of displacement of older adults.

Also globalization in progress that has promoted the "informatization" of strategic urban activities, is creating conditions that will surely begin to hit certain segments of Metropolitan activity and population mobility, so that the use of the computer, the internet, Intranet, the telemarketing probably are decreasing some trips and limiting the increase in others (SHEN, 2009).

The possibilities of positive impact of these new technologies to temper the Metropolitan mobility are of great potential (BORJA and CASTELLS, 1997). But unfortunately in our societies access to these technologies is limited, at approximately 5 or 10 per cent of the population, and although the use of these technologies is focused on our metropolis, the truth is that its wide use is limited to the social sectors of higher relative earnings.

Hence, based on the experiences of the past, we should promote strategies from now to avoid the deepening of the gap in access to these new technologies for the greater part of the metropolitan population. If we do so we can enhance the benefits of its application replacement for the mitigation of the mobility in the cases where possible.

The application of new information technologies in the planning and management of mobility are a reality in some of our metropolis. However there is great potential in its extended implementation to improve significantly the operation of the agencies of public transport and traffic management, among others of the most urgent issues.

Conclusion

The discussion with regard to the disjunctive transport collective-individual transport must be based on understanding the context in which they operate our metropolitan areas. First we

cannot ignore the insertion and the role of our metropolis in the regional economy, national and even international. His role as consumer markets fundamental, even for products derived from its insertion globalized.

Who can deny, in particular the importance of local markets automotive for the MERCOSUR and for the Mexican economy in the context of the NAFTA. Mexico, by example, represent a local market annual more than one million new vehicles, 300,000 of which exclusively sold in Mexico City. The foregoing does not mean however that we should abandonment the mobility to the promotion of the motorization individually from the designs unique to the marketplace, means that we must consider this context determinant for devising strategies to take advantage of the benefits that represent and control to the extent possible, their negative impacts.

Thus, for example, the variety and access to an offer from unpublished transportation equipment provides the opportunity to push for the urgent and postponed replacement of vehicle fleets particularly those of the public service (charge and passengers), drawing and directing the advantages that now gives the market. However, we cannot ignore the fact that multiple reasons driving the need to provide collective service for the majority of our people.

Among other protrude the regressive income distribution, the fundamental environmental factors and the need to avoid the step of users of public transport, for example for young people to the individual. In our metropolis is unviable a mobility model similar to the American, which reversed the current proportions existing in our cities of the transfers collective with the private.

If the chronic shortage of resources is not sufficient reason, the rising costs and adverse impacts of urbanization extensive linked to the engine individual would be next to the very important environmental reasons more than sufficient to consider the need to move forward in a model of mobility that consider with realism the demands and costs of transportation, but promote strongly the alternatives of collective transport, taking advantage of the positive experiences in various major cities in our region, as are the cases, for example, in Curitiba, Brazil, Bogotá, Colombia and in the city of Leon in Mexico.

Therefore it is more realistic to consider the impetus for formulas that allow the combination intermodal between the private alternatives with the public, complemented with the replacement modal, to stop the current movement of the collective mobility toward the individual, flipping it

Without pretending to be exhaustive in the approach to the topic here dealt with, there is no doubt that the "revolution informational" also opens up possibilities to influence positively on the rationalization of the mobility both collective and individual, even more so in the enlarged scope of metropolis (GREGORY, 2011) .This if we are able to avoid the widening technological gap existing in our metropolitan communities and transporters agents.

We must also take into the future the opportunity which means the introduction of new technologies to public transportation, such as the represents the options of buses of "hydrogen cells", given the existence of an expanded demand for mass transport in our cities; as well as the already contained provision of a range of options in the technological offer international for the management of the transit, the mobility and the optimization of transport systems and road infrastructure.

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RETURN TO THE CITY

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Key words: City, Spatial Development, Sprawl, Urban Space

Abstract

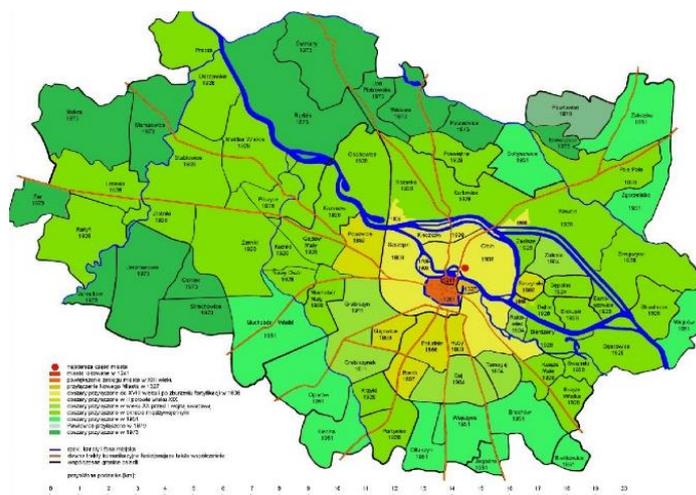
Attempts to revolutionize the spatial structure of Wrocław emerged in the early twentieth century. Max Berg introduced, in the years 1919 -1925, redevelopment plan of the city center involving the demolition of inter-market buildings and introduction of modern skyscrapers which are based on the American model of high buildings of the city from the late nineteenth century. Ernst May postulated the decentralization of Wrocław by building a grid of the satellite districts for 50 to 100 thousand inhabitants, acting as independent towns with their own administrative, economic and cultural services. Adolf Rading in his visions expanded Wrocław linearly adjusting the shape of the city to the course of the Odra River and the main rail-road trail. Expansion - intense urban sprawl - began to realize half a century later. Bedroom suburbs of metropolis started to surround Wrocław, without adequate facilities and links with the city. The chaotic development model of urban agglomeration was in conflict with thoughtful assumptions formed half-century ago. In the nineties, together with the political economic and social transformation, buildings in Wrocław were intensively built. These were mostly single-family houses. Sprawl, as previously global phenomenon, has now become a nationwide problem. Some residents, tempted by attractions of suburban house, moved out of the city. It took only two decades that enthusiasm waned. Reality and sociological studies have begun to argue that this model of functioning, without the execution of all elements of the spatial model surrounded by the satellite housing estates (mainly communication connections) is not optimal. The latest concepts of development of Wrocław assume a "return to the city" and making better use of its urban potential. A few peripheral districts of the city try to be subjected to activation and revitalization, aiming at creating there new identity, remaining well connected to the city center. This is achieved, among others, by the creation of local centers with markets, using the tradition of

places. These are mainly: Psie Pole, Leśnica and Brochów. An interesting experience also seems to be the implementation of the new WUWA on Żerniki. The analysis of the indicated cases can formulate initial conclusions concerning the reasonableness and attractiveness of "back to the city".

Territorial development of Wrocław

The imperfection of the urban space, both functional and formal, performed in varying degrees at every stage of development of the city, but only the age of industry and the associated rapid urban growth has caused that problems of cities were multiplied. Sigfried Giedion, assessing the urban development in the 50s of the last century, wrote: *"Starting from 1870, the development of big cities is still sought in their current state - the state of useless instruments"*.¹ Territorial expansion of Wrocław acted in accordance with the economic development, contributing in turn to an increase in the number of inhabitants. The administrative boundaries of the city in subsequent extensions were incorporated not only undeveloped areas, but also the surrounding towns and villages that were previously independent bodies. Fig. 1.

Figure 1. The territorial development of Wrocław – indicative map



Source: https://pl.wikipedia.org/wiki/Podzia%C5%82_administracyjny_Wroc%C5%82awia, access 25.02.2016, time: 18:40

Wrocław, in the nineteenth century, faced with a shortage of vacant land, the city was overcrowded and thousands of residents lived in substandard conditions. Attempts to extend the area of the city ran up against resistance from the rural district, which feared the amount of earned taxes. Finally, despite the great cost to the city, the territory was expanded in 1868, and again in 1897². The growth in the XX century held in principle in some of the most spectacular

¹ Giedion S.: *Przestrzeń, czas i architektura. Narodziny nowej tradycji*, P.W.N. Warsaw 1968, p. 748.

² Kononowicz W., *Wrocław. Kierunki rozwoju urbanistycznego w okresie międzywojennym*. Wrocław University of Technology, Wrocław 1997, p. 17.

stages: during the Second World War in 1904; 1920 and 1928³ (at that time, the leading architects in Wrocław promoted their own concepts of development of the city, one of them based on decentralization of Wrocław was developed by Max Berg⁴), and in the postwar period in 1951 and 1973. After 1973, the administrative area of Wrocław was not increased. The number of areas involved in the city was sufficient for both the construction of new housing estates as well as for infrastructure development. Including new, territorially large areas on the outskirts of the city in the post-war period, was the procedure not completely understandable and justifiable from an economical point of view. Wrocław at the time had too many free and fully improved areas in its borders for possible development.⁵

The post war period - the time of prefabricated housing estates

In the period after the Second World War, when the housing needs far exceeded supply, the systems of prefabrication resulted especially in communist countries, in which *modern housing estates* also were affected by the low level of performance that the already fragile ideological foundations of the *functional city* started crack.⁶ The unified way of living for the unified citizen and his family contributed to the imbalance between humanism and technology⁷ (*"In the 60s and 70s, on the wave of post-modern conception of science and social development, scientists and journalists began to regret the imbalance between the two basic forces of the development of modern human environment: humanism and technology. The advantage of technological civilization on humanism caused the loss of sight of the primary societies, the highest value, which is the man. About the humanist attitude, we can talk when in relation man - technique - human needs are preferred (Aleksandrowicz, 1974), [...] urban architectural creations are nothing other than exemplification of the above relationship. They integrate, or at least should integrate the technical, functional, semiotic, aesthetic, psychosocial and environmental elements and they co-create the human environment with nature and the landscape. However, while adjusting metropolitan housing environments, one comes to the conclusion that, in most cases, the considerations of the humanities or the wider ecology were not so important to create*

³ The interwar period was of great importance for the development of spatial Wrocław. It was then that because the city authorities, through the development of the first master plan (1924) and the new construction law (1926), effective tools to influence the construction development of the city in the aspects: technical economic, health, social and cultural, were granted. Also, a significant expansion of the boundaries of the city in April 1928 marked a further, consistent phase of the planned expansion of Wrocław. Kononowicz W., *Wrocław. Kierunki rozwoju urbanistycznego w okresie międzywojennym*. The publishing house of the Wrocław University of Technology, 1997, p. 15.

⁴ The originality of the concept lies in Berg peering centers of decentralization of Wrocław in towns distant about 30 km from the city. The principle of decentralization has taken in the twenties by Ernst May in the system of the so-called "Satellites". Despite the apparent convergence, concepts of Berg and Maya differed widely. Berg, was a strong supporter of limiting the spatial Wrocław and expand it by independent suburban satellites, also those subjected to the limitation. He protested against the sprawl of the city by annexing municipalities. Berg insisted the next annexation of municipalities. Kononowicz W., *Wrocław. Kierunki rozwoju urbanistycznego w okresie międzywojennym*. Wrocław 1997, p. 24.

⁵ Czajka R., *Granice współczesnego miasta a ekspansja terytorialna (with an example of Wrocław)*. in: ULAR 5, *Między miastem a nie-miastem*. p. 273.

⁶ Functional zoning within the spirit of the city (*The Athens Charter* 1933) helped to change the form of cities. The standard housing unit, co-created with different sizes and lengths of blocks, apartment blocks and super-credits have been located since on the outskirts of cities.

⁷ Unfortunately, developed, among others, by Helena and Simon Syrkus, advocates cooperatives and modern architecture in the 30s of the twentieth century, methods for humanizing residential environment have been abandoned in socialist construction of housing estates in Poland.

the".⁸ Luxembourg architect Léon Krier speaks about industrialization construction not so well and I quote: *"The industrialization of construction on a large scale in many ways turned out to be a fiasco. It has not led to any significant technical improvements. It did not reduce the amount of time of the construction or costs. However, it significantly reduced the life of the building. It did not affect the increase in labor productivity. It did not improve working conditions on the site, nor did not create more jobs. On the contrary, industrialization has caused the destruction of most of the thirty-nine building trades with their huge resource of technical knowledge. The industrialization also proved to be incapable of developing satisfactory solutions to the typological, morphological, social and economic problems, associated with urban centers and the landscape."*⁹

In addition, unification of dwellings differentiating them only by the surface depending on the number of people living in them brought the man to the role of another, even though the mobile piece of furniture in her/his apartment. The man from the subject became an object. The right of individuals and families to be different, to individual needs and interests was violated and yet *"apartment belongs to the life circle of the man and the satisfaction of the apartment is the same as life satisfaction, which again affect labor relations and work environment, the possibility to form free time or for example, a sense of overall safety and purpose of action"*¹⁰. Therefore, the prefabricated large housing structures confirm the thesis given by P. Johnson that *"architecture is the art of wasting space."*¹¹

It is also not a coincidence that these large housing estates colloquially known in Poland as "blokowiska" and although the name is derived from the technology of construction buildings, the translation would trace also in the French word *bloquer*, which means encumber, fence, taking the place unnecessarily. (sic!).

Among many negative implementations, there were also positive realizations in which the known disadvantages of *modern housing estates* have been eliminated, thanks to the creativity of designers, through the subordination of structures built from elements of nature. They made serious steps towards reintegration into the housing function of nature, treating the environment as an *"extension of the apartment and stating that it should provide the possibility of regeneration, recreation and social development for a resident"*¹², in line with the demands contained in Cologne Recommendations from 1957 and their update actualization from 1971.

Therefore, one of the most important points on the agenda of the twentieth Congress of the International Union of Architects (Beijing, 1999) was a postulate of the need to continue the personalized forms, rooted in local culture and tradition, which clearly demonstrates the importance of the problem.¹³

⁸ Borowik I., *Blokowiska, Miejski habitat w oglądzie socjologicznym*. Wrocław 2003. p. 49.

⁹ Krier L., *Architektura. Wybór czy przeznaczenie.*, Arkady, Warsaw 2001, p. 194.

¹⁰ Schmidt B., *Ład przestrzeni*, PIW 1981.

¹¹ Schneider-Skalska G., *Kształtowanie zdrowego środowiska mieszkaniowego. Wybrane zagadnienia.*, Krakow 2004, p. 34.

¹² Schneider-Skalska G., *Kształtowanie zdrowego środowiska mieszkaniowego. Wybrane zagadnienia.*, Krakow 2004, p. 34.

¹³ Chwalibóg K., *Architektura na progu milenium.*, Komunikat SARP 9-10, Warsaw 1999.

The complements of urban breaches - infill buildings and urban sprawl

Wrocław as a result of war and massive destruction in 1945 was not really entirely rebuilt. Urban planning policy operating in the period of socialist economy, which the main goal was to build as much as possible unified housing units, which often do not respect the historic building systems, resulted in a large spatial chaos. It manifested itself, among others, the creation of a number of gaps and breaches in the compact city tissue, in which the pseudo-modernist projects were formed with difficulties and with the violation of fundamental canons of design. Lack of consistency and continuation in building the city deformed its whole quarters, which traditionally understood urbanism defined the city center of a major European center. Simultaneously, the process of supplementing empty and free spaces in the building, which although individual projects represent different architectural level should be assessed positively, was started. Its basic value was just bonding urban tissue lacerated by war. You can also talk about the fillings in the context of the model to continue to live in the city, city center, as an alternative to housing in remote new, industrial, bedroom house estates.

In Wrocław, infill buildings were intensified in the 80s and 90s of the last century. The period of political and economic transformation after 1989 has activated an important factor in favor of locating the buildings as additions to the existing built-up area. The economics i.e. land prices for developers are very crucial. In a free market economy, especially in large cities, the attractive land prices began to grow. Each free land in the city was at a premium. A price per square meter of an apartment guaranteed to investors appropriate returns. And for architects designing the infill building became a very interesting professional challenge, in the context of writing the new buildings in existing, often historic, surroundings. That dialogue "old with new" is always a fascinating design experience, in which there is no ready-made templates. The scale of seal construction was so strong that the term of "Wrocław seal" was functioned, functioned, suggesting that this type of building was at that time Wrocław specialty. It was probably a bit exaggerated. And maybe considering the individualism of some embodiments of Wrocław seals have become so recognizable. It is worth here to mention the certain realizations of postmodern architect Wojciech Jarząbek. Fig. 2.

Figure 2. The postmodern infill on Wybrzeże Wyspiańskiego street, Arch. W. Jarząbek.



Source: author

Somehow in opposition to the infill construction, opposite phenomenon in a free market economy has increased - urban sprawl. Enrichment of society, the emergence of the middle class, but also the growing population reflected in new models of residence. The process of expanding urban areas and areas with a lower appropriation of urbanization took over not only the proximal and distal suburbs, but also the rural areas. Very often this process is uncontrolled, with conscious, planned suburbanization having little in common. It is characterized by great spatial chaos and architectural mess. The idea of a house outside the city captured the minds of many Poles. "Townsmen" enjoyed new estate housing without a thorough analysis of the consequences, for example, poor road infrastructure, which complicates daily work or school travel, but also without reflection on the nature and specificity of the environment (including architecture).

Back to the city

A few decades of urban sprawl is the sufficient time to draw conclusions. The analysis of the positives and negatives of such a model of residence often leads to consider the possibility ... to return to the city. Its historically shaped attraction is not able to replace the suburban / rural idyll. The idea of a "return to the city" should be supported by the development of architecture and urban space. Living in a city must be attractive to residents also in architectural – urban aspects. Zbigniew Maćków appeals to this way of thinking, one of the most active architects currently in Wrocław. Many significant buildings have designed in his studio, which were built in the last two decades. One of them is the service - residential building built on the Powstancow Slaskich square. The building was completed in 2011 (the project was realized between 2008 - 2011). Fig. 3, 4.

Figure 3. Thespian building in an urban context on the Powstancow Slaskich square

Figure 4. Terrace-shaped Thespian's building



Source: <http://www.mackow.pl/> access 15.03.2016, time: 12:40.

In the context of the topic of the article, it is worth to cite authorial assumptions, which introduce and explain the concept of design. Zbigniew Maćków emphasizes that the starting point for thinking about this realization was the desire for contemporary, modern interpretation of a residential building - townhouse, in this particular urban architectural environment "Sweet house

outside the city - driveway, convenient two-car garage, a terrace with awning and garden, necessarily with a gazebo, silence, birds and frail trees. This is the archetype of happy residence according to the advertising message. On Mondays overcrowded roads, breakneck combinations in front of the schools, hour and a half of listening to the radio, cinema or theater once a year, rather DVD on the way. [...] While constructing our building, we wondered if the man still wants to live in a real dense city? Is he able to adapt its physiology [...]. We architecturally tried to compose a contemporary townhouse. [...] If there are still real residents of the city, this is the house that we did for them".¹⁴ Thespian is certainly the very successful and important realization for contemporary architecture in Wrocław. It presents the successful establishment of a tradition in urban planning of its location and a completely new architectural quality. The characteristic circular square of Powstancow Slaskich where Thespian was built, is one of the most important and recognizable squares in Wrocław. As part of a few kilometers long representative axis of the two-lane street of Powstancow Slaskich, connecting the south of the city with the city centre, marks the center of a vast urban concept covering a large part of the "Krzyki" district. Before the Second World War this part of Wrocław was the most beautiful. It had the metropolitan character. A method of forming the space was very prospective. It was evident in the approach to the design, especially urban design, thinking in terms of the vision of the city, a vision in the perspective not of the immediate, but a vision of the following decades of the city's development.

This way of thinking will not seem obvious today, unfortunately if we analyze the current trends in the spatial development of many Polish cities. Thespian building also stands out architecturally. Designers have proposed a completely new Wrocław aesthetic quality of the object of the housing function. The service – office function, located in the project design on the lower levels, seems in this aspect less important, because the type of façade used in the building of this function is slightly less surprising. Thespian is namely mostly monochromatic glass lump with a double facade. Only the rear exterior walls have been resolved in a different technology.

Architectural quality of Thespian draws attention without a doubt. Design assumptions of architects were implemented consistently and clearly. So, whether this ideological aspect mentioned by Zbigniew Maćków describing his project as a contemporary urban tenement, which can be an attractive alternative to suburban cottage has been implemented. The building is already a few years, therefore, the first conclusions can already be drawn. Interesting architecture, modern technologies to facilitate use of the building, a convenient location in the widely perceived as a good area of the city, well connected with the near center and other areas of Wrocław, proximity services, etc. - all this seems to be a sufficient basis for successful implementation. However, while observing the structure of the buyers of premises and a way of the use of them, there is no way no to note that the assumed housing function does not dominate. A large part of the residential premises became a service: law firms, the notary office, etc.

¹⁴ *Architektura – murator*, nr 04/2011, p. 48-52.

The economic aspect and the commercial values of the building and its location proved to be more viable. However, we cannot yet speak about a complete success of Thespian townhouse according the imagination of architects.

A similar approach to the functioning of the urban structure of a single object, in terms of topic of this article, we can also speak about the other Wrocław spectacular realization - Sky Tower building. The comparison seems to be at first glance ridiculous. The Sky Tower and Thespian are two completely different buildings, primarily due to the huge difference in scale. The Sky Tower is the tallest residential building in Poland.¹⁵ Fig. 5.

The giant lump of skyscraper dominated the whole Wrocław. It was created at the same time as the Thespian¹⁶. The Sky Tower is located in very close to the Thespian building also on the Powstancow Slaskich street. Wealth of contexts of history of the formation of the object and its controversial impact on the spatial structure of Wrocław are here not important. Instead, as in the case of Thespian, authorial assumptions and declarations of administrator of the sky tower indicate the intended recipient of this embodiment and its operation.

Figure 5. The Sky Tower on the background of buildings in Wrocław - contrast scale



Source: https://pl.wikipedia.org/wiki/Sky_Tower#/media/File:BreslauSkyTower.jpg, access 15.03.2016, time: 12:40.

It is also an offer for people who appreciate life in the city, close to its attractions. The object - a new symbol of the city, as you can read on the official website of the investment "was created to delight and provide residents the highest possible comfort."¹⁷ [...] The excellent location makes that for selected people it will be the house, and for many - a landmark and meeting place. It represents what is most precious to the inhabitants of the capital of Lower Silesia: openness, energy and ambition. It is a place where business and trade are combined with daily life at the highest level. For the residents it will not only be address and good investment, but above all a

¹⁵ The height of the main 50 storey Sky Tower is 212 m.

¹⁶ Construction project of the second construction stage of the Sky Tower was completed in 2009, the executive project in 2010., the implementation of a whole project lasted from 2007 to 2013.

¹⁷ <http://www.skytower.pl/index.php/nowy-symbol>

convenient and comfortable home, where you always want to come back. [...] Luxury apartments, functional offices, a modern shopping centers and extensive service and leisure centre - all this makes that life in Sky Tower will have a new flavor, and the term "city within a city" will gain a different, previously unknown dimension". The service and recreation offer of complex, located primarily in the four-storey 'podium' of quarters of building filling almost 100% of the area (over 19 000 m²). The office - residential tower emerges from it. The residential units are located on floors from 28 to 48, the offices occupy the lower floors of the tower. The second high element: 18 - storey "sail" that includes the offices and residential apartments is added to the building. A glazed viewing point, which offers views of the entire Wrocław and the surrounding area, including the massif of Ślęzy is located on the top floor of the tower (not counting the technical floor). On clear days you can also see Sudetes at a distance of 100 kilometers with its highest peak Śnieżka. It is the attraction that makes the sky Tower building unique. Despite the pretentious and modern name it is not such high¹⁸ and it does not reach the sky. Another unique thing, which the Sky Tower can boast is the sculpture "Profile of Time", by the famous surrealist Salvador Dali, standing in front of the main entrance to the shopping mall. As part of the service offer, which covers an area of 24 000 m², users can enjoy: shopping gallery with gastronomy, gym, bowling alley, billiard club etc. Although the complex is already nearly three years, not all service areas are leased and developed. It is too early to talk about full commercial success of the investment. The Sky Tower did not become a new alternative for the Old city of the city center of Wrocław, activating the entire southern part of the city.

The cases of two single implementation of modern town houses so far cannot be considered as persuasive answer to the problem of "return to the city" and alternatives to the phenomenon of urban sprawl. The cause of this is probably pulling away overall revitalization of urban spaces from the broader context. Solitary/single Thespian and Sky Tower are not able to restore the urban quality and prestige of "address" of this part of the city, which in the pre-war Wrocław was an elegant and full of urban life district. Powstancow Ślaskich street (pre-war Kaiser Wilhelm Strasse Street) had the nature of a truly urban alley, the second after the Market, salon of the city. War destruction in 1945 and a model of post-war reconstruction of Wrocław already broke the historical continuity of the development of the city, which still adversely affect its contemporary functioning.

Concepts of Wrocław development in the context of the intensification of development of urban areas and those lying within the city limits and well-connected with the center i.e. concepts of responding urban sprawl should therefore take into account a broader, multi-threaded range of activities. Plans to revive the satellite districts, formerly separate towns, which are characterized by "urban" layout of the market as a local center seem to be interesting and prospective. The project of revitalization located in the north - eastern part of Wrocław Psie Pole is currently being implemented¹⁹. *"Before the war, the local central square existed. It was a shopping and meeting and entertainment place. After the war the district has changed – huge housing estates were created and people began to settle all matters in the center. We want to change it and make people again go there to the café or shopping"*- the project coordinator of the project of

¹⁸ The highest building in Burj Khalifa in Dubai, United Arab Emirates is 828 meters high.

¹⁹ The village (in 1252 r.), later the city Psie Pole was incorporated to Wrocław in 1928.

revitalization, Dog Field, characterizes the changes in such a way. Restoring the former climate of housing estate is a part of the revival of the concept of neighborhood as a good place to live and attracting new residents who will be able to settle the majority of their cases on the spot without having to journey to the center of Wrocław. Psie Pole has become no longer unattractive neighborhood - a bedroom suburb, but an independent unit within the agglomeration, which is the right place to live. Fig. 6.

Figure 6. Market square Psie Pole after modernization



Source: <http://www.skyscrapercity.com/showthread.php?t=615834&page=74>, access 15.03.2016, time: 12:40.

Similar plans of regeneration relate to other similar neighborhoods and settlements in as Lesnica located in the west of Wrocław and Brochow located in the south - eastern part.

Very interesting intention is the project WUWA 2, implemented under the framework of the architectural part of the multi-threaded program associated with the ECC Wrocław 2016.²⁰ *"WUWA 2 is a model settlement Nowe Zerniki, which will be built in the area of the Municipal Stadium. The housing estate is a project inspired by WUWA (Wohnung und Werkrumaustellung) of 1929, which as the exposition consisting of large exhibitions and a model estate built in the area of Zielony Dab street, proved to be one of the most interesting architectural experiments of the last century. The housing estate WUWA 2 is to meet all the requirements and needs of the modern resident of the city, as well as to promote the formation of social bonds. The entire space of the estate, which includes the commercial and service buildings, school, church, the senior care home etc, corresponds to the highest standards of green building."*²¹

Conclusion

Urban development is a continuous process. Various trends connected with civilization, economic, economic, political or social changes constantly have an impact on this development,

²⁰ Wrocław, together with the Spanish city of San Sebastian are the European Capitals of Culture in 2016.

²¹ <http://www.wroclaw2016.pl/wuwa2>

changing the face of cities in a short period or forever. It seems that the condition of the cities that change evolutionary is better. Urban or social experiments carried out on the urban tissue, different ideas, designed to revolutionize the structure and functioning of cities often ended in failure. Man as the main recipient and a city resident must always be the subject of thinking about the city, city planning and finally the subject of building the city - in every aspect. Despite many twists, the city seems to be the most attractive work of civilization of mankind. This thesis confirms not only rapidly growing global percentage of people living in cities.

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RETURN TO THE IDEA OF HOMELY CITY

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Key words: agrarian urbanism, contemporary city, agricultural landscape

Abstract

Homeliness is associated with something friendly and well-known. The idea of homeliness in architecture and urban planning does not mean only people-friendly space. First of all, it means the city that is familiar to the citizens, what cannot be realized without specific conditions - creation of the feeling of being part of the community, possession and identity. The antithesis of the city - agricultural landscape - seems to be the perfect basis for them. Can the idea of homeliness be created based on the relationship between the town and its opposition? How can the "lost" agricultural landscape" work as a catalyst of the idea of homeliness and community integration?

In the article, there will be the attempt of answer to these questions given. New ideas, such Agrarian Urbanism or Urban Horticulture will be presented and discussed. Throughout the world, research is on-going to develop techniques for assimilating agriculture into an urbanism acceptable to the expectations of modern life. The ability to grow food has implications for communities on multiple levels: from food security and health issues, to ensuring a local economy and to the social benefits of a productive activity in which all members of a community can engage. In Agrarian Urbanism a whole society is involved with the growing of food: people

can have gardens instead of yards, or community gardens and even window boxes if they live in an apartment. Can these ideas create new ways of thinking about the contemporary city?

Introduction: Agrarian Urbanism – traditions and definitions

Charles Waldheim¹ looks back at earlier approaches to merging agriculture and urbanity, at the way that urban farming might affect urban form: *“The categories of agrarian and urban are usually understood as distinct. Across many disciplines, and for centuries, the country and the city have been defined in opposition to one another. But today, in striking contrast, design culture and discourse abound with claims for the potential for urban agriculture. As environmental literacy among designers and scholars has grown, so too has enthusiasm for agricultural production in and around cities. Fueling this trend is rising public interest in food and its production and distribution in a globalized world.”*

(<http://landscapeandurbanism.blogspot.com>).

Traditions of urban gardening and agriculture stem, on one part from the so called urban allotment gardens dating back to the beginnings of 19th century², but also from the projects of ideal cities of the first half of the 20th century, among which Waldheim (Waldheim 2010) lists the projects of “Broadacre City” by Frank Lloyd Wright (1934-35), “New Regional Pattern” of Ludwig Hilberseimer (1945-49) and “Agronica” by Andrei Branzi (1993-94).

The “Broadacre City” of F.L.Wright deserves special attention – as the “totally de-urbanized” project (Szpakowska 2013). The futuristic concept was an answer to the problems of ever growing cities of the first decades of the 20th century – the architect proposed the creation of de-centralized metropolis in which every inhabitant would have one acre of soil for his/her disposal. Broadacre was to connect city and rural environment, form a unique landscape. According to Wright the historic city – concentration of inhabitants and buildings, concentration of capital (and the connected poverty) was a symbol of social injustice. His Broadacre City project proposed a vast structure, connecting a village and a city, thus conveying the social ideas of Jefferson. The basic unit of the city was a family inhabiting a farm. Public utility buildings, educational institutions that in traditional cities are grouped in centers, were spread evenly throughout the terrain in Wright’s idea. This decentralization principle also applied to trade, services and industry. Orthogonal system formed the basis for the plan of the city, based on land division system that divided the terrain in sixteen square miles fields (that hosted farms of equal area), and further divided into two to sixteen smaller ones. It was presented as the basis for democracy and economics of rural areas, and in Wright’s case – connected with influences of the American Wild West, the love of individualism and nature. The development of wheeled transport allowed Wright – a supporter of calm life in natural environment – good access to selected locations, and thus creation of de-centric city (Szpakowska, 2013). Szpakowska also

¹ Charles Waldheim, Chair of the Department of Landscape Architecture at the Graduate School of Design at Harvard.

² First allotment gardens were created in 1823 in Denmark, then in Germany in the first half of 19th century. In 1864, on initiative of E. Hauschild, a garden with patches for plant cultivation and also recreation grounds were founded in Leipzig. The first allotment gardens for workers in England were created in 1720 – these were the Guinea Gardens in Birmingham, and they enjoyed growing popularity throughout 18th century (Asanowicz 2012).

quotes the statement of Kosiński, who believes the Broadacre City directly invokes the idea of a village: *“It is hard to say that it involves urbanism, it is rather suburbs (...) or even ruralism. De facto it presents a checkerboard (literally – with its square fields) village with a minimal subcomplex of low residential buildings* (Kosiński 2011, p.99). Broadacre is a community without experts. Everyone does everything. Everyone is a farmer – industrial worker – artist.

Currently the definition of agrarian urbanism appears in many contexts and is subject to ever more precise detailing. At the begin of the 21st century de Zeew described agrarian urbanism in the following way: Urban Agriculture refers to producing food and fuel within city or town areas directly for the urban market (including street vending and home consumption). The products are usually processed and marketed by the producers and their close associates. It includes: crop and animal production on roadsides, along railroads, in backyards, on rooftops, within utility rights of way, in vacant lots of industrial estates, on the grounds of schools, prisons and other institutions, etc.; aquaculture in tanks, ponds and rivers; orchards and vineyards; trees in streets and backyards, on steep slopes and along rivers; and the recycling and use of urban organic wastes (waste water and solid waste) as resources, i.e. converting open-loop, disposal systems in closed-loop systems. (de Zeeuw, Dubbeling, Waters-Bayer 1998).

The agrarian urbanism ideas found its fullest expression in characteristic by one of the pioneers of New Urbanism and also author of *Garden Cities: Theory & Practice of Agrarian Urbanism*, at the 19 Congress for the New Urbanism in Madison in 2011 Andreas Duany³:

“Urban Agriculture: Urban Agriculture incorporates agriculture into the existing cities in two scenarios. 1. If the city loses population, similar to what has occurred in Detroit, Michigan. 2. Through retrofitting suburbia in abandoned shopping centres, deserted or never occupied subdivisions, etc.

Agricultural Urbanism: Agricultural Urbanism locates the farm so that it is adjacent to the community. The community contracts out to a second party to provide the food. With Agricultural Urbanism, the society does not have to grow the food, but they do purchase and consume it.

Agrarian Urbanism: Agrarian Urbanism occurs when the society grows the food for consumption within the society.

Agricultural Urbanism creates a walkable urban form surrounded by large-scale food production, while urban agriculture simply refers to growing food in empty lots or backyards.” (Duany 2011).

Among the presented definitions the one most closely matching the idea of a homely city is the idea of Agrarian Urbanism with its basis in form of common work of local community. The effects of this action is not just the production of food, but also building the feeling of ownership, esprit de corps and identity in the city landscape that was so anonymous to date.

³ Andres Duany breaks down the methods of incorporating agriculture into urban environment in a Pecha Kucha format in video from CNU 19 in Madison, source: <http://www.goodfoodworld.com/2011/07/andres-duany-explains-agriculture-and-urbanism/> (access 03.03.2016).

Agrarian Urbanism in the urban space

Unconventional agricultural solutions are the reply to the increasing ecological awareness of societies and the worsening condition of nature, the increased demand for fresh food in cities, and also to the search of homeliness, esprit de corps, that can be built on the basis of the traditional values of the agrarian culture.

We currently observe different forms for introduction of elements of agriculture in the urban landscape, starting from the one known for years – and celebrating its renaissance in many countries – that is the urban allotment gardens, through community gardens, urban farms up to container and vertical farms, and ending with mini-farms of the “window farm”, “light farm” types or the more technologically advanced systems of the “Inka Biospheric System” type.

Urban farms

Existing objects, such as: abandoned buildings, building roofs, empty containers, unused swimming pools, post-industrial sites, etc. can be used to create ecological urban farms, that do extremely well in small spaces of huge agglomerations.

Brooklyn Grange is the leading rooftop farming, operating the world’s largest rooftop soil farms, located in New York City. Brooklyn Grange’s farms include two rooftop vegetable farms, totalling 2.5 acres and producing over 22 000 kg of organically-grown vegetables each year. (<http://brooklyngrangefarm.com/about/farms>). The flagship farm is situated on Northern Boulevard on the building named Standard Motor Products (erected in 1919), which hosts lots of businesses, including the original American car parts manufacturer, Jim Henson studios, and a newly opened restaurant, Coffeed, which features products from the rooftop farm. The second farm, located on the top of Building no. 3 at the historic Brooklyn Navy Yard, is a massive 6 000 sq m roof. That farm manages over 380 000 l of storm water each year and ultimately reduce the amount of waste water that overflows into city’s open waterways.

Container farms

The idea for container farms came from Jon Friedman and Brad McNamara, who used metal containers used in maritime transport to cultivate plants. The technologically advanced, digitally controlled “intelligent gardens” were located in those, that can be cared after and fertilized without the need to leave the comfort of one’s home. Additional advantage of the isolation of those crops from the environment are the perfect conditions inside the container, which allows for elimination of pesticide and herbicide use and also makes the atmospheric conditions no longer an important factor, which makes the cultivation possible throughout the year, providing fast access to fresh fruits and vegetables (Pohojski 2015). Apart from the measurable benefits connected with limitation of transport costs and shortening the path that the fruits and vegetables have to travel from the garden to your table, there is also a minor disadvantage of those solutions, in form of lack of contact with neighbours, sort of dehumanization of this agriculture, that is connected with exactly that isolation of its space.

Vertical farms

Vertical agriculture is an ever more popular solution in the cities in which every square foot of space is precious. One of the leaders in introduction of vertical farms in the urban fabric is the Swedish Plantagon company. The building that they started to construct in 2012 in Linköping, Sweden has the target to produce 300 to 500 tons of food per annum, on a space of 400 square meters. The object is to connect both the agricultural function and the recreational – walks, and educational – Centre of Excellence for Urban Agriculture – ones, attracting young people to engage in the process of sustainable agriculture. In the urban space it is to play the role of a new dominant. Other building projects based on the Plantagon Greenhouse idea are to be places of symbiosis of humans and plants – perfect conditions inside the building (appropriate ratio of insolation and shade, system for air purification in office section utilizing the plants of the production area) will allow for integration of agricultural production and office, administrative, educational and other functions.

Mini farms

Designers Saranga Nakhoda and Devin Lafo formed the *GrowingCities* group in 2010, calling "a research and design think-tank for urban agriculture." (Alter 2010). Searching for small spaces that are suitable to start farming cultures in the city they started their Five Prototypes for Urban Agriculture, among which we find the following: bench farm, tray farm, sill farm, desk farm and light farm. According to their designers those proposals are to encourage city dwellers to produce their food *by the way* of their everyday life. What is of special interest are the farms that are the easiest ones to introduce and keep in city space, that is "window farms" (in this case referred to as the "sill farms") and the "light farms".

„Window farm" is the simplest and smallest one, which mixes a mini-greenhouse with an aquarium. "Designed for the compact city apartment, this prototype fits into a standard residential window sill. The aquaponic unit features a small greenhouse that sits on the window sill and a suspended fish tank that provides organic nutrients for the plants. In turn, the plant life filters the toxic fish waste". (Alter 2010).

The "light farm" is a miniature garden suspended some 3 meters above the pavement and attached to the structure of street lamp. Those gardens hanging from the lamps were to be cared after and fertilized by the same workers, who currently care about the city greenery, waste disposal and street cleaning.

Projects developed by *GrowingCities*, frequently naïve as they may be, provoke to a redesigned thinking about the possibility of introduction of mini gardens in the city, forming a pulse for the dwellers to search for their own solutions. Example of such a project is the "Inka Biospheric System" presented during the 2009 San Francisco Green Festival – the completely integrated "micro-farm" system. This vertical mini farm provides herbs, grasses, fruits or vegetables grown on a vertical "bio-quilt". Because the fish tanks need cleaning and aerating and the vertical farm needs pumped water, which requires power – that comes from wind turbines and solar panels, stored in a battery bank. The fish aquarium provides nutrients for the garden, all powered by the sun, using 10% of the water of conventional farming. No soil is used in the growing process.

Plants are planted as seedlings and provided with water and nutrients from the fish aquarium, which aids vegetation production rather than root production (Alter 2009).

This type of mini farms may be introduced in the city fabric almost in every place – in places, squares, pavements, etc. contributing to enrichment of the urban landscape with new elements of greenery, not just decorative in this case, but most importantly – also edible. Although these projects are based in their principle on ecological solutions, the food produced by them will be hard to classify as *eco food*, due to environmental contaminants it is to grow in.

EXPO Milano 2015

How important the current ideas connected with introduction of agriculture or the gardening in the urban spacer really found its manifestation in the main theme of the last World EXPO 2015 in Milan – *Feeding the planet. Energy for life*. The aim of the expo was to find the answer to one of the basic needs of humanity – provision of healthy food to everyone, with respect to balance of Nature and without overproduction and injustice. What was also the aim was to develop solutions of global problems connected with food, the ever shrinking natural resources, the growing demand for energy and increasing volumes of waste (Skolimowska 2015, pp. 38-46). Vast majority of objects presented during the exposition invoked the ideas of the so called ecological architecture, in both using the recycled materials, and also various green roof and wall solutions, and also decorative plants, but most importantly the usable plants: orchards, fruit bushes, vegetables, herbs and spices used for decoration, but also for eating. The most interesting among the presented buildings were the organization of the space of the *Slow Food* pavilion (design by Herzog & de Meuron) and inspired by a traditional farm (*It. Cascina*) from the Lombardy region, with a courtyard surrounded with a roof supported on high poles, usually located in the middle of the field of crops. The project also resembles the local food and craftsmanship markets that took places on long rows of roofed tables. The high roof of three wooden pavilions hosts the exhibition, consumption and meeting and lecturing spaces, while the central yard is surrendered to cultures of herbs and vegetables, placed in raised wooden boxes⁴. The idea of Slow Food finds its fulfilment in this place, as does the Agrarian Urbanism idea on a micro scale (recalling to the traditional use of *cascina* in the local rural landscape), according to which the vegetables cultivated commonly in the community can be sold practically on the spot (recalling the markets) or prepared for eating and eaten, further boosting the integration of local community. Clear, legible composition and form of the object may form inspiration for introduction of gardening or farming elements in urban landscape, perfectly fitting the geometrized space of a place, square, etc.

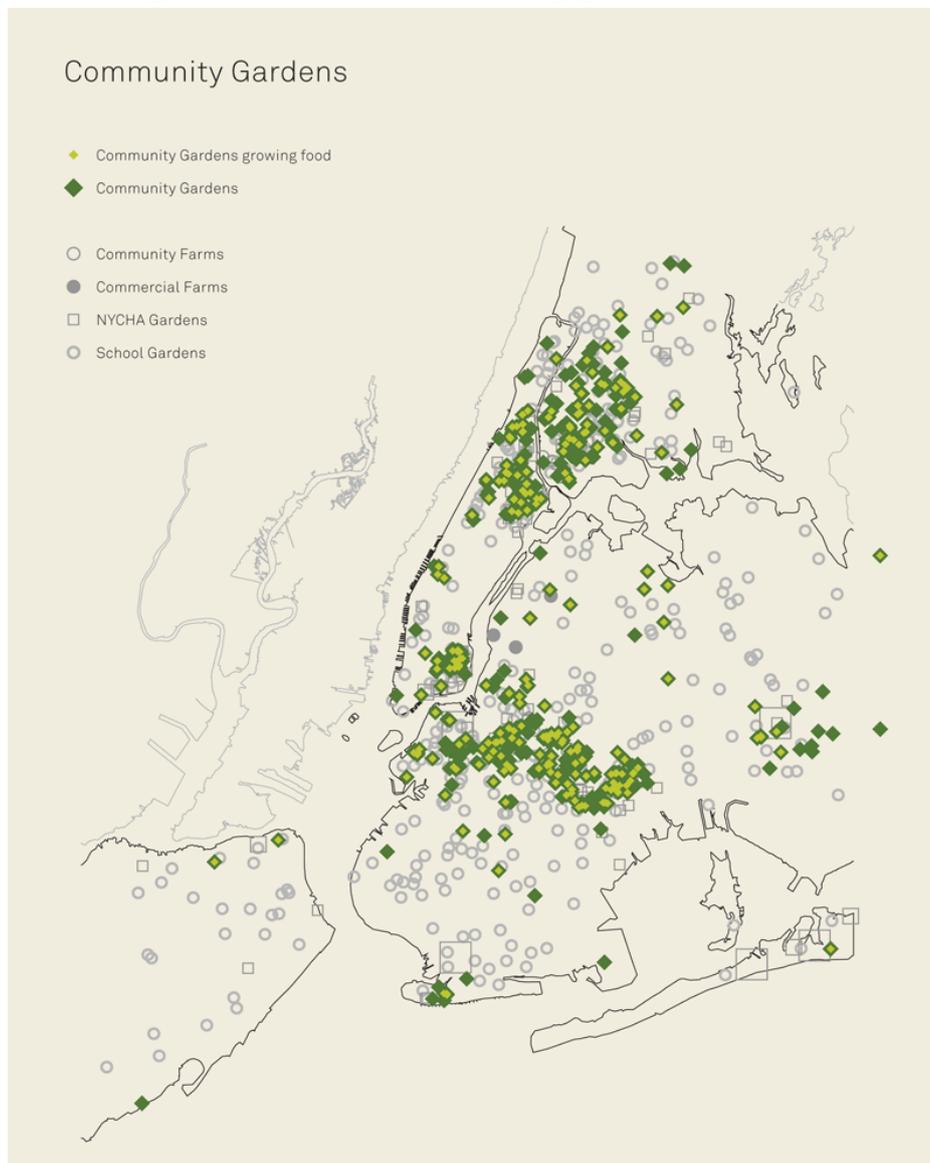
Urban integration gardens

Planted in the spirit of Agrarian Urbanism the urban edible or utilitarian gardens adopt different forms: among others of the aforementioned: urban farms, mini farms, container and vertical

⁴ After EXPO 2015 the pavilion was dismantled and is to be used for completion of the Orto in condotta (food and environment) project – for construction of school gardens. Herzog & de Meuron presents Expo pavilion, *Dezeen Magazine*, 02.06.2015., www.dezeen.com (access 10.02.2016).

farms, but also allotment gardens and gardens accompanying institutions for education, culture, hospitals, hospices or even prisons.

Figure 1. Community gardens are extremely popular green enclaves for integration – locations of community gardens in New York.



Source: Five Borough Farm <http://www.fiveboroughfarm.org/> (access 01.03.2016).

Independent from their form and function of the accompanying building the integrative value of edible gardens is put in front of any other feature. Use of edible gardens as means of integration stems from the huge and beneficial influence of nature on the mental sphere of the individual (through enhancement of one's self esteem, bettering the mood, lowering the stress levels, improving the humour, preventing depression, enhancing the feeling of control and calmness,

softening the emotions) and the member of social group (through shaping collective social contacts, stimulation of cooperation, participation, resocialization and preventing social exclusion or even acts of violence). Community gardens are extremely popular, especially in the United States, Canada, Great Britain, but their popularity grows also in some of the countries of western Europe. The majority of gardens are located on public grounds and managed by volunteers from the local community. Model examples of organization and functioning of community gardens include the Full Circle Farm, a garden started in Sunnyvale, California that was created in the framework of the Urban Agriculture Research and Demonstration project. The 11-acre garden, apart from the individually-cultivated mini-allotments, also features organized places for meetings and integration of neighbors, and demonstration gardens, backed with educational facilities suitable to conduct lectures and workshops. Some of the allotments were adopted to needs of elderly and disabled people (Czałczyńska-Podolska, 2012). As the website of the association for promotion of the urban agriculture in New York, the Five Borough Farm states there are currently over 490 community gardens (Fig. 1) in New York, of a total area of over 100 acres (source: Urban Design Lab, 2011).

Apart from their productive functions and provision of different forms of recreational activities for the inhabitants the main offer of these gardens is integration, spending time together and acting for public benefit, e.g. through giving the surplus crops to the poorest families of the respective community. Similar mode of action and integrating functions characterizes the private housing estate garden establishments of the edible estates or yardshare type, that allow several neighbouring families to cultivate vegetables and fruit in the common yard and share their crops. Such establishments are found, among other in Napa Valley in California, where a hotel and neighboring villas are integrated with vineyards, integrating the whole in the surrounding rural landscape (St. Regis Napa Valley Project, 2009). Such investments usually concentrate, in their programs, on ecology through promotion of ecological solutions and healthy lifestyle – creating new quality of residential environment has the role of the element that brings the community together.

Institutional farms and gardens means gardens affiliated with an institution (such as hospitals, churches, prisons, schools, public housing, whose primary mission is not food production, but which have goals that urban agriculture supports. (Five Borough Farm za: GrowNYC, August 2011). The sources of the edible schoolyard idea are to be sought in organic gardening and promotion of healthy nutrition developed by Alice Waters in the Edible Schoolyard Project garden started by her in Berkeley, California (Philips, 2013). The school curriculum connects gardening activities with the practical training of healthy nutrition (the school is equipped with a kitchen in which meals made of the vegetables and fruits from its garden can be prepared, as well as places for open air classes and workshops in the garden) and integrative character (local community actively participates in the school life, with picnics and cyclic events organized) (fig.2). This canon gathered enormous popularity and as of today the Berkeley school is a model for other schools wishing to follow its pattern, especially in the United States and Canada. Where the limitations of space prohibit the organization of traditional school garden, the roof gardens become a growingly popular choice, sometimes connected functionally with a cafeteria (Philips, 2013), in order to stimulate the integration of local community even more

effectively. There are an estimated 289 New York City schools with active gardens, of which, 117 grow food (Five Borough Farm za: GrowNYC, August 2011).

Fig. 2 Meeting and class grounds in the school garden of Matrin Luther King Middle School.



Source: Czałczyńska-Podolska M.

What may come as a surprise among the gardens started on the basis of the Agrarian Urbanism idea are the gardens started and cultivated by prison inmates. The cultivated vegetables and fruits are used in prison kitchen, but the main motive behind starting those gardens is, in their case, their social role. In Poland the use of active gardening as a therapeutic, resocialization and integration (socio-gardening) tool is still a rare sight. Recent times saw the completion of such project at the Lubliniec Prison, where 23 training sessions were completed, and 274 of imprisoned women trained in new, gardening skills. Starting with April, 2014 the Lublin Detention Center completes the “Gardenia” and “Magnolia” projects, that stress the therapeutic contact of the inmates with nature, mediated through active gardening (Służba więzenna [Polish Prison Guard Service], 02.03.2016).

The other interesting forms of integrating gardens inspired by the idea of Agrarian Urbanism include, among others: research/experimental gardens (developed by a learning facility such as a university to test plants that might be suitable or more productive characteristics for the local environment and are open to the community to learn from), food pantry gardens (the main

feature is the donation of fresh healthy food to local food pantries for family in need) or restaurant seed to table (urban agricultural landscapes often as small as raised herbed beds outside a restaurant) (Philips, 2013, pp. 127-128).

What does Agrarian Urbanism teach us? – Summary

The terrain management examples described above are different forms of completion of the Agrarian Urbanism idea. What is essential is that they could not actually influence the functioning and image of modern city, at least not significantly as standalone implementations, but as systemic actions they gather efficiency, acting on several planes and in several directions on the city and its dwellers.

The value of solutions implemented on the basis of Agrarian Urbanism concepts is not homogenous (Table 1) and as such it functions best as a complex project of investments and actions that mutually supplement themselves, both in spatial organization of the cities (private, public and institutional gardens and farms), transport system (public transport system, ecological transportation, pathways for pedestrians) and the natural resource management (retention systems for precipitation water, renewable energy sources) with tools such as placemaking used to integrate the aforesaid. Placemaking – "as a tool placemaking is based in listening to, looking at and asking the questions that matter of the community and users when designing or planning space" (Philips, 2013, p. 64), food as a platform – "food become a platform or layer from which we address other important elements of community, ecology, and liveability" (Philips, 2013, p. 65), ecosystem planning, urban open space design, circulation and connectivity, human scale agriculture, artisan agriculture, connecting urban, peri-urban and rural to a regional system and permaculture (Philips, 2013).

Table 1. Benefits of different examples of land uses based on agrarian urbanism idea

Example	Key physical features	Key programmatic features	Benefits
Brooklyn Grange	Rooftop vegetable farms	Growing and distributing fresh food, agriculture, workshops	Food for community, promoting urban agriculture
Plantagon Greenhouse, Linköping	Vertical garden	Recreation and agriculture, training and workshops, green infrastructure	Healthy living environment, food for community, biodiversity & habitat improvement
Inka Biospheric System	Vertical "bio-quilt", wind turbines and solar panels, fish aquarium	Agriculture, green infrastructure	Food for community, biodiversity & habitat improvement
EXPO 2015, Milano	Exhibition gardens, demonstration plots, roof	Education, recreation and agriculture spaces,	Promoting healthy food, demonstration

	gardens, vertical gardens, model restaurant, pavilions, boulevard, restored historic local farm, agro-ecosystems in outdoor fields, greenhouses	entertainment,	of agricultural process and technology, food production processes and innovation at any stage of the food production
Matrin Luther King Middle School Bekeley, CA	Model gardens, beds, outdoor/indoor kitchens, planters , outdoor classroom	Education, culinary classes, training and workshops, food pantry,	Youth education and development, building relationships and community cohesion, food for students and their family, physical activity,
Full Circle Farm, Sunnyvale, CA	Raised beds, learning gardens, kitchen, recreation area	Charity/food pantry, education, training and workshops, community plots	Building relationships, education and community cohesion, food for community, physical activity
St. Regis Hotel	St. Regis hotel, villas, winery, vineyard, preserved wetland, event pavilion, event lawn, signature restaurant, cottage unit, main pool, spa/fitness	Vineyard, winery, open space: recreation and agriculture, resort	Healthy living environment, community cohesion

Such complex investments and programs of actions form the pathway for new development of the cities, setting them in a new role and new direction for changes. The modern city that derives benefits from the best agricultural practices, and preserves its urban character, gives enormous possibilities to its dwellers to actively participate in decisions regarding the spaces they inhabit, thus not longer forming the opposition to nature and humans. What is characteristic here is the balancing of what is urban and what is rural, not with the principle of competing opposites, but as complementary features. By living in sort of symbiosis with its antithesis – the rural landscape, the city becomes a complete city, a living city in the broad meaning of that and a city that is close to its inhabitants – a homely city.

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DEVELOPMENT OF AREAS OF WORLD EXHIBITIONS. SEARCH OF URBANITY. CASE STUDY OF MILAN

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Abstract

Great events, which the World Exhibitions, held periodically since the end of the 18th century, certainly are, occupy a position somewhere between science and entertainment, culture and consumption. Facilities erected especially for this occasion and development of the allocated areas are by definition temporal structures, which are to be disassembled or transformed after they have fulfilled their function. These areas, even after dozens of years, or even more, still remain areas that stand out in the structure of the city. Milan, the capital of the Italian region of Lombardy, so far has been the host of the World Exhibitions twice, with the time interval of over 100 years. The areas and facilities that remained after the first of them were subjected to a secondary development. In one of the locations of the exhibition from 1906 a large-scale mixed-use development is being implemented, which is intended to create a great part of the future urban fabric of the city. In this paper, the Author shall analyse the current spatial structure, in particular the quality of the emerging tissue, the relations that occur within it, and the possible links with the neighbouring areas. On the basis of the literature available, the Author shall distinguish several criteria which should be satisfied by systems described as urban and shall specify how they are implemented and whether it is possible to find the concept of urbanity in the described area.

Introduction

In 1938 L. Wirth published his essay, already classical today, 'Urbanism as a Way of Life', referring to the notion of urbanism as a phenomenon signifying a specific lifestyle, lying the foundations for the development of the contemporary sociology of the city (Jałowiecki 2011). The urbanism defined then refers to social relations, as well as to the cultural environment which moulds these relations.

In categories of urban planning, the contemporary approach to urbanism was most influenced by concepts of modernism, especially by the radical statements and works by Le Corbusier, and

the effects of the deliberations of the CIAM congress written in the Athens Charter¹. Although the concept was based on functionality, which actually stands for adjustment to human needs, the result was a revolutionary reevaluation of the concept of the city itself, and the solutions introduced at the time frequently evoke controversies or call for revision². The model of a modernist city based on a simplified geometry of space and a strict division of functions did not fulfil the hopes connected with it. Modern society which hungers for new cities, disciplined in formal and functional terms, turned out to be a utopia (cf. Paszkowski 2011, pp. 165-168). Urbanism, therefore, must not be identified with modernity, which should fulfil a role of one of its components only.

The city, an extremely complex organism, is constantly defined anew, and the notion of urbanism changes along with it. As E. Rewers emphasises, 'Post-industrial cities of the late 20th and early 21st century get detached from their cores – polis – and drift in directions the recognition of which constitutes a challenge for numerous fields of science' (Rewers 2005 p. 38). In this paper the Author wishes to focus on physical, urban aspects of the phenomenon of urbanism. The subject matter of these deliberations is – without limitations – the search of specific properties which allow to evaluate and analyse the existing developed parts of the city of Milan in the categories of urbanism. It is assumed that the preservation of such properties may foster the occurrence and development of desirable social interactions, and therefore, activities referred to by J. Gehl as 'optional' and 'social', in contrast to the 'necessary' ones, which occur irrespective of the quality of the existing space (Gehl 2009 p. 11). It is unquestionable that there is a strong relationship between a form of urban space on one hand and social and economic forces which influence it on the other (Moudon 1997)³.

In the morphological approach, the fundamental urban planning material is urban tissue, the quality of which is of utmost importance for the functioning of the city (Levy 1999). The notion of tissue here stands for a juxtaposition of several accumulating systems; the network of roads and ownership-related division that account for the block development or any other type of development, and finally buildings, the architecture and function of which may be subjected to frequent changes (Panerai, Castex, Depaule, Samuels, 2004). What properties of the tissue, therefore, are essential for the urban quality of a specific system? A research branch of urban morphology is based on the assumption that despite conditions that change in time certain rules and logics of moulding of forms remain the same (Levy 1999; Kropf 2001). In the contemporary approach to the city there occur such phrases as: post-polis (Rewers 2005), meta-city (Maas 1999) or system-city (Weinstock 2013), which refer to meanings from beyond the material dimension of space. Nevertheless, in spite of these common definitions, 'what remains is the nostalgia after a real city with real urbanism' (Paszkowski 2011, pp. 28-29). As e.g. propagators

¹ Provisions of the Athens Charter, 1933. *Athens Charter* <http://www.iicc.org.cn> – access on 20.12.2015

² Monofunctionality of urban zones, primacy of car traffic often constitute factors which foster degradation of the urban environment (Jencks 1987).

³ Relations between the shape of the space and human behaviour have been the subject matter of a considerable part of research in the field of sociology of the city, to mention just the most influential figures: H. Lefebvre, M. Castells, R. Florida, S. Sassen.

of the movement of New Urbanism postulate,⁴ one should take a closer look at historical cities, preserving continuity in their structure, diversity of their functions, and their natural accessibility, the scale of traffic connections corresponding to the capacities and tastes of a pedestrian (Calthorpe 1993; Duany et al. 2001; Katz et al. 1994).

For the purposes of the evaluation of an emerging tissue in terms of its potential to build 'urbanism', the following analysis criteria have been adopted, selected from amongst numerous ones that appear in contemporary studies:

- Continuation of the main directions of composition, which can secure a formal integration of adjacent parts of the city and their mutual interrelation (Trancik 1986; Carmona, Heath, Oc, Tiesdell 2003; Perez de Arce 20015 et al.).
- The size and form of the development block, which constitutes the fundamental material of the urban tissue and decides about its quality by defining open and covered spatial relations. The attribute of urbanism is often combined with the traditional block development system (Trancik 1986; Krier 2009; Panerai, Castex, Depaule, Samuels, 2004).
- Density and accessibility of the network of pedestrian routes have a direct effect on the way spaces and buildings function. The scale of development and the configuration of the system of streets and passages may become an important generator of pedestrian traffic, which is an indispensable component of sustainable urban development (Jacob 1961; Calthorpe 1993; Gehl 2009; Hillier 2007, et al.)
- The quality of public spaces within the most fundamental meaning, which is the opportunity for social contacts to occur. As it has been proven, the form and disposition of the surrounding area may foster or discourage from undertaking social activity (Kostof 1999; Gehl 2009; Paszkowski 2003; Lorens 2010 et al.)
- Diversity of functions, heterogeneity at the local level, which constitutes an essential property of each tissue determined as the urban tissue. Choice options, multitude of services and users, contribute considerably to the process of moulding of a 'living' city. (Batty, Besussi, Maat, Harts, 2004; Kriken 2010 et al.)

Milan as a Case Study

City and Its Development

Milan, the capital of the region of Lombardy, is Italy's second largest city⁵ and most definitely its most important financial and economic centre⁶, and in terms of tourists visiting the city, it is right behind Venice⁷.

⁴ New Urbanism derives from America, where the problem of erosion and dispersion of cities is more intensified than it is on the Old Continent, and the remedy is sought in the return to traditional forms of shaping of city quarters. It is a very buoyant direction in design, in Europe manifested in the works of e.g. Léon Krier. (Krier

⁵ The metropolitan area of Milan is inhabited by over 3 million people, the population of Rome is over 4 million. Source of data: <http://www.demo.istat.it> access on 01.03.2016;

⁶ According to S. Sassen, Milan is also one of those European cities which stand a chance of becoming 'global cities' by becoming more significant. (Sassen 2005, Sassen 2006)

⁷ In 2013 it was over 6,000,000 tourists per year. A large impact on this astonishing result is exerted by the organisation of fashion and design fairs, which enjoy immense popularity. Source of data: <http://www.cittametropolitana.mi.it/> access on 01.03.2016.

The beginnings of its incorporation reach back to the 3rd century B.C., to the times when Roman legions quartered over the Po river. The urban layout of the central part of the city, demarcated by the former course of the municipal fortifications,⁸ is organised around Piazza del Duomo, and subsequent quarters and districts as far as to the administrative limits of the city reiterate this concentric configuration.

The spatial development demonstrates successive historical periods of glory and demise, growth and recession, like it is the case in numerous large cities in Europe. The last significant replacement of architectural substance took place after the World War II, when large parts of the city were destroyed, and subsequently rebuilt or reconstructed,⁹ and the intensified demand for housing substance contributed to the expansion of the city along transport lines and to urbanisation of new territories (Domenico 2002).

Starting from the 1980s, production and economic structures were shifting towards creative economy (OECD 2006). Consequently, numerous large mostly factory complexes were abandoned or utilised only in parts¹⁰. These territories, frequently situated in strategic locations, became breaches in the compact urban tissue, and their revitalisation, completing them with a new function and form, became a task implemented do this day.

From Expo 1906 to CityLife

The World Exhibition held in 1906 was not the first venture of the type organised in Milan. In the second half of the 19th century many trade fairs and exhibitions were taking place there, along with national exhibitions, which enjoyed great popularity¹¹. In 1871 Milan was an open city, offering great opportunities, with quite prosperous economy as for the then national conditions. Organisation of large fairs devoted to innovations of industrial production could seem a somewhat risky idea in the period of serious transformations which were happening in the country at the time¹². Nevertheless, the presentation of achievements and opportunities offered by Milan on a broader national arena was an area where – quite justly – the chance to increase the position of the city in many fields of economy was seen (Granata 2015). The event could not compete with a similar one, organised by the leading actors of the European economy, such as England or France; nevertheless, it became the first from a series of trade exhibitions which were held in Milan over the following 35 years¹³, until the World Exhibition in 1906.

Dynamic economic development, based predominantly on the engineering, electric and chemical industries, secured Milan's stable position in Europe in the early 20th century. It was

⁸ The so-called Spanish walls erected in the times of domination and rule of the House of Gonzaga (Domenica 2002)

⁹ Structures which are still the symbols of the city were also reconstructed, e.g. Galleria Vittorio Emanuele II, or Teatro alla Scala, but apart from historical reconstruction or construction of the actually unified housing estates, it was the time of interesting formal experiments. Their result is – for example – a controversial skyscraper Torre Velasca, or the edifice of Grattacielo Pirelli (Andrerola, Biraghi, Lo Ricco, 2015).

¹⁰ At the end of the 1990s in Milan there was over 10 million square metres of abandoned land, which constitutes over 5% of the total surface area of the city (Fossa 2015).

¹¹ The very form of an exhibition open for broader audience was initiated in 1798 by L'Exposition publique des produits de l'industrie française. Over subsequent years national exhibitions were organised mainly in European countries, and the turning point and the beginning of international expositions was the Great Exhibition of Industry of All Nations, opened in London in May 1851, which introduced a swing and scale of the architectural and landscape settings never encountered before (Auerbach, Hoffenberg 2008).

¹² In the period directly preceding the Italian unification, which was announced in 1861 (Granata 2015)

¹³ The exhibitions were held in 1881, 1887 and 1892 (Granata 2015).

accompanied by considerable social transformation, most of all within the working class, caused by the massive inflow of people from other regions of Italy, as well as a change in production processes, in which the previously demanded traditional skills were no longer needed. A planned reconstruction of the spontaneously sprawling city, a logical distribution of functions, as well as finding architectural means of expression, a new style which might reflect the arising reality, became necessary. The development plan for the city, resolved after several years of works in 1998, actually constituted an existing concept of a concentric distribution of the tissue and function of the city, which with some minor changes has been continued to this day¹⁴. The development expansion beyond the line of the city walls, demolished in compliance with the intentions of the plan, and the gradual annexation of agricultural areas by the emerging industrial plants and housing estates determined the directions for the city's development for the next decades (Fabris 2012).

One of the most important urban planning and economic operations undertaken simultaneously and connected with the implementation of the provisions of the new plan was the recovery of the Sforza castle and a vast square located at its northern side, which used to serve as military grounds¹⁵. In return, an area was allotted in the new designed tissue in the north-western part of the city which several years later was used for the purposes of the World Exhibition¹⁶, which turned out to be an enormous success¹⁷ strengthening the position of Milan on the international arena.

The exposition erected on Piazza d'Armi consisted of several dozen buildings and objects arranged in a classical layout along the perimeter and in the centre of a vast area. The square, also today, after numerous development changes and in the process of its last great transformation, stands out against the background of the surrounding tissue thanks to its size, which is way beyond the size of any development block or municipal piazza¹⁸, as well as thanks to its compositional layout, which makes it a formally prominent place.

In 1906, a bit more than a decade after the Beruto plan had been resolved, the external belt of development was not moulded yet, and occasional postcards or maps concentrated on the very venue of the Exhibition, locating it among abundant and undefined greenery¹⁹. After the completion of the event, which lasted six months, the entire exposition was demolished²⁰ and

¹⁴ The author of the famous plan, the first one in Italy, was the municipal engineer Cesare Beruto. The plan provided for e.g. the necessity to demolish the walls and replace them with boulevards – ring roads in the very centre – to intensify commercial and financial functions, and to provide the main public corridors and spaces with a representative character. Industrial plants and areas inhabited by lower classes were to be located along the edges of an over 5km circle. Peripheral areas were connected with the centre with a radial organisation of main roads, squares and parks, which was to allow for further unlimited sprawl of the city. (cf. Granata 2015; Kirk 2005; Mulsby 2014; Poggi 2009).

¹⁵ The castle was restored, and a municipal park with numerous attractions was organised in this area, drained by the military. (Kirk 2005)

¹⁶ The second parallel part of Expo was organised in the aforementioned Parco Sempione, and both locations were linked with an innovative cable car, consistent with the leading motif, which was land, water and air transport. (Granata 2015)

¹⁷ The exhibition was visited by more than 7 million people. More than 220 pavilions for numerous participants had been erected for this occasion, including one representing a faithfully reflected quarter of Cairo (Granata 2015)

¹⁸ Along the nearby Via Domenichino and Via R. Sanzio, according to the measurements carried out by the Author it is most often ca. 90 x 170 m; there are also smaller blocks, and the maximum observable dimension is ca. 220 m.

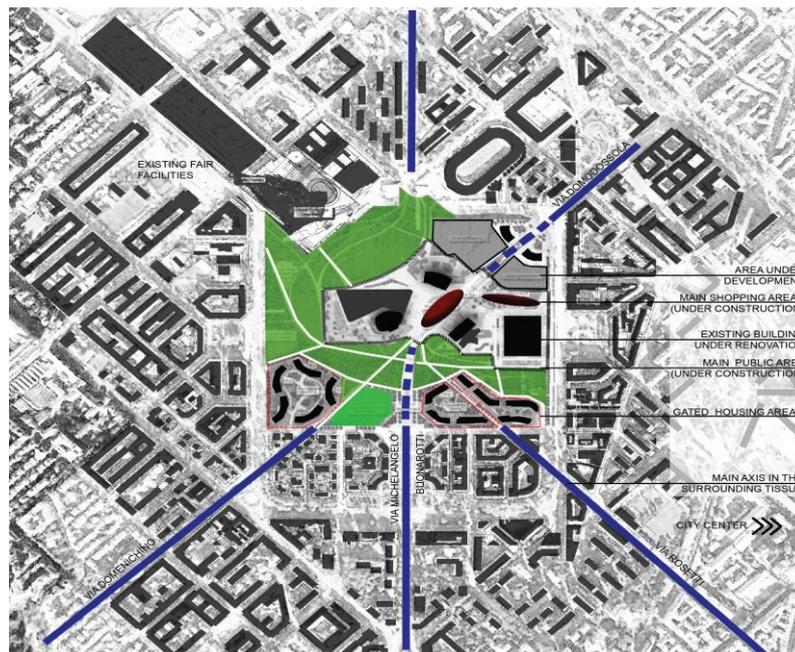
¹⁹ Postcards and invitations to the Exhibition were presented in e.g. the exhibition 'Worlds in Milan' in Museo delle Culture held from March to June 2015.

²⁰ The only permanent building which was erected and is still in use is the municipal aquarium. www.acquariocivicomilano.eu; access on 05.03.2016

the area remained empty until the end of the World War I. In 1922, two years after the organisation of the first post-war trade fairs, the Independent International Trade Fair Organisation was established and bestowed with this then suburban area (Granata 2015). Piazza d'Armi saw the beginning of a period of intensive development which was to cater to the growing demand for the exhibition and fair infrastructure. A simple composition following the principle of maximum density was dominated with the direction of the 'diagonal' along the course of Via Domodossola and Via Domenchino, along which individual pavilions were arranged. At the beginning of the 21st century the size of the territory, as well as its central location, proved to constitute a considerable limitation for further development of the fairs. The exhibitory function was nearly entirely moved outside the administrative limits of the city²¹ leaving the edifice of the congress centre²² partially cutting into the north-western quarter of the area.

This area, which for nearly 100 years had been used for the purposes of one of the most important branches of industry of Milan and Lombardy, became a subject matter of a competition of bids, in which a bid of the 'CityLife' consortium consisting of true stars of the world's architecture was selected²³.

Figure 1. Scheme of the new development



Source: Author's scheme on the basis of materials available at Anderola, Biraghi, Lo Ricco, (2015).

²¹ The new seat of the Fair designed by the Italian office of Fuksas was built in 2005 in areas provided with favourable traffic connections between Rho and Pero; an adjacent area was occupied by Expo in 2015. www.fuksas.it; access on 05.03.2016.

²² Modernised in 2012 according to a design by Mario Bellini Architects. www.bellini.it; access on 05.03.2016.

²³ Thanks to the privatisation of the institution of the fair organiser (Fiera Milano), it was possible to select a bid which proposed the most favourable price. The concept which constituted an appendix to the bid had been drawn up by e.g. Arata Isozaki, Zaha Hadid and Daniel Libeskind. The design of the green areas was prepared by the office of Gustafson Porter. www.ordinearchitetti.mi.it; www.city-life.it access on 05.03.2015

Analysis Based on the Defined Criteria

To this day two parts of the housing development located in the southern part²⁴ and some of the green areas have been implemented; the remaining buildings and public spaces, e.g. spectacular skyscrapers which constitute the symbol of this project, are under construction. The analysis presented below covers most of all the already erected structures, and the conclusions and observations referring to the other parts are formulated basing on the available plans of the entire project.²⁵

- **Continuation of the main compositional directions of the city.**

The area of more than 36ha²⁶ close to a square is located in parallel to the axes along the directions of the world and at the angle of ca. 45° towards the neighbouring quarters. The rigorous geometrical organisation of the surrounding tissue creates an opportunity to demarcate numerous potential directions, diagonals, axes and intersection points in the aforementioned area, which can be used when arranging newly erected structures. The orthogonal network of streets and the regular compact development blocks that fill it do not find, however, a visible continuation in the planned area. A monumental Haussmannian axis running on the southern side, composed of avenues and squares, having passed the first buildings bends and joints park paths, gradually losing its compositional significance. The same principle governs the solution of the extension of Via Domodossola – an important artery which ‘hits’ the north-eastern corner – having passed a next part of the shopping mall, it transforms into an organic form of a piazza that combines the buildings freely scattered in the central part of the project. The course of other streets is ignored, with the exception of fragments of residential buildings located more to the south, where they have a form of fenced, closed footpaths which end somewhere amongst the greenery. Areas covered with buildings and greenery intermingle in an amorphous system, and their limits are illegible. It should be concluded, therefore, that the main important directions moulding the urban planning composition of this part of the city have not been used to link the completely new structure in morphological terms with the context.

- **Size and form of the development block**

The housing projects implemented so far²⁷, although differing in terms of their architectural expression, allow to make a general observation as to the intentions concerning the process of the development moulding. The area which in the historical surrounding tissue consists of several quarters, in the new project has been filled with a monumental structure of quite extravagant architecture. The buildings, much taller than their direct vicinity, form a loose reminiscence of traditional development blocks, only in several places referring to the course of the existing street and forming its frontage²⁸, which in comparison to the surrounding much finer structure results in a sensation of spatial chaos.

- **Density of the network of footpaths, accessibility**

²⁴ ‘Hadid’ and ‘Liebeskind’ blocks. www.city-life.it access on 05.03.2015

²⁵ Available for viewing e.g. on websites www.city-life.it; www.zaha-hadid.com; www.liebeskind.com, www.isozaiki.co.jp; www.gustafson-porter.com, and in studies devoted to this subject

²⁶ www.ordinearchitetti.mi.it; access on 05.03.2016

²⁷ Other buildings, according to the masterplan presented by the developer, are designed as detached structures; therefore, the criterion of a block of development is not applicable here.

²⁸ The northern elevation of Via Senofonte is formed by the lowest – 6- and 7-storey buildings of the ‘Hadid Residence’ complex.

A direct consequence of the design decisions discussed above is a relatively small number of footpaths inside the project. Most footpaths are park avenues, not linked with the designed buildings, arranged freely amongst vast green areas. It should be expected that there will be a certain accumulation of pedestrian zones in the central part, and the planned shopping centres will fulfil a role of catalysts of urban activities, attracting potential users. Despite the fact that the final form still remains a mystery, it seems that in such a vast area relatively few opportunities to move around have been provided²⁹, and the alternative options are limited. In order to create a well-functioning urban environment based on the activities of pedestrian users, 'most blocks must be short; that is, streets and opportunities to turn corners must be frequent' (Jacobs 1961 p. 116). A substantial effect on the hermeticity of the already implemented housing projects derives from the fact that they are completely and uncompromisingly fenced. The lack of any passage between individual buildings which form a closed enclave and the need to travel along fences which occur even in street frontages, constitute quite a nuisance. The accessibility of the project from the outside, as well as the network of footpaths within its territory possible to organise are considerably limited, which seems to be the most severe and tangible denial of urbanism (Roitman 2010).

- **Quality of public spaces**

Public space becomes a component which is ascribed with the greatest importance in the process of forming of the urban tissue (Lorens 2010), and its transformations become the subject-matter of research carried out in numerous fields of science. It could be assumed that the basic function of the urban public sphere is allowing for diversified social contacts to emerge (Dymnicka 2010), which are fostered by shaping of the space between buildings and their relations with open areas in an appropriate way. As J. Gehl emphasises, 'when designing open air spaces and facades of buildings adjacent to them, one needs to plan individual elements which generate and support life between buildings in detail and with utmost attention' (Gehl, 2009 p. 91). Therefore, it should be assumed that the fundamental component should be the location of different functions, including entrances to residential buildings from the side of accessible public space, which creates the so-called 'active front' (Panerai, Castex, Depaule, Samuels, 2004). The physical organisation, including references to archetypal models which a square and a street are, as well as the type and character of the detail, are also of great importance (Kochanowska, 2010). In the analysed complex, objects of the street furniture for the space have been designed with great diligence, which seems to suffice to make sure that the green areas are attractive to their recipients. Fenced residential enclaves, on the other hand, shape the surrounding public space only by their sizes and architectural expression. At the level of the ground, in a particularly important spot, which constitutes a direct encapsulation of the space, the buildings are separated from the existing street³⁰, as well as from the designed square with tight fences, which effectively hinders any activity whatsoever. The lack of services on ground floors³¹ and the location of entrances designed from the internal part of the entire

²⁹ Most of all it is 'the main axis' running between residential blocks, broadening in the central part of the project and terminating at the intersection with Largo Domodossola.

³⁰ From the side of the existing Via Senafonte, in one place where an attempt to organise the buildings in a frontage system has been made, the space of the street is separated from the buildings with a fanciful fencing, which is discontinued only at the entrance to an underground garage. The physical separation is additionally emphasised with a difference in the ground levels – the ground floor is slightly above the adjacent pavement.

³¹ The project does not contain any service outlets, even in parts adjacent to the streets.

project constitutes an additional legible separation of a closed, private space addressed to the residents.

The area of office and commercial buildings, on the other hand, located away from the edge of the project, equipped with a rather poor pedestrian link, considering the lack of a sufficiently broad and diversified offer of services³², may transform into a shopping mall, an area which will be a mere substitute of an urban public space (Ghirardo 1999).

- **Diversity of functions, heterogeneity**

'When diversity is decreased', L.N. Kriken writes, 'the loss to city liveability is substantial' (Kriken 2010 p.90). Diversity in terms of functions, and to a certain extent in terms of forms, as well, depends on the existence and functioning of a public space (Jacobs 1961). The relation between those two spheres is natural in historical layouts, but in case of new investments it often turns out to be fragile and ephemeral. The aforementioned weakness and failure to take advantage of the potential of the place to create liveable urban spaces in the CityLife project is also reflected in the last of the analysed categories. The emerging buildings are predominantly monofunctional³³, which seems to be at odds with the idea of the return to heterogenic systems observable today, or even with the pursuit of 'hybridisation' and combination of different ways of use in one object in order to increase the spectrum of availability of functions and to improve the attractiveness of space (Holl 2011).

In this context, it is symptomatic that the presence of the surrounding streets, which are the most important carriers of diversity in the urban tissue, is intentionally ignored. Ground floors have been consequently designed in a manner that renders it impossible to use them differently than the uses planned in the design³⁴. Minor local services are located at the edges of the project, already within the territory of the existing urban structure. Considerable distances between individual enclaves of development cannot guarantee that the desirable pedestrian relations will be stimulated and maintained – they are deprived of purpose, with the exception of the purpose of satisfying the need of recreation.

Figure 2. Housing areas on the south part of the development



Source: Author's photo

³² As of today a large shopping centre and three office buildings are being erected, whereas the modern art museum designed by Daniel Libeskind has vanished from the current plans. www.arup.com/Projects/Citylife_libeskind_museum/Details.aspx access on 05.03.2015

³³ The designs of residential buildings do not provide for any service outlets, even in parts adjacent to the streets; the office buildings are only grouped with a large shopping centre, creating a central 'business-shopping district'. <http://www.city-life.it/en/business-shopping> access on 05.03.2015

³⁴ The ground floors are elevated by ca. 1m above the street level 'for the sake of privacy' and separated with a wall within the plot limits (Anderola, Biraghi, Lo Ricco 2015).

Summary

The results of the analysis in each of the selected categories demonstrate a considerable separateness of the implemented project. This area, which due to its location, size and previous development used to stand out against the background of the tissue surrounding it, will remain foreign, and the opportunity to create a new liveable urban quarter has been wasted.

This manner of moulding development, based on an abstract spatial composition illegible from the human perspective, on detached buildings, on the segregation of functions and types of traffic clearly, although probably unconsciously, refers to the modernist concept of building cities, today criticised on numerous planes, e.g. due to the disintegration of space and public sphere (Jacobs 1961; Sennett 1977; Krier 1979; Trancik 1986; Krier 2009; Panerai, Castex, Depaule, Samuels, 2004; Milun 2013, et al.). Therefore, it could be assumed that the project implemented in Milan constitutes an antithesis of urbanism at the theoretical level. The analysis criteria presented herein, helpful in the process of determining certain physical attributes of the tissue, do not exhaust such a broad problem that the concept of urbanism is, which is also connected with the cultural and historical continuity of the city, with the meanings and values whose carrier it is, and with the community that fills it. Urbanism is also a sphere of individual feelings, experiences and building of one's own relations with the surrounding space, which is not subject to objective criteria.

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RAILWAY STATIONS AS GENERATORS OF SYSTEMIC REPAIR OF THE CITY CENTRE OF KATOWICE. RETURN TO THE ESSENCE OF THE CITY

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Abstract

The debate on the essence of the city calls for the consideration of the role of its structural elements in the loss or strengthening of this essence. The Author's understanding of the 'essence of the city' is its accessibility and diversity: accessibility of diversity and diversified accessibility. In this context, the subject matter of this paper is an analysis of the role of railway stations and the public spaces that accompany them upon the example of Katowice.

Citygenic role of the railway line and stations in the incorporation and development of the city

The establishment of the railway station in Katowice was connected with the development of industry within the territory of Upper Silesia in the second half of the 19th century – in the period when this region was ruled by the Kingdom of Prussia. In 1836 a project of a link between the railway area of Upper Silesia and Wrocław, and further on Berlin or Dresden, was proposed. In Upper Silesia the course of the line led through Gliwice, Zabrze, Świętochłowice, and Mysłowice – initially omitting Katowice, which later on found itself on the list of towns intersected by the railway line. On 5 April 1841 the Upper Silesian Railways Society was established – the Wrocław-Mysłowice line itself was executed in stages, and the section from Świętochłowice through Katowice to Mysłowice was put into use on 3 October 1846. The station of Katowice was located outside inhabited areas – between the villages of Dąb and Szopienice, right in the area of the today's railway station. The decision to build the railway station had a direct effect on the extremely rapid development of Katowice, as well as of the industrial plants located in this area, which over subsequent years got gradually connected with the system of railway links that was emerging. In June 1858, under an agreement concluded between the Upper Silesian Railways and the Warsaw-Vienna Railway, the construction of a link between Szopienice and Zabkowice was launched – the celebration of the opening of this section was held as early as in one year (on 24 August 1859), and several days later it was put into public use. The launch of this section was significant from the point of view of the continuity of the railway line; furthermore, it allowed trains heading for Warsaw to avoid the territory of the Austrian Empire.

During the execution of this line, the previous railway station of Katowice was demolished and a new edifice was erected, which today constitutes a part of the present 'old railway station'. The building that was erected then matched the scale of the fast developing industrial city, as well as it addressed the needs of servicing of the prestigious railway connection between Warsaw and Vienna. Thanks to this line Katowice obtained a convenient connection with the Polish Kingdom, with Galicia, the Czech state, as well as further into Prussia, and it became an important border railway hub, which started to play an essential role in the cargo traffic, and later on in the passenger traffic in all directions. Due to the growing passenger traffic, the station of Katowice became the second largest passenger railway station – right behind Wrocław – of the Upper Silesian Railway. This factor, next to the cargo traffic, constituted a motor for the development of Katowice, constituting one of the main citygenic factors of Katowice, which also thanks to it obtained municipal rights in 1865.

At the end of the 19th century it became obvious that owing to the rapid development of the city the railway station needed to be extended. Due to the existing urban tissue, it was decided to divide the railway station into two parts: the passenger and the cargo part. The existing railway station was extended in the period 1906-1908, by adding a new building to it, which fulfilled administrative functions. The old station took over the passenger function, whereas nearby a part servicing the cargo traffic was erected (in the place of the today's new railway station), together with the fan-like steam locomotive bay located to this day several hundred meters to the west from the today' railway station. The extended edifice of the passenger railway station became a link between two parts of the city intersected with the railway line (via underground passages), and thus it was accessible from the north from Dworcowa street (the main entrance), as well as from the south from Kościuszki street. In the interwar period, when Katowice was incorporated to Poland, as well as in the period following the World War II, this station still played a very important role in the railway traffic network in the scale of the region.

Figure 1. View of Dworcowa street and located opposite the "old" railway station - Hotel Monopol. Originally Dworcowa street served roles a railway station square - public space with services and greenery



Source: <https://commons.wikimedia.org>

Figure 2. View of the building of the "old" railway station after extension in 1908 - station was extended by a new building performing administrative functions



Source: www.old.katowice.eu

For about 100 years the railway station erected in the 1850s was the most important railway structure in Upper Silesia. The rank and prestige of this place in Katowice is confirmed not only by the fact that it serviced one of the most important railway connections at the time, or that this station fulfilled the role of the main stopover for passengers travelling within the territory of Upper Silesia, but also by the impact of the location and prestige of the edifice of the railway station on the urban space relating to it. Dworcowa street, where the station as located, was perceived as the main public space of Katowice at the time. At the corner of Dworcowa and Pocztowa streets the first outpatient clinic in Katowice was opened. In the interwar period at 5 Dworcowa street there was the office of the Railway Directorate. Until 1939 the 'Central' hotel, the 'Kaiser-Automat' restaurant, the 'Monopolowa' restaurant, the Agra u Commerzbank bank, the Dresden Bank, the Railway Saving Fund, and many other institutions functioned at Dworcowa street. At the time, this 'functional dyad' (railway station – street) was the core of the developing city – the prestigious building of the railway station, as well as the prestigious character of Dworcowa street, operated like one organism accumulating all sorts of functions and activities which were the essence of the city of Katowice.

Two railway stations. The fall of the 'old' railway station due to the erection of the 'new' one as a synonym of urbanism – development, and then degradation

In the 1950s, due to the reached capacity and volume limits of the railway station, as well as owing to the fact that only one of all the platforms was adjusted to servicing of long trains, a decision was made to erect a new edifice of the railway station in Katowice, which was to become a new symbol of the city, corresponding to the development of the second half of the

20th century. Two locations were taken into account: the first one was a thorough reconstruction of the territory of the then cargo station, and the second – re-designing of the entire railway system and location of the edifice of the railway station near the Baildon Steelworks. Eventually, it was decided that the second option was too costly and time-consuming, and it was decided to reconstruct the area of the cargo railway station and to erect the main edifice of the railway station from the side of the exit of Stawowa street, where in the course of construction a temporary pavilion of the railway station was located. The reconstruction of the railway station consisted of two stages: the first stage was connected with the reconstruction of the entire trackway system. The first platforms were put into use in 1958, and the last ones along with the pavilion from the side of Kościuszki street – 10 years later. The second stage comprised construction works focusing on the main edifice of the station and some smaller pavilions with secondary entrances to the railway station. In 1959 a competition announced by the Polish Architects Society for a design of a new edifice of the railway station was settled – the winner was a team of Warsaw-based ‘Tiger’ architects: Waclaw Kłyszewski, Jerzy Mokrzyński, and Eugeniusz Wierzbicki ¹. In 1964 the entrance pavilion from the side of Andrzeja Square was put into use. For the purposes of the construction of the main edifice of the station, a sequence of eclectic tenements in the quarter between 3 Maja, Młyńska, and Stawowa streets was demolished. The construction of the station was completed in 1972 and throughout the entire period of its operation it was regarded as Poland’s best example of brutalism in architecture. Due to mining experts’ opinions, during the designing process it was decided that the roof should be supported by powerful reinforced-concrete posts, which assumed a very characteristic and unique form of ‘chalices’. The edifice of the railway station was 140 metres long and 53 metres wide, and its cubic capacity was 76,314 m³. Two floors of the main edifice were interconnected with a shopping and service pavilion at the level of the tunnels leading passengers to the platforms, as well as linking the railway station with the southern part of the city and Andrzeja square. The upper floor of the main hall of the station was occupied predominantly by a huge waiting room with ticket windows, as well as a coffee shop, newspaper stands, a post office, an information desk, and office spaces – all this crowned with a spectacular ceiling with the ‘chalices’. The lower floor – somewhat less spectacular – also held ticket windows, as well as a restaurant, a bar, toilets, the left luggage office, the lost property office, and a daily hotel connected with the waiting room on the first floor. The two-floor functional system was connected with a very characteristic system of access to the railway station from the south – the upper floor was accessible only on foot from a several hundred metre long footbridge – a trestle – linking the railway station with 3 Maja street and public transport stops located along it. The footbridge was running over the coach station servicing the entire Upper Silesian conurbation. The lower floor, on the other hand, was accessible for persons using car transport or taxis.

¹ One of the best known teams of architects after the World War II. The exact biography and the rich output of the team, including the description of the railway station in Katowice, is contained in a book by Tadeusz Barucki - *Tygrysy/Tigers*, Wydawnictwo Salix Alba, Warsaw 2014

Figure 3. View of the building of the "new" train station built in 1972, according to a design competition won by team "Tygrysy": Waclaw Kłyszewski, Jerzy Mokrzyński and Eugeniusz Wierzbicki



Source: www.bryla.pl

Figure 4. A view of the interior hall of the "new" station (level of cash and footbridge entrance from the Szewczyka Square)



Source: www.bryla.pl

Figure 5. A view of the footbridge entrance into the "new" station from the square Szewczyka Square and 3 Maja Street



Source: www.bryla.pl

As the 'brutalist' work of the Tigers was put into use, the building of the 'old railway station' at Dworcowa street was gradually ceasing to fulfil its role in terms of the railway function, as well as the representative one. The same affected Dworcowa street itself, which from a characteristic, prestigious and elegant public space inseparably connected with the edifice of the railway station, with a very rich functional programme in the nearby buildings, became a back street / a car park, which occupied its entire characteristic width, which had always predestined it to the role of a square.

Figure 6. View of the present space Dworcowa Street - visible dominance of cars and the lack of a defined public space in front of the "old" station



Source: www.katowice.naszemiasto.pl

Ever since the opening of the new railway station and since the occurrence of the problem of 'development' of the old station, the authorities of Katowice did not have any clear concept for the development of the building of the station and of Dworcowa street. After over 50 years this situation has not changed, despite the fact that in 1975 the building of the railway station was included in the inventory of monuments.

The edifice of the 'new' railway station was a synonym of Katowice's urbanism – it became an icon and a representative salon of the city – a top class public space embedded in the railway station. Unfortunately, throughout the 1990s and the first decade of the 21st century, the building of the 'Tigers' was never renovated and its interiors were filled with quite accidental service outlets, which chaotically filled its 'clean space opened towards the city'². It was gradually falling into decline, transforming this representative space, used by travellers and inhabitants alike wishing to use its auxiliary services, into a nest of pathology and degrading this place into a space not accepted by inhabitants, dangerous, calling for definite interventions.

Revitalisation ideas: competitions – original intention to return to the essence of the city:

Dworcowa street competition: 'Intensification of urbanism', via the quality of public spaces.

The authorial design vision of space development around the 'old' railway station³

The density, interspersion, and diversity of functions in city centres foster the development of the area and is a factor of the sense of security and mental comfort by the increase of the activity of streets in different times of the day and night.

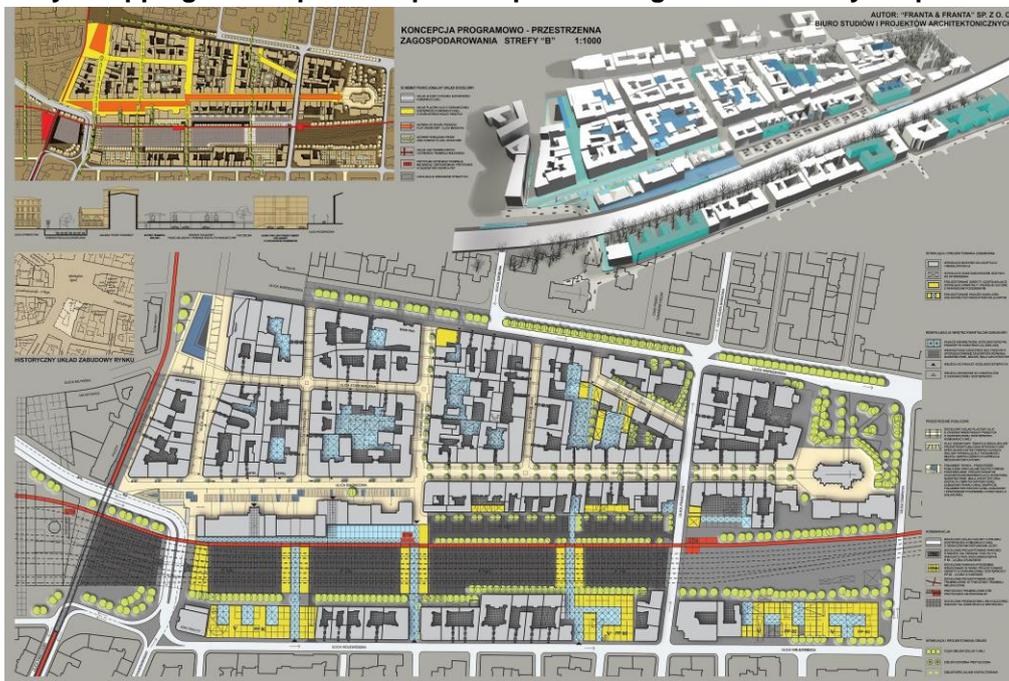
The competition for a concept of land development in the area of Dworcowa street and adjacent streets (located in the centre of Katowice) was also to answer the question referring to the traffic system, but only in the context of justification for the decision taken by the city authorities in advance, concerning excluding Dworcowa street from traffic.

² This is how the authors of the design described the spatial concept of the railway station.

³ Competition design awarded with the 2nd prize in the competition of the Polish Architects Society in 2005 for the 'Programme and spatial concept of the architectural and urban development of Św. Jana, Dworcowa, Mariacka streets and Mielęckiego, Stanisława and Starowiejska streets in Katowice' – design team: Ewa Franta, M.Sc.Eng.Arch.; Piotr Franta, M.Sc.Eng.Arch.; cooperation: Monika Wilk, M.Sc.Eng.Arch.; Julian Franta – student at the Faculty of Architecture, Cracow University of Technology; Maciej Franta - student at the Faculty of Architecture, Cracow University of Technology.

One of the fundamental conceptual assumptions of the project awarded second prize - in terms of traffic - was to exclude Dworcowa street from the road traffic on its entire length, i.e. from Poczтова street as far as to Mielęckiego street, in order to create a pedestrian passage – the Old Railway Station Square – with the prestigious significance for Katowice. For the same reason it was decided to exclude Mariacka street from the car traffic along the section from Mielęckiego street until Francuska street – as an extension of the pedestrian passage of Dworcowa street. Due to the character of the entire concept of rendering the city centre accessible exclusively to pedestrians, it was assumed that the target would be to exclude Starowiejska, Stanisława, and Mielęckiego streets from car traffic, as well.

Figure 7. The competition concept awarded 2 prize - an attempt to create a public space in Dworcowa street and the streets adjacent to it. The project involved the recovery of the space by swapping these spaces in public spaces designed exclusively for pedestrians.



Source: the Author's archives, 2005

In terms of functional and spatial transformations, it was proposed to adapt and revalorise the complex of former Polish Railways structures at Dworcowa street, with the proposed conversion into a prestigious 'Old Railway Station' Gallery with diversified functions relating to culture, trade, and administration (art gallery, exhibition halls, restaurants, coffee shops, clubs, top quality retail outlets gallery). Due to the proposed rich and diversified functional programme of the 'Old Railway Station' Gallery, it was decided to place the Fast Municipal Tramway stops⁴ at

⁴ Fast Municipal Tramway – the authors' name for a tram which would make use of a free track in the city centre of Katowice and both railway stations. The tramway would allow for a collision-free and rapid transport around the city centre and further on to external quarters of the city and adjacent towns.

the back of the historic structures of the Old Railway station and an integrated public transport stop in the area of Pocztowa street⁵. It was also decided to transform Dworcowa street into a prestigious public space 'Linear Garden LIGHT – WATER – GREENERY'. In the vicinity of the railway embankment, in the direct neighbourhood of the 'old' railway station, it was planned to erect shopping and service galleries with public car parks linking both sides of the city. Due to the sub-standard character of the set-back buildings in the area of Dworcowa street, it was decided to demolish them in order to create internal yards allowing to stimulate additional spaces near Dworcowa street for public use.

A street is so much more than a road. A road is just a traffic channel, whereas a street is a social space, a public expression of the fashion in which people live and contact each other, entering all sorts of interactions. Such a street as Dworcowa is so much more than just a street – it is the 'old railway station square'. In order to reveal the rich architecture of the existing buildings and to strengthen the prestige of the place, the composition of shaping of the public space of the Old Railway Station Square was based most of all on a simple and legible form of the square development, linear due to its proportions - the Linear Garden: light, water, greenery – with an emphasis put on the main dominants and directions of the existing and planned spatial relations, such as Św. Jana, Dyrekcyjna, Mielęckiego streets, the end of the square in the area of Pocztowa street, and the main entrances to the 'Old Railway Station gallery'. It was decided to introduce water in the Linear Garden in the form of fountains, water belts, and 2 illuminated water posts, which were to constitute an essential element of the development of the Square. Belts of low greenery for the purposes of exposition (an open-air gallery of industrial arts) and specially shaped vertical greenery (on cuboid posts made of stainless steel) along the northern frontage of Dworcowa street additionally revive this space, making it more friendly towards all its users. It was decided that most fittings of the square should be completed with seats with a simple form of a concrete bench finished with a sandstone slab, located along the green belts and connected with the light posts. All the aforementioned elements of the 'Linear Garden' allowed to zone the space of the Old Railway Station Square, dividing it into 3 parts – the space directly connected with the 'Old Railway Station' Gallery, the space of relaxation focused around the 'Linear Garden', and the shared zone at the northern frontage of the Square, whose character was adjusted to the free flow of pedestrians heading for different destinations, making use of all the services accumulated there. The composition of the square was completed with an underground car park, intended predominantly to cater for the parking needs of guests of the 'Monopol' and 'Diament' hotels, with an option of linking the level of the car park with the level of the basements of the hotels and the Old Railway Station Gallery.

⁵ Change of the course of the tramway – simplification of its course between the northern and southern part of the city. This solution would allow to link the tram stop with platforms of the 'new' railway station from the east.

Figure 8. The competition concept awarded 2 prize – “Linear Garden” at the Dworcowa Street – an “old” railway station square postulated in the competition design

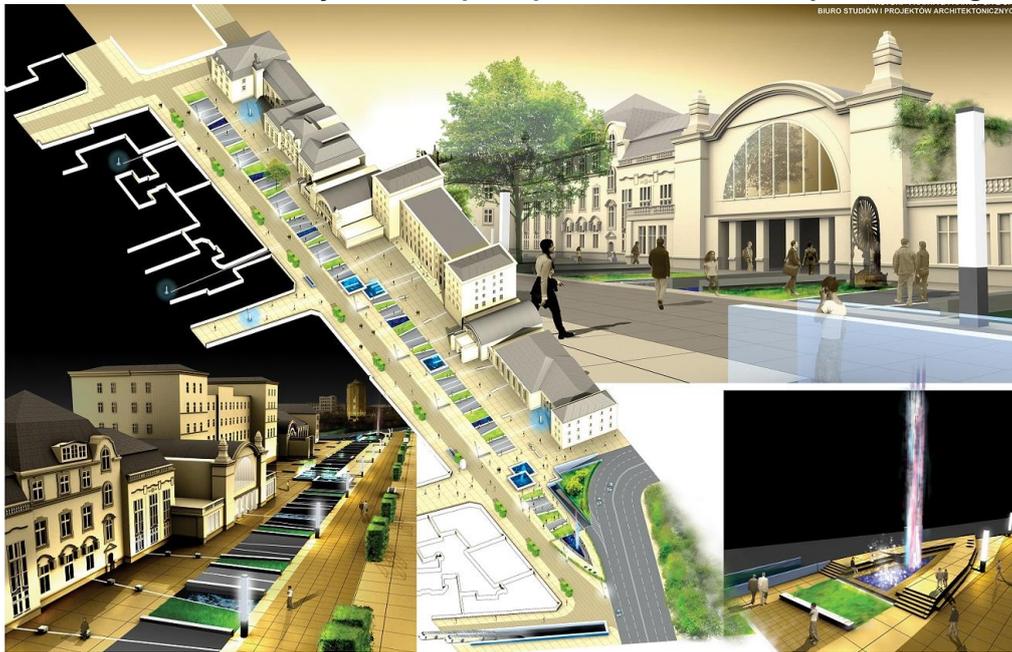


Photo: the Author's archives, 2005

The layout of the square was completed with pedestrian zones – Mariacka, Św. Jana, Mielęckiego, Stanisława, and Starowiejska streets. The postulated development of other streets was to focus on pedestrian zones, executed in stages.

The development of individual passages was adjusted to the character and sections of individual streets. The public space is shaped by the appropriate selection of materials and elements of fittings – the surface layout emphasises entrances to internal passages in development quarters, representative low street lighting and illumination of buildings create an atmosphere of intimacy, and the decorative greenery – a green line along Mariacka street, a line on one side of Mielęckiego street, green sections along Starowiejska street – complete the whole composition and subtly revive the public space.

The intention of the described concept was to ‘restore the memory and the prestige’ of the former Dworcowa street, and to create its new dimension adjusted to the needs of the contemporary society of the post-industrial city. The way the city is perceived constitutes an essential part of its identity.⁶ And it is perceived through the prism of the history and the present.

⁶ Anna Franta, *Rola restrukturyzacji obszarów postindustrialnych w kreowaniu nowych rodzajów przestrzeni publicznych metropolii – stymulująca funkcja przyjętych regulacji*. Publishing House of Cracow University of Technology, Czasopismo Techniczne, Cracow 2007.

'City Centre' Competition – 'New railway station – urbanism stimulator – generator of systemic repair and continuity, and complementarity of public space in the scale of north-south links.

*The authorial design vision of development of space in the area of the 'new' railway station in Katowice*⁷

The key role for the determination of the spatial structure of the central zone of each city is played by the integral approach to functional, spatial, and traffic solutions in the area, especially the correct determination of their mutual relations and revalorisation.

In the period when the aforementioned project was undertaken, the condition of the 'new' railway station was far from the standards expected by its users. It kept functioning as an element linking both parts of the city, but the quality of those connections, as well as the lack of logical spatial relations between the railway station and the public spaces on both its sides, called for a total vision of its reconstruction.

One of the main elements crystallising the presented concept is offering the city centre exclusively to pedestrians, creating sequences of public spaces emphasising the existing urban structure of the architecture of Katowice in the area of the Roundabout – Korfantego Avenue – Market Square, as well as the area of the Railway Station – 3 Maja street – Warszawska street (the northern part of the city), and Kościuszki street and Andrzeja square (the southern part of the city), demarcating an area with a limited access for car traffic and the priority for public transport in the traffic solutions of the centre of Katowice that stems from it.

An element recognised as essential for shaping of the centre of Katowice, as a centre of the Upper Silesian agglomeration with the population of 3 million, acceptable by its users, was the execution – as a targeted solution - of an integrated public transport stop in the vicinity of the railway station and Pocztowa street, along with the execution of an underground coach station, as well as the execution of the Silesian Regional Railway replacing in the city centre the route of the tramway along Wolności square, 3 Maja street, Warszawska street, accompanied by the liquidation of the road traffic along Korfantego street, with shifting of the tramway towards the west and introducing it in Pocztowa street in order to demarcate a more convenient course of the tramway to the other side of the railway tracks.

The 'new' railway station since its very beginnings had always had a very characteristic structure – it was a link between the two parts of the city. In the concept referred to above it was

⁷ Competition work granted with the 3rd award in the competition of the Polish Architects Society in 2005 for the 'Development of an urban and architectural concept for the development of the city centre in Katowice' – design team: Anna Franta, Ph.D.Eng.Arch.; Ewa Franta, M.Sc.Eng.Arch.; Julian Franta, M.Sc.Eng.Arch.; Piotr Franta, M.Sc.Eng.Arch.; cooperation: Maciej Franta - student at the Faculty of Architecture, Cracow University of Technology, Ewa Szafraniec - student at the Faculty of Architecture, Cracow University of Technology, Monika Wilk, M.Sc.Eng.Arch.

decided to emphasise the role it fulfilled in the public space of Katowice. It was decided to crystallise and improve the legibility of relations towards the north from the edifice of the railway station along Stawowa street and further on to the newly-designed service and recreation zone to the west of Korfantego avenue.

Figure 8. The competition concept of awarded 3 prize in the competition - an attempt to create a public space within Korfantego Avenue and the streets adjacent to it. The project involved the creation of pedestrian spatial relationships between several key points in the central area of Katowice, including a clear link between the railway station zone and Korfantego Avenue and main square



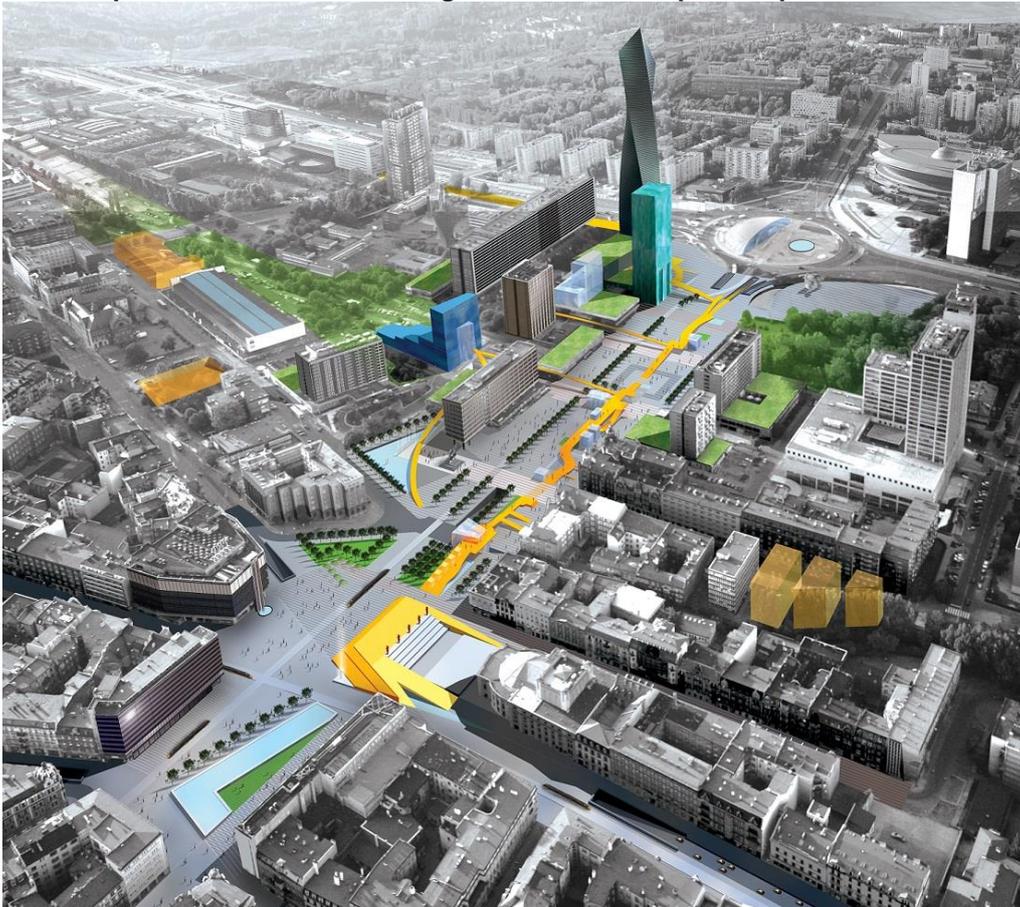
Source: the Author's archives, 2007.

Additionally, it was managed to complete the development quarter adjacent to the railway station⁸ with a structure which was to fulfil the function of a coach station, as well as to create a public space in Szewczyka Square, where for years there had been final stops of many public buses servicing the Upper Silesian agglomeration. This way it was managed to create two linear sequences of public spaces, where one along the direction of east-west connected Wolności square and via the passage along 3 Maja street intersected the Market Square and further on reached the passage along Warszawska street, which was supposed to be a pedestrian zone

⁸ It was partially demolished in connection with the execution of the 'new' building of the railway station.

along some more several hundred metres, and the second along the direction of north-east intersected the railway across the revitalised railway station and further on across Szewczyka square, Stawowa Street it slowly reached Korfantego avenue and the space of the Roundabout, which in this concept was to be a keystone of all the sequences of public spaces.

Figure 9. The competition concept of awarded 3 prize in the competition – conceptual view of the Korfantego Avenue – main public space in Katowice



Source: the Author's archives, 2007

Railway stations have always fulfilled the role of generators of traffic in the city. Currently, railway stations have become multifunctional transfer nodes, which to a greater and greater extent influence their surrounding areas. The hybrid character of their spaces accounts for the fact that the areas surrounding railway stations become more and more dependent on them – good spatial and functional solutions should have a decisive effect on the quality of changes in the space that surrounds them, becoming the generator of a systemic repair of the city.

Figure 10. Conceptual scheme of the extension of “new” railway station area with car parks and public space Szewczyka Square between “new” railway station and 3 Maja street

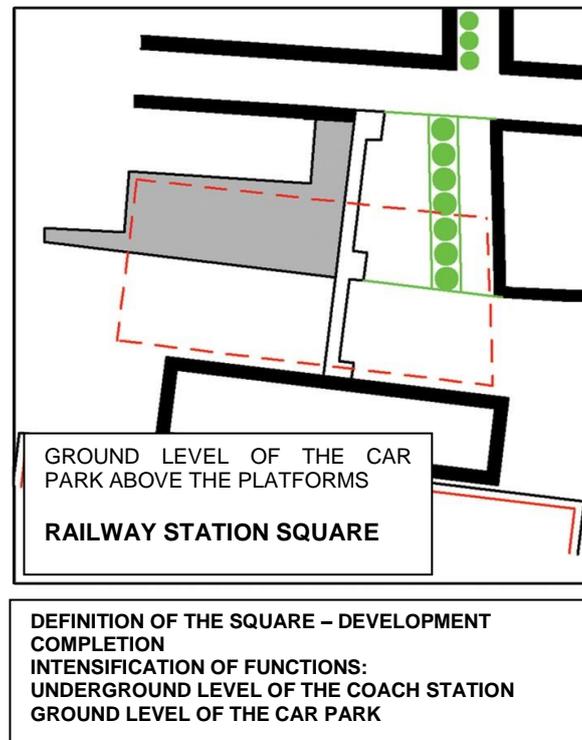


Photo: the Author's archives, 2007

Current state – implementation of the investment in the railway station zone. Return to or loss of the essence of urbanism?

Due to the Football European Championship organised in 2012 in Poland and Ukraine, the Polish Railways (PKP) decided to modernise the most important railway stations in Poland, including the railway station in Katowice, which was to be reconstructed together with the area adjacent to it. In 2010 the reconstruction of the station area was launched. The investor's operations came in for numerous protests when it was revealed that the initial reconstruction was in fact to consist in the demolition of the work of the 'Tigers' and replacing it with a shopping and service structure, and the function of the railway station itself would be marginalised to platform passages and a relatively small hall – a makeshift of the railway which for years then had been the pride of the city. The very conceptual idea to combine two parts of the city with a railway station prevailed, but it was no longer so legible as it had been in the demolished project. Today a pedestrian wishing to reach the northern part of the city from the southern one, needs to cross the little legible shopping zone before reaching the space of 3

Maja street. The new investment was much greater than the 'brutalist' railway station. The newly-erected shopping gallery took over the entire space of Szewczyka square, converting a potential public space⁹ into an introvert shopping space, separated from public spaces of the city. The basements of the project hold an underground car park and a coach station, which eventually is only a remnant of what used to function here for more than half of a century.

Balance – this is a word which during the period of operation of the 'old' as well as the 'new' railway station was a synonym of these spaces. Wherever there was a top-quality public space (external and internal), an appropriately balanced functional programme, which created the feeling of complementarity of these spaces, made this space equally accessible for everybody at each time of the day. The lack of relevant knowledge and awareness of the municipal authorities and investors, driven exclusively by the profits, leads to the execution of non-functional structures, which have a destructive effect on the fashion in which the public space that surrounds them functions, as well as on its diversity. The accessibility of diversity – the diverse accessibility – both these co-existing notions very distinctly define the characteristic functional programme of areas of old railway stations, as well as contemporary hybrid solutions of transfer nodes in city centres. They also define in the same way the sense of functioning of a contemporary city as an appropriately balanced structure, rich in diversity, as well as diverse in terms of its accessibility.

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⁹ Over the entire period of operation of the Tigers' railway station, there was a bus depot in Szewczyka Square, which serviced the entire territory of the Upper Silesian agglomeration.

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THE ROUTE OF COMPANY TOWNS IN LOWER CALIFORNIA: HISTORIC CENTERS AND INDUSTRIAL HERITAGE

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Abstract

Company towns in the peninsula of Baja California can be considered a tool for urban development from the late nineteenth till early twentieth century. The Mexican Government used the industrialization in northern Mexico as a strategy of economic occupation, a great challenge to occupy a peninsula scarcely populated. Major territorial concessions to foreign companies allow them to settle large industries, to build up company towns and industrial cities. In the article I analyze the occupation and development policy of this part of Mexico showing 10 cases where companies mapped cities in this territory. I defend the hypothesis that these cities may have new development opportunities due to the rich industrial heritage they contain.

Keywords: company town, Baja California, urban model, heritage

Introduction

This document presents in a general way the research that has been studied since 2013¹, the recent study try to classify an urban model in the Baja California peninsula in Mexico during the late nineteenth century till the beginning of the twentieth century, the phenomenon of the company town in the last federal states of the Mexican republic. Focuses in the recognition of the industrial heritage of ten different urban grid's in this territory. Foreign capital founded company towns in this large peninsula orientated primary to different economic activities related to mining, agroindustry, salt works and for only colonize. With the intention to dignify the cultural landscape and to unify them in the elaboration of an industrial heritage route in the peninsula territory, this document present a recompilation of urban plans that the companies design showing how in almost all the cases the industrial heritage and the historic centers are in decay.

The Porfirian project of urban occupation in Baja California peninsula

Maybe one of the most important causes that Mexico lost the north territories of Alta California, Arizona, New Mexico and Texas now part of the United States, was because there were very few Mexican people in the north, next to political and economic instability, plus the expansion of

¹ Master in urbanism research "The cities of the minerals, recognizing the urban heritage of northern México 1885-1921"

the United States in the industrial period were some of the factors that change the historical borders between the 2 countries². In 1850 when the new international border establishes the North Americans starts the financial penetration to the Mexicans border estates. This phenomenon it was well used by the Mexican government through territorial concessions to the foreign capital, using an urban strategy, forcing them to urbanize industrial villages to structure the Mexican frontier avoiding losing the peninsula against the US expansion in the last nineteenth century.

We can say that the Baja California peninsula (Lower California) starts its urbanization by the urban model company town, this implied that in the Porfirian period³ (1876 to 1910) they created new activities in places where nothing exists; the industrial mining, agroindustry and the construction of harbors, fabrics and warehouses implied that the foreign capitalists not only construct industrial installation, but also construct the entire town to consolidated there industries. It's important to mention that this type of urban planning was the pioneer to develop the region.

The projects of the cities were developed related to the economic activities. The architects and engineers were contract by the owners of the companies to design models of populations which modernized the lonely desert of Baja California, but very rich in resources to been exploited, always whit the disadvantage that the rich resources were located widely dispersed.

Table 1. Company that constructs a city in the late nineteenth century and early twentieth century in the Baja California Peninsula

COMPANY	ORIGIN	POPULATION IN 1900 (APROX.)	ACTUAL POPULATION (APROX.)
International Company of Mexico	1882	1,000 a 2,000 hab.	500,000 hab.
Colorado River Land Company	1901	100 a 200 hab.	700,000 hab.
Compagnie du Boleo	1885	3,000 a 4,000 hab.	12,000 hab.
Hanbury & Garvey Company	1887	2,000 a 3,000 hab.	5,000 hab.
El Progreso Mining Company	1878	4,000 hab.	200 hab.
Salt exporter Company	1954	0 hab.	13,000 hab.
Mexican Western Company	1923	0 hab.	400 hab.
Company of oil, beer and wine	1861	50 hab.	65,000 hab.
Pacific Salt Company	1900	Pacific Salt Company	1900
Southwest Company of Onyx and Marbel	1889	Starting	Abandoned

Source: Author Elaboration. We classified the principal companies that started a industrial town in the Baja California Peninsula. The study is bounded in the peninsula for having a different number of cases in a define territory. Note: There are only 2 cases out of the Porfirian period.

² David Piñera. "The north frontier, from the Independence to the present day" and Viviana Brachet. "The population of Mexico 1824-1895". Departament of History research 1976.

³ The Porfirian government was a period of industrialization and modernization of the north of México.

Table 2. Type of industry in Baja California, late nineteenth century, early twentieth century

ACTIVITY	DURATION	CAUSE OF CLOSING	OWNERS	OBSERVATIONS
Mining	1876-1912	Mineral depletion	British capital	Eiffel construction – Industrial Heritage
Development	1882-1917	Concession cancelled for breach	Hanbury & Garvey – British and north american capital	It has architectural heritage "Balloon Frame" and port Industrial heritage
Mining	1885-1956	Mineral depletion	Rothchild Family– french capital	Rich industrial heritage- Eiffel construction
Agroindustry	1887-1917	Mexican Revolution	Hanbury & Garvey – British and north american capital	Mill and construction of the English colony
Agroindustry	1901-1937	Assault to the lands	US capital	Historic centre and irrigation canals
Mining	1954-1973	Solt to the Government	Daniel Ludwig, American visionary	The world's largest Salt industry, and industrial housing
Agroindustry	1861-	In function	Mexican and US capital	Railroad station
Mining	1923-	In function	Mexican and Canadian capital	Industrial town, and a church built whit plaster bricks
Mining	1889-1960	Abandoned	US capital	Industrial Housing, and a school of marbel pices
Mining	1900-1984	Abandoned	British capital	Building in ruins, and a broken dock

Source: Author Elaboration. This table shows the type of industry installed on the peninsula of Baja California in the late nineteenth century and early twentieth century.

Table 3. Classification of Case Studies

COMPANY TOWN	DIMENTION OF THE BLOCK	ANTIQUITY OF THE BUILDING	HISTORIC CENTER	TYPE OF INDUSTRIAL HERITAGE
El Triunfo	60 m. x 60 m.	1878	10 blocks	Eiffel fireplace, bridges, industrial buildings and factories
Ensenada	100 m. x 100 m.	1882	60 blocks	Wine warehouses, "balloon frame", architecture, Victorian houses and harbor
Santa Rosalía	35 m. x 35 m.	1885	110 blocks	Smelter ruins, mines, buildings, Eiffel construction, port and "balloon frame" architecture
San Quintín	140 m. x 50 m.	1887	10 blocks	First mill and industrial housing
Mexicali	200 m. x 70 m.	1901	40 blocks	Irrigation canals, company buildings and factories
Guerrero Negro	85 m. x 85 m.	1954	20 blocks	Housing, factories and warehouses
Isla San Marcos	Irregular	1923	All the town	Iron structures, housing and plaster chapel
Tecate	135 m. x 60 m.	1888	21 blocks	Brewery building and railway station
Isla El Carmen	Irregular	1900	All the town	Salt infrastructure and abandoned village
El Mármol	Irregular	1899	All	Housing and old industrial infrastructures

Source: Author Elaboration. This table shows the type of industry installed on the peninsula of Baja California in the late nineteenth century and early twentieth century.

Figure 1. Aerial photograph of the Baja California Peninsula



Note: It has an area of 143,396 square kilometers, a length of 1,250 kilometers and a width of 225 kilometers

Inside the Mexican colonization project of Porfirio Diaz, Baja California was an important piece, because the unoccupied territory. Here the railroad in the beginning of twentieth century started to construct but will never be finished, only in the frontier with the line connecting Mexicali, Tecate and Tijuana to the US Railway, the not presence of the railroad down the peninsula determinate the slow growth of the cities and put in evidence the strategy of the Mexican government to not connect the US railroad to the peninsula, this to maintain the territory away in those years to the annexationist intention of the US⁴.

The general result of this recent history is that this territory incorporate and complement a US economy through towns dedicated to cotton production, salt works, agroindustry and mining communities, all of them whit export character. Some of this cities have consolidated the Mexican and US frontier, others are simple ghost towns that resist in the desert landscape and the Baja California coast.

The territory project in Lower California was exclusive to occupy and modernizes the peninsula. In the Mexican revolution (1910-1920) some of this small towns were abandon, others increase slow, and it's not a causality there the cities more important are the closer to the US border. In this research we try to present 10 cases of urbanizations founded by companies that present productive and industrial activities from 1861 till 1954 in Baja California.

⁴ Hilarie Heath. "The bad accomplished Project of the peninsular railroad of the north district of Baja California 1887-1892.

The industrial period and the company towns of the peninsula

This form of occupation can be seen like a defense of the national sovereignty in this territory using paradoxically the North Americans capitalist to carry out the growing of this zone. The study begins with the checking of the urban projects that the company establish, this permits finding examples of different characteristics in industrial architecture related to this model of urbanization. We organize 10 existing cases through the peninsula that cut be a route of industrial heritage of company towns in our time.

In the north of Mexico during the industrialization this type of urbanism evolves in rhythm of the new capitalism and the new technology creating surprising results in early twentieth century. The company town have been installed in the history of urbanism like a urban manufacturing project, organized by architects and engineers, creating an environment where the different industrial areas are around the housing, all of this reach a notable physic, productive and social organization . Another definition of company town is an explicit ideal that transform de economic base of the American nation and a model that interprets the myth of the first capitalism like a perfect society serving to manufacturing maters. Like a town planning model its represents a complete alternative to the historic cities, not in terms of form and structure, as for the fact to assume the only and new function, the fabrics, only in terms of efficient of a productive system, creating a mono cultural system whit out socioeconomic breaks.

Figure 1. Industrial ruins in Santa Rosalia Baja California Sur



Note: Photograph of the author in 2013

Although the Southern Pacific Railroad could not reach the Lower California peninsula, only one railroad influence the Mexican frontier. That line broth a new way of constructing, they arrive new materials like wood and bricks, as well as equipment and technology precedent from the north American Midwest. At the same time the railroad was transform into a vehicle of modern

architecture. It passed from constructing whit adobe (mass of mud and straw, molded in form of bricks dried to the sun used in Mexican construction) to wood, glass and zinc sheets.⁵ The system of wood structures called “Balloon Frame” made the region very popular this system in this territory. They well used prefabricate wood buildings and facades, all the towns grow very fast because of this constructing system helping to consolidated very fast the lonely Baja California desert. Some of the buildings were transported on boats from the east coast of the US, before the railroad appear, crossing the entire continent by ocean passing down the Cape Horn.

The thin peninsula of Lower California and all the coast between both sides, the sea of Cortes (Golf of California) in one side and the great Pacific Ocean in the other side, maybe were the causes that the railroad project never finish the way down the Baja California (only some isolated railways under 35km, in mining communities). Here is when the ports, docks and harbors take their economic importance to export all de minerals and others products and be able to link this places to the world. The port was from the beginning the place where the people arrived, in the same time prefabricate housing and machines arrived too, this was the form to get to work and made efficient the company towns in the late nineteenth century in this territory.

Cases of study, evolution of the urban model, the company town

Where an agricultural colony became an industrial city: TECATE?

Since 1861 the president of Mexico Benito Juarez by decree started the agriculture colony in Tecate. Several ranch's and haciendas appear whit the intention to start occupying the most north frontier that Mexico has whit the United Estates that 13 years ago change their international limits. The town foundation was in 1888 and the first map was finish in 1892. The railroad arrive in 1908 and the station is construct, today has been cataloged an industrial monument for the history and contribution to develop the town⁶. The first oil industries, warehouse of wines and the beer industry were the economic engine to the region. In 1919 the urban plan was 21 blocks in a polygon, dividing lots of different dimension, the central block was divided in 2, constructing public buildings and the plaza. The town establishes the urban layout near the border and today is a consolidated city around 65,000 habitants.

Figure 3. Photograph of the urban beginnings of Tecate



⁵ Ben Brown. Introduction and impact of the railway in northern Mexico. Universidad Autónoma de Ciudad Juárez 2009, pp. 231-236. Chihuahua, México.

⁶ The railway station of Tecate in Baja California recently has been included by the National Institute of Anthropology and History in the National Catalogue of Historical Monuments.

Figure 4. Map of the first subdivisions of Tecate in 1892

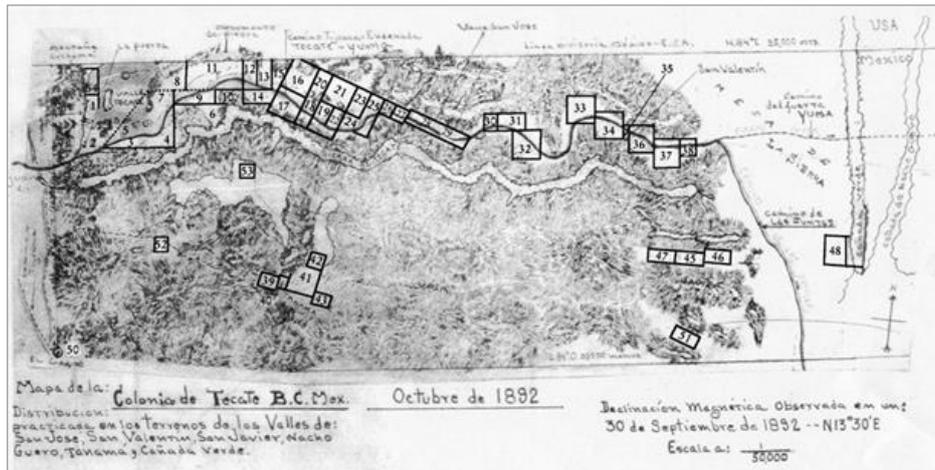


Figure 5. Photograph of the current state in which the railway station is in Tecate



Source: National Cultural Information Network , National Coordination of Institutional Development

Two mining ghost towns in the industrial period: EL TRIUNFO Y SAN ANTONIO

In 1900 these two mining towns were the most dynamic and populated of the peninsula. Here appear in 1862 the British company gold and silver mining Co. That in few years establish a full extraction work system in the region with a little railroad to transport mineral. Near this zone an old real de minas (Spanish mining communities in Mexico) was working in XVIII with rudimentary forms of extraction. Suddenly they appeared two population in the mines of the same name: San Antonio y El Triunfo with 7 kilometers between each other. The North American company El progreso Mining Co. start the construction in 1878 of a modern town dedicated to the industrial mining in El Triunfo. The consolidation of the companies between 1878 and 1895 helped significantly to the growing of the town and the urban structures outside the mines, but the boom would not last long because in the first decade of the twentieth century, these two towns were completely abandoned.⁷ Late the nineteenth century they construct more new mechanism in that time in the mining industry like tunnels with railroad included, metal

⁷ Brief history of the mining towns of Baja California Sur. An urban history of the people of San Antonio and El Triunfo. Authors: Flor Barreto, Rocío Rochin y Gilberto Piñeda.

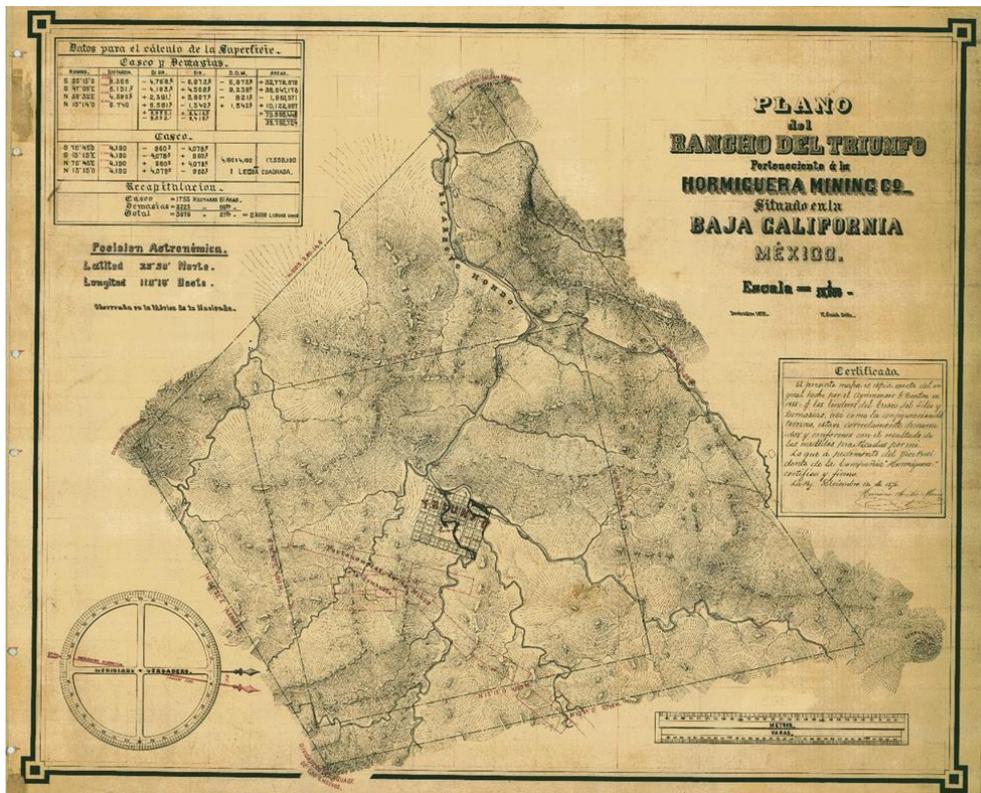
smelters plants, bridges, warehouse, administrative buildings and housing for the workers. All de buildings and the infrastructure are from after twentieth century, now the ruins of the two smokestacks La Ramona and La Julia are still there, allegedly the design is attributed to Gustav Eiffel. Actually the two mining towns are less than 800 habitants, the urban grids and the industrial ruins are in danger to despaired, although the attempts of the government in the last years to make the place a cultural tourism destination, but whit out significant change.

Figure 6. Industrial ruins in the Triunfo Baja California Sur



Source: www.bajachallengentours.com

Figure 7. Plan of the mining district of El Triunfo in 1870



Source: Mapoteca Orozco and Berra, Mexico City

Figure 8. Photograph of urban early port of Ensenada



Figure 9. Plan of the lotification by the International Company of Mexico in 1889 where it was projected the city. We can identify the blocks, 100m x 100m were divided into 8 lots of 25m x 50m



Source: Mapoteca Orozco and Berra, Mexico City

The northern port of the Mexican Pacific: ENSENADA

In the year 1882, in the first decade of the Porfirian government, the territorial concession to foreign capital (British, North American and French) move fast, and the urban layout in the port

appear. With the intention to bring north American buyers and new developments they start an ambitious urban project in the Mexican pacific coast by north american capital they start the International Company of Mexico that years later they will sell the company to British capital. They called a colonization company or simply The English Company. In the same time of this concession, in south California a boom in the sale of real estate was given, the phenomenon known as boom it was an inmobiliary bonanza in the cities of Los Angeles, San Diego and next to the Mexican side.⁸ The urban grid of the port of Ensenada follows urban models of the California cities in that time. They construct the port that helped receive all de balloon frame prefabricate constructions they were the company building, houses with Victorian styles and a hotel. They install wineries and commerce also. The port was very important because here the railroad never arrive, although it is located only 100 kilometers from the international border. The unique building of the company still exists and now is the office of the National Institute of anthropology and history of the city. A good example of industrial heritage is the Santo Tomas wineries that actually have been declared zone of historical monuments in the oldest urban district. The district contains 14 industrial building whit historical, cultural, social and architectonic values. The buildings are part of the traditions of the city, particularly in the production of wine, this bring to Baja California a privilege in a national level in this activity. All the buildings are in the oldest blocks and are part of the original layout develop in 1886. In the year 1905 Ensenada had 2,100 habitants, today is a city of 470,000 habitants and the port consolidates the connections to Asia. It's important to keep the first industrial construction, because some of them are been destroyed in the pass years.

Figure 10. Photo of the office of the International Company of Mexico. Currently home to the National Institute of Anthropology and History of the city of Ensenada



⁸ David Piñera y Alma Bejarano. Architectural expressions shared on the border of Baja California and California. *Revista Culturales*, vol.7, no14, Mexicali 2011.

Figure 11. Photograph of the wines warehouse of Santo Tomas, in the center of the city



Figure 12. Photograph of Santa Rosalia, Baja California Sur



A French copper town in Lower California desert: The Boleo in SANTA ROSALÍA

In 1885 the Compagnie Du Boleo develop the company town of Santa Rosalia, which it was the first of its kind for the extraction and processing of copper in Mexico. A territorial concession granted in times of Porfirio Diaz government to a French mining company leads to the founding of a new city: Santa Rosalía in Lower California, whose urban development follows a common pattern based on the direct connection between residence and work. The city shows a clear social segregation with difficult working conditions, which were characteristic of the industrial revolution in the country. In the mid-twentieth century, the city is at its economic peak, but

mineral depletions start appearing in the most productive mines and the population systems.⁹ The entrance to the post-industrial period, the company's bankruptcy, and its abandonment call for an urban regeneration from economic decline in order to acknowledge and recover valuable industrial heritage that still exists yet is currently in decay, because this reason in 1986 a presidential decree recognize the zone with 31 historic monuments protected by the National Institute of Anthropology and History. Santa Rosalia had a population around 6000 habitants in 1896, until 1940 never passed the 12000 habitants. Today is a village that refused to die like Romero Gil mentioned in his book, the actual populations is 11000 habitats, and the examples of industrial architecture are all around the town, most are deteriorating or abandon. Gradually some buildings are being restored, but there is still much to be done in the ruins of the industrial area. In general the town is in good conservation, here is located the church of Santa Barbara, a prefabricated metal construction (duclos houses) presented in Paris in the World Exposition of 1889, allegedly designed by French engineer Gustav Eiffel. The economic vocation of the town have changed when the depletion of the copper mines run out. Now the economy turn to fishing and recently the government (FONATUR) planed a touristic zone including the port in the Mar de Cortes Project trying to reactivate the economy by tourism.¹⁰

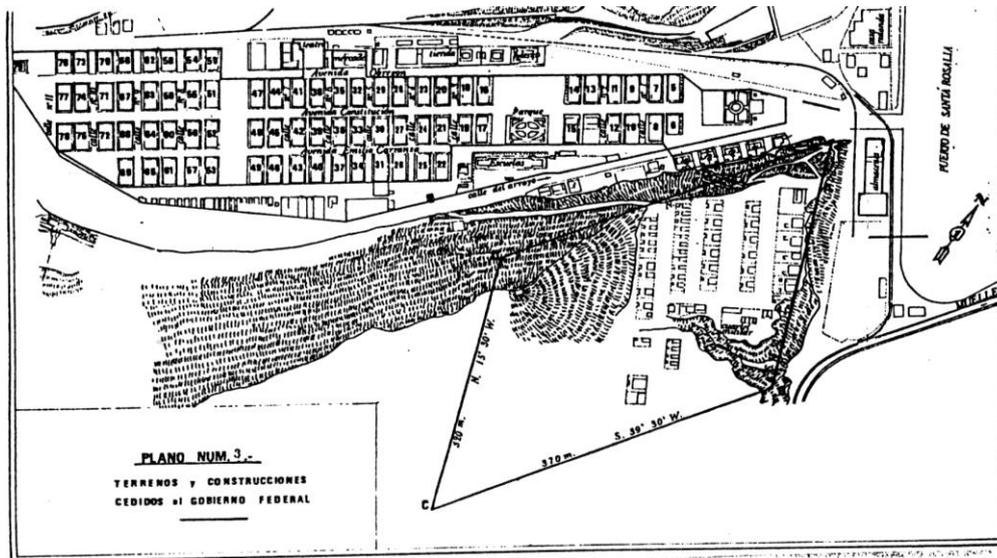
Figure 13. Photograph of mining set of Purgatory on the outskirts of Santa Rosalia



⁹ The case of the company town of Santa Rosalia in 2014 was presented a paper at the First Colloquium of Industrialization Process in Mexico, organized by the National Institute of Anthropology and History with the title: The built legacy and the forgotten industrial heritage . The Boleo Santa Rosalia in Baja California Sur.

¹⁰ The National Fund for Tourism Development (FONATUR) present the project in 2001 of the Mar de Cortes route, that was intended to provide a comprehensive range of marine infrastructure and services support through a network of ports.

Figure 14. Map of Santa Rosalia



Source: Center for Mexican and Central American Studies. *The Boleo: The town that refused to die, Santa Rosalia, Baja California Sur 1885-1954.* Juan Manuel Romero Gil. We can see the polygon given by the company to the Federal Government after the Mexican Revolution to establish the Mexican colony.

Figure 15. Photographs of the copper smelter building, the office building of the Boleo Company (now museum) and abandon workshops

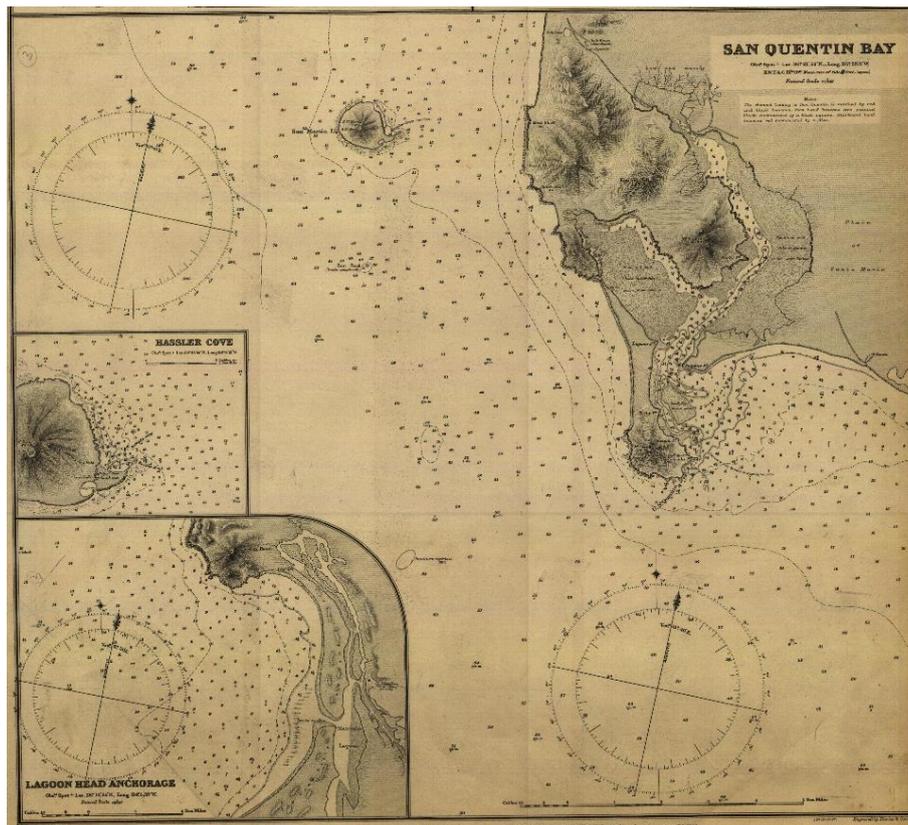


The SAN QUINTIN Bay: The failure capital of the British Company

The same company that projected Ensenada, but now whit British owners quickly project whit out success the town of San Quintin. This was grounded by the territorial concession of colonization signed by President Porfirio Diaz. In 1887 they develop an irrigation colony in the valley; this foundation had the expectative to be the center of operation of the British company, with the interest of the Mexican government to occupy the half of peninsula. During 20 years they construct infrastructures, roads, a water company and they bring to the town the most modern flour mill in Latin America, but the company fail to connect by railroad the new town whit San Diego California 250 kilometers away, and only constructed around 30 kilometers of railroad in San Quintin. They also made works on the dock and the dredging of the bay. In 1910 whit the Porfirian government over and the beginning of the Mexican revolution, the revolutionary leaders did not recognize the concession and the town, in 1917 there were almost

nothing of the flourishing agriculture town of San Quintin disappearing for more than 30 years. In the present we can see urban grids in different part of the valley, the population is around 5000 habitants in the center of the town. Today several agricultural companies dominate the region and some of them still function as old company towns, the paternalism of the companies is very present. We know of the existing of few industrial construction and the conservation of first mill armed in the late nineteenth century with iron pieces propriety of the British company.

Figure 16. Figure 16. Location map of the Bay of San Quintin



Source: Mapoteca Orozco and Berra, Mexico City

Figure 17. Mill and house of the British colony in the late nineteenth century



Source: Photograph from the collection of Tomas Sanchez Ponce de León, a member of the first citizen City of San Quintin, A.C. 2009

Figure 18. Ancient Industrial building in San Quintin



The ghost mine of onyx: EL MARMOL

These rich quarries were discovered in 1889, then the Southwest Company of Onyx and marble founded a helped built a little town, the New Pedrera Onix Company was involved in the extraction and export all the mineral to the US. This onyx mine was the most important in the industrial period, 90% of this mineral sold in the US came from this mine, the town was located in a mesa (particular zone of the location of company towns).¹¹ The mine close in 1958 and today regrettably almost nothing exist only some few houses and the ruins of a school and an old crane.

Figure 19. El Marmol, Onyx capital of the word.



Note: "lies rusty, dusty and bedraggled in the center of a high and arid mesa". The onyx is taken near the surface, as seen in the foreground

¹¹ Investments, colonization and economic development in northwestern Mexico, 1870-1940. Authors: José Alfredo Gómez Estrada, Araceli Almaraz Alvarado.

The abandoned salt works in: EL CARMEN ISLAND

From 1825 to 1860 there was rudimentary extraction of salt in the island. But is until 1900 to 1930 when the Mexican government gave a territorial concession to a British company, the Pacific Salt Company when the town appear, the company design a productive urban plan in the island they construct housing for the workers, the building of the company, school, cemetery, infrastructure, warehouse and a church. The industrial works ended in 1984 and today the ruins of the old dock and building, are what is left on the island.

Figure 20. Ruins of the port and abandon building in El Carmen Island

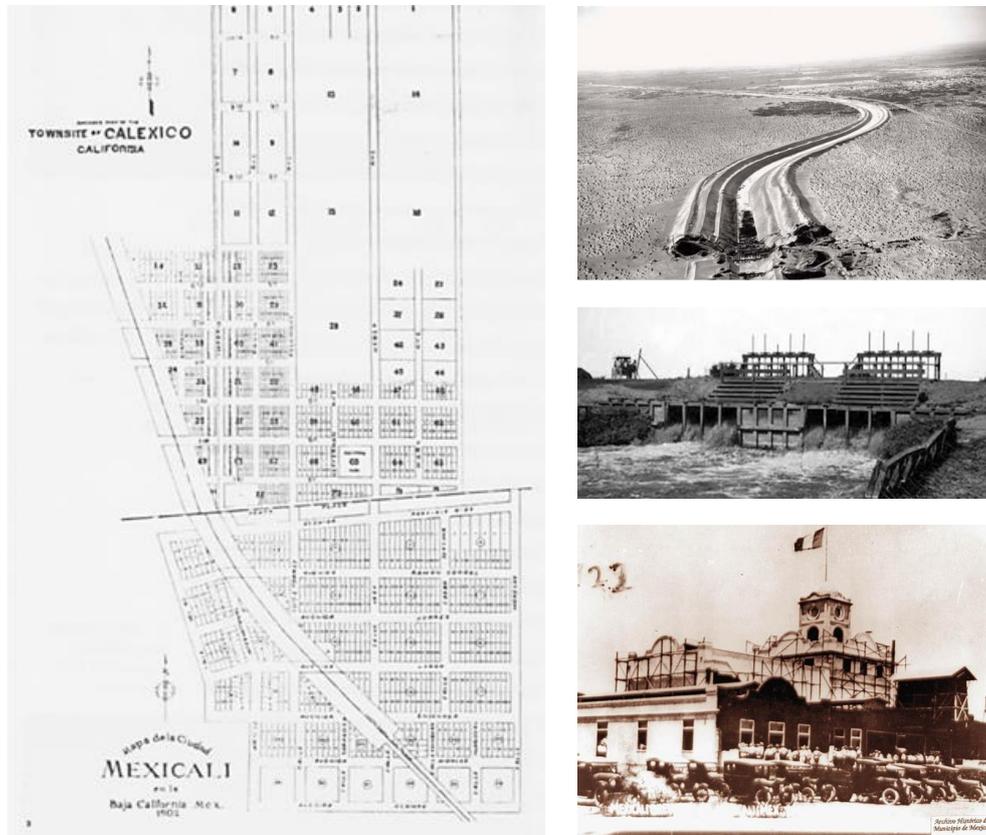


The world's largest cotton ranch: MEXICALI

In the region of the delta of the Colorado River in the beginning of the twentieth century appears in the northern corner of the peninsula a prosper agriculture empire built by the Colorado River Land Company, it was a north American capital that project a successful irrigation colony true the construction of a complete system of canals and dams, bringing the water of the Colorado River to irrigate a desert in the Mexican and US border. The owners of the Colorado River Land Company were US businessmen responsible of the development of the South of California, one of them was Harrison Gray Otis owner of the influent paper Los Angeles Times.¹² The company designed a continuous layout in the border, Calexico in the US whit housing, administrative buildings and Mexicali in the Mexican side locating the workers colony, shops, houses and warehouses. The town of Mexicali was in the beginning more connected to the US instead then Mexico, the railroad appear in 1904 by the Southern Pacific Railroad and cross the two towns. The Colorado River Land Company organize in 1902 and it was commissioned to buy and develop the land until 1937. The company consolidated the world largest cotton ranch. Today the Building of the company and some industrial buildings are considerate heritage of the city, the city have 700,000 habitants, but the original center it's in very bad condition even doth it contains rich building and opportunities to future interventions.

¹² Dorothy Pierson Kering. "The Mexicali valley and the Colorado River Land Company 1902-1946.

Figure 21. Map of the city of Mexicali, Mexico and Calexico United States jointly planned by the American engineer Charles Robinson Rockwood



Source: Early urban populations of Baja California, Antonio Padilla Corona. Photographs of the construction of the canal that diverted the waters of the Colorado River to irrigate the agricultural colonies of the two countries, and photograph of the Mexicali Brewery in the twentieth century

Figure 22. Aerial photograph of the city of Mexicali and Calexico near the international boundary

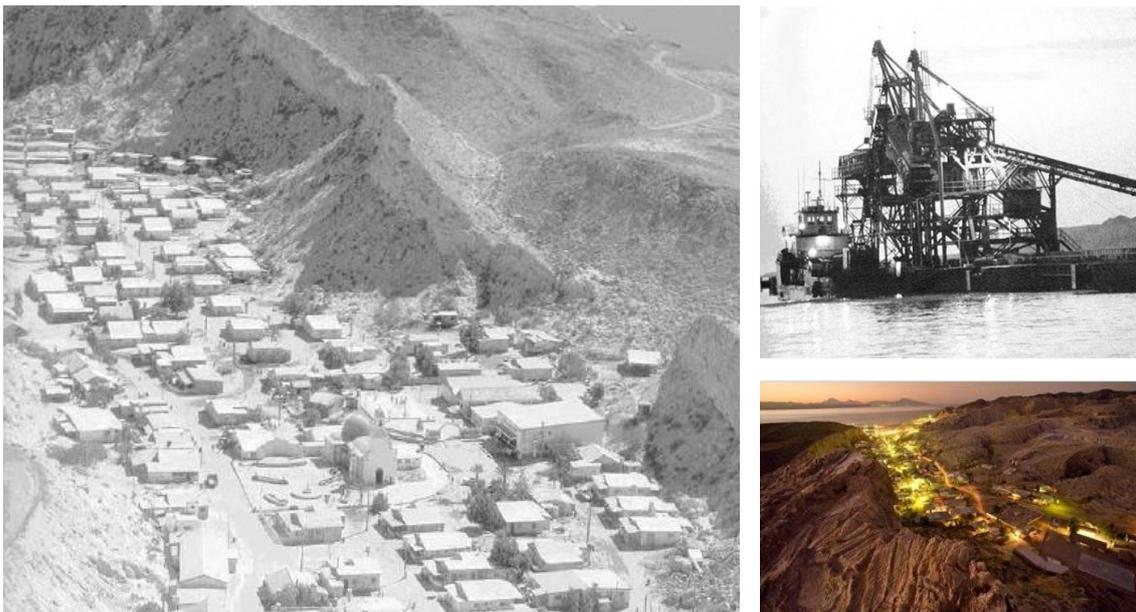


Source: National Geographic Magazine. Photographs of Karen Kasmauski, 2007 National Geographic Society

The plaster island: The active industrial heritage of the SAN MARCOS ISLAND

The missionaries that explore the peninsula of Lower California in 1765, talk about the existing of a rich vein of plaster very thin and transparent that was difficult to find in another place, in a few years they start a rudimentary extraction in the island. The local historians mentioned that in the late nineteenth century there was Sweden and north American boats extracting plaster from the island.¹³ It is not until 1923 when a planned settlement is developed by the Mexican Western Company, an industrial colony to provide the extraction and the exportation. The company constructs an electric plant, the dock infrastructure, the balloon frame housing and a church made with bricks of plaster that easily can be considered an industrial monument with all the entire town. Today the half capital of the company is Canadian and the town has 400 inhabitants. The San Marcos Island is the number one exporter of plaster in Mexico and the second in the world, the industrial heritage here is still working until the plaster runs out and the people will abandon the island.

Figure 23. Photograph of the population and industrial facilities and mineral transportation. San Marcos



Source: Comsa, Isla San Marcos: A company, a community, a challenge, West Company Mexicana S.A. Mexico 1997

The vision of the biggest salt industry in the world: GUERRERO NEGRO

They say that the name of Guerrero Negro comes from the name of a whaler ship that sank near the Ojo de Liebre Bay in 1858 called Black Warrior. In 1884 the north Americans already have salt works with rails and others systems, but it was not until 70 years before in 1953 when

¹³ Brief history of the mining towns of Baja California, Isla San Marcos, a small tour of its history. Authors: Luis Larreta , Homer Aviles and Gilberto Pineda

Daniel K. Ludwig a north American visionary that owned an important shipping company obtain a territorial concession through the Mexican commission of mining promotion and funded in 1957 a salt industry to satisfy in first instance the demand of salt in the west coast of the United States and then to Asia.¹⁴

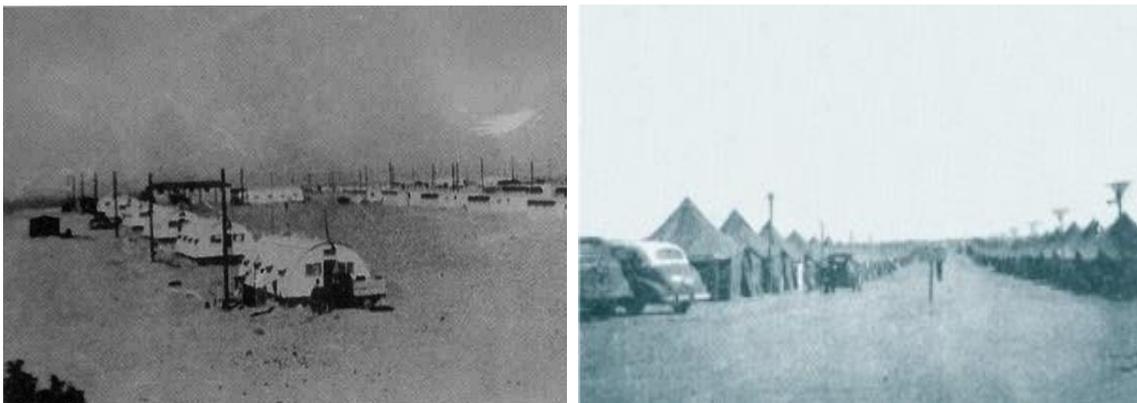
In the same year started to arrive the first workers, the company construct all the housing, shops, roads and the dock industrial infrastructures to export the salt.

Today the town has 13,000 habitants and is the salt mine most important in the world, an example of modern company town were industrial ruins exist like the old lighthouse and the first warehouses and canals, same as the important value of the active infrastructure.

Figure 24. Location of the Bay of Black Guerrero and photo of some old industrial installations



Figure 25. Collectives homes for workers, were cylindrical prefabricated sheet constructed in 1956. Which had been used as bedrooms by the Americans during World War II



Source: Guerrero Negro, chronic salt and sand

¹⁴ Brief history of the mining towns of Baja California, Guerrero Negro, a small tour of its history. Authors: Bianca Gpe. Rodriguez and Gilberto Pineda.

A cultural route of industrial heritage to strengthen the territory

The cultural routes in post-industrial territories in the last 35 years have been interest in studies of urban reflections whit great results, which they are been able to make revert abandon situations in city centers in different parts of the world through a cultural tourism. In the US and Europe before Mexico started the interest to value and rescue the industrial architecture, production infrastructures and building of the industrial period. Pioneer projects and studies like the group of textile company towns in Lowell, the excellent regeneration of buildings that tell the history of the United Estates industrialization.¹⁵

Other example is the Iron Bridge in England that is the icon of the industrial revolution, the mining region of the Severn River that with the system of museums today is the most visited site protected by UNESCO.¹⁶ In France the mining region of Le Creusot or in Germany in the region of the Ruhr River are extraordinary examples of valuation of the heritage in the territory. In Spain specifically in Cataluña they project the patrimonial axis of the industrial colonies of the Llobregat River¹⁷, also in Spain the route of industrial culture in Guipúzcoa is and other example of a touristic itinerary that show part of the iron landscape, the history and industrial identity in the Vasco region.

In Latin America the examples of Chile whit the industrial heritage of the copper towns, and Uruguay and Argentina whit all the ruins of the cattle raising industry might be the examples we need to start searching in all Latin America for this recuperation of this parts of territory in a sustainable way.

Figure 26. Images of 3 Industrial landscapes of Spain, Asturias and the coal heritage, the Vasco Country with its Iron landscapes and Catalonia with its textile industries and colonies



¹⁵ The industrial heritage as a catalyst for urban renewal. Two American examples. Architect. Dennis Frenchman.

¹⁶ Miguel Angel Alvarez Areces . Industrial heritage. A future for the past from the European view . Notes vol. 21 no.1 Bogota June- Dec. 2008

¹⁷ Joaquín Sabaté, Pere Vall. Heritage and territorial project. Colonies, Sequia of Manresa and Delta del Llobregat. Barcelona Provincial Network of Municipalities. Area of infrastructure, urban planning and Habitatge. 2004

In Mexico examples like the well-known silver route (the inside land path) in Spanish “El Camino de Tierra adentro”¹⁸, the connection of royal paths and the ruins they have recently have been declare world heritage by UNESCO. Other case is the appearance of the management plan of the Agave landscape and the old industrial installation of tequila, which values the Mexican cultural landscape and shows the riches elements in the territory.¹⁹ A specific case is the recent nomination to world heritage is the Fundidora park in Monterrey with enormous industrial towers and fireplaces that was pioneer in smelting iron in Latin America, which since the year 2000 start transforming to a cultural center, an industrial heritage museum, today the best park of the city²⁰.

Also mention the mining district of Real del Monte and Pachuca Hidalgo were they are converting the cultural tourism in a real alternative to the industrial heritage²¹. The south silver route in the estate of Guerrero a strategy to regional development the region. As we can see, today we have many examples that make references to the interest of the industrial ruins and the important of this pieces in post-industrial territory.²²

Focusing in the peninsula of lower California place of our interest, in the late twentieth century they design a touristic route called the “the missions route” in Spanish “la ruta de las misiones”²³, this was a touristic offer promoted by the estate that have been the first action in a big scale to try to give a kind of territorial culture structure in the peninsula, the royal path of the mission gave the peninsula a first draw of the Spanish missions and Mexican towns connection with Alta California today the estate of California in the US and Baja California and Baja California Sur two federative estates of Mexico.

Today that lost old path in the Mexican side match with the only existing highway in the peninsula that runs 1000 miles in the desert between 2 seas. The lonely highway still has been the only connection to small towns and big cities mostly in the coast.

¹⁸ El Camino Real de Tierra Adentro was included in the list of World Heritage by UNESCO, on August 1, 2010. It was added in the category of "cultural itinerary". The route includes areas of the Federal District, State of Mexico, Hidalgo, Queretaro, Guanajuato, Jalisco, Aguascalientes, San Luis Potosi and several others. In the part of the route that lies in Mexican territory, about 1,400 kilometers of the 2,600 total, elements linked to the road itself are located, such as bridges and ancient paths, towns, farms, cemeteries, churches, chapels and mines. The road Tierra Adentro was in use from the sixteenth to the nineteenth century, and was used to carry an orderly, efficient and to some safe point way, the silver was extracted from the mines of San Luis Potosi, Guanajuato and Zacatecas, as well as in an opposite direction, carrying utensils and machines needed for extraction work.

¹⁹ Ignacio Gómez. Management plan for the agave landscape and ancient industrial facilities of tequila. The cultural heritage as a trigger of regional development, history, commitments and challenges. Rizoma 2009. Industrial Heritage magazine. Rescuing a past heritage of the future.

²⁰ Francisco Vidargas. History of a candidature: Los Altos Hornos de Fundidora Monterrey. World Heritage List of UNESCO. Rizoma 2009. Industrial Heritage magazine. Rescuing a past heritage of the future.

²¹ Belem Oviedo. Cultural tourism , a viable alternative to the industrial heritage. mining district of Real del Monte and Pachuca Hidalgo. Rizoma 2009. Industrial Heritage magazine . Rescuing a past heritage of the future.

²² Nestor Salinas. The silver route of the south : a strategy for regional development from industrial heritage. Industrial heritage and architecture for production. Rizoma 2009. Industrial Heritage magazine. Rescuing a past heritage of the future

²³ Miguel Angel Sorroche . Cultural landscape and heritage in Baja California. Department of History, Geography and Art . University Jaume I. University of Granada 2011

Figure 27. Drawing of the industrial route of company towns

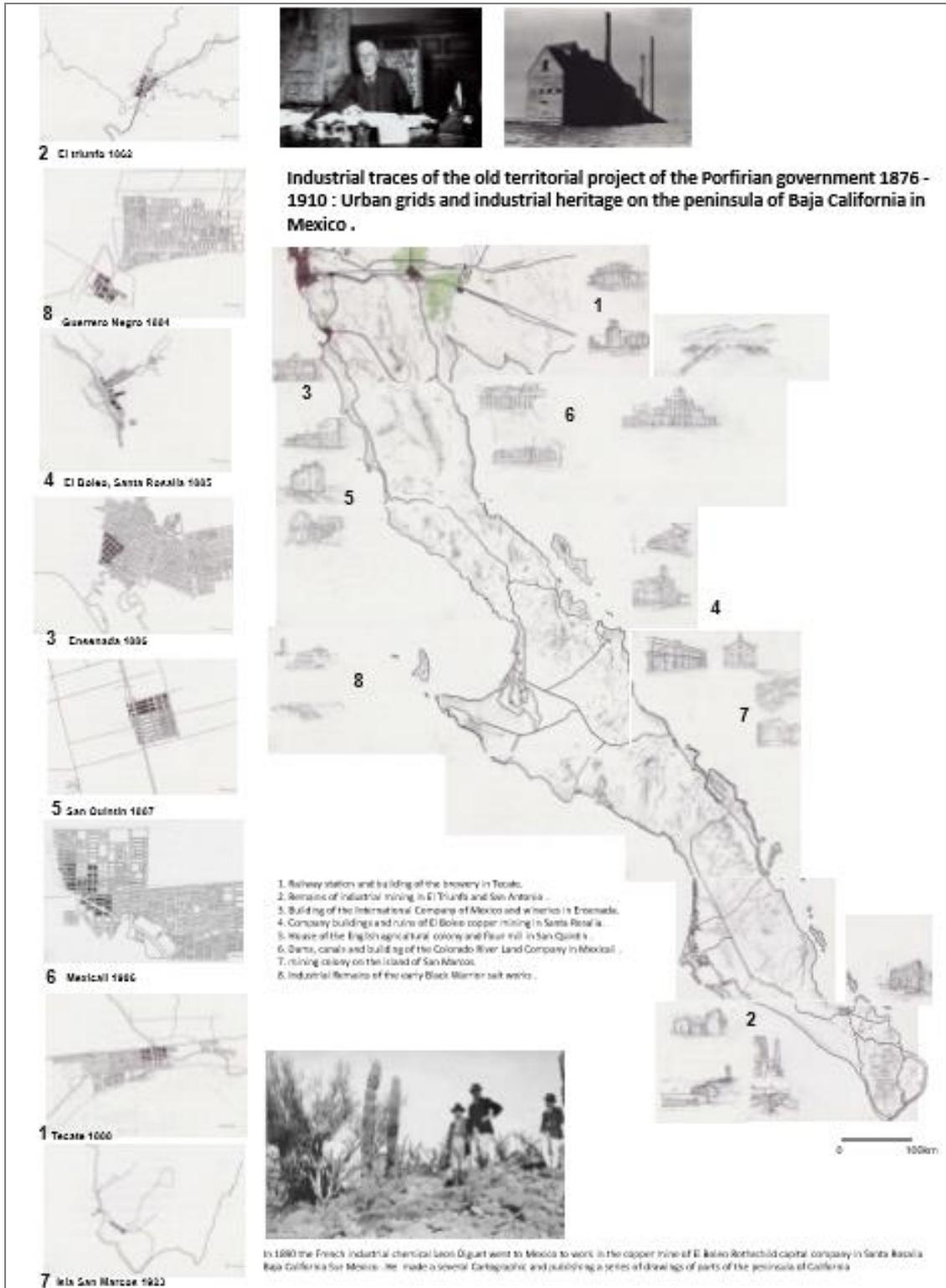


Figure 28. Photograph of the author in 2013. The only road on the peninsula of Baja California



Probably the last initiative had been develop in the Guadalupe Valley in Ensenada region with the wine route that all years in august celebrates the vendimia (wine festivities) and is been very popular converting the site in a cultural itinerary²⁴. We can end this article with the words of Fernando Diaz²⁵: *He mention that the recognize of the landscape and most outstanding components requires a sort level of organization for a better comprehension. The territory presents several composition not always evident. Correctly linked they constitute a territory story of significative episodes of the history and the landscape. For those objectives the physical structure needs an order to rank the pieces, as well as to distribute the function in other terms we have to transform the heritage in resources.*

Final reflection

We can affirm that in the late nineteenth century and early twentieth century the company town in the peninsula of Baja California (Lower California) was an urban model of colonization and modernization of this territory through foreign capital industry. This bring a different way of urbanizes this part of Mexico, the support of the conceptual urban ideas had specific characteristic supported in the projects of the companies, and have nothing to do whit the spanish urban tradition, but having a very influence of a commercial division of the land, very characteristic of the US urbanism in the industrial period. Today the situation is different, the

²⁴ Lino Meraz, Jorge Valderrama and Sonia Elizabeth. The wine route of the Guadalupe Valley: A differentiated competitive strategy for local development. Autonomous University of Baja California.

²⁵ Fernando Diaz "Trazas, mojones y poblados del norte de traslasierra. Elements for the definition of a territorial structure" Magazine Identities, territory and heritage project. International Laboratory of Cultural Landscapes . Number 2. Barcelona 2010.

original layouts of the companies, the abandoned factories, mines and the rich industrial heritage in lower California is in decay and needs a quick valorization. This work tries in a first stage to show all the places with industrial heritage, to provide a different land use planning incorporating a route of company towns in lower California showing an industrial itinerary capable to strengthen the structure of the territory that counts with an enormous potential. A route that today can tell the story of the industrial culture of 10 company towns connected down the peninsula of Baja California. The cultural tourism and the identity like economic engine result the key to put and create new initiatives were the resources work to develop policies orientated to the conservation of the industrial ruins forgotten in the territory. The Lower California is maybe the less populated peninsula in the world, that contains a different identity than the rest of Mexico. Finally we try to check that the foundation of company towns was a model of urbanization and study what remains today of the original urban grids and the industrial ruins.

FROM STONE DEVICE TO TECHNOLOGY DEVICE

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Key words: Cities, Technology, Connectivity.

Abstract

The paper investigates the impact of rapidly growing communication technologies on the city physical structure and hypothesizes the conceivable scenarios for its spatial form in the future. The methodology is be the analysis of past and current city forming processes.

The node in stone

The primary cause and purpose of cities was the concentration of all sorts of networks: social, economic, political – in a single point in space. This was a trigger for skyrocketing of human civilization and the glue cementing the city spatial structure. Therefore density was always an implicit condition of the existence of the city.

Traditional city is a low-tech solution: *a network node made of stone*: physical space and matter used to create a material, *stone connectivity device* enabling accumulation of people, contacts, cultural transmission, diverse skills etc. This accumulation allowed enhanced exchange of ideas, products, knowledge and thus formed fertile environment for progress.

Like the force of gravity, the more “mass” the city accumulated the more it attracted new mass to migrate. Therefore the early, though long lasting, phase of the evolution of settlements was marked with constant growth in density and compression. Like black holes, cities swallowed more and more material jamming it inside of their boundaries.

The Hobbesian near-state-of-nature, nasty and brutish condition of human at the time backed the process with the existence of city walls. The walls, like chains, constrained the size, and disciplined spatial expansion of early cities. Hence keeping high density within. In a “stone device” connectivity resulted from density and compactness.

Yet, unlike a black hole a city is not able to compress material forever. As migrations kept on, cities became ready to explode.

Breaking the wall

Under constant pressure of migration and as the walls appeared to be useless and were torn down, cities poured out. Still keeping their densities they spread over wider and wider areas.

But breaking the wall was not enough – a new device was needed to enable cities to operate regardless of their size. Fortunately, being a furnace of civilization progress cities themselves were the bedrock for innovations that helped to cure their growing pains. Roads, infrastructure, all technologies developed in their fertile industrious environment allowed them to grow in size and still be effective.

However, with the technologies created by the successive industrial revolutions the traditional urban structures themselves began to morph. As more and more transport and communication machines were invented, the less was connectivity (and thus: cities) dependent on proximity of locations. With the advent of the automobile cities needed not to be dense anymore.

A car city

American cities rushed into this possibility and soon became endless suburbs with needle sharp downtowns or even with the absence of them – and still preserving high performance. Locations disconnected physically remained highly connected by constant movement of cars. Man could fulfill his ultimate dream: to benefit from all advantages of the city but still live in a country house surrounded by nature. A new and very distinct kind of city emerged. *A car city.*

Those who criticize sprawl often forget to admit, that it is just a byproduct of what is considered by vast majority an urban wonderland, perfect environment to live in. Own tiny house with own tiny piece of nature attached to it.

The reasons it happened in America were simple: the urban structure was relatively young and not constrained by historical legacy, availability of new land, and the society driven by liberal market laws of demand and supply ensured, that whatever was dreamt of by all - would be granted to the extreme. Thus American cities became laboratories of new potential and clinical example that can be studied.

The innovation resulting in emergence of a car city was adopted by wide population and was supported by business and government. Millions of people wanted to participate in, benefit from new (and seemingly perfect) way of life, there were devices at hand to realize the dream (automotive industry, mass production of affordable homes – with icons like Ford T or famous Levittowns) and finally: the huge infrastructure (roads and highways) was created to support the trend by means of national policies.

It is important to note, that current technological breakthrough has similar characteristics. All at stake are in favor of it: individuals want them, industries are busy providing devices, enormous global infrastructure is being created. Therefore the process may not be easily stopped or reversed.

A scratch on the picture

But there was a downside to a dream too. The streets – once the most vibrant symbol of the city life - became highways and, being abundant with cars, ceased to exhibit any sign of human presence. The disconnection between the city spatial structure and the realization of its civilizational purpose has begun.

The dominant feature of a car city is that it destroys the logic of arrangement of places. As distance becomes no obstacle, and travel is inherently built in, programs may be located anywhere as people will commute to them anyway. A famous restaurant, jazz club, attended church – may function regardless of their immediate neighborhood and particular location in the geography of the city. There is no need for a traditional logic and discipline of urban space. All rules and hierarchies become relaxed or obsolete, as there is no natural pressure to enforce them. A very typical American picture is concentration of several individual churches in one urban location. As worshippers may commute from far away there is no need for a church to be located in proximity of the congregation or the latter to be located in one neighborhood. Anyone can drive anywhere from any place of origin. As this applies to all kinds of programmatic relationships, the traditional hierarchy and structure of urban fabric is not needed any more.

Another crucial consequence of overcoming the distance is flattened form of a car city: vast, nearly endless landscapes of very low density, 1-2 story detached buildings surrounded by parking lots.

Car cities can exist only if rely on massive use of cars. There is no other way that people could connect with places they work, learn, shop – from the places they live, as those places are loosely distributed over enormous unhuman distances. Physical geography of places and structure of space become less and less important.

A book city

Contrary to the other precedents mentioned before, a book city never really existed. But it is a very useful concept to illustrate the new era that came with the dissemination of print. It was the first detachment revolution. This revolution was hardly noticed by urban historians and feebly reflected in urban form. It started long before any signs of modern technologies but its impact should not be neglected as it was a foretaste of the real revolution of the future technology era. A book city is a name for *connectivity device made of paper*.

Before the book connectivity was fully united with material space. Any real contact or exchange was not possible if it didn't take place in real physical location involving presence and meeting of all stakeholders. The interdependence of space, individuals, flows and activities was complete.

The book, for the first time in history, allowed contacts to be indirect, detached from spatial channels of exchange. Links established via books did not require physical presence or proximity (in both space and time), neither they needed specific urban structures to support (like plazas, meeting places of any sort).

The book is a repository of compressed connectivity that can be released any place and any time, involving anyone - thus replacing a great deal of real world contacts that would have been previously needed. In this sense a book became a first terminator of compactness of cities as it broke ties of direct relationships happening in real defined urban setting.

The book revolution that seems almost invisible from present perspective was forerunner of technological revolution of today. It preceded by centuries its successor which finally has power do transform entirety of human behavior in the city and consequently – the city itself.

A technology city

Nowadays, the rise and exponential growth of virtual communication technologies brings a new level to this change. With them societies can now maintain the highest level of connectivity regardless of any notion of geographical proximity or density in spatial structure. The glue once keeping the cities tightly together turns out not to work for their future. The disconnect of space and life may become ultimate. What kind of cities will emerge as a result of this process?

A new kind of city - a *technology city* – is a model of a city highly connected by means of advanced and broadband communications technologies. Having discussed the features of some of its precedents it is now possible to analyze its overall characteristics. A technology city will demonstrate some similarities and dissimilarities to the earlier model of car city:

- In a technology city connectivity is increasing as a result of technology in the same way as it increased in a car city comparing to its predecessors.
- Connectivity, that in a car city required constant physical movement of population, in technology city is secured by movement of virtual data through communication networks.
- Thus, in a technology city highest levels of connectivity are provided with no need for physical presence, contacts or material exchange.
- Consequently, communication and cooperation of teams, groups and organizations does not have to be based of physical gathering in certain defined location (like in an office).
- Furthermore, as connectivity does not require physical presence or contact, it does not require physical movement either. Commuting is not necessary in technology city.
- In a technology city part of communication is mobile – it connects people not places.
- In technology city any physical movement is guided by algorithms of navigation programs or augmented reality and not by features of real urban space.
- Significant amounts of resources that previously needed material space to be stored are stored in virtual space.

The above list of features is not exhaustive but gives enough observation to grasp the most crucial consequences for spatial structure of a technology city.

Detachment

The primary conclusion must be that technology will not be a cure to sprawl. Just the opposite: it will eliminate any former limits to it. Even a car city set restrictions to its size as distance is limited by time of travel. In technology city communication between any given locations is immediate, it requires 0 travel time, as if also the distance were 0. The last existing bounds to size are gone.

As it was stated before, a car city caused disintegration of rules and hierarchy of physical city structure by making any place easily accessible by anyone in short time and therefore making no difference where elements of programs are located in space. In technology city any given location will be accessible, in practical terms, immediately. Though virtual, this kind of connection is enough for many types of activities (it's even richer, as it may include unlimited additional data packages). Thus location will be even more indifferent to program. Any element

may be located anywhere and will still remain a functional part of the whole, being accessible for all interested. So the decay of spatial organization and hierarchy will continue.

This instant accessibility dismisses importance of dimension and distance and therefore – geometry, shape or form in urban terms. Relationships, previously carved in stone of urban structure, thus constant and fixed are now virtual, flexible, subject to change. Moreover, those relationships, networks become *pure topology* - they are nodes and connections with no need to refer to any real geometry. Released of bounds of material structure the networks may connect denser, faster, morph and adapt. Now – connectivity may be entirely detached from material stuff the cities are built of.

In technology city there will be no more pressure on density or compactness, than we could observe in its car predecessor. Rather, decay of need for physical contact will relax the material structure of a city even more. A paradise paradigm of home-and-lawn that was propped by massive use of car will be yet more easy to achieve in a world where no car is needed to maintain contacts. The compactness may be supported by other causes like overcrowding or high value of land, but technology alone is a strong factor for further decompression and suburbanization of urban structure.

As detachment (of networks from material structure) becomes more and more apparent, yet far more reaching hypothesis might be drawn. If high connectivity can be now achieved regardless of properties of material structure it used to be attached to, if only places matter, not their configuration in space, if, considering mobility, we might even disregard places in favor of place-free individuals, and as, finally, a city is nothing more than configuration of places – then: what kind of reason is there still for a city as a material structure to be necessary? Is it possible that stone connectivity device is being superseded by technological device? In other words – do we still need cities? Will detachment be ultimate?

If true, the chain of events would be truly Darwinian: first, material structure of cities emerged ensuring density and connectivity that triggered technological progress. Hence that progress generated technology that will make the first instance – a city physical structure – obsolete. High connectivity causing disconnect from and of the material structure of the city.

Movement

There is another group of consequences related to ceasing of physical movement.

As it was noted, virtual connectivity dismisses to large extent the necessity of movement. The dwellers of technology city are able communicate very effectively not needing to be present or group in specific places. They can connect with any place or person to work, learn, entertain, buy - not moving from their own location. Though this does not refer to all possible reasons for movement in the city, it covers a significant portion of them.

But in a car city commuting, though usually detested, is by some means a cementing factor in large cities. Dwellers, if not perceive the city physically, at least travel through it and in that way experience, memorize, build mental maps of the structure, connect distant parts of it with their own movement. Absence of it will be another factor strengthening atomization of space and disintegration of large scale cohesion of urban tissue.

The diminishing of motion brings the dispute to interesting question: what if needs for transportation were limited to movement of goods and produce, and only occasional travels of humans? Specifically: what if all everyday compulsory commuting to the office, school etc, suddenly stopped or was reduced significantly? All this caused by simple fact, that all or most of necessary connectivity were provided by easy and broadband access to communication network at one's home location. This would mean that much of infrastructure and space needed nowadays to provide daily displacement of crowds of city dwellers from one place to another, to and fro, will prove to be superfluous, redundant, unnecessary. A High Line case extended to global scale... What would this regained amount of land be used for? And what about released floor area of huge concentrations of office space freed from its former occupations?

Perception of space

In technology city the perception of space, instead of being a result of direct experience and interaction, is commanded by navigation programs and augmented reality. These are not just computer versions of traditional guides and maps. They represent a radically different concept of human relationship with real space. They are databases and process numeric information. Navigation does not understand the urban composition. It does not honor great avenues if they are jammed with traffic. It will guide through the tiniest local street if it's not busy at a particular moment and the route may be cut by few seconds. Thus causing "flash mobs" of cars in unexpected places and times. The algorithms optimize travel time regardless of any other factors, were they compositional presumptions, former habits, common sense or else. They do not care about landmarks.

Navigation does not see, but it knows. It may suggest good places to go, not minding whether they are exposed in urban structure or not, if they are in front or in deepest cul-de-sac. The actual location is irrelevant for the accessibility. Navigation distorts a natural hierarchy and structure of urban space, replacing it with a digitally calculated routes and paths, mapping or ranking places despite of their physical locations. *The image of the city* generated by algorithms is radically different from what we see with our own eyes and from what are used to. On one hand it's wiser, richer in valuable information, on the other - this kind of information is inconsistent with the language and iconography of urban space developed throughout centuries of human habitation.

Locality

As impact of communication technology seems rather disintegrative to large scale properties of urban structure, it may have surprisingly good outcomes in local scale. It may help restore many of traditional qualities of vivid neighborhood. As people lose need for long distance travels they will be much more connected to their local environment due to simple fact, that they will allocate much more of their life time to it. The reason that in a car city neighborhoods are often neglected is that their residents are such only by name, not really "residing", but spending most of their conscious and active time somewhere else, and therefore not being able to establish meaningful connections to places they "live" in. Not having to commute on daily basis, and thus not having to share their time and devotion between distant, scattered localities, dwellers of

technology city will be attached to their own place and its surroundings in a similar way as dwellers of medieval city were committed to theirs. The difference being, that now they are not entrapped in them but may also freely benefit from potential of wider structure at will.

Consequently, the importance of locality will grow resembling strongly the pre-car era of urban history. Instead of strong but spread widely long distance ties and much weaker local ones typical for car city - a technology city will exhibit contrary qualities: strong local ties will be primary again and distant links of lesser significance. Dwellers will be less global more local which may result in reinforcing of urban tissue at human level scale. The city as a whole will constitute of succession of small localities overlapping and intertwined, forming a fabric-like structure, the strength of which depends on tightness of a weave. This may be considered a much more effective glue to the city matter, that even the strongest stitches connecting distant scattered realities of an endless car city.

End of geography and the fall of the stone device

All the observations presented here lead to the presumption, that the coming urban era will be the era of no geography. The disconnect of civilizational flows from material structure of the city, detachment of places, urban hierarchies built on virtual pure topology instead of physical space – all this makes traditional notions of urban geography and space inappropriate and apparently wrong. The city material form tends to turn to more and more indifferent, neutral, passive underlay for all vital processes of society that transfer from real to virtual space.

Progress means that we do not use hammerstone anymore, though it was extremely useful for thousands of years. It also gave birth to plentitude of sophisticated tools in history, but its own history is long over. The direct encounter of technological device with stone device must result with defeat of the latter. In this story a stone connectivity device (a city) gave birth to technological connectivity device (a network). Now the latter does no longer need the former. Enhancing connectivity to highest level results in disconnect from the real matter of the urban structure.

But we are being pushed in that direction not only by technological advance. We need to disconnect from the actual magnitude of contemporary cities because we are not able to comprehend the whole anymore. In order not to get ultimately lost we need to detach and reconnect: closer to one place, own neighborhood, local community and affairs. In many ways technology that kills numerous features of known cities may also be a tool to restore some of the most profound bonds with our immediate vicinity. Taking over the burden of global connectivity it leaves space for local, real world relationships.

References

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Grodzicki, Paweł. The Future Like the Past? Topological City. *Czasopismo Techniczne*. Kraków: Politechnika Krakowska, 2012, p. 209.

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THE DYNAMICS OF THE URBAN POPULATION. PUBLIC SPACE IN THE CITY - MODERN TRANSFORMATIONS

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Key words: *transformation, revitalisation, sustainable development*

Abstract

The article presents the issue of changes in the population of selected Polish cities against the background of global demographic and urbanisation-related phenomena over the period of the last 55 years and in the perspective of forecasts until the mid-21st century, as well as the meaning of the effect of the disurbanisation processes observed today on the strategy of the spatial and functional organisation of cities.

There occurs the need to think about cities as a network within the scheme of metropolitan systems – with a polycentric structure, where the main link – a hub city - cooperates with a grid of smaller towns, independent territorially, but cooperating with each other and the hub city itself. This strategy can limit the territorial expansion of cities and have its effect on the development of the urban subregion. Operations fostering the process of strengthening of the hub city and preventing the ‘escape’ of residents from cities are presented by means of a discussion of an example of a project of transformation of degraded areas, connected with the concept of sustainable development of the city.

Global and local demographic processes and condition of selected cities

The rapid growth of the number of people inhabiting the Blue Planet over the last fifty-five years – from 3.038 billion in 1960 to over 6 billion in 2000 (6.127 billion) and nearly 7.3 billion in January 2016 (7.296 billion)¹ despite a diversified demographic situation in different regions of the world, obliges to get engaged in the local urbanisation processes control strategies in the trend of global activities for the benefit of sustainable development.

¹ <http://pl.sputniknews.com/swiat/20151231/1758373/Ziemia-liczba-ludnosci.html> ;

Table 1. Global population growth rate:²

	POPULATION IN MILLIONS							POPULATION GROWTH	
	1960	1970	1980	1990	2000	2010	2014	2010/2014	1960/2014
WORLD	3038	3682	4440	5310	6127	6930	7266	1.04	2.39
EUROPE	604	657	694	721	726	735	738	1.00	1.22
ASIA	1708	2120	2626	3202	3714	4170	4350	1.04	2.55
AFRICA	287	366	478	632	814	1044	1157	1.10	4.03
NORTH AMERICA	204	231	254	281	314	344	355	1.03	1.74
SOUTH AND CENTRAL AMERICA	220	288	365	447	527	600	628	1.04	2.85
AUSTRALIA AND OCEANIA	16	20	23	27	31	36	39	1.08	2.44

The factor of the global population growth rate is variable in individual periods of time; nevertheless, its dynamics demonstrates a downslide tendency (from 21.19% in the first decade, and 20.58%; 19.59%, 16.38%, 13.10%, and 12.12% over subsequent periods during the last four years, respectively). An absolute average annual population growth was the highest in the decade of 1980-1990 – 87.0 million per year (in the period 1960-1970 ca. 64.4 million / year; in the period 2000-2010 80.3 million / year). According to demographic forecasts drawn up by different research centres, the number of inhabitants of the world will stabilise in the middle of our century at the level of 9 billion, and later on it can go down, although it is possible that the peak of the global population will be reached in 2075 – 9.5 billion (NATO)³. Some scientists believe that a scenario according to which the population of the globe will grow until 2100, when it will reach 12-13 billion, is also possible.⁴ Experts anticipate that the economic development of developing countries, especially in Africa, will bring about a slowdown and then a drop in the population growth in the future, as it can be observed in the economies which are developed today (Europe, North America). Today, nearly 60% of people of the world live in Asia. Nevertheless, the highest factor of the population growth dynamics is visible in the cradle of humanity – Africa, where it will most probably be maintained for the longest period of time, due to the level of economic development of countries of that continent. The forecasts of the growth of the population of Earth demonstrate the scale of needs, which will be connected with the provision of appropriate living conditions, including appropriate economy, with non-renewable water resources⁵,

² Demographic Annals 2015 - tables; 14_international review_RD'2015; Tabl.1.(212) World surface area and population <http://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-demograficzny-2015,3,9.html>

³ http://www.nato.int/docu/review/2011/Climate-Action/Population_growth_challenge/PL/ Przegląd NATO, Wzrost liczby ludności - podstawowe wyzwanie XXI wieku / Population Increase – Fundamental Challenge of the 21st Century

⁴ http://wyborcza.pl/1,75400,16674054,Zla_wiadomosc_w_2100_r_będzie_nas_nawet_13_miliardów.html?disableRedirects=true; Tomasz Ulanowski, Zła wiadomość: w 2100 r. będzie nas nawet 13 miliardów / Bad News There Will Be Even 13 Billion of Us in 2100; 20.09.2014 09:00; and: <http://science.sciencemag.org/content/early/2014/09/17/science.1257469>: World population stabilization unlikely this century

⁵ Gyurkovich J., Woda w mieście przyszłości / The Water in the City of the Future, [in:] Czasopismo Techniczne / Technical Transactions, Publishing House of the Cracow University of Technology, Series Architecture, 1-A/2014 (111) ed. Jacek Gyurkovich; (ISSN 0011-4561; ISSN 1897-6271); pp. 13-30;

with overcoming problems connected with the production of food, management of the environment of residence, jobs, etc., never encountered before.

Europe is an aging continent – *the number of pensioners in the EU states exceeds the number of children considerably – therefore, it attracts people migrating in search of jobs from other regions of the world. In many countries of the world – in Europe, as well as in the USA, the growth of population is more related to the inflow of immigrants than the birth rate.*⁶ Global forecasts also relate mass migrations in the future to the process of climatic changes (global warming), which according to experts will be the cause of the need of moving of even 1 billion inhabitants of the threatened areas.⁷ In order to maintain the developed economies and high standards of living, the aging societies of Europe need support in the form of numerous young immigrants, looking for jobs and better living conditions.

This social and economic problem has evoked a new wave of migration (since 2015) in the scale that Europe is not able to cope with. Nevertheless, such a phenomenon should have been taken into account, but perhaps not in such a drastic form. We should reckon that the observed process of the reduction of the population in some European countries and cities is a transitory phenomenon, resulting from a variable flow of people between cities in search of jobs and better living conditions, as well as from the local and global demographic and economic and political situation.⁸ Poland belongs to a group of countries of Central and Eastern Europe where the population may drop considerably over the decades to come, and where demographic forecasts determine the situation as a 'demographic disaster'.

Table 2. Poland and the world – population forecast⁹

	POPULATION				
	2015	2030	2040	2050	GROWTH / LOSS % IN 2050 COMPARED TO 2015
WORLD	7,296,000,000	-	-	9,000,000,000	+ 1,704,000,000 / + 23.0 %
POLAND	38,419,200	37,185,000	35,668,000	33,951,000	- 4,468,200 / - 11.6 %

⁶ Gyurkovich J., *Znaczenie współczesnych transformacji obszarów śródmiejskich dla globalnych procesów urbanizacji / The Significance of Contemporary Transformations of Urban Areas for the Global Processes of Urbanization*; [in:] *Przyszłość Miasta – Miasto Przyszłości / FUTURE OF THE CITY – CITY OF THE FUTURE*; Volume 1; Czasopismo Techniczne / Technical Transactions, Publishing House of the Cracow University of Technology, Series Architecture; 1-A / 1/2012 Issue 1, Year 109, pp. 231-247; text published before a new wave of migrations from Arabic countries, the problems of which the EU is trying to cope with.

⁷ Cf.: Gyurkovich J., *Mieszkać w mieście / Living in the City* [in:] Gyurkovich J., *Architektura w przestrzeni miasta. Wybrane problemy / Architecture in the Urban Space. Selected Problems*, Publishing House of the Cracow University of Technology, Cracow 2010, pp 61-128; also:

http://www.nato.int/docu/review/2011/Climate-Action/Population_growth_challenge/PL/, Przegląd NATO, *Wzrost liczby ludności - podstawowe wyzwanie XXI wieku / Population Increase – Fundamental Challenge of the 21st Century*, op.cit.

⁸ Gyurkovich J., *Mieszkać w mieście / Living in the City* [in:] Gyurkovich J., *Architektura w przestrzeni miasta... / Architecture in the Urban Space...*, op. cit., pp. 61 – 128.

⁹ http://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-demograficzny-2015_3_9.html; Demographic Annals 2015 - tables; 04_population_forecast_RD/2015 ; Tab. 23. Population forecasts according to sex and age.

Considering many variable factors influencing the growth or drop of population in the global or local scale, often appearing quite unexpectedly, long-term forecasts are certainly burdened with a high error rate. A new situation of migration movements, new political decisions (e.g. the 500+, family-oriented programme of the Government of the Republic of Poland) can significantly influence the change in the demographic situation in different regions.

Table 3. Poland – Population of provincial cities in the years 2014-2050 – forecast of the Head Statistical Office¹⁰

City *	2014	2020	2030	2040	2050		%
Warsaw	1,728,664	1,748,046	1,755,502	1,752,184	1,768,418	+ 39,754	+ 2
Cracow	759,275	759,220	749,307	728,035	710,464	- 48,811	- 6
Łódź	705,249	668,406	606,824	542,732	484,845	- 202,404	- 29
Wrocław	631,201	625,538	611,359	591,353	577,658	- 53,543	- 9
Poznań	544,984	526,063	488,226	443,721	402,076	- 142,908	- 26

* Population in the cities in 2015: Warsaw – 1,735,442; Cracow – 761,873; Łódź – 703,086 ; Poznań – 544,612 ¹¹

In Poland over the last 60 years the number of towns and cities increased from 748 in 1950 to 908 in 2010 and to 915 towns and cities in 2015.¹² Municipal rights in Poland are granted by the Council of Ministers. Municipal rights can be granted to units with the population of at least 2,000 inhabitants (this condition is not strictly observed if other requirements are fulfilled); compact urban architecture – a market square, streets, pavements, technical infrastructure – sewerage, wastewater treatment plant, pipelines; cultural, educational and healthcare centres, and 2/3 inhabitants employed outside agriculture. In this period, the population of towns and cities increased from 9,605,000 in 1950 (40%) to 23,216,352 in 2014 (60.3%). Nevertheless, after 1999, when the population of towns and cities reached the highest value (in absolute numbers) – 23,700,550 (61.9%), in the years 1999-2010 the population of the country dropped by 63,266 inhabitants, and the population of towns and cities by 486,167 people.¹³ This situation should be connected with the process of urban sprawl and the seeming disurbanisation or suburbanisation –the phenomenon of moving of more well-off people and people of moderate means beyond the borders of towns and cities, to neighbouring communes, where the prices of plots of land and real estates offered by developers are lower. Maintaining their relation to the city as the market of jobs and services, inhabitants of the suburban areas urbanised this way try to improve their housing conditions at the expense of inconvenience connected with transport. Uncontrolled city sprawl evokes a number of negative phenomena, such as territorial expansion of cities, comprising open areas and arable lands or forests located in the vicinity of cities, increased load on the traffic systems, increased emission of exhaust fumes, and the consumption of energy. The architecture that emerges from this situation is not

¹⁰<http://repozytorium.uni.lodz.pl:8080/xmlui/bitstream/handle/11089/6008/2014-11%20Przysz%C5%82o%C5%9Bc%20miast%20wojew%C3%B3dzkich.pdf?sequence=1&isAllowed=y>
Szukalski, Piotr. *Demografia i Gerontologia Społeczna. Biuletyn Informacyjny / Demography and Social Gerontology. Information Bulletin*, 2014, No. 11; Institute of Sociology, University of Łódź, pies@uni.lodz.pl

¹¹<http://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-demograficzny-2015,3,9.html>

¹² Official Journal of 29 October 2015, item 1636.

¹³ *Demographic Annals 2011* ..., op cit., tabl. 1(128), p. 457, [in:]

equipped with all the necessary services, connected with the management of the residential environment, it lacks in the urban character, in public spaces, such as parks, squares, piazzas, etc. The economic effects for the city comprise reduced revenues from taxes to the municipal budget, and increased costs connected with the need to extend the infrastructure and transport systems. This process occurred in the United States of North America in the 1920s, in Western Europe in the 1970s, and in Poland after 1989.¹⁴ In Poland there is a deficit of effective legal tools that would enable to fight the detrimental processes that are connected with the phenomenon of city sprawl.

Comparing the proportions of the populations of cities and of rural areas in Poland, we will see that after 1991, when the population of our cities reached 62% of all inhabitants of Poland, we have been observing a flow of some of city inhabitants to the suburbs and to the neighbouring communes (Table 4-a).

Table 4-a. – Poland – population of cities and the countryside.¹⁵

	POPULATION							
	1960		1991		2000		2014	
POLAND	29,795,200	%	38,144,000	%	38,253,955	%	38,478,602	%
CITIES	14,401,000	48.3	23,648,000	62.0	23,670,259	61.9	23,216,352	60.3
COUNTRY SIDE	15,394,200	51.7	14,496,000	38.0	14,583,696	38.1	15,262,250	39.7

The increase of the population of the countryside is a sum of the increase of the population of the entire country and the flow of people from cities in the disurbanisation process (Table 4-b).

Table 4-b. Poland – population of cities and the countryside – people flow.

	POPULATION				GROWTH / DROP / PEOPLE FLOW
	1991		2014		
POLAND	38,144,000	%	38,478,602	%	+ 334,602
CITIES	23,648,000	62.0	23,216,352	60.3	- 431,648
COUNTRYSIDE	14,496,000	38.0	15,262,250	39.7	+ 766,250

In the long run, the territorial expansion of cities seems to be an inevitable necessity. Certainly, it should be a controlled supervised process, controlled by legal and planning instruments in the interest of the contemporary and future generations in compliance with the concept of sustainable development of cities. In this context, the concept of a compact city and the pursuit of the optimal use of the already urbanised areas is definitely one of the strategies of solving the

¹⁴ See e.g.: Gyurkovich J., *Na krawędziach miast/ On the Edge of the Cities* [in:] ULAR5: *Między Miastem a Nie-Miastem / Between the City and Non-City; Odnowa Krajobrazu Miejskiego / Urban Landscape Renewal*, materials from the International Scientific Conference of the Faculty of Architecture of the Silesian University of Technology, Gliwice 2010., pp. 57-65; and: Litwińska E., *Modelowanie struktur metropolitalnych w aspekcie zjawiska Urban Sprawl / Modelling of Metropolitan Structure in the Aspect of Urban Sprawl* [in:] *Czasopismo Techniczne / Technical Transaction 1-A/2010*, Publishing House of the Cracow University of Technology, Cracow, 2010, p.

¹⁵ <http://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-demograficzny-2015.3.9.html>
Demographic Annals 2015 - tables; 02_population_condition-population_RD'2015

contemporary and future urbanisation problems. Simultaneously, the disurbanisation process observed stands for the need to think about cities and towns as a network within the structures of metropolitan systems – with a polycentric layout, in which the main link – the hub city – cooperates with a network of smaller towns which are independent in territorial terms, but which cooperate with each other and with the hub city itself.

Table 5. Poland – forecast for subregions for the years 2014-2050.¹⁶

SUBREGIONS	POPULATION			
	2013	2015	2050	GROWTH / DROP / PEOPLE FLOW 2015 / 2050
CRACOW	707.788	717.762	806.089	+ 88.327
ŁÓDŹ	385.035	386.012	371.397	- 14.615
POZNAŃ	618.750	634.693	821.425	+ 186.732

In the period of time subjected to the forecast, Cracow as a compact city loses 51,409 inhabitants, but the subregion of Cracow wins 88,327 inhabitants, so the balance is positive and it reaches nearly 37,000 inhabitants. The subregion of Poznań can boast a slightly higher positive balance, reaching 46,111 inhabitants – Poznań loses 142,621 inhabitants, but its subregion wins 186,732 inhabitants. Łódź and its subregion lose the total of 214,865 in this period of time, to the benefit of other regions and cities.

The creation of metropolises exhibiting a network layout obliges to maintain the attractiveness of the hub city, to utilise and develop its unique functions, important for the centre – such as the high culture (museums, theatres, philharmonics, etc.), science – including higher education, research institutes, technology parks, specialist research centres and laboratories, specialist healthcare centres – university hospitals, diagnostics and prevention centres. It is necessary to secure the development of jobs, especially in technologically advanced innovative production plants, in the aforementioned specialist centres, and in services, and in cities which take advantage of the marketing potential of their historical heritage – in the services for the tourist traffic. In this respect opportunities of many cities and towns are diversified. A good example here is Cracow, which annually attracts 10,000,000 tourists, who support over 20% of the city inhabitants. This magnet of the hub city, together with the better and better use of the potential of smaller towns in the region, also of their landscape- and climate-related values, allows for the improvement of living conditions of the region inhabitants, as well as the population stabilisation and development.

Łódź - a city of extensive transformations

Cities which have lost their economic potential, like Łódź after the fall of industry, lose their inhabitants, who emigrate in search of jobs and better living conditions. A necessary activity, undertaken by the municipal authorities and consequently implemented, is a change of the

¹⁶ <http://stat.gov.pl/obszary-tematyczne/ludnosc/prognoza-ludnosci/prognoza-dla-powiatow-i-miast-na-prawie-powiatu-oraz-podregionow-na-lata-2014-2050-opracowana-w-2014-r-5.5.html> ; Forecast for counties and cities with country rights and subregions for the years 2014-2050 (drawn up in 2014)

profile of the city from an industrial one to the city of culture, science, and high technologies, a city with an attractive programme and a broad offer of public spaces and facilities, which can attract tourists with their unique offer, and stimulate the economy of the entire region. The already implemented investments change the appearance of the city, and can certainly contribute to reversing of the negative trend of shrinking of the population, observable today and revealed in forecasts. The historical heritage of the Art Nouveau architecture exhibiting unique values and an enormous potential of the post-industrial heritage constitute substantial assets in the struggle for the development of the city.

'Manufaktura' in Łódź – Poland's largest shopping centre in the buildings of the former Cotton Plant of Izrael Poznański adapted to new functions, constitutes yet another example of revitalisation of vast areas in Łódź, after the launch of the revitalisation process of Piotrkowska street.¹⁷ All historic structures of industrial architecture exhibiting unique values have been preserved here. New structures maintain the dimensions of the historic development. Transformations of the transport system conducted at a great scale, construction of a new railway station, and bringing together of the city slashed by railway in the city centre are definitely investments which foster the concept of the renewal of the city and considerable improvement of its spatial and functional values.

From amongst the investments implemented at the moment, connected with the change of the appearance of the city, one of the most significant is the revitalisation of a post-industrial complex of the former EC1 heat and power plant, located within the territory of the New Centre of Łódź, in the direct vicinity of the reconstructed Łódź Fabryczna Railway Station, which will be an underground station for the line of high-speed rail, enabling to link the parts of the city located on both sides of the railway line. The revitalised area comprises 40,000 square metres and is divided into two sectors: EC1-East, and EC1-West, which are to create the City of Culture. EC1-East combines cultural and artistic functions – a film art centre with a sound theatre, a library, and an art gallery. EC-1 West is the Science and Technology Centre, with a planetarium and a 3D cinema. The revitalisation of the facility completed in 2015 enables to equip it with the planned thematic routes: *Energy Processing* (in the museum part of the heat and power plant), as well as *Microworld and World*, and *Development of Knowledge and Civilisation* (by 2017).¹⁸ After revitalisation, this complex transforms the post-industrial area into a space for science and culture, connected with the identity of this place in a special way – its functional tradition and unique spatial values of the preserved and adapted structure, enriched with attractive new forms of the contemporary architecture, inscribing in the climate of the place, and creating an intriguing atmosphere.¹⁹

In the created new architectural space of the city, there still must appear interesting spatial projects, in order to maintain the interest in the discussion about architecture, because the

¹⁷ Design: Virgile&Stone from London, and Sud Architektes from Lyon; implementation 2002 - 2006; investor APSYS Polska.

¹⁸ http://budownictwo.wnp.pl/lodz-zakonczylo-sie-rewitalizacja-kompleksu-ec1-zachod,259416_1_0_1.html

¹⁹ <http://www.bryla.pl/bryla/56,85301,15635143.stara-elektrownia-zamieniona-w-ikone-miasta,,1.html>; Authors of the design: designers from a Poznań-based studio of Home of Houses, and a Łódź-based consortium created by Biuro Realizacji Inwestycji "Fronton" and the company of Mirosław Wiśniewski Urbanistyka i Architektura.

*process of construction takes place in long time intervals...*²⁰ This project definitely satisfies this postulate.

Transformation of degraded post-industrial areas in cities offers a chance for the recovery of these areas for the benefit of the city and its inhabitants, development intensification, introduction of attractive urban architectural and spatial solutions and functional programmes, adjusted to the needs of the place, and therefore revitalisation of a part of the city. Such operations improve the quality of the transformed areas and stimulate positive changes in the adjacent territories. They foster economic activation of the area, attracting new users, keeping city inhabitants thanks to the creation of a top quality urban living environment, offering attractive public spaces, non-virtual places of get-togethers and social life, cultural facilities, services and trade outlets, workplaces and places of residence in city centres, preventing territorial expansion. They can definitely foster the fight against the processes of abandoning the city and they serve its development.

Figure 1-3. 'Manufaktura' in Łódź – Poland's largest shopping centre in the buildings of the former Cotton Plant of Izrael Poznański adapted to new functions.



1.

²⁰ Olenderek, Joanna., *Rewitalizowana publiczna przestrzeń miejska Łodzi jako obszar znaczących dokonań twórczych; dialog współczesnych z historią / Revitalised Urban Space of Łódź as an Area of Significant Creative Achievements; Dialogue of the Contemporary with History*, [in] *Czasopismo Techniczne*, z.15, Series Architecture 7-A1(35), Cracow, 2010, p. 221

11TH CTV

back to the sense of the city



2.



3.

Source: photo 1-3: the Author, 2015

Figure 4-11. The revitalisation of a post-industrial complex of the former EC1



4.

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back to the sense of the city



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11TH CTV

back to the sense of the city



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Source: photo 4-11: the Author, 2015

PARKS AND ROADS BUILD THE CITIES: THE M-30 AND MADRID-RÍO PROJECT, BUILDING LANDSCAPE

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Key words: Public Works, Roads, Parks, Urban Processes

Abstract

Public works respond to a function and are linked to the territory where they are located. Its use and connection to the place become hallmarks and generating elements of urban processes.

The roads are located close to the rivers where layouts are easier. Its relationship with the city is usually conflictive. River and city are also necessarily linked. The conversion from road to street requires a complex planning process and involves a deep transformation of its environment. Particularly significant is the case of Madrid and the ring road that develops along the Manzanares River, awarded prestigious Harvard prize for best urban design. There is much written about Madrid-River project and the enabling M-30 excavation work. This paper takes technical and architectural references to place them in a political and social process that gave rise and in the urban reality offered today to Madrid citizens. This project is a new landscape for the city where the river becomes a limit to be integrated into the urban area. New uses can be reconciled and linked through multiple paths, and neighborhoods from both sides are connected. Old and new landmarks coexist, viewpoints that overlook new river scenes are created and elements, related to landscape and territory, are incorporated. This corridor seeks ecological rebalance and connects different green spaces in the city.

Public works are not just useful infrastructures in contemporary polis; they have strong influence in social cohesion and urban processes.

Introduction

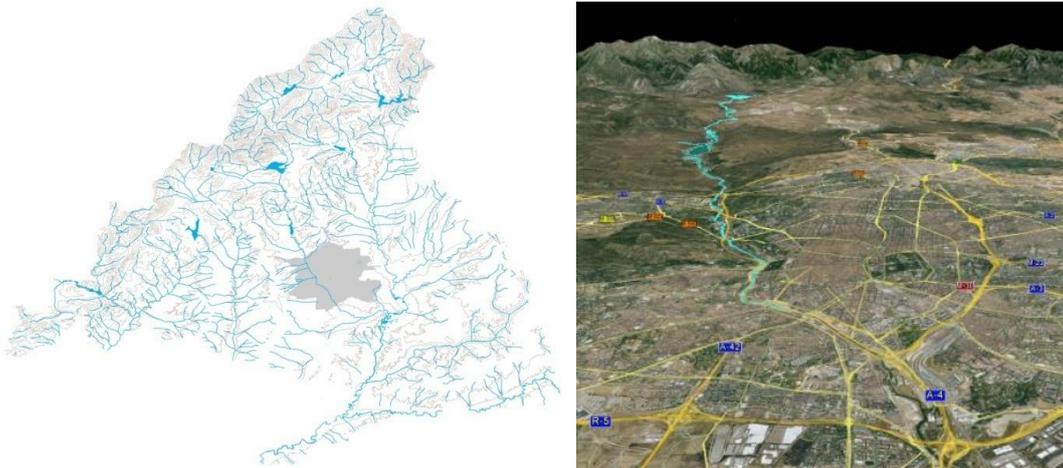
Madrid-Rio is the most important urban project in recent years in Madrid. It has been developed during 15 years (2003-2018), although most of it was opened in 2011. It covers various scales - regional, metropolitan, urban, local- and 150 different actions.

It aims to incorporate elements related to Madrid's regional landscape creating integration areas with human activity. Starting from an artificial landscape that is the city, it creates a new landscape made of several micro-cityscapes that can be watched and operated.

Madrid and the Manzanares River

The Comunidad de Madrid has a dual territory: a mountainous north area -high, arid, dry- and other south area -low, lush, wet-. River basins cross the province in north-south direction. The Jarama River is the most important river in the region and its tributary, the Manzanares River, rises in the Guadarrama mountain range and crosses Madrid City (Fig.1).

Figure 1. Forming power of hydraulic gradient with dividing and valleys.



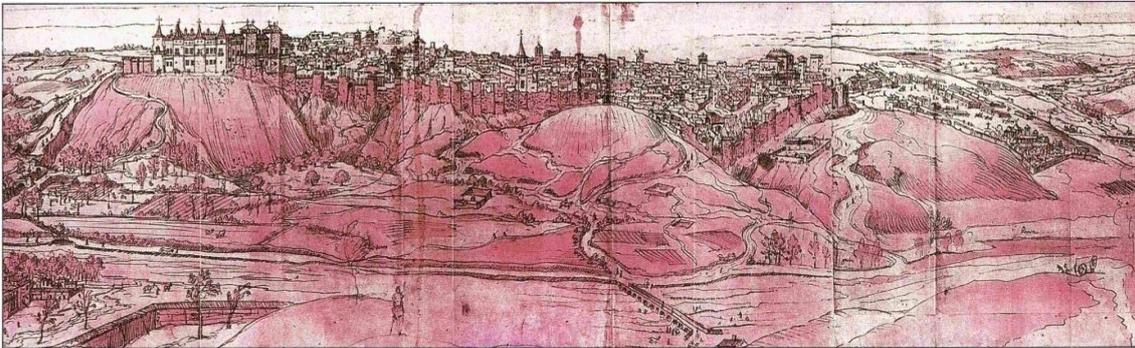
Source: Elaborated by the authors and GoogleEarth.

Madrid was settled in the step of the way from Toledo (*Toletum*) to Alcala de Henares (*Complutum*). Its old Arab name, *Mayrit* or *Magderit*, means matrix stream, mother river with an abundance of water (Buero,1992,p.181). The first Arab fortress or watchtower stood on top leaving the Manzanares River downstream separated from the settlement. Until the XVII century the city grew eastward opposite to the river. Concentric growth occurred around the citadel but never beyond the walled defensive limits. The river was seen as an element that had to be protected from because of their major floods.

Anton Van der Wyngaerde was commissioned by Felipe II to take views of his cities. In his view of Madrid it can be observed the Manzanares River banks in the foreground, crossed by the ancestors of Segovia Bridge (first term), and Toledo Bridge further south (right), monumental built years later. The Alcázar, the highlighted north building (left), is part of the walled circuit and

suffered several fires until the one that destroyed it almost completely in 1734, being replaced by the current Royal Palace (Fig.2).

Figure 2. View of Madrid from the west, opposite the Vega Gate (A. Van der Wyngaerde, 1562)



Source: Fundación Miguel Aguiló.

In the XVIII century new lines that extend to the river and connect with the few existing bridges were glimpsed. In the XIX century there is still a high concentration east and a large gap near the river. The Zuazo-Jansen Plan (1929) paid particular attention to roads and on the large ring roads proposed one parallel to the river, conceived as a large green corridor. After the Civil War, the situation changed and the city jumped across the river, overcoming the river barrier. The Bidagor Plan (1941-1946) with a structural point of view was supported by hygienists proposals and put forward a green structure for the Manzanares banks and the Gran Vía del Abroñigal (Fig.3).

Figure 3. Growth of Madrid. Scale model, León Gil de Palacio, 1830. Municipal Museum of Madrid. General Management Zuazo-Jansen (1929) and Bidagor (1946) Plan.



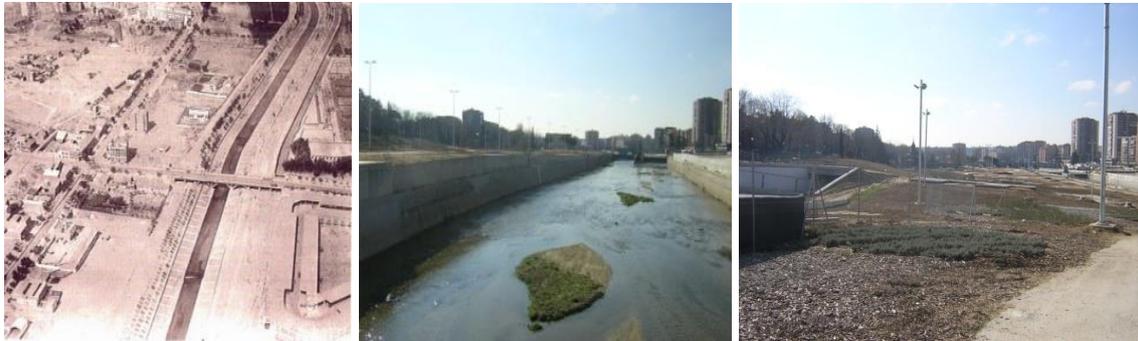
Source: Fundación Miguel Aguiló and the authors.

After a first river channeling (1914-1925) to contain its floods, a second one is carried out in 1943 by civil engineer, Carlos Mendoza, including its urban section (Fig.4).

Natural river becomes artificial channel element outside the city, with concrete and granite walls and seven dams. This enabled the quick development of new neighborhoods on the river banks since the 1950s.

The right bank had buildings arranged in a narrow rigid and linear strip close to the border; while the left bank contained the historic city separated leaving spaces in slope to buildings.

Figure 4. Madrid, river channeling, around 1920. State before Madrid-Río project



Source: Fundación Miguel Aguiló and the authors.

Madrid recovers a river and builds its landscape

In 1970 the western branch of the M-30 was built: third ring road of the capital along the avenues of Manzanares and ancient Abroñigal stream (Fernández-Casado, 1974, p.849). This large ring infrastructure followed American models avoiding the city center and redistributing the traffic to improve the connection with the periphery. This highway ran between buildings and the riverbed leaving the river hidden and concealed.

The bank became an area exclusive for road traffic, almost inaccessible with very limited footpaths since the destruction of the riverbanks. Its intense circulation made it an impenetrable aggressive barrier causing the river to remain completely isolated and disconnected from the city. This became a segregating element of central and southwest neighborhoods. Over time, this complicated accessibility and crating produced by the highway on the west bank, and the lack of security and attractiveness on the east bank, turned it into an area frequented by criminals and away from the everyday use of residents.

In 2003 the municipality decided to remodel the M-30 highway and its junctions to reconnect the river to the city center. The western branch was built underground with a long tunnel from the A4 junction in the South interchange to the A5 junction. The complex network of 30 kilometers underground roads frees space around the river and shows a new opportunity, after the previous experience of subway extensions (1996-2002). Completed the works four years later, an area of 120 hectares, equivalent to Retiro Park -great historic park center of the capital- was cleared, and provide new green areas to recover the natural landscape lost. These tunnels with an enlarged section of three lanes plus continuous input-output branches -instead of two lanes in surface- coexist with subway and other services, as the new sewerage margin that collects wastewater disposals by reducing the discharge of previous collectors¹ (AA.VV., 2007, p.178). This drop in traffic carried a significant reduction in noise pollution and emissions, increasing the environmental quality of the area and the river water itself (Fig.5).

¹ Within the Integrated Sanitation Plan of Madrid PSIM (1980-1984) Viveros treatment plant and the first collectors of the riverbanks were held, being mayor Tierno Galván.

Figure 5. M-30 tunnels

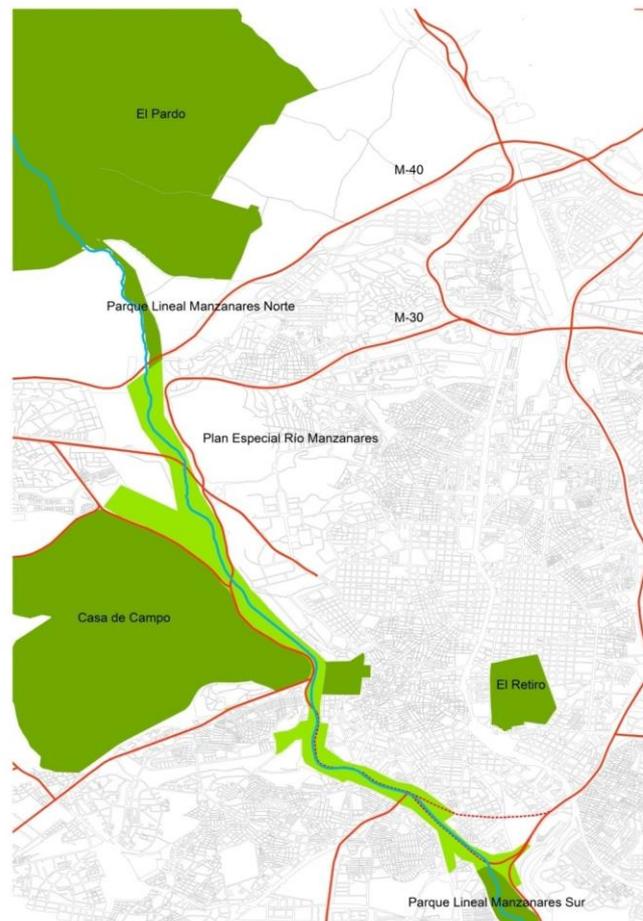


Madrid-Río an urban transformation project

In 2005, Madrid City Council tendered an international competition that would bring innovative ideas to design and project the new free spaces around the river. The winning proposal was led by three architecture studios –Burgos & Garrido, Porrás & La Casta y Rubio & Álvarez-Sala- and the Dutch landscape study West8. A multidisciplinary team with various professionals involved -engineers, architects, landscape designers, biologists, sociologists, artists, etc.- was established, contributing each one with his vision of the city and the territory.

The Manzanares River becomes the great axis of the city, the link between the urban interior and territorial outside. It aims to restore the river banks and incorporate elements related to landscape and territory, always looking for continuity and permeability of both sides. The river runs through many diverse biotopes: snowy mountains-city-fertile valleys. It tries to recognize all the natural elements of the river basin to incorporate them into the project. The river instead of being a barrier element balances the city center.

It starts a new green network connecting the city with other green spaces. It becomes a link of an environmental corridor of nearly 3,000 hectares within the municipality, from El Pardo to Getafe, connecting important green areas -Casa de Campo, Arganzuela Park, and South Manzanares Park-. This new project contributes to ecological balance with its 429 hectares of new green areas: 33.623 trees -47 different species, mainly pine, ginkgo biloba, plane tree, ash and horse chestnut-, 470.844 shrubs -38 species especially aromatic and climbing plants-, and 210.898 square meters low water demand meadow. The river also becomes a migratory wildlife corridor which moves between the northwest parks -Casa de Campo, Parque del Oeste and El Pardo- and large southeast parks -South Manzanares and Tierno Galván-, acting as open and peaceful axis of communication for birds and night shift animals (Fig.6).

Figure 6. Madrid-Río and connection to other parks

Source: Elaborated by the authors

Six landscapes are designed and executed that make a unitary whole (Burgos, 2014,p.114):

Landscape 1 – Mountain range: Pine Hall. This green corridor is an element of continuity on the right bank for 6 kilometers and average width of 30 meters. A landscape on the large deck of the tunnel is built, dense topsoil with almost forest character. Vegetation is used as the main structural component. One species is chosen: Aleppo pine (*Pinus Halepensis*), and 9.000 specimens are selected with natural morphologies. It is intended to give the city a piece of the mountains with its pine forests. On an underground inert substrate, modified and excavated for the car, a landscape with living matter is made. The park is attached to the construction of the underground infrastructure; for implantation takes into account irrigation, anchoring the trees to the tunnels concrete slab by steel cables and biodegradable flanges. This band of woodland walk, in addition to the central pedestrian avenue, it has a bike lane; both link the various activities promoting continuity of routes. It connects different types of riverside gardens with leisure areas, equipment and natural forms playground with sustainable materials emphasizing its forest character.

Landscape 2 - Travel to Lisbon: Portuguese pavement. The paved boulevard of Portugal Avenue acts as a filter between La Latina dense neighborhood and Casa de Campo Park. Various elements are taken to evoke the trip: Portuguese pavements -executed by Portuguese craftsmen-, four species of cherry trees from the west valleys (*Prunus avium*, *P.avium 'Plena'*, *P.yedoensis*, *P.padus*), and the cherry blossom drawn on the pavement itself (Fig.7).

Figure 7. Travel to Lisbon: Portuguese pavement



Landscape 3 - Line in History: Monumental scene. It aims to give a new scenic background to existing heritage elements creating a new urban landscape. Interventions take on the monumental and scenic character. The project intends to link the historic center and recover the imposing image of the Royal Palace on the high ledge of the city. Several restore operations of heritage elements are performed and surroundings are recovered -Segovia and Rey Bridge, Huerta de la Partida, Virgen del Puerto hermitage, etc- (Fig.8).

Figure 8. Pine Hall and Segovia Bridge (J. Herrera, 1582-1584)



Landscape 4 - Meeting with the bank: Toledo Bridge. The baroque language of this bridge of the XVIII century is recovered. It is transferred to the ground through the drawn or graphing landscape, performing a figurative contemporary interpretation of Madrid language hedges. A stands allows a closer approach to the river and to contemplate the bridge.

Landscape 5 – River remains: Arganzuela Park. It is the greater unity and dimension intervention with 33 hectares. It is made on the old Arganzuela Park (1968-1969), along the left bank of the river Manzanares from Toledo Bridge to the old municipal abattoirs in Legazpi

Square, on a flat rectangular surface. References to place where there was an old farmstead date back to the XV century (Fernández,1876,p.397). The Catholic Kings gave license to the Villa de Madrid to form a pasture with walks buying vineyard and grass land from several private individuals. In 1819 one of the headwaters of the Manzanares Channel and one of the piers were built. After the failed attempt in 1860 to turn it into a plant nursery because of the irregularity of the terrain and its large influx of visitors as part of popular celebrations, City Council formed small forests in which resting squares were opened. Gradually the various pieces were built -slaughterhouse, workshops, etc.-, becoming one of the green areas projected on the riverbanks, contemplated by the 1941 General Plan, to form the current Manzanares Linear Park.

It was designed in two phases, in line with the projects for new roads for traffic and junctions: the first phase in 1968 with 12 hectares (from Toledo Bridge to Praga Bridge) and the second in the 1980's with an expansion of 25 hectares, resulting from the transfer of Madrid's old Markets to the Entrevías area. Its author, Herrero Palacios, architect Director of Parks and Gardens at that time, seeks to "get a park with a concept different to others recently projected, as site characteristics so indicate, and the arrangement between the river and the Paseo de Yeserías made it possible to obtain a park of a type less landscaped and composed around a very important central element" (Herrero,1969). This central element, wherein the main paths converge, was an elliptical lake -110x60 meters- with water features and fountains. Placed at its centre was the obelisk –previously located in the Plaza de Roma and before that in the Paseo de la Castellana– commemorating the birth of Queen Isabel II, the work of F.J.Mariátegui and J.Tomás. "From the pond, surrounded by a skating rink, and beautiful iron lampposts with five arms, depart, to the north and south, four straight paved walks and flanked by trimmed yew trees and magnolias arranged divergently, leaving among them lawns with roses. The rest of the woodland consists of white poplars, pines, cedars, cypresses, cherry plums, etc., many of them placed on green screen formed by the M-30" (Ariza,2001,p.118). In this first phase an area was also designed passing over the gardens in the form of a boulevard made up of four parallel rows of wild plane trees to the Paseo de Yeserías, at a total length of 450 meters with 350 trees (Jiménez,1977,p.176). The Paseo connects to the gardens by means of ramps and stairs and its high level allows you to look over the lake and the bushy, floral groups of the composition. Once resolved parking problems out of the main traffic street, the first phase was inaugurated in 1969 by the then Mayor, Carlos Arias Navarro (Hernández-Lamas,2016) (Fig.9).

Figure 9. Old Arganzuela Park. Plant and perspective



Source: Herrero Palacios, 1969.

The new Arganzuela Park intends to evoke the natural mountain landscape, bringing stones as if they had been rolling down from the mountains. Water appears and disappears retaking the idea of wet and dry which characterizes the basin center. The river is the park builder, drawing the ground with meanders that create spaces, even an urban beach, consists of three ovals 500 meters long with water surface of 3 centimeters deep, accompanied by jets games and vaporized water clouds to cool. Three longitudinal paths run through the spaces: Slow path -sinuous and variable slope-, Fast path -plane and wide-, and Dry Stream -cobble strip with leafy margins, backbone of the park center-. This patch of the river basin has three botanical areas: Mediterranean forest, Atlantic forest and riverside frond. The wooded texture with variety of species, heights and densities, is interspersed with aromatic surfaces, orchards and meadows slopes inclined towards the water. This large grove contains several natural and built landscapes, interspersed with recreational facilities and sports -football field, two skating rinks and three children's areas-. Old ornamental fountains intermingle with new water games where the observer interacts inside (Fig.10).

Figure 10. New Arganzuela Park



Landscape 6 - Water and blood: Matadero. The complex of old slaughterhouse (1907-1925) was made by the municipal architect Luis Bellido, with the collaboration of engineer J.Eugenio Ribera. It followed the German system of isolated pavilions -48 buildings, employee housing and chapel linked by roads and its own railway-, to mitigate the health problems and accommodate industrial and commercial activities. This isolated and obsolete whole is incorporated in the park as a new great cultural resource for the city: *Nuevo Centro para la Creación Contemporánea* (2005). Old buildings are recovered to turn them into new visual landmarks, as the high water tank; and gradually old pavilions restored, chaired by the administrative building of the Casa del Reloj -current Municipal District of Arganzuela headquarters (R.Fernández-Rañada, 1983-1984)-² in the composite main axis (AAVV,2003,p.126). The removal of physical barriers like part of the slaughterhouse ancient wall, along with new green areas, allow connection between the urban grid and river landscape, between old and reused. This is helped by ground work, meaning the built elements and

² The stabling and calves nave turned into space for cultural activities (R.Fernández-Rañada, 1985-86), potatoes nave into greenhouse (G.Costa, 1990-92), beef stables into the National Ballet of Spain (A.Fernández Alba, 1990-99), cold storage into showroom (2007), slaughter nave into theater (E.Esteras, 2007-2010), Cineteca and Archive (J.M^oChurtichaga, 2011), Casa del Lector (A.García-Abril, 2012), etc.

incorporating everything needed for new uses and proper operation. Treatment of dry soil - without vegetation- uses connecting itineraries promoting permeability and forming a continuum between the river and the city. In this landscape the large outdoor open and empty spaces are of great importance incorporating the cultural center with activities and outdoor events: concerts, exhibitions, fairs, etc. Thus a new sociocultural highly active focus within the capital arises (Fig.11).

Figure 11. Matadero: central plaza and connection to the park



Living the river

The city is understood as an organism where there is an interaction based on coexistence. As the road is the collective housing (Benjamin,1940,p.871) with pedestrians and cyclists flows, the river becomes a place of cohabitation. In this set of green spaces that infiltrate the city, various compatible river uses are integrated, highlighting the recreational: cultural, educational, sports - football pitches; basketball, handball, paddle and tennis courts; skatepark and roller skating; climbing wall; bike circuit; canoeing channel; petanque and fitness areas for the elderly-. Children also have their space with 17 children's areas highlighting Arganzuela with zip line, giant slides and pirate ship.

The network of pedestrian paths and 30 kilometers of bike lanes that link to the Green Cycling Belt -on the north by Casa de Campo and on the south by Manzanares linear park to Getafe- are not only infrastructure for leisure but they cover the common needs of mobility and accessibility, reducing private traffic and increasing the urban integration and quality of neighboring districts. In a metropolitan scale it is part of the GR 124 -*Gran Recorrido* of the European Trails Network, from Manzanares el Real to Aranjuez-. Another major operation has been renewing streets and sidewalks of the riverfront, built with poor quality standards and damaged by the M-30 effect; a predominance of granite brings unity to the complex.

The river is incorporated as an unprecedented double facade; the city no longer lives back to the river. The riverscape is an edge stage fragmented into two landscapes. There is a dialogue between the two sides: two landscapes that look each other from side to side in an open space to the visual (Español,2008,p.172). It has a linear arrangement with reduced dimensions and affordable to the observer. In Madrid-Rio vegetation marks the character of the two banks: the right, -more dry, evoking the landscape of the northern mountains with pine trees that provide shade all the year- and the left -more wet, connected with the river and with more fountains, with deciduous trees and large grasslands-.

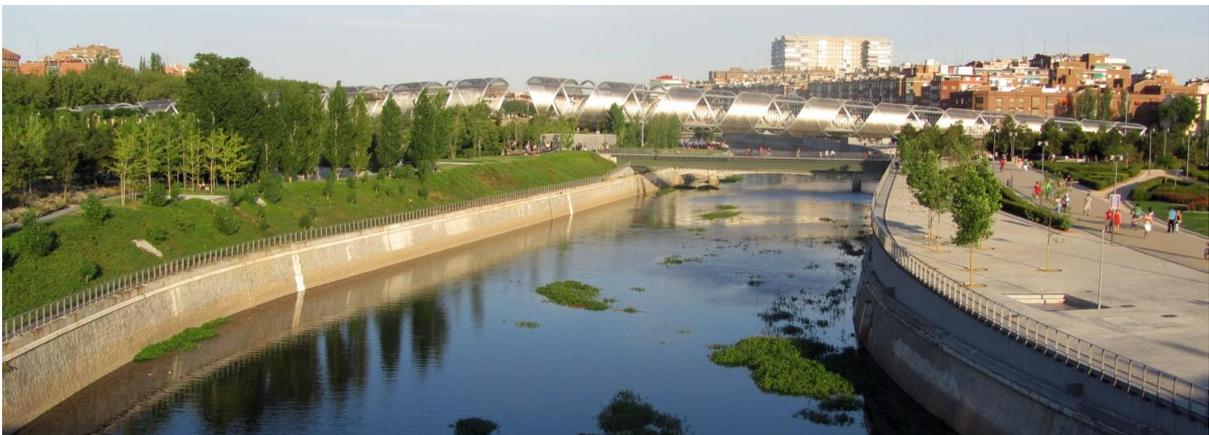
In this riverscape the scenic role of the bridge is highlighted. In addition to enabling better connection between both sides, they become new landmarks of the landscape, screen in front of the observer's views and objects that can be viewed from various angles and distances. Old is recovered, and pedestrian access is improved in historic bridges by reforming widening sidewalks, introducing bike lanes and improving their railings. Two bridges are restored - Segovia and Toledo Bridge-, and Rey Bridge is recovered exclusively for pedestrians and cyclists. 32 new bridges and footbridges for pedestrians and cyclist are created, including the conversion of Herrera-style historical dams into pedestrian walkways. All these new elements become part of the Manzanares cultural heritage. The new meanings are welded or overlapping the previous and witness to the past, building the character of the city and becoming part of its unitary image collectively taken by citizens (Aguiló,2013,p.244) (Fig.12).

Figure 12. Arganzuela Bridge and Invernadero & Matadero twin bridges, decorated with recycled glass mosaics by Daniel Canogar



The project pays special attention to visual enclaves performing viewpoints: Huerta de la Partida, San Vicente and South Viewpoint. These scenically strategic points or panoramic points are enabled to observe the landscape: the accesses are arranged and railings and interpretive panels are introduced. Also many bridges -Segovia Bridge and Arganzuela Bridge- offer the function of viewpoint from which to contemplate the other bridges and landscape (Fig.13). In turn, the network of pedestrian paths and bike lanes is a scenic route as the preferred route from which the landscape is seen in a cadence or special series of views.

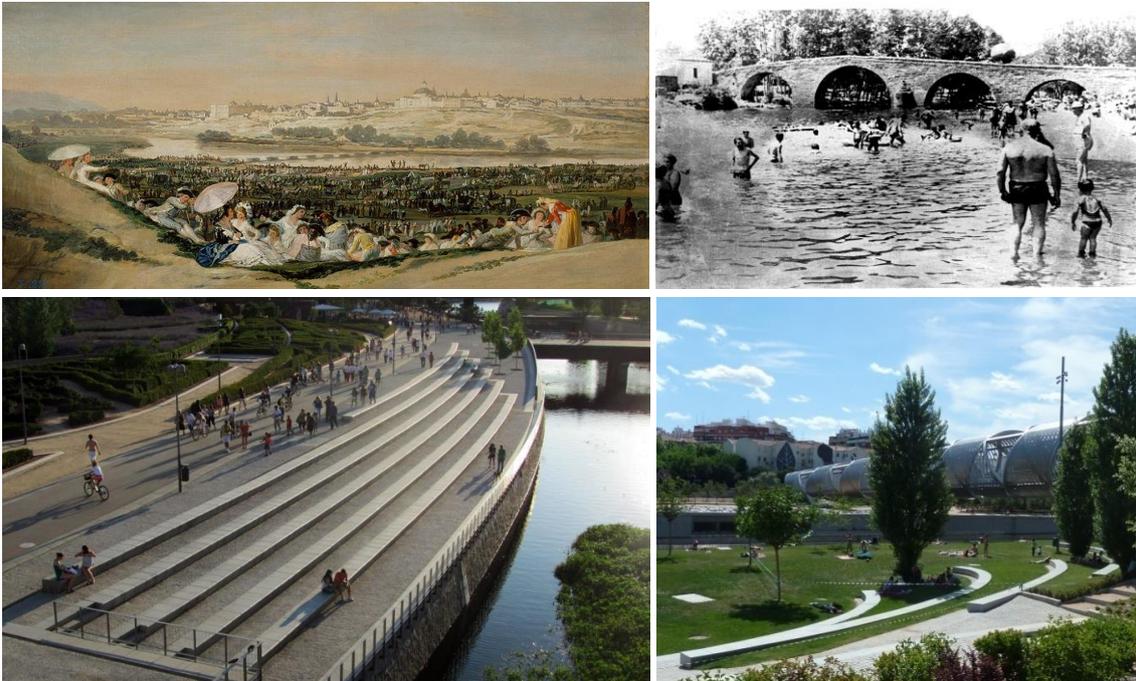
Figure 13. Monumental Arganzuela Bridge (Dominique Perrault, 2010-2011) viewed from another footbridge.



This project is able to recover the image of Goya painting *La pradera de San Isidro*, where the city appears view from the southwest, and something different from A.Wyngaerde two hundred years ago. The Alcázar has been replaced by the Bourbon palace, Segovia Bridge (left) is the current, and the profile of the huge dome of San Francisco el Grande dominates the rest of churches of the town; north (left) mountain Principe Pío is perceptible (Fig.14). Today people come down the river and turn it into a real landscape: life experience, in the same way as they used to be in the Manzanares traditional bathrooms.

Special importance is given to the dissemination and participation involving citizens in the project. Two websites were created, one of Madrid City Council -www.madrid.es- and one of the park itself -www.parquelineal.es- to provide information and collect different opinions and suggestions from residents of various neighborhoods and districts affected.

Figure 14. *La pradera de San Isidro* (Francisco de Goya, 1788). *Playa de Madrid* with San Fernando Bridge, 1932. Madrid-Río nowadays



Source: Fundación Miguel Aguiló and the authors

Discussion

This compromised operation was promoted by Mayor Ruiz-Gallardón for two terms. He turned "his dream" real and defended the plan as "an example of the transformative power of politics" (Ortega,2008). The project has been politically and socially controversial, because of the duration of the works and high investment, -3,688 million in the undergrounding and 410 million Euros linearly park-, more than double the amount budgeted. In turn he defended the creation of 94,000 jobs during construction reaching 32,000 jobs in the long-term impact on the

production structure of the city (Díaz,2011) and the revaluation of all houses in the area doubling its value thanks to the project.

Motorway networks improve the connection, but also act as barriers demarcating land use. Madrid-Rio project is one of the largest urban transformations that has lived Madrid, an international example of recovery of public space for citizens, without losing the traffic capacity of the large underground ring road M-30. This type of major project and complex operations keeps similarity to other made in large metropolises that defend the public and the collective benefit. Urban transformations that are committed to the pedestrian and public space with large parks and waterfronts built on the freed space by burying or demolish old infrastructure -the Embarcadero Freeway was taken down (San Francisco, 1989), Cheonggyecheon Stream (Seoul, 2002-2005), destruction of the Park East freeway spur (Milwaukee, 2002-2003), Rose Fitzgerald Kennedy Greenway from demolition of the J.F. Fitzgerald Expressway under the Big Dig (Boston, 1982-2007), the dismantling of railways for Millennium Park (Chicago, 1990-2004), the next largest urban park in the United States: 140,000-acre Millennium Reserve (Chicago, 2011-), etc.- (Kimmelman,2011).

Comparing Madrid-Rio with the linear park High Line in New York on an old freight railway, both projects are linear stage scenes that get a new urban image; recover landscapes and create new landmarks, uses and activities allowing the regeneration of the area and a more social approach. However, there are differences; while the High Line is made on an obsolete infrastructure, and it is a private initiative, management and maintenance -*Association Friends of the Highline* with the support of Mayor Michael Bloomberg- (Hernández-Lamas,2014,p.366); Madrid-Rio project is carried out on an active infrastructure, and its initiative, management and maintenance are public.

The city is understood as a system of places that specify the relationship between man and territory. Madrid-Rio project evokes Guadarrama mountain range, main natural public place in Madrid which is associated with water. Water is presented as a vehicle of nature itself (Aguiló,2013,p.93), brings mountains to the city. The presence of public works brings the territory to the city.

The different interventions can transform the city landscape getting a new image by incorporating the Manzanares River in the new, more sustainable and balanced urban setting. This river is perceived as closer element allowing to connect the two banks. It protects and adds value to the historical and artistic heritage joining the city. This initiative of great social success improves the quality of life of citizens by creating new leisure areas and incorporating flora and fauna, along with new sensations (colors, smells, sounds...) and souvenirs. It increases the supply of recreational, sports and cultural activities, promoting social relations and meetings between residents. It establishes an integral mobility and accessibility system, allowing interconnections between different urban pattern and promoting cross-connectivity. It has been awarded with the recent Harvard Prize in Urban Design for its great work in the city repair and regeneration (ABC,10-11-2015).

However nowadays one of the great criticism from environmentalists is that there is little river in Madrid-Rio. It has recovered M-30 space but has not intervened in the channel, bypassing the current environmental regulations of the river as safe protected space except in its urban

section. A new project to "re-naturalize" the river is proposed, by cleaning up and restoring its banks with riparian understory, and so make it a living element.

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WHERE IS THE LIBRARY?

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Key words: library design, urban composition, public transport, degree of accessibility of public buildings

Abstract

Urban tissue is composed of public spaces and their complementary buildings, most of which form a background for the less numerous monumental structures. Their value and importance is derived from the part they play within the city (for instance that of a church, a museum, an opera, a train station, etc.), and which finds its confirmation in their distinct architectural form and deliberate placement in areas that are vital to the perception of the form of a city. The compatibility of these three components – those of status, distinct architectural form and deliberate placement – makes them *important structures*. Regardless of historical, political or economic circumstances, the form of important structures has always been an expression of the aspirations and capabilities of a given period. Over the centuries, libraries have been a part of this group of structures. Currently, due to the civilisational transformation tied to the advancement of information technologies, the status of libraries within cities is undergoing substantial changes. Their modern architectural form is changing as well. In many cases it no longer expresses such values as durability, stability and solemnity, which had defined library buildings over the centuries, providing them with a particular distinctness. Is the deliberate placement of libraries in areas that are important to the perception of the form of a city still important in the face of the changes that are affecting the other two components that have been previously mentioned? The paper includes one of the possible answers to the question: *where is the library?*

The only thing that you absolutely have to know, is the location of the library.

Albert Einstein

The new role of libraries

The desire to gather all the knowledge and all of the experiences of the universe in one universal archive, that is going to encompass all locations and time periods, and which itself is going to be located away from the destructive reach of time, has accompanied humanity since

the dawn of history. Throughout the ages, this desire has remained unchanged, despite the shifting needs and aspirations of man and the technical possibilities that were the deciding factors behind the forms of library buildings. The effects of the aforementioned aspirations were library buildings that, apart from fulfilling their main utilitarian role, expressed the contemporary values of a given time and the distinct qualities of libraries, such as durability and safeness, but also openness and harmony¹.

The changes in spatial and temporal relations that are currently happening in relation to numerous institutions and public spaces due to information technology, have caused the concept of the library to undergo a process of redefinition. The modifications are, for the most part, focused on the structure, the functional programme and the services that are being provided, which evolve under the influence of information technology. The changes are expected to result in conditions that are going to be conducive to the upholding of the feeling of cultural continuity and identity, which seems particularly important in a situation that features the drastic acceleration of civilisational processes, something which does not remain without influence on the psychological condition of man. [...] *The most crucial task before us is not one of putting in place the digital plumbing of broadband communication links and associated electronic appliances (which we will certainly get anyway), nor even of producing electronically deliverable "content", but rather, one of imagining and creating digitally mediated environments for the kinds of lives that we will want to lead and the sorts of communities that we will want to have.* (Mitchell, 1996, p. 5).

Transitional periods are marked by uncertainty and disorientation. Routines and old habits tied to a well known status quo are often replaced with resentment and irritation. However, these transitional periods are also a time of searching and creative ferment. This description also applies to libraries. A lack of certainty regarding the future fate of books and libraries generates energy and involvement in the search for a new formula of the library of the future. The immense diversity that regards both the search itself, the resources that are available, as well as the goals that have been set, causes a wide diversification in both the final solutions, as well as in the routes that had been taken in order to develop them. In his photographic essay titled *Borrowed Time. How do You Build a Public Library in the Age of Google?*² published in the online *Slate* magazine, Witold Rybczyński³ presents – in a very compact manner – the possible strategies of the functioning of libraries under these new conditions. The starting point of his deliberations were the results of an audit ordered by the municipal authorities of the city of Washington, the conclusions of which included a recommendation for the demolition of the central library designed by Ludwig Mies van der Rohe – built in the 1960's – and replacing it with a new building. The justification for the recommendation in the opinion of the municipal authorities was the fact that the current library was outdated, as it had been built long before the onset of the digital world. Rybczyński pointed out that many American cities, aware of the

¹ B. Homiński, *Wpływ współczesnych przemian cywilizacyjnych na nową rolę bibliotek w strukturze miasta*, doctoral thesis developed under the supervision of dr hab. inż. arch. Anna Palej, prof. PK, Krakow, 2011.

² <http://www.slate.com/id/2184927/>, retrieved on 25.03.2016.

³ Witold Rybczyński – an architect, writer, critic and professor of architecture, who strives to popularise the topic of architecture among non-professionals. Author of the books *Home: A Short History of an Idea* and *The Most Beautiful House in the World*.

coming changes, built new library buildings in the final decade of the XX century. As an answer to the new challenges faced by these institutions, they have been provided with computers and their functional programme has been expanded to include additional elements such as auditoriums and exhibition halls. An expression of the uncertainty regarding the future fate of libraries is, on the one hand, the commonly used monumental architectural costume, which made many of the libraries that have been built at that time (for instance in Chicago, San Francisco or Nashville) similar to the XIX century public buildings in the Beaux-Arts style, expressing a yearning for stability, durability and predictability. On the other hand, the statement that the aforementioned qualities should no longer be used to describe libraries has become the starting point of the search for a different vision. A goal of escapades, a meeting place, where something is always going on, where it is good to be seen and which resembles a Starbucks⁴, this is the new image of a friendly library, known to us from some American cities (Seattle, for instance). Rybczyński finished his essay by concluding that the role of libraries as a meeting space is still viable and is tied to the old need to meet face to face with another person. In this statement Rybczyński agrees with Umberto Eco, who in the year 1997, while speculating on the subject of the changes that are going to be brought about by universal Internet access, stated: *I don't see the point of having [...] people online at all if all they are doing in the end is talking to ghosts in the suburbs*⁵.

It appears that the currently observed changes that libraries are undergoing are of a different character than those which have been forcing the evolution of the form of their space up to the end of the XX century. Until now, these factors have mostly included the emergence of new carriers of information and the rising pace of gathering the elements of their collections. The current change is fundamental and involves primarily the symbolic layer of the concept of the library itself, while it expresses itself in the process of the abandonment of treating libraries as *treasure troves of wisdom* or as *places where wisdom is cherished and access to it is celebrated*⁶. They are to be replaced by *libraries that are human – libraries that are joyful, where you can drink a cup of coffee with cream [...] – a library, which a person wants to visit and which is going to gradually transform into a giant machine for spending free time in, like the Museum of Modern Art, where a person can go to the cinema, to take a stroll around the garden, to see the sculptures or eat a two course dinner*⁷.

The new architectural forms of libraries

In 2007 Andrew McDonald, who, at the time, was the director of the library of the University of East London in Great Britain, provided a revised and updated version of the then-acceptable

⁴ Starbucks – a global chain of coffee shops with over 23 thousand branches all over the world, which bases its mission on the concept of the third place, coined by the urban sociologist Ray Oldenburg, cf. R. Oldenburg, *The Great Good Place*, Da Capo Press, New York, 1999.

⁵ A statement made by Umberto Eco in an interview by Lee Marshall, Wired, <http://www.wired.com/1997/03/ff-eco/>, retrieved on 25.03.2016.

⁶ J. Kabrońska, *Forma rozwiązań architektonicznych jako droga realizacji idei biblioteki przyszłości*, doctoral thesis written under the supervision of prof. Marian Sztafrowski, Faculty of Architecture of the Gdańsk University of Technology, Gdańsk, 1993, p. 5.

⁷ U. Eco, *O bibliotece*, Świat Książki, Warsaw, 2007, p. 47-48.

standards of designing library buildings⁸ in a groundbreaking article titled *The Top Ten Qualities of Good Library Space*, in which he included the changing needs of their users, the spread of information technologies and the tendencies that were emerging in the contemporary designs of such buildings. The theses that had been formulated by McDonald and were later published, have the character of guidelines and factors to be discussed before commencing with the design work on a library building, rather than being a strict set of requirements. In terms of their application to architectural design, they pertain first and foremost to the functional aspects of library buildings. Apart from a set of ten qualities of a good library space, which were mostly based on earlier standards, Andrew McDonald mentioned another quality desired of a library, which he called the *wow factor*, or the *oomph factor*. Through the use of this hard to define quality, McDonald understood a distinct space, which captivates the minds of its users and expresses the spirit of the institution. In terms of architecture, it should have the capacity to surprise and make a strong impression on the observer. The *wow factor* is thus a part of a library that is immensely dependent on the actions of its architect. Since the end of the 1990's, the *wow factor* has been deliberately used by clients, architects and architecture critics as a desirable trait of buildings, especially public ones – libraries included. The method of the implementation of the presence of the *wow factor* in the design of a library building can be influenced by, for instance, the mission of a library, the wider context in which a library is being established and, first of all, the sensitivity and talent of the designer.

If the role, function and importance of modern libraries are undergoing far reaching changes – as has already been mentioned – we can assume that the typologies that have been established over the years, as well as the tried and tested functional and spatial solutions or ingrained architectural costumes of libraries, and perhaps even the modernist tenet that the form is to follow function – are also going to be subjected to a revision. This is indeed happening right now. The search for the presence of the *wow factor* is expressed through architectural designs that are characterised by, among other things:

- the combination of the function of a library with other, often equally important components within larger complexes, the combined function of which is not identifiable through their architectural form;
- the interconnection and mixing of the exterior and interior space, which leads to innovative solutions which blur the line between the interior and the exterior;
- the combination of often opposing qualities within a single building and the unwillingness to chose between two mutually exclusive options;
- the abandonment of set patterns in favour of a deeper analysis, an individual approach and, as a result – a unique, often shocking solution;
- the combining of public and private interests into one structure, and
- the styling of interiors based on a distinct visual motif.

The qualities mentioned above are conducive to the construction of mixed-use buildings. The parts that enrich their often complex programme can also be composed of other cultural facilities, non-government organisations, as well as commercial entities. In order to better

⁸ The so-called 'ten commandments' of planning libraries by Harry Faulkner-Brown.

integrate each of these elements, the interior circulation space can be shaped after the manner of external public spaces – streets and squares. Such buildings, due to the functional and spatial complexity of their architectural form, often utilise one of two mutually opposing strategies: - that of outlining each element of the mixed-use building within its massing, or - the unification of its constituent elements within a cohesive form, behind a unified facade.

Where is the library?

Is the deliberate placement of libraries in places that are important for the perception of the form of a city still important in the face of the changes in terms of the tasks that are currently being fulfilled by libraries in the lives of societies and the shifts in regards to the architectural form of their buildings? Does discussing the placement of a library within the plan of a city still have merit in a time of a widespread *connection to the cloud* from any possible place, and in which *our libraries are made without walls, meant for books without pages*⁹?

The substance of a city is composed of a network of public spaces and its complementary built environment. Two types of this environment can be easily distinguished within historical cities: the neutral type, used mostly for residential purposes and which is clearly dominant in terms of its area, as well as the monumental structures which stand out from their background. The latter group has mostly been composed of the fortifications of cities, temples, the residences of rulers, theatres, places of commerce, exchanges, museums, offices, train stations and other public buildings. The scale of their massing, the materials they were built with and the language of their architecture have been subjected to the role and status of a given structure within the life of a community and in the plan of the city, and – in accordance with the principle of appropriateness (*decorum*) – communicated the type of institution that was housed within. The importance of monumental buildings found its confirmation in the form of three components - a particular type of use, a distinct architectural form and a location in an area which was important in the life of a community and the perception of a city¹⁰. It was also highlighted by the deliberate composition of public spaces that helped to make a city more legible - the streets and squares, with a logical pattern of axes, planes, accents, dominants, etc., in which the strong and dominating forms – potential points of orientation – are characterised by a placement that is adequate to their size and character.

The modern guidelines regarding the placement of libraries stress its practical aspects. The aforementioned guidelines by Andrew McDonald direct our attention at the physical accessibility of a library building and an arrangement that minimises the psychological barriers that potential users can come across. The guidelines provided by professional library associations, on the other hand, point to:

- the physical accessibility of a library with various forms of transport, with preference towards group transport for a group of future users;
- placement in the vicinity of other institutions –both public and commercial – that are important to the functioning of local communities;

⁹ J. Browning, *Libraries without Walls for Books without Pages*, Wired, 1, 1993.

¹⁰ J. Gyurkovich, *Architektura w przestrzeni miasta. Wybrane problemy*, Wydawnictwo Politechniki Krakowskiej, Krakow, 2010, p. 59.

- the potential positive influence of a library on its surroundings.

Contrary to theatres or museums, libraries are cultural institutions that are regularly visited by the same users. It is due to this reason that the most desirable location for one is to be placed centrally within the area that is to be serviced – be it a university campus, a district or a city.

The following paragraphs contain a discussion of two examples of library buildings that have been built in medium-sized Polish cities, and which include novel solutions regarding the placement of libraries in combination with a node of the rail transportation network.

Stacja Kultury

The public library in Rumia has been operating out of a new building since the year 2014. It takes up, along with a group of non-government organisations, the larger part of the existing train station. The other, smaller part (around 20% of the building's area) is taken up by the spaces required for the servicing of the passengers – their size having been greatly reduced in accordance with modern standards. The atypical use of the former building of a train station for the purposes of a library became a pretext for it to begin operating under the name *Stacja Kultury*¹¹ (*Culture Train Station*, or *Train Stop Culture* in English), which found its reflection in the design of its interior, which features numerous references to the railroad-related past of the building. The clever arrangement of the interior designed by the Sikora Wnętrza interior design practice has been awarded the *Library Interior Design Award* in the year 2016 in the *Single Space Design* category by the *American Library Association (ALA)* and the *International Interior Design Association (IIDA)*. Despite the fact that the library in Rumia is not located within the geometric centre of the city, it is placed in a central location in terms of functionality, as it has a good degree of accessibility. Rumia is a city of around 50 thousand inhabitants and lies along the route of the SKM rapid transit railway – the main element of the public transportation system of the Gdańsk agglomeration. It only takes 20 minutes to get to the neighbouring Gdynia, while in the case of Gdańsk – the capital of the region – around 50 minutes. During peak hours, the trains arrive and depart every 7 minutes. Furthermore, there is a transit node for buses that bring passengers in from other parts of the city, complementing the main public transport system, while the majority of the city is within 20 minutes of walking distance. The good transportation ties of the city with the agglomeration cause many of its citizens to use the trains of the SKM in their daily commutes. The train station in Rumia is thus not only an element of its transport infrastructure, but also a space of transit, a gate, which forms a border between the city and the agglomeration. A library which is placed in such a favourable location, along the way to the daily travels of the residents of the city, naturally attracts travellers. The convenient working hours are also conducive to this effect – the library is open four days a week, to 8 PM. The arrangement and the interior design address both the needs of those users who wish to quickly rent a book, as well as of those who wish to spend some time in it.

¹¹ On the topic of using branding in the operation of libraries, see. B. Homiński, *Rola wizualnej komunikacji marketingowej w kształtowaniu architektury i wnętrz budynków bibliotek*, Zarządzenie Biblioteką 1/2013, Gdańsk 2013, p. 19-29.

Figure 1. The interior of *Stacja Kultury* in Rumia

Source: author's original photograph.

As we can see in the photograph, the counter of the book rental section and the larger part of the collection are located on the lower level of the library. This is also the place where the space for the youngest readers was designated. On the mezzanine, which has been introduced into the interior of the formerly single-level train station hall, one can find, among other things, a press corner with a sofa, workstations with computers, and the remaining part of the book collection. The industrial lamps and the sofas facing each other, forming lounges, which bring to mind the layout of the seats of the rapid transit trains, also draw attention to themselves. The eye-catching design intervention was limited to the interior of the building. From the outside, nothing but the stylised sign reading *Stacja Kultury* speaks of this peculiar form of use of a train station.

To sum it up, the library in Rumia has taken up the larger, currently obsolete part of the existing train station building. The structure is an interesting example of using existing transportation infrastructure for new purposes. The new location of the library, despite being placed outside of the geometric centre of the city, is convenient for its inhabitants, many of which make their daily travels within the Gdańsk agglomeration using the rapid transit railway. The library benefits from being situated *along the way* and from extended operating hours, rather than from a central location, as it *delineates* the social centre of the city.

Sopoteka

Sopoteka is the name of the newest and largest branch of the public library of Sopot, which has been operating out of a newly built mixed-use building called *Sopot Centrum* since 2015. The building has been built under a public-private partnership on former railroad land, in place of a former train station. Sopot is a city of around 37 thousand inhabitants, located at a distance that can be travelled in 13 minutes by the SKM train from Gdynia and 21 minutes

from the centre of Gdańsk. Sopot, along with Gdynia and Gdańsk is called the Tricity (*Trójmiasto* in Polish) and forms the central part of the agglomeration of Gdańsk. Sopot is also a resort and one of the most popular places for summer vacations, known, among other things, for its wide sandy beaches and the longest wooden pier in Europe, which has a length of over 500 metres. The *Sopot Centrum* building lies, in a manner similar to the building in Rumia, near an SKM train station, and, apart from having sections that serve as a train station and a library, also includes service, gastronomic and commercial spaces connected by internal and external walkways, forming a natural extension of the network of the public spaces of the city. The train station in Sopot, contrary to the one in Rumia, is located in the very heart of the city, near the main promenade leading to the pier, and is surrounded by residential buildings, most of which are located within 15 minutes of walking distance away. The *Sopoteka*, located on the first floor of the mixed-use building, takes up only one of its sections. It is thanks to this composition of the functional programme that an effect of synergy arises – the influence of the whole of the functional elements of the building is strengthened in a much greater manner than the sum of its parts would indicate. The aims of visiting the building become diversified, and each of the sections mutually push visitors into each other. Just like the *Stacja Kultury* in Rumia, so does *Sopoteka* advertise its operations by using its own unique name – its brand. However, there are more similarities with the library in Rumia – the authors of the original arrangement of the interiors are, likewise, the Sikora Wnętrza practice, and the leading design motif references the cultural heritage of the place. In this case, the key motif focuses on the city being a resort and a place of recreation: the interior has a light, sandy colour scheme, with wooden elements and the use of cream-coloured textiles. The large space of the library has been divided into a number of different zones, which is reflected in the diversity of the elevation and the materials of the floor and the furnishings.

Figure 2. The interior of the *Sopoteka* in Sopot



Source: author's original photograph.

The elements that make the interior stand out are sun beds, poufs and so-called beach baskets – freestanding booths for individual work, inspired by wicker baskets – which were once distinct elements of Baltic beaches. The *Sopoteka* is characterised by working hours that are convenient for its users – six days per week, from 9 AM to 8 PM. The Sopot library's peculiar challenge is the expected seasonal difference in the number and type of users. Due to a beneficial location within the centre of the town, most of its user base can be formed of tourists during the season.

To sum up the characteristics of the library in Sopot, we need to point to its outstandingly beneficial location in the centre of the town, as it is placed *along the way* of the daily commutes of its inhabitants and those who visit the city. The building is accessible in a perfect manner to pedestrians, the passengers of public transport and the users of cars. *Sopoteka* not only makes use of these advantages, but, along with the other components of the new complex, increases the attractiveness of the city centre. Despite not standing out with any distinct architectural language in its facade, as it is but an element of a mixed-use complex which is predominantly focused on commerce, the *Sopoteka* is an important place on the map and in the life of the city.

Conclusion

Towards the end of the XX century and during the beginning of the XXI century, the role of public libraries is being substantially redefined. The way libraries are being used is changing – on the one hand they become places that provide access to information and knowledge – the goods of the new economy, while on the other hand they remain the symbols of continuity, tradition and culture – values that are being searched for in a world which is becoming more and more commercialised. The uncertainty regarding the means of operating under changing circumstances, which is typical of transitional periods, jumpstarts the imagination of designers and leads them on a search for new forms of expression that come at the cost of abandoning the current language of architecture. The two examples of libraries that are located within medium-sized cities in Poland stand out due to their distinct location that ties them with a train station of the rapid transit railway.

The excellent accessibility in terms of transport can compensate in some manner for the losses caused by shedding their distinct architectural form, which is no longer unequivocally identified with a library within the space of a city. In the examples that are being discussed, the inventiveness of the design is focused on the interior of the library, the stylisation of which references the qualities of the pre-existing cultural context. It may seem paradoxical that in such times where information technology allows us to surmount so many limitations related to the need to be in a given place at a specific time, the appropriate placement of a library remains important. In the conditions in which libraries compete with each other for users, their beneficial placement becomes one of the factors that are reflected in the manner and intensity of using this institution. So, if the question regarding *where is the library* is still important, then the answer is – the library is where its users are.

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SOCIAL GROUP AS A FACTOR ACTIVATING THE CITY

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Key words: social space, activation, young people

Abstract

Background

One of the social groups that influence the activation of the city to the greatest extent are young people, including students. Social spaces dedicated to this group are to embellish the city, have a positive effect on its image, but they are also to be useful.

Methods

This paper has been written on the basis of the Author's study devoted to finding an answer to the question how much a social group that uses a specific space influences the activation of this space. The examined social group were young people, students from two cities: Toronto and Cracow. The spaces used in the study are places separated from school and university buildings, intended for individual study for high school and university students.

Results

The results of the study indicate that one of the important factors that according to young people studying in the cities improve the quality of the social space is the existence of legibly marked places intended for individual study, that is places where students can study and spend time after their classes and lectures. Such places animate and activate the space connected with them.

Conclusion

The social group of young people who still attend schools and universities constitutes a very important factor of the activation of cities. Providing young people with an attractive offer connected with their individual education has an invigorating effect on the city.

Introduction

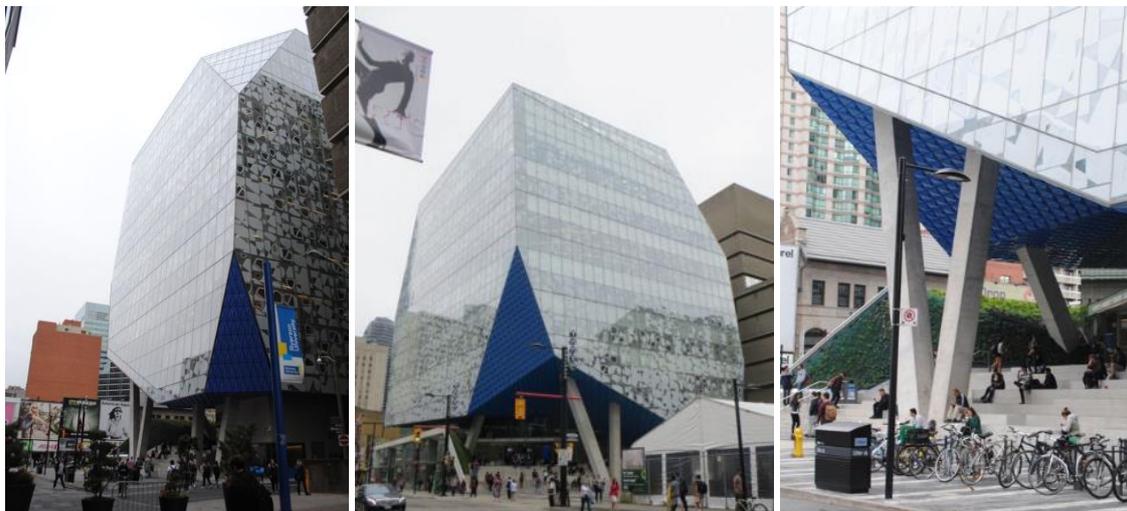
Cities are complex organisms, governed by their own logic. A well-functioning city provides unlimited opportunities concerning development and activity, allowing for a boom of the local life and civil commitment. Within the scheme of this development and activities in the urban space, we – users of cities – tame specific places and we bestow them with identity; we mark them with some special characteristics. Therefore, it is important to equip the city with places fit for studying, living and working, to fill them with meanings, nevertheless, always being driven by common sense and thorough observations. The city one wants to live in is an inspiring,

hospitable, and open city, but open most of all to the needs of its inhabitants¹. A very important social group in contemporary cities is a group of students. Urban spaces dedicated to this group can add colour to the city and have a positive effect on its image. The multi-faceted process of reciprocal influence between space and its user cannot be overestimated. Can the creation of places dedicated to individual learning of young people outside buildings of schools and universities in the city be a determinant of invigoration of a specific urban space?

Student Learning Centre at Ryerson University in Toronto.

The advanced Student Learning Centre (SLC) designed for Ryerson University in Toronto² opened on 31 March 2015 (Fig. 1). Since its very beginnings it has become a determinant of this place in the city and it has won a vast group of users. Its official opening already attracted crowds of students, lectures, sponsors, government representatives, and architects. To this day it bustles with life of the university community every day since 7:00 a.m. to 1:00 a.m. at night. The centre, dubbed today the 21st century library (a library with no books), was designed as an interactive scientific space dedicated to students to enable them to learn individually. They can get prepared to their classes, broaden their knowledge, but also cooperate with each other, exchange their views, and spend time in a pleasant way.

Figure 1. Student Learning Centre in Toronto, designed by Snøhetta & Zeidler Partnership Architects



Source: Photo: the Author

¹ Jane Jacobs, American-Canadian journalist, author of many books, but also a well-known urban activist, had a significant effect on the development of the 20th-century urban planning. She presented her observations and specific solutions fostering the natural and harmonious development of cities basing on the needs of their inhabitants in her book: Jacobs J. *The Death and Life of Great American Cities*, Warsaw: 'Centrum Architektury' Foundation, 2014.

²It is the second out of three large projects of a Norwegian company of Snøhetta in Canada. In September 2014 in Kingston the Isabel Bader Centre for Performing Arts was opened at Queens University, and at the moment the construction of a state-of-the-art public library in Calgary is in progress. It is planned to open in 2017, <http://snohetta.com/projects>, 23.03.2016

The Student Learning Centre is to encourage students to analyse their own mental states, reflections, as well as to shape the space around them on their own. The design was inspired by the Greek stoa, a place of trade, social meetings, rest, but also of specific tasks, and a place intended for gatherings – the agora. Architects of the Student Learning Centre treated these Greek spaces like areas of science of a social character, as well³. The SLC building consists of eight levels, each of which is designed in an original and individual way. The top floor, called *Sky*, is an open space limited with large glass walls presenting the skyline of Toronto (Fig. 2). Students occupy mainly the seats located by the windows (the glazed walls), from where they can see the city, as well as the sky, the clouds, the sun, or where they can gaze into the pouring rain. At the level called *Forest*, besides the green colour in different shades present predominantly in the furniture, the premises are dominated by browns and greys. This floor offers numerous smaller closed rooms to users, intended as places for quiet learning or closed meetings. Here and there the walls are intersected by narrow crevices or small windows, penetrated with light (Fig. 3). It gives an impression of forest clearances amongst trees. Sometimes we can encounter more spacious rooms, resembling forest clearings. The sixth floor, which is occupied by a vast open space, which gets larger as the floor goes down by the amphitheatre-like system of light wooden stairs, ramps, and platforms, is called *Beach* (Fig. 4). The platforms, crowded with young people, equipped with portable cushions, deckchairs, foldable chairs, go down to a fragment of a blue floor adjacent to large glazed surfaces, which gives an impression of water, and further on – to a water surface that meets the sky. 'Water', lined with a soft fitted carpet, is one of the favourite surfaces of young people wishing to learn freely. Over the beach there hover circles, lamps which shine like the summer sun.

Figure 2. Sky level. Student Learning Centre in Toronto. Figure 3. Forest level. Student Learning Centre in Toronto. Figure 4. Beach level. Student Learning Centre in Toronto.



Source: Photo: the Author

³ http://www.emb-norway.ca/norway_and_canada/News/Iconic-Snohetta-Design-Opens-in-Toronto, 23.03.2016

The floor presented below, *Sun*, (Fig. 5) attracts us with its cheerful sunny colour, mostly orange. Orange glazed walls are penetrated by the light from the neighbouring rooms, giving an impression of a setting sun. Orange chairs inscribe in the aesthetics of this floor. Here we can also find some smaller secluded rooms, which can be used by students who have booked them by registering online on the website of the Student Learning Centre⁴. It is necessary due to the numbers of interested students. The level called *Garden* is dominated by the green colour (Fig. 6). Here the space, divided into smaller rooms, seems to be more orderly, and gives an impression of a walk around an orchard with lines of fruit trees, or around a garden with carefully lined geometrical flowerbeds. *Garden* offers closed classrooms and individual study and research rooms. The third level is *Bluff* (Fig. 7). We can look down from it, as if from a hanging rock. A real oddity is a blue floor made of prismatic units, which from the outside form a cut-off wall over the entrance to the building. This original floor is also functional. From the level called *Bridge* via a footbridge we can reach the existing library. The open entrance hall constitutes a part of the lower level of *Valley* (Fig. 8). Apart from that, the hall is used for the purposes connected with the organisation of various celebrations, performances, cultural, scientific, and entertainment events. This level holds office and administrative premises and a coffee shop. This is the place where the main representative staircase to the level of *Bridge* starts. All open spaces are equipped with hard or soft seats, which correspond with their shapes and colours to the individual levels and the meanings ascribed to them. Definitely the majority of the seats are occupied by young people with laptops, tablets, and even books!

Figure 5. Sun level. Student Learning Centre in Toronto. Figure 6. Garden level. Student Learning Centre in Toronto. Figure 7. Bluff level. Student Learning Centre in Toronto.



Source: Photo: K. Žuk



Source: Photo: Author



⁴ slc.blog.ryerson.ca/cgwr/ , library.ryerson.ca › News › News, 23.03.2016

Figure 8. View of the Valley level. Student Learning Centre in Toronto.**Figure 9. Entrance to the Student Learning Centre in Toronto.**

Source: Photo: the Author



Source: Photo: K. Žuk

In terms of urban planning, the edifice constitutes a very legible gate to Ryerson University. The buildings of the University are embedded in the tissue of the city and do not constitute a closed campus. Before the Student Learning Centre was built, Ryerson University had not been recognised as an urban whole in Toronto. Now, it has obtained a spatial identity. The aforementioned gate to the part of the city where the university buildings are located has become a landmark by itself, as well as defined the urban space belonging to the University. SLC invites to enter from the south, from the side of the corner at Yonge Street. It is a well-known street in Toronto, with the basic commercial function. It is lined with numerous small retail outlets. The entrance to the building is elevated. It can be reached via wide stairs, which function as a passageway as well as a representative and educational structure, and they are used for all sorts of get-togethers and rest (Fig. 9). The entrance is separated from Yonge Street with a belt of greenery, which also provides this place with more intimacy. Below, the pedestrian traffic along the street is not disturbed. Moreover, the street has obtained new users. Above the stairs there spreads a large blue surface of the ceiling, leading inside. It is in a strong contrast to the glassy grey elevation made of combined digitally printed glass panes, through which the structure of the building can be noticed. The blue part of the ceiling above the entrance created by cutting off the corner of the building is upturned in the form of a triangle supported by enormous pillars. Whereas the architecture of SLC evokes various emotions, usually quite extreme ones: from praises to absolute criticism, the very carefully designed function of the building, as well as its place on the urban layout of the city, are assessed extremely positively. From the functional point of view, SLC has turned out to be an answer to the needs of young people. From the point of view of urban planning, it has created a characteristic frequented place, constituting an extremely important compositional landmark and a gate to Ryerson University dispersed around this part of the city. The Student Learning

Centre, by becoming a strongly recognised landmark in Toronto, has contributed to the identity of the entire block.

‘Arteteka’ in the Małopolska Garden of Arts. Cracow.

‘Arteteka’ is the first multimedia library in Poland. It opened in January 2013 and it has attracted crowds of users ever since. It is located in the edifice of the Małopolska Garden of Arts⁵ in Cracow at Rajska street (Fig. 10). It is one of the branches of the Provincial Public Library, a combination of an advanced multimedia library with a culture centre offering access to issues connected with broadly understood arts. It gathers rich collections and provides access to advanced tools enabling to use them. It is intended to be a space of active promotion of knowledge and culture, fostering discussions and exchange of opinions. The time has proven that the premises of ‘Arteteka’ are used predominantly by young people, both university and secondary school students, to learn, meet with friends and rest, with education in the background. The opening hours on weekdays are from 10:00 a.m. to 7:00 p.m., but the place starts to be really crowded around 3:00 p.m. and it remains to be so until the end of day. On Saturday and Sundays the hospitable premises open at 11:30 a.m. and 10:00 a.m., and close at 7:00 p.m. and 4:00 p.m., respectively.

Figure 10. Małopolska Garden of Arts with ‘Arteteka’. Cracow, designed by Ingarden & Ewý Architekci.



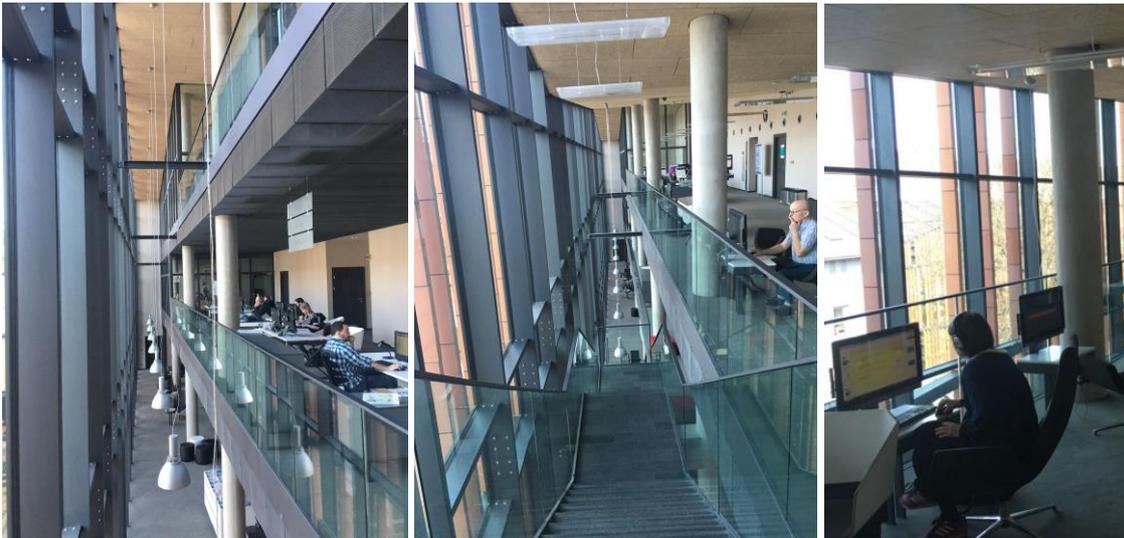
Source: Photo: the Author

Users of ‘Arteteka’ can use three floors, which correspond to the subject matter of the library collections gathered on them. And thus, the first floor is *Music*, then we have *Picture*, and eventually the top level – *Word* (Fig. 11). The aforementioned collections of the multimedia library contain e-books, e-magazines, music albums, films, comic books, computer and board games, as well as traditional magazines and books. When this state-of-the-art library opened, sixty e-book readers, all-in-one computers with touch screen monitors, and partially with

⁵ Architecture: Ingarden & Ewý Architekci, www.iea.com.pl/, 20.03.2016

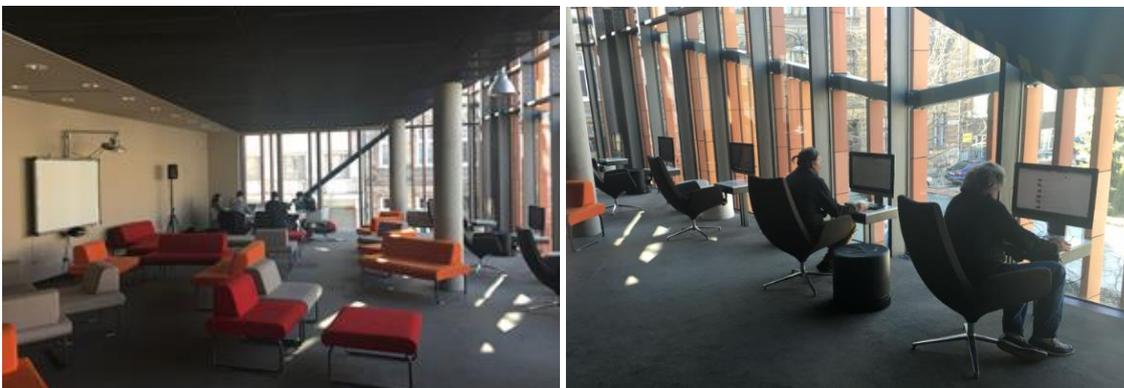
graphics tablets, Internet tablets, a Blue Ray player, a Play Station set with PS MMove movement control, advanced multifunctional devices were rendered available.⁶ The memory of the e-book readers contains digital publications and access to the library of Free Set Texts.⁷ On all the levels of 'Arteteka' there are open spaces, which can be appropriately arranged depending on current demands (Fig. 12).

Figure 11. Levels of 'Arteteka'. Cracow.



Source: Photo: the Author

Figure 12. Interiors of 'Arteteka'. Cracow.



Source: Photo: the Author

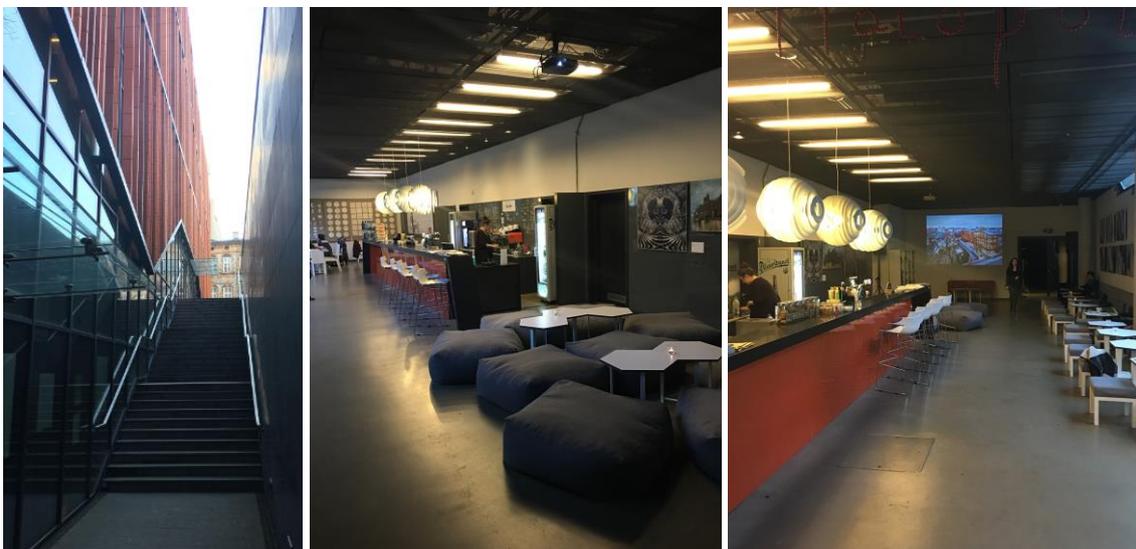
On an everyday basis, the premises are equipped with computer stations, soft and hard seats, such as cushions, armchairs, sofas, chairs, and tables, which can function separately or be brought together to facilitate teamwork. There are shelves with books, CDs, games, and

⁶ <http://www.rajska.info/oferta/wypożyczalnia-i-czytelnie/arteteka.html>, 20.03.2016

⁷ Set texts for schools recommended by the Ministry of National Education, which have already become part of the public domain. Texts in formats html, odt, txt and pdf, <https://wolnelektury.pl/>, 20.03.2016

shelves used for the exposition of paintings, sketches, comic books. At the level of *Music* there is a digital piano, which can be used to practice using headphones, but also to record the music played. The second floor is connected with film, comic books, games, and all the fields of study and arts that correspond to the title *Picture*. This floor houses a closed conference hall. The last floor, with an interestingly shaped surface of the ceiling corresponding to the form of the building, is devoted to literature and is called *Word*. And here there is also a rather small room, which can be used for some kind of individual work if need be. A nice coffee shop organised on the -1 floor fulfils a supportive function, offering drinks and snacks (Fig. 13). This is the place where young people wait for 'Arteteka' to open.

Figure 13. Descend to the -1 level and the interiors of the coffee shop. Małopolska Garden of Arts, Cracow



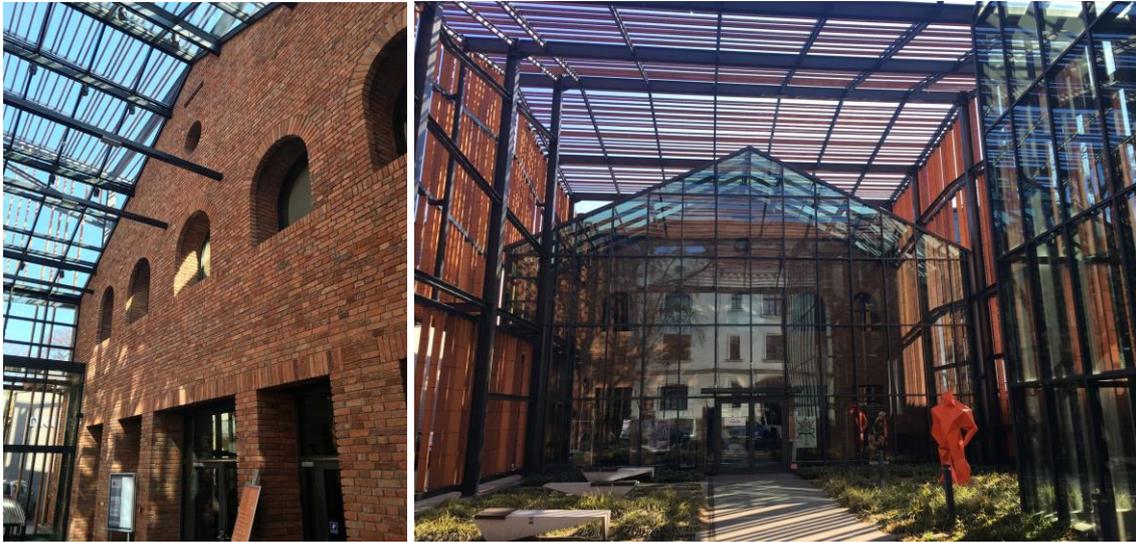
Source: Photo: the Author

In terms of urban planning, the edifice of the Małopolska Garden of Arts with 'Arteteka' is inscribed in a plot of land at the contact point between Rajska and Szujskiego streets. Directly in the corner of these streets there is a nursery school run by the local government, enveloped by two wings of the L-shaped edifice of the Małopolska Garden of Arts. Entrances to this edifice are located from Rajska street opposite the Provincial Public Library in Cracow, as well as from Szujskiego street. It is in this very part, adjacent to Szujskiego street, where 'Arteteka' is located. The concept of creating a multimedia library in a place where since 1948 there used to be workshops of the Juliusz Słowacki Theatre and the 'Stary' Theatre, was conceived in the period 2002-2006. There were also talks about building a philharmonic there. Eventually, it was decided to erect a building which would combine the function of an auditorium fit for numerous purposes with a state-of-the-art multimedia library. In May 2005 architects from the studio K. Ingarden & J. Ewy Architekci won a competition for the development of an architectural and urban planning reconstruction of the building located at 12 Rajska street in Cracow for the purposes of the Małopolska Garden of Arts. The design was granted with the Prof. Janusz

Bogdanowski Award for the best architectural structure of Cracow 2012. This award is granted for special achievements in the process of shaping of works of landscape architecture. The fact that the design was granted with it testifies to the fact that it was perfectly composed into the context. According to Krzysztof Ingarden, the form of the edifice of the Małopolska Garden of Arts is '...a contextual play between *mimesis and abstraction*, at the same time located close to the trend in architecture broadly defined by Kenneth Frampton as Critical Regionalism...'⁸ Thanks to construction of this edifice, the adjacent backyards were put in order and the nearby historic development gained a lot. One of the main assumptions of the design was the introduction of a multifunctional hall that was to be built into the perimeter of an old 19th-century hall of a horse riding school, which over the previous years had been used as the aforementioned backup facilities of the J. Słowackiego Theatre and the 'Stary' Theatre in Cracow⁹ (Fig. 14). Besides this, the shape of the building refers to the geometry of the nearby roofs not in a direct fashion, but by the adoption of appropriate curvatures in the elevation planes. The facility is inscribed in the scale of the surrounding development by demarcating the roof line and elevation divisions in compliance with the composition of walls of adjacent buildings. It is shaped in an extremely artistic fashion. Despite its considerable dimensions, it delights with lightness, even with finesse. This is achieved thanks to vertical narrow elements that unevenly divide the glass elevation and, especially in the sunlight, gleam with the shades of orange, quite pleasing to the eye. The creators' sensitivity also found its reflection in leaving of an opening in the openwork roof of the garden from the side of Rajska street, to accommodate a maple tree that grows there. The symbolic roofing referred to above opens the scene of the building to people, to pedestrians, which gives an impression that the space of the project absorbs them imperceptibly (Fig. 15). Here we have belts with low greenery that imitate flowerbeds. It is a reference to the historical function of Rajska street, leading to a former garden located within the territory of the later Tobacco Plant. The edifice of the Małopolska Garden of Arts has undoubtedly become a landmark and it exerts a positive effect with its architecture. Great appreciation has been won by the function of the whole structure, and of 'Arteteka' located here, as a place used by the young people from Cracow for the purposes of individual and interactive learning in a friendly environment.

⁸ http://www.ronet.pl/index.php?mod=realizacje&realizacja_id=474, 23.03.2016

⁹ *Ibidem*, 23.03.2016

Figure 14. Edifice of the Małopolska Garden of Arts, Cracow**Figure 15. Garden from the side of Rajska street. Małopolska Garden of Arts, Cracow**

Source: the Author

Users of a facility vs. activation of urban space

According to written reports: articles, information leaflets, statements of users and observations of the Author made during a site inspection of the edifice of the Student Learning Centre in Toronto and its surrounding area, the function of the facility and the social group that utilises it constitute visible determinants of the activation of this part of the city. Nevertheless, in order to support these observations and to complete them with additional data, in 2015 a survey was conducted focusing on the answer to the question to what extent the social group that utilises a specific space influences the activation of this space. The social group subjected to the survey were young people from Toronto who learned or stayed within the territory of the Student Learning Centre or in its vicinity. They were asked to complete questionnaires pertaining to the demand for such places, the evaluation of the existing one, and the evaluation of the effect of this place on the activation of the space of the city. Analogous measures were undertaken in 'Arteteka' in the Małopolska Garden of Arts in Cracow. And here the analysis of literature, Internet sources and observations from the site inspection were completed with a survey carried out amongst young people from Cracow who learn or stay within the premises of 'Arteteka' or its vicinity.¹⁰ The respondents were also asked to provide answers to the questionnaire devoted to the demand for a place for learning outside school or university, as well as to evaluate 'Arteteka' itself and its effect on the activation of the space of the city. Despite differences between these two facilities included in the study, consisting in different scales of the projects, different architectural forms, and different ways of perceiving them in the urban layout of the cities where they are located, the elements which make them similar are their function and the social group - students, who dominate the group of their users. Basing on the assumption according to which

¹⁰ Both studies were performed in 2015. The survey held in Toronto took place during the study visit to Canada in October 2015. In both cases the study consisted of 52 surveys.

the attractiveness of a space is influenced by – without limitations – the type and quality of services, aesthetic impressions, a high standard, the lack of barriers, diversified fittings, and appropriate compositional measures (of the architectural and urban planning nature)¹¹, the survey participants were asked about these very factors. Thus, the question whether the type of services offered at the Student Learning Centre corresponded to the respondents' expectations, was answered 'yes' by 100% of the participants. 98% were satisfied with the type of services offered in 'Arteteka'. When asked about the quality of the services provided in both facilities, the respondents answered they were fully satisfied in 98% - SLC, and 98% - 'Arteteka'. The question concerning aesthetic impressions provided by both edifices was divided into two parts. The first one concerned the shape of the buildings and their external architecture, the second – their interior design. The first question concerning SLC was answered positively by 67.3%, 25% had no opinion, and 7.7% of subjects did not like the form of the building. A definitely positive feedback – 100% of subjects – was given in the subject of positive impressions concerning the interior design. In case of the Małopolska Garden of Arts, the situation was slightly different. 100% of the survey participants gave a positive evaluation of the architecture of the building. The interior design of 'Arteteka' was positively evaluated by 78.8% of respondents, and 21.2% did not have a clear opinion about it. The question whether these facilities offer a high standard, was answered positively by 100% of respondents for SLC and 'Arteteka' alike. The surveys also touched upon the issue of architectural barriers. Both edifices are equipped with lifts and toilets adjusted to the needs of the disabled. Spaces of the facilities are easily accessible to the public. Hence 100% of the respondents from Toronto and from Cracow answered that no architectural barriers were observed in SLC and 'Arteteka'. The fittings of both facilities were appreciated by 100% of users. In compliance with the provisions of the Act on Spatial Planning and Development¹², public space is defined as an area of special importance for the process of satisfying the needs of residents, improving the quality of their lives, fostering social contacts. The quality of such spaces is dictated largely by: architectural order, urban planning order, and function. Both the Student Learning Centre together with its vicinity and 'Arteteka' in the Małopolska Garden of Arts in Cracow along with its adjacent area are spaces with are largely utilised by a social group of students from the cities in question. The question concerning the architectural order referring to SLC was answered positively by 78.8% of respondents. The rest had no opinion. In case of 'Arteteka' of the Małopolska Garden of Arts, 100% of respondents admitted they observed such an order. The urban planning order in this case was regarded as correct incorporation in the urban context of the city, legible and justified complementation of the urban tissue in the part of the city where the facilities are located. The respondents were, therefore, asked about the legibility of the compositional layout¹³, easy accessibility of its elements, 'absorbing' users, just like a good book can 'absorb' a reader or a good film can

¹¹ Jagiełło-Kowalczyk M., Petelenz M. *Composition vs. Ideologies. Neustadt in Strasbourg, Nowa Huta in Cracow*. [in:] *Housing Environment 15/2015. Composition in Architecture*, Cracow: Cracow University of Technology, 2015, p. 182

¹² Act dated 27 March 2003 on Spatial Planning and Development [in:] *Official Journal of the Republic of Poland*, Warsaw, 10 February 2015. Item 1999 Notice of the Speaker of the Sejm of the Republic of Poland dated 5 February 2015 on the announcement of the consolidated text of the Act on Spatial Planning and Development, p. 6.

¹³ Amongst different fields of composition-related activities, the one that is particularly meaningful and distinct is the field of artistic composition. It comprises architecture as well as urban planning. Kosiński W. *Architectural and Urban Composition – a Selection of Examples* [in:] *Housing Environment 15/2015. Composition in Architecture*, Cracow: Cracow University of Technology, 2015, p. 70.

'absorb' a viewer. The correct incorporation of the Student Learning Centre and the Małopolska Garden of Arts in the appropriate urban context, legible and justified complementation of the urban tissue, easy access and an 'inviting' form of the entrance were noticed by all of the respondents! 100% of the respondents believe that such places are needed in the city, According to 78.8% of the respondents in Toronto and 98% in Cracow, they contribute to the improvement of the quality of their life. 98% of the respondents believe that the Student Learning Centre fosters establishing or maintaining social contacts. 'Arteteka', on the other hand, fosters establishing or maintaining social contacts according to 84.6%. The erection of the Student Learning Centre in Toronto and using it by students has contributed to the increase of activity in this part of the city according to 86.5% of the respondents;. The rest had no opinion in this respect. This resulted mainly from the fact that previously students heading for the nearby university buildings had frequented this route. In case of 'Arteteka', all the respondents had no doubt that its establishment had activated this area.

Summary

The results of the study indicate that one of the important factors that according to students improve the quality of urban space is the existence of legibly determined places devoted to individual study and stay after curricular classes and lectures. Places which could be offered by universities or the city itself. Such places animate and activate the space connected with them. The social group of students constitutes an important factor of activation of cities. According to the respondents, both the Student Learning Centre at Ryerson University in Toronto and 'Arteteka' of the Małopolska Garden of Arts correspond to the functional demand of young people who study in these cities. The results of the conducted study prove that attention has been paid to original architectural concepts, well-thought-out and convenient interior designs filled with meanings, the correct incorporation of structures in the urban context, the legible and justified complementation of the urban tissue, easy access, and 'inviting' forms of entrances. Providing young people with an offer connected with their education that is attractive to them has an invigorating effect on the city. Therefore, measures aiming at shaping of spaces for individual, interactive education of young people in cities, supported by contemporary technological achievements, are extremely important. These spaces must be safe, distinct, easily accessible, organised in a way that will be interesting and legible, attractive and modern, so that young people could identify themselves with them willingly.

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<http://snohetta.com/projects>

SEPARATION OR INTEGRATION: ON EVOLUTION OF THE SPATIAL MODEL OF THE MULTINATIONAL CITY

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Abstract

The traditional model of the multinational city, which was based on the harmonious coexistence of separated ethnic residential districts and common multinational public areas, where the exchange of services and goods took place, gives way to the contemporary model, based on the principles of dispersion and segmentation. In the postmodern city virtual space has increasingly becoming a platform of exchange: numerous economic, social and cultural functions are performed through the ubiquitous electronic communications.

Public space, symbolic for the European concept of the city, is losing many of its previous functions in favour of the Internet. The dispersion of immigrants in the structure of the multinational city is conducive to the emergence of an attractive, kaleidoscopic and multicultural urban organism, their separation in ethnic ghettos results in intensification of pathologies.

Introduction

The beginning of the 21st century is a time that sees the largest human migration in the history of the world. According to data gathered by the UN in 2013, as many as 232 million people, over 3% of the overall population on our planet, do not live in their countries of birth. The huge number of voluntary migrants should be increased by over 46 million refugees, people who have been forced to leave their homes in the wake of wars, ethnic cleansings, famine or natural disasters (Krzemiński 2015, p. 56).

The lack of economic balance and the forces of globalisation, with the principles of the free market in particular, ensure the freedom of movement of people, capital, goods and services, as well as causing the migration processes to increase. The mighty of this world, the great entrepreneurs and prominent artists, can freely choose their homeland, they are heartily welcomed everywhere. The largest category of migrants consists of people who have decided to change their place of residence in search of work and a better life: starting from professionals and managers, ending with unskilled workers and domestic help. There are already cities where migrants constitute a majority of the population. As much as 82% of the population of Dubai was born abroad, followed by the cities of Miami - 51%, and Amsterdam - 47% (Elsheshtawy 2010, p. 212). The most problematic category of migrants, which poses the biggest moral dilemmas,

include refugees. Crowds of poor people from conflict areas in the Middle East and Africa storm into Europe, and in order to stop them, border fences have been put up.

It is worth noting that in the past, it was the borderlands that were multinational, whereas the capitals of empires were ethnically homogeneous; today, in the era of post-modernity, the provinces are usually uniform in terms of nationality, while large metropolises constitute collections of numerous communities with varied national and ethnic backgrounds. Consequently, national and cultural homogeneity has become characteristically provincial, while multiculturalism and multinationalism have come to be typically metropolitan feature.

Traditional model of a multinational city

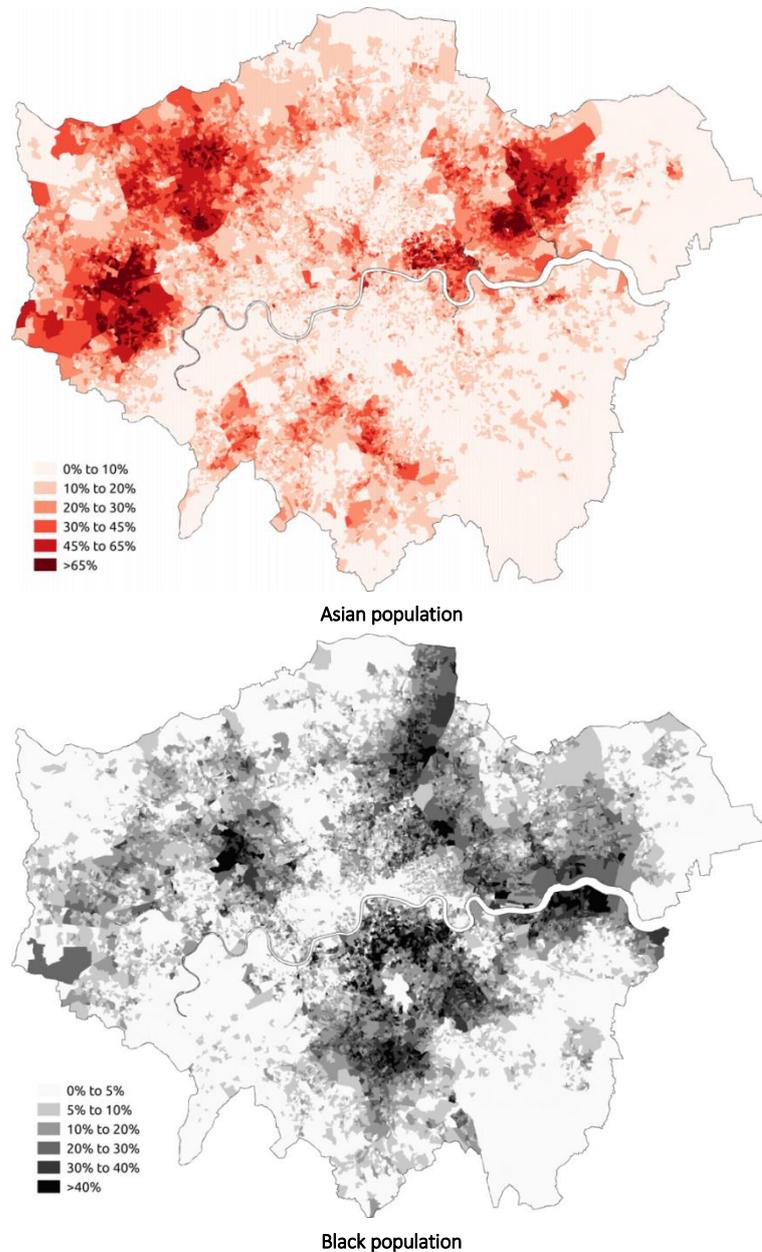
The notion of nation (*natio* in Latin) originally carried pejorative connotations. In the times of Ancient Rome, it denoted foreigners living in Rome, deprived of a status equal to native citizens. Such an understanding of the notion was close to the meaning of the Greek word *tá éthne* (Saryusz-Wolska, Traba 2014, s. 253). It was on the fringes of the Mediterranean Basin that the traditional spatial model of multinational cities developed, a model involving the harmonious combination of common public areas, where the exchange of services and goods took place, with a separate residential districts in one urban organism. The port, market square and main commercial streets constituted heterogeneous areas, where commercial exchange and the integration of inhabitants took place. Homogeneous residential space comprised designated districts, enclaves and ghettos, in which nationally and ethnically separate communities could enjoy autonomy on a scale unknown in European cities (Pappé 2014, s.142). Coherent, national-religious communities, the so-called diasporas: Jewish, Armenian and Greek, were among those communities which most strongly cultivated their distinctiveness.

This national-ethnic mixture formed the varied, colourful, almost kaleidoscopic landscape of a Middle East city. At the same, within each community existed secondary divisions, dependent on social status and wealth of its members. National communities had their own laws and customs, public order was maintained by local authorities, subordinate to imperial power. An English writer, Lawrence Durrell, in his tetralogy *“The Alexandria Quartet”* vividly described the heterogeneous nature of Cairo of the 1920s, where next to Egyptian burghers, known as *Misir* (Cairenes), lived Turks, Albanians, Greeks, Armenians, Jews, and a large group of Europeans that had arrived there in colonial times. When the United Kingdom established a protectorate over Egypt, it adopted the old Ottoman rule “live and let live,” aimed at facilitating the process of running a multinational empire. This is probably the most adequate (and the shortest) of known definitions of tolerance.

The bustling, multinational cities of the Middle East survived until the first half of the 20th century, when they disappeared as a result of the eruption of national liberation movements. The centuries-old history of cosmopolitanism, or as we would say today – the multiculturalism of such cities as Cairo, Alexandria, Baghdad, Tunis, Damascus and Jaffa, came to an end along with the collapse of colonialism. The period of anti-colonialism and Zionism, particularly the war that accompanied the formation of the state of Israel in 1948, triggered an exchange of population in the Middle East on an unprecedented scale: more than 700 000 Arabs were expelled from Palestine, with the richest of them creating their own ethnic districts in the neighbouring cities of Palestine: Amman, Damascus and Beirut, while others have remained in

frontier refugee camps until today. In reprisal, Sephardic Jews were expelled from the Arab cities of the Middle East, the old Jewish districts being emptied of their inhabitants. Most of them ended up in Israel and settled mainly in the Development Towns, built hastily during the late 1940s and 1950s by the Israeli government. The Europeans left the Middle Eastern cities, followed by other national-ethnic minorities. With rapidly progressing modernisation, old, traditional professions vanished and street trade was restricted. Built-up areas of the cities were preserved, but their nature changed completely: Arabic became the common language, and public space was no longer dominated by foreigners (Pappé 2014, s.144).

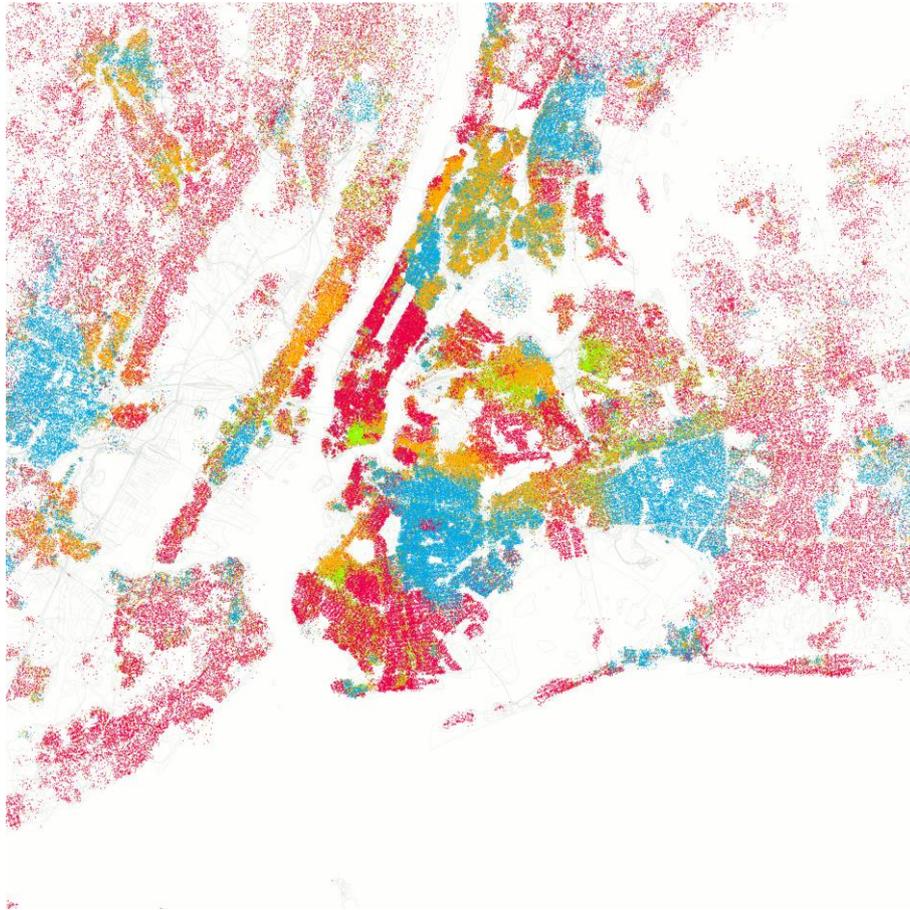
Figure 1. Dispersion of ethnic groups in London



Source: https://en.wikipedia.org/wiki/Ethnic_groups_in_London [Accessed 15 August 2015]

Multinational European cities, mainly former imperial capitals like London and Paris, have developed in quite a different manner. The twilight of the colonial era, which in oriental cities put an end to their multiethnicity and multiculturalism, brought these phenomena to Europe. At that time, the liberal model of a multicultural society began to develop in the West. Officials and clerks, soldiers and officers, as well as many residents of former colonies, thanks to the immigration laws given to them, flocked to the capital cities. In France they were mostly citizens of the Maghreb, while in Britain they were the subjects of the British queen (British Commonwealth): Indians, Pakistanis, Caribs, and Africans. They formed enclaves occupying mainly the southern and western suburbs of London. From then on, maps depicting the ethnic divisions of the inhabitants of this city resembled a complex patchwork of different cultures, and the annual colourful, multicultural carnival of local communities, organised in Notting Hill, became a source of pride for Londoners and a great tourist attraction. Another wave of immigration occurred in the 1960s, when the needs of the rapidly growing economies of Western Europe could not be met by the local labour markets, with several hundred thousand Gastarbeiter from Turkey moving to Germany. They formed uniform ethnic communities, residing in the working class districts of the largest industrial cities.

Figure 2. Dispersion of ethnic groups in New York



Legend: Each dot is 25 people. White Black Asian Hispanic Other

Source: https://en.wikipedia.org/wiki/Demographics_of_New_York_City, author: Eric Fisher [Accessed 15 August 2015]

Also, New York City, the famous American melting pot, a place of fusion for many nationalities, developed on the basis of the traditional model: downtown streets and quays were places of meetings and trade, yet the various groups of immigrants lived separately. Chinese and Italian “towns” were formed in Manhattan, Jews settled in Brooklyn, Poles took a liking to Greenpoint, while Harlem became the “black” district, dangerous and inaccessible to white people. Over time, the eastern part of Harlem and a large area of Bronx was settled by Spanish-speaking Latinos, and wealthy Americans usually lived near Central Park (Upper East End) and on Long Island. As much as 36% of the 8.5 million New Yorkers were born abroad. Among the white New Yorkers, the most numerous groups are those from Italian, Irish, German, Russian and Polish backgrounds, those people who came here during the wave of economic immigration in the 19th century. Currently, most immigrants arrive from the Dominican Republic, China, Jamaica, Guyana and Mexico. Statistical research carried out over the last twenty years has revealed two characteristic trends: traditionally “white” and “black” enclaves have been gradually dispersing and disintegrating, whereas the enclaves inhabited by people of Asian and Latino backgrounds have been widening territorially and becoming more homogeneous racially (The Furman Center for Real Estate and Urban Policy 2010). Harlem and the industrial parts along the Hudson River bank belonging to Brooklyn and Queens have become attractive, subject to rapid and intense gentrification. Their multiethnic and multicultural character, appealing to the first gentrifiers: artists, the young and freelancers, has blurred: the second wave of gentrification, involving those neighbourhoods that had become fashionable, have seen the arrival of cosmopolitan, network services with expensive shops and restaurants, luxury apartment complexes and rising rental prices. Also, an exchange of population has taken place. The Polish colony in Greenpoint, under the pressure of gentrification, has dispersed, some of the immigrants of Polish background have moved to the nearby neighbourhood of Ridgewood, while most have assimilated to American suburbs. The American sociologist, Sharon Zukin, writes that due to this kind of changes a city loses its soul (Zukin 2010, p.1-31).

Mechanisms that integrate and separate urban space

It is a common phenomenon that immigrants, upon arrival in a new country, stick together to support each other and, through a sense of togetherness, they ease the shock related to cutting themselves off from their roots, while continuing to follow their customs and traditions. Ethnic enclaves of immigrants serve as a kind of incubator to reduce the shock caused by the change of place. However, despite the natural desire to live “among fellow members”, the best habitat for immigrants are large cosmopolitan cities: dynamic urban environments offer them chances of receiving education, learning the rules of life in another community and finding a job in accordance with their qualifications. A conscious integration policy should therefore be characterised by a balance between the desire to disperse and the desire to maintain a certain level of uniformity. *Admittedly, the ghetto makes it difficult to integrate, but too much dispersion leads to alienation* (Warzel 2015, pp. 24-27). Rural environments, deserted settlements, and temporary camps in particular are a trap for immigrants, a hellish place of isolation, where as a result of the lack of any occupation one can only lament the lost homeland. This phenomenon is known in the Middle East: for generations a multitude of Palestinians living in refugee camps have been cultivating the memory of their lost homes, holding the keys to doors that no longer

exist, and treasuring old documents and family heirlooms. Israel committed another mistake resettling Sephardic Jews from Africa and the Middle East in the Development Towns built on the outskirts. For many years they have lived in concrete houses in the wilderness, deprived of work, health service and future prospects. The error sparked off a wave of deep, multi-generational frustration and the ruling Israeli left-wing party was punished by depriving it of power several years later¹. Ashkenazic Jews from Europe, who usually had considerable financial resources or better social connections, moved into major Israeli cities, primarily the agglomeration of metropolitan Tel Aviv, learned to speak Hebrew much quicker and they sooner assimilated into the new nation of Israel.

Some national-religious communities (diaspora) foster their distinct culture and ethnic purity in a rigorous manner which, from their point of view, has important advantages. This can be confirmed by the case of Jews who survived in the diaspora as a separate community for two thousand years. Integration is a very desirable phenomenon from the point of view of the country to which immigrants are arriving. However, from the point of view of the country of their origin, it is desirable to maintain links with their homeland as long as possible, which not only ensures cultural and ethnic continuity but also ensures a substantial flow of material resources. Relatively small amounts of money regularly sent by immigrants to their countries of origin in total account for an annual sum of at least \$ 300 billion (Vertovec 2012, p. 9). Nonetheless, in the context of the currently widespread economic immigration, usually only the first generation is separated. Graduation from school, language proficiency and adaptation to the ways of life result in the melting of subsequent generations into the local communities, which can lead to integration or even complete assimilation in the hope for social and material advancement. A common path leading to assimilation is that of mixed marriages. This typically involves a change of place of residence: for assimilated people close proximity to the ethnic group from which they derive is no longer relevant, on the contrary – moving away from the ethnic ghetto can become a symbol of independence and success.

Among the factors affecting the spatial shape of multinational cities one should distinguish those of an external nature, especially the geopolitical ones, and those of an internal nature: connected with the local culture, traditions and topography. Undoubtedly, the strongest impulse that prompted the twilight of the historic model of multinationality arose from nationalist movements based on the modern concept of the nation-state. The separation of distinct ethnic groups are encouraged by all kinds of political movements of a national-religious nature, which, in their extreme, orthodox form, lead to the spread of xenophobic and racist attitudes. Once this level of intolerance is reached it is not difficult to move to the next one, that of pogroms and ethnic cleansing or, in extreme cases, wars. The modern history of Europe and of the whole world, with its examples of ethnic and religious conflicts, too numerous to mention here, provides a great deal of evidence that these threats are not unfounded.

The separation of clashing communities sometimes takes the form of a wall. In such a case, the role of the wall is not the traditional protection of the city, instead its role is to consolidate the division between its residents. In the 20th century, walls of separation were built in Belfast,

¹ It is believed that Mapai, a ruling party in Israel from 1948, lost power due to Sephardic Jews – see: Z. Efrat, *Politics of New Towns in Israel*, [in:] R. Brand, O. Scialom, *Urb-Urb. Patterns of Contemporary Living*, Sternthal Books, Venice 2014, p. 48.

Nicosia, and Palestine. Other, much more common barriers dissecting the cities into separate enclaves are immaterial; a conventional, mental but impassable boundary can be marked by a river, an edge of the street or railroad tracks. There are other invisible lines related to the labour market, place of residence, choice of school or university that separate national, ethnic or religious groups. These internal boundaries are invisible to visitors, especially pilgrims or tourists, who can freely cross them. However, for the locals they remain as hard as a wall.

The issue of fencing does not only concern those communities with distinct national, ethnic or religious roots; it is very characteristic of modern housing development in all parts of the world. It seems that people, and especially the richest ones, want to live among their peers, because they feel safer when they are walled off. The evaluation of this phenomenon is diverse; in Europe, it is usually negative, whereas in the United States, spatial separation related to status and race is perceived as something positive(!). Currently, studies into the spatial determinants of social tensions and conflicts are being carried out in the diverse urban environment of Los Angeles – referred to as a heteropolis by Charles Jencks, a metropolis regarded by some people as the archetype of a multilingual, polycentric and multicultural city and as the model of the city of the future by others. Spatial separation of the city is seen by Los Angeles scholars as an element that stabilizes and reduces tension between potentially antagonised social and ethnic groups (Szczepański, Kozielska 2008, p.148).

The contemporary multinational city

In the postmodern city, virtual space has increasingly becoming a platform of exchange: numerous economic, social and cultural functions are performed through the media and ubiquitous electronic communications. Public space, symbolic for the European concept of the city, is losing many of its previous functions in favour of the Internet. Sławomir Gzell believes that with no doubt *the information highway is the street of tomorrow, and a teleport is an future agora* (Gzell 2010, p.17). In his book, *Network Society*, Manuel Castells describes the *Informational City*, defining it not as a form but as a process characterised by the *structural domination of the space of flows* (Castells 2007, p. 401). In this concept, space represents an expression of society while social relations give this space specific forms, functions and meanings. The physical places do not disappear, but their current functions are taken over by the networks. He sees the spatial form of the new economy as *globally connected and locally disconnected megacities, discontinuous constellations of spatial fragments, functional pieces and segments of society* (Castells 2007, p. 433). Members of the elite belong to a circle of international culture whose identity is not connected with any particular place. Castells argues that the global merger of elites and the segmentation and disorganization of the masses constitute mechanisms characteristic of contemporary social transformation. Global integration is assuming the form of a network, while local separation that of walls.

Researchers investigating contemporary times emphasise that technological progress has changed the way in which space-time is understood and experienced: time has accelerated and distances have become shorter. This fact has a significant bearing on the spatial model of the modern polycentric, multicultural city, as well as on the functioning of its inhabitants. The development of electronic communication allows for ever increasing separation between the fulfilment of everyday activities and spatial proximity. The traditional, coherent city is being

gradually deprived of its functional necessity, and thereby – *de facto* – of its *raison d'être*. The postmodern city is becoming a ragged and discontinuous formation. It resembles more an archipelago than an island, a constellation rather than a star. Inside each collection there are never-ending processes of unification and segmentation underway, accompanied by an ever increasing blend of people and the loss of traditional, coherent ethnic districts².

This massive migration, the development of global electronic media and transnational social networks *limit territorial sovereignty and monolithic order* – in other words, they affect the main components of a national state (Vertovec 2012, p. 95). The more open state borders and blurred boundaries of the cities are no longer perceived as the boundaries of political, national or municipal communities. What is more, physical proximity is no longer a necessary condition for an individual to function within a given community. Cheap mobile phones have dramatically changed the way in which migrants understand the space. Distance is no longer problematic, and even in a foreign country they can effectively maintain social contacts and family ties by frequent calls. The Internet, satellite television, electronic media, the ability to quickly – and ever more cheaply – travel by plane mean that migrants do not have to renounce their original identity while living outside their home country. Nor do they have to live together, in a group, in order to maintain a sense of belonging to a community. They can remain spiritually immersed in their culture, while being present in body in another country, and they can assume temporary and changeable identities. This results in an increasing dispersion of ethnic minorities in a city, immigrants do not settle in a group, but in the places that are economically available to them.

Figure 3. Street of the multinational city, Oxford Street, London, 2010



Source: phot. author

² The phenomenon in question involves for example Neukölln, a borough with its large Turkish community, currently subject to "youth" gentrification. cf. D. Groyecka, *Gentryfikacja Berlina. Od życia na podłuchu do kulturyaffe latte*, Wydawnictwo Naukowe Katedra, Gdańsk 2014.

Social sciences that currently devote close attention to the phenomenon of migration, define transcultural skills acquired by migrants as “cultural competence” or “cosmopolitanism”: capabilities characteristic of *individuals who are familiar with other cultures, and who are able to freely move between these cultures* (Vertovec 2012, p. 77). These traits are being compared to other personal competencies: analytical, emotional and creative. The group of people with the highest level of cultural competence include the elites of global corporations, artists – cosmopolitans and globetrotters, who have mastered the ability to function in other societies. The way in which migrants have adapted to life among new environments has been a frequent area of research. This process, depending on its effects, has been called integration or assimilation. Integration involves the acceptance by foreigners of rules of life existing within the community, while maintaining their own identity, resulting in cultural exchange. Assimilation involves the change of own identity, where an immigrant melts into the national mass of the country into which (s)he has arrived. In the light of these observations, today's transnational activity of migrants and the strength of their relations with their countries of origin is considered to be an unprecedented phenomenon. The transnationality of migrants does not clash with their integration into the new environment, many immigrants constantly cross borders and negotiate their identity, dosing their commitment to the “old” and the “new” country. Factors which hinder the process of integration, such as discrimination, xenophobia or racism, strengthen the migrants' transnational attitudes, which then escalate due to the easy access to radical ideologies spread either directly (temples, mosques), or, equally effectively, via the Internet and electronic media (Vertovec 2012, p. 89). Perhaps this process explains the hatred with which some young Europeans, belonging to the second or third generation of immigrant families, treat their adoptive homeland.

Multiculturalism and multiethnicity themselves do not have to be conflictogenic. However, many commentators highlight the cultural differences, seeing them as a manifestation of Huntington's concept of the “clash of civilizations” (Huntington 2006). The conflict between Muslim immigrants and the society of the West comes to the fore here. For nearly fifty years the idea of multiculturalism prevailed in the Western society, the principles of tolerance, equality and acceptance of difference applied, which were the foundations of public order and harmony. These principles were crucial for the coexistence of people from different countries, of different races, cultures or religions. This tolerant attitude changed after the terrorist attack on New York's World Trade Centre. After this event, the Italian journalist, Oriana Fallaci, wrote an article, published in the “Corriere della Sierra” and repeatedly reprinted, entitled *The Rage and the Pride* – a text full of xenophobia, calling for a break with the idea of political correctness, negating the principles of multiculturalism, asking provocative questions about the limits of tolerance, expressing the lack of consent to these representatives of other religions and cultures, who do not want to accept the legal and social order established in the countries to which they immigrated.

The clash of people from different cultures takes many forms, sometimes becoming a fertile ground for the growth of the prosperity of the city, sometimes, though, a seedbed for a conflict. Ryszard Kapuściński in a multicultural society saw opportunities for development, also for Poland. He appealed for the opening up to immigrants from Asia and Africa during an open

lecture delivered in 2002 at the Jagiellonian University³. He perceived multiculturalism as a source of strength and vitality essential for an aging Europe in order to face the challenges of the new economies in the Far East. In his book titled "The Other", Kapuściński often quoted Herodotus, who saw a mirror in a stranger, one in which you can look at yourself, who believed that the empathy for a stranger leads to greater self-knowledge (Kapuściński 2009, p. 19). However, in order for cooperation and integration to take place, a platform for dialogue, mutual acceptance and openness to other traditions are needed. The lack of these elements leads to frustration and anger, which can turn into conflict, similar to that witnessed periodically on the streets of Paris and London, a phenomenon that Bohdan Jałowiecki called "multiculturalism with Molotov cocktails in the background" (Jałowiecki 2007, p. 43). Many of today's vibrant and colourful, multicultural cities have poor areas inhabited by ethnic minorities, habitats of poverty and crime. Tourists give these places wide breath due to the harassing behaviours, vandalism, and aggression aimed at strangers which are commonplace there. Social exclusion, unemployment and the lack of prospects in life degenerate immigrant environments and promotes the formation of criminal structures; that is how high-risk neighbourhoods are created, sometimes the smallest excuse evoking an emotional outburst, demonstrations, riots and street fighting.

The recognition of certain common rules for all inhabitants is essential for a multinational city to function as an orderly place. Jerzy Sarnecki, a polish-born professor of criminology from Sweden, claims: *Cultural differences undoubtedly exist, but with well-functioning integration they quickly disappear. Conversely, when these alien groups are isolated from the rest of society, subcultures are formed – especially among young men – that are hostile to society and its norms. Our research has shown that social disorganisation and isolation are greater causes of crime than cultural differences*⁴. Western countries know cases where immigrants and their children achieve glittering careers in politics, economics and culture. Nevertheless, some ethnic communities integrate with considerable difficulty. Pauperisation and unemployment affect them particularly often. In a city structure, social inequalities often acquire an ethnic-spatial dimension: the downtown and rich suburban residential areas are inhabited by an indigenous privileged strata; and the poor that have arrived from other countries live in neglected blocks of flats. These two classes live independently from each another; in one town, but in separate worlds. What divides them is a cultural and economic gap, which takes on a particular space-time dimension: the rich have the means to move quickly and transmit information instantly. Space is no longer a barrier for them. In the same city stay immigrants and refugees from Third World countries, who live in the past and who do not even have names for modern inventions in their own languages. For them, time stands still, and the space closes them like a trap of place. The status and social position of contemporary people is not reflected in their nationality, religion or place of birth, but in the ease of communication and the freedom of choice of workplace and residence, their social and spatial mobility.

³ An open lecture delivered by R. Kapuściński at the Jagiellonian University, 17 January 2002.

⁴ An interview with prof. J. Sarnecki, *Gazeta Wyborcza*, 26-27 September 2015, p. 17.

The case of the multinational city seen from the Polish perspective

One might want to take a closer look at the evolution of the spatial model of multinational cities from Poland, a country which has been very uniform in terms of ethnicity for several last decades⁵. However, it is important to note that even ethnically uniform countries can be culturally diverse. Bohdan Jałowiecki writes that the phenomenon of cultural splitting also concerns Poland, which will have to face the multiculturalism of a society divided into modern citizens: the inhabitants of large cities, living in the 21st century, using technology, seizing chances and opportunities offered by modernisation, and the inhabitants of the provinces, socially and mentally embedded in the 20th, sometimes in the 19th century. Large Polish cities have entered a phase of metropolisation that previously took place in Western Europe. The cultural distance that separates their residences from the rest of the country often prevents discussion and agreement. This is evidenced by, among other things, the period of parliamentary elections when voting preferences draw clear territorial patterns, indicating the distinct division of Poland along the Vistula River, and, above all, the insular nature of Polish cities. Young, well-educated Poles displaying entrepreneurial skills cross the spatial boundaries and function better in a united Europe. At the same time, a large part of society is not ready to meet the challenges of modernisation and their mindsets do not quite agree with the canon of European values such as tolerance, individual freedom, respect towards religious and ethnic minorities, and state neutrality vis-à-vis religion. This fact is exemplified by violent protests sparked off by the decision to accept some refugees from Syria engulfed by civil war. Whether we want it or not, increasing numbers of people of different nationality, skin colour, culture and religion will be coming to Poland: immigrants and refugees with whom we will be sharing our workplaces and public spaces. It will depend on us whether these people will take a liking to us and enrich our lives and culture, or whether they will learn to hate us.

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⁵ Nearly 95% of the citizens of Poland declare a homogeneous Polish national identity. The most numerous minorities are Silesians and Germans. Source: M. Barwiński, *Struktura narodowościowa Polski w świetle wyników spisu powszechnego z 2011 roku*, Przegląd Geograficzny 2014/86/2, p. 225.

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THE CITY IN-BETWEEN

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Key words: small city, identity, individuality, culture of the place, city in-between

Abstract

The city in-between is the city which gains from the past to create the history of today while looking to the future. It blurs the boundaries between yesterday, today and tomorrow. It is difficult not to look at the past while striving for perfection, as history teaches about what once was considered as success and failure in the process of urban development. The image of the ideal city is shaped by the care of the needs of current users and future generations. Ideal city is one that boldly puts the steps towards the future, opening up for new opportunities created by the development of science and technology. It opposes the often negative phenomena, which in the future can worsen, leading among other things to the loss of relationships within the society. In view of these risks, questions arise about tomorrow, about the fate of social spaces and public areas. Will the man of the future benefit from them? Will he replace them with virtual world? It seems that without the knowledge of the past and that is the experience of the builders of the cities of foregone eras and the directions of development of former trends it is impossible to shape the present, guided by one primary purpose - to serve the modern man, realizing his basic needs important for living and those which can be defined as more than basic, associated with personal preferences and ambitions.

The future we want to know focuses on the experience of the past while trying to create local conditions today. Today is suspended between what has already happened and what will happen. Today is also a time to reflect on what is good and worthy of follow-up, and what constitutes a threat. Today triggers the need to seek remedies to all of the negative phenomena leading to uncontrolled urban sprawl, deepening of the spatial chaos, increasing suburbanization and mental anonymity of both the residents and space. The city in-between is the city standing at the threshold of modernity, creating a vision of the future on the canvas of not always positive experience that have taken place in the past.

Introduction

The philosophy of the city is an extremely complex problem. Touching spheres of human life and his needs it becomes a reason for deeper reflection that build the desire to create a vision of improved cities, often referred to as ideal cities or cities of the future. The desire for better living conditions makes us follow the vision of a healthy, comfortable *polis* drawing from the experience and achievements of the past, and recognizing the needs and opportunities created not only by architects and urban planners, but also by the residents themselves.

The city understood as a place in which we live, important for our plans and ongoing reality may be compared to the scene where actors have a chance to play their parts. It may also be perceived as a fully rehearsed mechanism, with no mistakes and spontaneity. It seems, however, that although the city has been carefully planned in the past, presently it is filled with phenomena that surprise, and speeding time creates new trends, new challenges, as well as new needs and expectations. With so many transformations, the city wanting to be fully planned should be redesigned almost every day. Meanwhile, only its fragments undergo modernization. Therefore we are witnessing and participating in what is suspended in-between.

"In-between" also refers to the way of perception of the city that stands between what is unknown and anonymous, and what we treat as our own home and shelter. The image of the city, so well-known that we could easily recreate it in our memory is juxtaposed with the life of the city which is unfamiliar.

Often, these fragments, which has not yet been explored, dormant, and which are still waiting to be discovered, are defined by Marc Auge as places, non-places, thus places suspended between the existence and total collapse.

It's finally the vision of the city existing here and now, which with the quiver of the heart reaches the higher ideology - desire to experience the vision of an ideal city of the future, which sometimes takes an abstract, almost impossible form.

This city in-between, although it sounds complicated and unclear, seems to be the most real one. Real though hesitant, unsecure, since it is suspended between what was, what can be found at the moment, what the city is seeking, and what it would like to be transformed into.

On the other hand, it seems to be a statement related to what is safe, standing between a number of options. Therefore it is not a notion associated with something that might be considered as extreme, given that extreme can be also dangerous. Ahead of the rest, although its splendor can be destructive. The city in-between stands amid brilliance and annihilation. It is safe because it does not fall, but it also struggles to attain perfection. It would take a lot of effort to achieve these extremes. On the other hand it is difficult to expect that safe position "in-between" could fulfill the ambitions, express the progress, and the willingness to follow the ideal. Taking initiatives on the basis of past experience aimed at improvement, and the pursuit of a better existence is important and seems to be correct. The possibility of making a choice means to opt for what seems to be better and more convenient at a given moment.

The city in-between is a city, which, despite the efforts in the pursuit of the ideal and deriving from the success of the past, never reaches the perfection, but it ensures a stable lifestyle, and living conditions at the appropriate level. If this level is satisfactory and meets expectations of

the users, the surrounding environment can be considered as friendly. The city in-between is therefore a place that we often inhabit willingly, being aware of its advantages and disadvantages, strengths and weaknesses.

It is also the mirror of thoughts wishing to rise high above the gate of the real life. It is reminiscent of the work drawing from the highest values and feelings, which cannot find their place in the world of reality. Hence an association with the life of Camille Claudel, torn, unable to overcome the difficulties of the surrounding world, locked in an institution for mentally ill. She would give anything to go back to Villeneuve, from where as a child fascinated by the great Paris she wanted to escape. "I would love to immediately return to Villeneuve and never leave, I'd prefer a barn in Villeneuve than being here as the most significant patient... Not without regret can I see how you spend the money on the asylum. The money that I could use to create beautiful works and lead a pleasant life! What a pity! I want to cry. How happy I would be if I could again find myself in Villeneuve. This lovely Villeneuve, which cannot be compared to anything on this Earth! ..."¹

Such in-between situation does not seem to be neither stable nor satisfactory, because it can be accepted in no way.

Is it possible for the city in-between to be accepted? Can it be appreciated Although it seems impossible, a place in-between, revealing all of its advantages, is wanted by many of us- the dream of the city in-between, and if it is a small town, it is possibly the dream of a small town.

Can a small urban centre be perceived as a city in-between?

Analysis of the example

A small town, beside its history and spaces that blurs the traces between the past and the present (ie. Market) contains an endless set of extremes, given that, on the one hand it may be the ideal environment of residence, while on the other hand, it can also be perceived as a place steeped in stagnation, even backwardness.

Small urban centers are often rooted in our consciousness as an oasis of tranquility, where the desire of co-existing with greenery or other elements of the natural environment is not an issue. It is a place where anonymity is limited, giving the impression of safety but also to a certain extent, can cause a sense of embarrassment. It's an intimate place, with almost idyllic atmosphere, saturated with harmony and peace. This picture associated with the concept of the small town it is not always true. It is particularly impossible to assign it to popular tourist destinations, vibrant but also full of noise and bustle of the street, that fills the small town almost to bursting. This applies especially to the central areas, which in the case of the small cities occupy a significant part of them. Those are special places, mainly due to the architectural value which, although related to the past, are relevant to the modern image of the city and even its future. The resort distinguished by architecturally attractive center with historic buildings offering usually services and objects of historical value on the ground floor are frequently visited by the tourists. Thus, its economic situation will be far more favorable than in the case of the city

¹ C. Claudel, *List z zakładu*, [in:] A. Delbee, *Camille Claudel- a woman*, Wydawnictwo Dolnośląskie, Wrocław 1991

lacking interesting examples of "good architecture" which makes its promotion much more difficult.

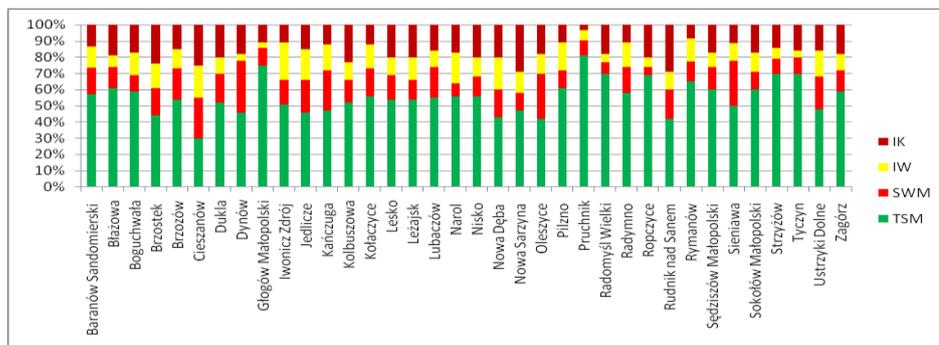
A quiet town seems to be compromise between extreme dreams of most of us. They follow the desire for home ownership, own garden, silence and intimacy, while on the other hand, we does not want limited access to jobs and services, particularly those specialized.

The results of research conducted by the author² in small towns of Podkarpacie - difficult due to slow withdrawal of the stagnation processes yet where small towns are appreciated place of residence. Urban analysis and environmental studies were completed in all of the small towns of the region, which allowed to formulate proposals for small urban centers throughout the district. The objectivity of the study is provided by the research method which creates the possibility of making comparisons of the analysis results with the opinions of the residents, that is the users of the surveyed areas. The selection of the researched areas was also not accidental. The province can be perceived as a region where one can find a lot of advantages. However, it is an area suspended in-between - between stagnation and possible development. Rooted tradition of Podkarpacie, its native architecture and culture are still strongly felt; undeniable advantages also include the landscape and its abundancy, clean air, open green spaces, forests, etc. The drawbacks include serious but hidden unemployment, lack of infrastructure, the existence of areas slowly developing.

In spite of all these adversities, residents of the centers selected for the study recognize the strengths of Podkarpacie and small towns of the region.

When asked if they would re-elected their small town as a destination to live in, the vast majority recognize that yes (Fig.1). Also when asked if they were able to independently make choices on the place of residence almost one hundred percent agreed that yes (Figure 2).

Fig 1. The results of the research considering the re-selection of the place of residence



Source: (J. Kobylarczyk, *The assessment of the quality of urban environment in selected cities of Podkarpacie after the period of „transformation” during the first decade of the XXI century*

Cracow University of Technology, Kraków 2013, p.112)

² Results of the sociological research are presented in: J. Kobylarczyk, *The assessment of the quality of urban environment in selected cities of Podkarpacie after the period of „transformation” during the first decade of the XXI century*, Cracow University of Technology, Kraków 2013.

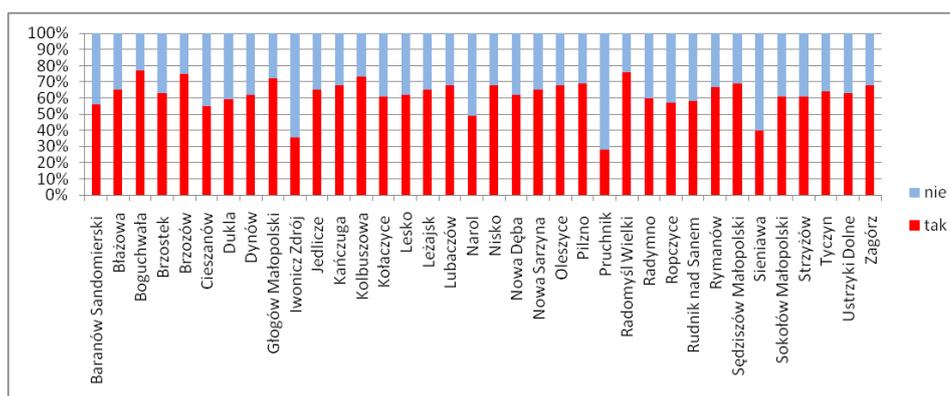
The graph uses the following designations: lk - other country, lw - other region, SWM - larger neighboring city, TSM - the same city

The results of the study are almost unanimous - the inhabitants of the small urban centers of Podkarpacie are satisfied with the place of their residence. If given a chance to re-make the choice as to where they would like to live, they would choose the same city. Different approach is shared by only a small group of respondents from:

- Brzostka (40% of them opted for the choice of the same city, about 20% of choosing another country, more than 20% of another province, also over 20% would choose the neighboring larger town)
- Cieszanowa (30% of respondents opted for the choice of the same city. More than 20% of a selection of nearby bigger cities. 20% of respondents from this city would choose other region, and about 30% of people would choose a different country)
- Dynowa - about 50% of the respondents said they would choose the same place of residence. Also, many of respondents would choose a neighboring province - 30% of people)
- Jedlicza and Kańczuga - in these cities about 50% of the respondents would like to live in the same city. In Jedlicza about 20% of questioned people would like to live in the bigger, neighboring town. Also, 20% of people would choose other region as a place of residence. In Kańczuga 30% of respondents would choose a larger neighboring city. Over 10% of people involved in the study would choose another province and another over 10% would choose a different country).

Another question which may be a confirmation of a positive opinion of residents about their living environment considered an opportunity to make their choice of place of residence independently (Figure 2).

Fig 2. The results of the research considering the selection of the place of residence



Source: (J. Kobylarczyk, *The assessment of the quality of urban environment in selected cities of Podkarpacie after the period of „transformation” during the first decade of the XXI century*

Cracow University of Technology, Kraków 2013, p.94)

The ability to choose one's place of residence is very important - for self-satisfaction with the inhabited space, its perception and desire to pursue one's own goals and plans. Unfortunately, sometimes we have no choice in deciding whether we want to live or stay in a particular place. Often, however, we are able to accept such place, like it and become attached. Our attitude towards the place of residence is very important for an objective assessment of the environmental conditions. When given the possibility of its selection, we can assume that it appears important and we are happy with it. By consciously selecting a place to live we can appreciate its individual strengths, and on the other hand, strive to improve the less favorable conditions. We are engaged to the status quo and improvement of the conditions.

The results showed that the vast majority of the inhabitants of the analyzed cities had the opportunity to choose their place of residence. In five cities more than 70% of the population and more than 60% in most urban centers was able to decide autonomously. Only in Pruchnik, Iwonicz Zdrój and Sieniawa the majority of the residents did not have that occasion, while in Narol it was almost half of the residents questioned.

The study covered three areas situated in the central zone of 38 small towns of Podkarpackie province, different due to the typology of building. Particularly noteworthy are Iwonicz Zdroj and Pruchnik, which for a long period of time were regarded as a rural areas in district of Jarosław; they regained city rights in 2011. Today Iwonicz Zdrój is perceived as a small urban center which, as shown by the results of sociological research, enjoy the highest appreciation of the inhabitants of small towns in Podkarpacie. Valued due to urban conditions shaping high quality residential environment. Pruchnik is a town, which today can be described as being in-between owing to the strong, current and deeply rooted traditions that were born here in the past and are partially cultivated today. The very heart of the city - its unusual market square, surprises with scale and character. Although appreciated and admired by many, it creates the impression of a space born in the nineteenth century, since it evokes the image of the Galician town from that period. The calm atmosphere spins a vision of trouble-free relax in a rustic surrounding full of wooden architecture with characteristic arcades. Wooden houses and their low scale, as well as hilly landscape maintain the impression of a place where time passes slowly, where you do not have to rush anywhere, and breathe deeply enjoying the countryside and architecture. The serenity of the place is also determined by its location.

Pruchnik is situated away from the main roads with heavy traffic. Historical nature is confirmed by suspension between what is here and now, and what was in the past. Past, however, so important, that shapes the contemporary image of the city. The state of being in-between is expressed not only by the historic wooden architecture, but also preserved naming of the streets and their arrangement with the spatial conditions of the relatively large market. It is also an informal division of the town- Pruchnik Dolny and Pruchnik Górny (these terms functioned as Pruchnik Wieś [village]). Unchanged traditions of this place include fairs, which are held here every Thursday. So we can safely say that Pruchnik is a town, for the functioning of which the past is just as important as the present. It can be assumed that also in the future traditions of the place will be heavily cultivated here, which is very important as it is shaping the individual character of the town, often reminiscent in other urban centers where the uniformity of space and architecture takes place –Everywhere the same!

Thus, despite the difficult economic situation of Podkarpackie, Pruchnik can be seen as a friendly living environment due to its spatial conditions.

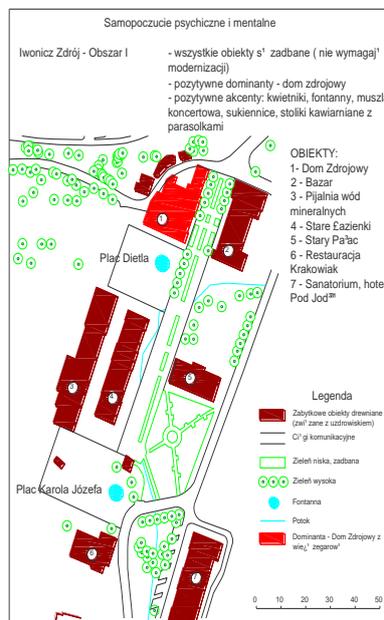
Iwonicz Zdrój is also an example of the town of Podkarpackie Province, showing a number of individual features that set it apart from other cities of the same size located in the region. The most important is the image of the city center. In most urban centers the heart of the city is characterized by historical market square with compact service and residential buildings. At the heart of Iwonicz – a spa city, instead of the typical market one can find a pedestrian street with two squares (Dietl Square and Charles Joseph Square)

Figure 3. SPA buildings in the centre of Iwonicz Zdrój (J. Kobylarczyk)



Source: (J. Kobylarczyk)

Figure 4. Analysis of the Iwonicz Zdrój city centre



Source: (J. Kobylarczyk, *The assessment of the quality of urban environment in selected cities of Podkarpackie after the period of „transformation” during the first decade of the XXI century*

Cracow University of Technology, Kraków 2013, p.117)

It is accompanied by a number of historic spa facilities with high scenic and architectural value that remain in a good condition. Despite the attractive center, many perceive the central zone of Iwonicz as not an easy place of the residence. Adjacent area, which is dominated by multi-family residential housing blocks, lacks common areas and green spaces; the technical condition of housing is in need of modernization; also the terrain in this area is not convenient due to high drops.

One of the advantage of the central zone is the building itself, its individual character shaping the city's identity, which nowadays should be sought and taken care of. Today we know that one should fight for individuality, the character of the place and its culture perceived as the most important element in building a vision of the future of European cities. In the New Athens Charter of 2003 "Vision of XXI Century City" The European Council of Town Planners notes that, especially at a time when integration appears to be necessary and inevitable, one of the most important elements that should be linked to the cities of the twenty-first century is the desire or even the need to preserve wealth and cultural diversity which has been shaped by extensive pages of the history. Cities of the future include those that will be able to skillfully combine their present and future with the past. For the purposes of this argument, the cities in-between, which may include small urban centers, create or will create in polycentric network systems due to the integration process that takes place.

Pruchnik is still even better example of this concept for the reason that it is a residential environment the conditions of which inhabitants appreciate very highly, and want to identify with, thus contributing to the formation of cultural and social identity of the place. Iwonicz Zdrój in turn is the place where the architecture of the city center is unusual, remembered or recognizable, and it also shapes the individual character of the place.

European cities are marked out by the long history which significantly influenced their individual character manifested not only in the economic situation but also the accompanying architecture. It should be also noted that this story makes European cities different from other centers elsewhere in the world. Unfortunately, this individuality is nowadays increasingly erased due to the many negative phenomena that are present within urban centers. Among other things, they focus around urbanization and globalization. "Slowly, but inevitably, new network systems bring together small and large cities to create urban" Continuum" already visible in many parts of Europe, where the "classic" city is only a part of the network of urbanization bands. Any vision of future cities should counteract these negative trends. The future is shaped by our actions today. The past gives us an invaluable learning for the future. In many ways, the city of the future already exists today. Modern city possesses a lot of qualities that we value, nurture, and wish to pass on to future generations. What is then the most fundamental problem of existing cities? In our opinion, it is the lack of consistency, not only in the physical sense, but also in relation to the continuity of the time".³

This deficiency results in difficulties connected with maintaining the autonomy not only within the city landscape, but also in the culture that positively affects the identity, which is the sole value of the city that should be supported strengthened and taken care of.

³ Europejska Rada Urbanistów, *Nowa Karta Ateńska 2003, Wizja miast XXI wieku* Lizbona 2003, str.6

Conclusion

The city in-between is the image of the center, which can aim in different directions. It may be associated with the place suspended between the real and the virtual world, which we increasingly use and visit. Unreal world is becoming a serious threat to the modern city, where common spaces may prove to be redundant in the future. There are many comfortable possibilities of using "virtual seats".

The city in-between may also be a safe alternative for someone who can be satisfied with what he has - existing conditions in this case. City between the extremes, which lead to a significant and rapid growth or collapse is safe, though not perfect.

The city in-between is also a city that once underestimated, today may be our dream, like Villeneuve of Camille Claudel. It becomes suspended between the old reluctance, and present, unattainable desire. Finally, the city in-between, most importantly from the perspective of this work, is the organism that is able to combine the experience of the past penetrating into the modern age by drawing the future. Therefore, it is a city where you do not find the sentinels guarding the gates of time - given era demanding its heyday.

It is a city free from time limits, where there is no barrier between yesterday, today and tomorrow. It seems impossible to build the future without knowing the history of the place, its values, culture, and the time in which it occurred. Ideal city, quoting after the ideology of sustainable development is the environment that not only satisfies its existing users, but also looks with concern for the needs of future generations. It always, however, draws from its history, which was particularly emphasized by the already mentioned document of the European Council of Town Planners, Vision of XXI Century City. With the widely prevailing globalization, as well as unification of architecture and space, it is difficult to find places different, individual, while only those can amaze.

So the future of the cities will depend on the skillful care for environment, culture, tradition and individual architecture. It is the identity of the place that to a large extent will depend on the fulfillment of specified conditions. A chance to build such attitude was given to European cities that because of their unlikeness stand out from other cities in the world. "During the process of historical development, European cities have established a distinctive language of forms that shape the spatial structure of the urban fabric. Markets, streets, squares and parks - public spaces clearly defined by the architecture, successively layered through the ages, coming from different, sometimes distant eras, created in the framework of different stylistic trends of art, form a coherent structure, included in the organizing framework of the municipal regulation."⁴

A small center is a great example of the city in-between, where the three spheres of time can coexist, where sometimes it seems as if time stood still is. It is frequently a place where inhabitants with great dedication cultivate culture and tradition of the place, which, although refers to the distant time, strongly occurs in the present and affects the importance of place in the future. Small town impresses with its otherness, but sometimes does not respond, or not sufficiently respond to the demands of the modern times, the needs of users based on

⁴ E. Węclawowicz- Gyurkovich, *Architektura najnowsza w historycznym środowisku miast europejskich*, Politechnika Krakowska, Kraków 2013, str.5.

advancement, and does not adapt to the new possibilities created by relentlessly progressive development of technology.

Without the past, neither the present nor the future seem to be possible, which is reminded by the cities in-between seeking for remedies against multiplying negative phenomena leading among other things to uncontrolled sprawl of urban centers, growing suburbanization and anonymity, which is exacerbating the phenomenon of uniformity not only of space and the architecture, but also the society. It is difficult in these conditions to talk about identity as there is none.

The city in-between is a real one, shaping the present, but also spreading the vision of the future, which can only be successful when appreciates the values cherished for many years, by many.

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HISTORIC TOWN - IDEA AND SENSE OF IDENTITY

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Key words: town, Poland, cultural landscape, protection

Abstract

This article addresses the problem of preserving the identity and historic cultural landscape in small towns in southern Poland. Nowadays, the unique character of those centers is frequently endangered by uncontrolled development and a drive towards modern architectonic and technological solutions. Inhabitants of these small towns, or centers currently reduced to the role of districts, do not always feel or understand the need for preserving the values of their little homelands, even though they bear evidence of a rich past and cultural potential. This work presents a few selected examples of small towns in southern Poland, some of which were degraded to the rank of districts at the beginning of the 20th century. Their landscape and cultural potential have been presented, and attention was drawn to the issue of protecting the historic heritage which has so far survived in the given area. Finally, the identity of selected towns and the sense of a struggle to maintain it have been addressed.

Introduction

Currently, there are around 900 towns in Poland. Central Statistical Office divides them according to the number of their inhabitants into: cities with at least a million inhabitants; with the population between 500 000 and 999 999 inhabitants; between 200 000 and 499 999; between 100 000 and 199 999; between 40 000 and 99 999; between 20 000 and 39 999; between 10 000 and 19 999; between 5000 and 9999; between 2500 and 4999, and those below 2500 inhabitants¹. There is also a group of centres which for various reasons lost their

¹ www.stat.gov.pl (20.03.2016)

town rank in the 19th and 20th century, and nowadays are rural districts, but the character of their functional-spatial structure and urban layout still allow to regard them as towns. The majority of the above mentioned centres are historic structures with rich tradition, cultural landscape and historic heritage. Those elements have influenced the identity of those centres which, in turn, defines their character, local colour and uniqueness. Unfortunately, in many cases the identity is weakened or even erased because of uncontrolled spatial, architectonic and technological development. Measures ought to be taken to counter the latter phenomenon, since the identity is inextricably linked with the very idea of the town existence.

The article presents the issue of preserving the identity and the historic cultural landscape within selected small towns in southern Poland, such as: Skawina, Rabka Zdroj, Nowy Korczyn and Sieniawa. The chosen centres boast interesting and eventful history as well as historic buildings and cultural landscape, which constitute their identity. Unfortunately, in many cases characteristic elements of their cultural landscape have gradually been degraded in favour of e.g. anonymous architecture. Those towns lack a complex vision of their development – a vision based also on making use of their valuable historic elements. It is important for local communities to see the need to maintain and continue traditional building techniques, building materials, object proportions and colour schemes. It is also important to maintain spatial proportions, urban interiors, greenery etc.

The historic heritage of the presented centres is a vital cultural medium. It can also become a “tourist product” which, in turn, constitutes a link to the widely understood town development and economic success that is followed by strengthening the town’s position in the region.

It has already been mentioned, that four urban centres were chosen to outline the above described issues. They are small towns, but rich in historic traditions, though differing from one another. The examples were selected from among numerous urban centres in southern Poland. They are representative for the issues that can currently be observed – problems connected with preservation of identity as well as protection and revalorization of cultural landscape.

Figure 1. Map of a fragment of southern Poland with marked location of analysed towns



The first of the analysed historic towns is Skawina, a town with the population of 20 thousand, located in the Lesser Poland Voivodeship, approximately 15 km to the south – west of Krakow. The town was established in the Middle Ages (founded in 1364) by King Kazimierz Wielki. The existence of defensive walls in the town and a castle of considerable significance for the defensive system of the Polish kingdom dates back to that period. The town is situated on the right bank of the Skawinka River along which the then border between the Duchy of Oświęcim - Zator and Poland of Kazimierz Wielki ran during the medieval period. Locating a town with a fortified castle in this area and a customs house on the border was an important link in the defence of the newly-established state (after the period of feudal fragmentation). That modern centre also served as a local venue for bartering commodities, therefore a rectangular market square surrounded by a strip of building blocks was measured out in the town, and a parish church was erected².

During the next centuries the town buildings developed further. Masonry tenement houses, a brewery, and a hospital church were erected, and at the turn of the 19th and 20th century the first factory representing interesting industrial architecture was built. Since that time, traditions of medieval Skawina mingled with traditions of an industrial town only to become obliterated in the 2nd half of the 20th century. The town became anonymous, and by many was only negatively associated with heavy industry i.e. the Aluminium Works (opened in 1954), Skawina Power Plant and other factories. The identity of this medieval town, the sense and origin of its foundation lost their significance. It is only recently that the roots have been rediscovered anew and the potential of historic heritage of Skawina has been noticed. The market square and some tenement houses have been revalorised. The building of “Sokol” erected at the turn of the 19th and 20th century on the site of a medieval fortress of Kazimierz Wielki has been restored. The medieval parish church has also been modernised. This return to the sense of the town history and its identity can also be seen in the attempt at passing the values of the native cultural landscape on to the young generation.

For this purpose, numerous exhibitions, talks and lectures in which the town history and its monuments are presented have been organised. In recent years historical monographs of the town have also been written, documenting its past, traditions and monuments. As a result of the above described revalorisation work and other activities intended to preserve the town identity, “label” of an industrial town is becoming more and more obliterated in the local community awareness, superseded by the traditions of an urban centre with medieval origins.

² Kuśnierz-Krupa, 2012, passim.

Figure 2. Centre of Skawina on the orthophotomap



Source: Photo: W. Gorgolewski.

Figure 3. Revalorised market square in Skawina and town hall
Figure 4. Revalorised building of the former “Sokoł” in Skawina



Source: Photo: D. Kuśnierz-Krupa, 2015. Photo: D. Kuśnierz-Krupa, 2016

Figure 5. Parish church of St. Simon and Jude in Skawina
Figure 7 Church of Our Lady in Skawina



Source: Photo: D. Kuśnierz-Krupa, 2016. Photo: D. Kuśnierz-Krupa, 2016

A slightly different example of a historic town possessing its own identity, though today unfortunately seriously endangered, is Rabka Zdrój. It is, at the same time, an example of issues associated with preservation of cultural landscape, which are currently noticeable in other Polish health resorts.

Rabka Zdrój as a health resort was established in the 19th century in the area between the Gorce range and Beskid Wyspowy range, in the south of the Lesser Poland Voivodeship. However, the roots of the settlement date back to the medieval period. Then, in the year 1254, King Bolesław Wstydlivy confirmed the endowment of the Cistercian monastery in Szczyrzyc, which included salt springs in the vicinity of Ludźmierz that historians identify with the later Rabka. Officially the place became a health resort in 1864, and the initiator of it was Julian Zubrzycki. Four iodine-bromine salt springs: "Rafaela", "Maria", "Krakus" and "Kazimierz" functioned there at the time. The centre of the health resort with such facilities as e.g. Spa House, a promenade, a chemist's and a restaurant, was located in their close proximity. It was here that the first pensions were built, initially mostly wooden, later masonry. These buildings had features characteristic for traditional architecture of the Podhale region, at the same time alluding to the current European models³.

Currently, the majority of these pensions are in poor state of preservation, and their use is incidental. Therefore, the cultural landscape of this famous spa is in danger. The identity of Rabka is disappearing along with its spa town architecture with historic details and traditional building materials. There are no clear-cut models of contemporary architectonic realisations which would skilfully fit into the historic environment. It is crucial for both town residents and local authorities to perceive the need for preserving the cultural landscape and its elements. Town development can go hand in hand with respecting historic values, the more so as those values remain the town's greatest asset.

The process of Rabka's revalorisation is inevitable since the town is currently state of stagnation. The process is complex since it overlaps with unfavourable phenomena e.g. connected with deteriorating quality of air which influences e.g. the loss of values related to the town's health-resort function. Therefore, in order to save Rabka, the programme of its revalorisation has to include several investments that will improve its climate. Only then will the town have a chance to regain its former value of a children's health resort and be again attractive for tourists and patients.

³ Beiersdorf, Krasnowolski, 1982, passim.

Figure 8. Centre of Rabka-Zdroj on orthophotomap.



Source: Photo: [in:] Geoportal

Figure 9. Building of the colony of St. Louis Children's Hospital in Rabka-Zdroj
Figure 10. Villa "Luboń" in Rabka-Zdroj



Source: Photo: D. Kuśnierz-Krupa, 2015

Figure 11. Villa "Warszawa" in Rabka-Zdroj, Figure 12. Villa "Wawel" in Rabka-Zdroj.



Source: Photo: D. Kuśnierz-Krupa, 2015

The third example, worth describing, is the former town of Nowy Korczyn located in the Ponidzie region, in the Świętokrzyskie Voivodeship, where it borders on the Lesser Poland Voivodeship. Since the time of its foundation which took place in the mid-13th century, until the 17th century, Nowy Korczyn used to be one of the most important towns in the then Lesser Poland, the evidence of which are the monuments preserved to the present day, in the form of two churches: the post-Franciscan one of St. Stanislaus from 1257, and the church of the Holy Trinity from the 16th century; an 18th-century synagogue, a medieval market square and relics of historic buildings around the market square⁴. Nowadays it is an almost forgotten and neglected centre with partially preserved relics of its eventful past. The beginnings of organised settlement in the area of the later town date back to the 11th century. A trade settlement existed here, located along the route leading from Krakow to Sandomierz. In 1226 in Korczyn was born duke Bolesław Wstydlivy, which confirms that a ducal court must have existed here earlier. In 1258, the monarch issued a privilege granting the town rights to Nowy Korczyn, thus contributing to its rapid development to which a favourable location at the crossroads of trade routes and a close proximity to the ducal court also contributed. In the 14th century, King Kazimierz Wielki built a masonry castle in Nowy Korczyn, which was visited by almost all Polish rulers in the next centuries. The town also served as a venue for political rallies and meetings of the nobility. A town hall, a town hospital, baths and a water pipeline existed here, which bore evidence of the residents' affluence. A gradual decline of Nowy Korczyn started in the 17th century and was caused by e.g. transferring the state capital from Krakow to Warsaw, which weakened the political role of the Lesser Poland nobility⁵. During the following centuries the town never regained its former position. It was continually harassed by enemy raids, scourges by numerous plagues and fires. After the Partitions, Nowy Korczyn found itself under the Russian occupation which led to its loss of town rights in the year 1869. This once bustling town is nowadays sadly neglected. Relics of its rich past are the previously mentioned monuments, old buildings vanishing before our eyes and the medieval market square. The progress of civilisation and the not fully controlled development have a negative impact on the cultural landscape of this unique town, which has been pointed out by the authors of the article. What seems to be lacking is a concept for revalorising the historic space and a simultaneous tourist activation of the town. Paradoxically, it is the cultural landscape and the eventful past of Nowy Korczyn that offer the town a chance of development.

⁴ Ginalska, 1999, p. 68.

⁵ Przybyszewski, Bienias, 2001, p. 55.

Figure 13. Nowy Korczyn in orthophotomap.



Source: Photo: [in:] Geoportal

Figure 14-15. Relics of traditional buildings in Nowy Korczyn nowadays. View of the fragment of the east market frontage



Source: Photo: D. Kuśnierz-Krupa 2015

Figure 16. Church of St. Stanisław the Bishop nowadays. View of the front elevation from the south-west. Figure 17. Church of the Holy Trinity and St. Lawrence and Elizabeth nowadays



Source: Photo: D. Kuśnierz-Krupa 2015

Figure 18. Synagogue at the beginning of the 20th century**Figure 19. Fragment of the market square nowadays**

Source: Photo [in:] Archive of the Chair of HAUiSzP WA CUT, s.v. Photo: D. Kuśnierz-Krupa 2015

Another town worth describing here is Sieniawa, located in the Podkarpacie region, in the Przeworsk district. Sieniawa was created in the second half of the 17th century. It was granted the town rights in 1676, in connection with the urbanization of the private estates belonging to the Sieniawski family. The undertaking involved transformation of the spatial structure of the existing village and its adaptation to meet the town needs.

The town, established at the turn of the 1670s and 1680s, became a completely new structure subordinate to a new functional programme which had been set down by Mikołaj Sieniawski for this part of his estates⁶.

Because of its centuries-long history the town boasts historic objects and complexes of exceptional architectonic and urban value. They include: the urban layout of the town with the market square and the town hall, the palace with its park and garden complex, the monastic complex of the Observant Dominicans, the building of the "Sokół" Gymnastic Association and the granary in Augustow. Some of those spaces and objects have been revalorise in recent years, and the town begins to regain its former glamour. The market square has been renovated, and the town hall regained its tower.

The former "Sokoł" building, the monastic complex and the palace have also been revalorised. The granary in Augustow, which is currently a subject of particular care by the authorities because of its poor technical condition, is still waiting for renovation and adaptation. The discussed centre is a positive example of proper care taken by owners and users of historic objects about their state of preservation. The town authorities, besides their obligation as a user and owner of a historic object imposed on them by the Monument Care and Protection Act, draw the attention of the local community to the potential, traditions and history of the town, and persevere in restoring the most significant objects and public spaces in the town to their proper appearance and rank.

⁶ Kuśnierz, Kuśnierz-Krupa, 2012, pp. 2680-2686 and 2013, pp. 47-52.

Figure 20. Sieniawa in orthophotomap



Source: Photo [in:] Geoportal

Figure 21. Revalorised town hall in Sieniawa.

Figure 22. Revalorised monastic complex of the Observant Dominicans in Sieniawa.



Source: Photo: D. Kuśnierz-Krupa 2015

Figure 23. Revalorised building of the former “Sokol” in Sieniawa



Photo: D. Kuśnierz-Krupa 2015

Summary

The above describe towns are examples of historic centres that are home to relics of historic buildings with precious architectonic detail. The majority of them can boast an eventful past which has often been forgotten by many, particularly the younger generation, or is completely unknown. All those elements contribute to the towns' identity and the fact that they are unique, despite current social and economic problems. This in turn is connected with the return to the sense of their urbanity, to the roots the memory of which ought to be constantly instilled and nurtured among their inhabitants. This history and identity of the place are manifested through its cultural landscape and its elements which must be preserved and revalorised⁷. Such protection is not simple since inhabitants do not always feel or understand the need for bringing out the values of their little homelands, even though they are evidence of a rich past and cultural potential. Hence the demand to local authorities for focusing on educating the community as far as history and cultural landscape are concerned. It may also be worthwhile to show the inhabitants the benefits resulting from revalorising their property and communal spaces. Such a benefit is e.g. the economic development associated with stimulating cultural tourism, and consequently new workplaces, growing wealth of the inhabitants and increased value of the revalorised areas.

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⁷ Kuśnierz-Krupa, 2014, pp. 91-110.

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IS COMPACT URBANITY MORE CONNECTED?

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Keywords: Beijing, urban morphology, connectivity, compactness.

Abstract

The concept of urban compactness is widely accepted as an approach in modern architectural and urban design fields, this belief may vary relative to the density and connectivity of various neighborhoods working within cities of developing countries.

Beijing has several compact residential neighborhoods in many of its urban districts. This paper argues that urban compactness as predictor of connectivity may carry an altogether different meaning when compared to the U.S objectives for achieving sustainable compactness by increasing density that is tactically connected.

The accelerated pace of migration following the economic progress from the countryside to cities in China helped grew the middle class while shifting demographics has added serious demands of housing and infrastructure within and outside of Beijing districts and its urban core. Various neighborhoods within and round Beijing districts are swelling with unwarranted compactness, causing serious environmental and ecological challenging making basic living conditions unchecked. In addition, crowding, traffic congestion, pollution and limited housing surrounding this compactness is a threat to the public health.

Several residential blocks of various sizes in close proximity to each other appear to add physical compactness seemingly well threaded in urban fabric various urban districts. Morphological analysis of selected neighborhoods revealed that many urban neighborhoods similar to case study examples are marred with unregulated urban interventions with little cohesive system of connectivity within these neighborhoods.

This study analyzed morphological patterns of street connectivity using *Space Syntax* method tounderstand if physical compactness also means more connected. The morphological variables notably, integration, connectivity and choice were used as key variables to describe

the quality of connectedness of a diverse range of mixed-use commercial and residential typologies that were served by dense street networks.

Analysis of spatial morphology of selected compact neighborhoods provided perceptive clues to redevelop a spatial program to bring about a meaningful design intervention to achieve better connections to the unregulated compact urban neighborhoods for achieving more pedestrian-friendly urban neighborhoods that could co-exist with the existing vehicular street networks.

The findings indicated that much of mixed-use developments in close proximity to each other were part of a fragmented maze of dead-end streets serving these residential blocks. The incoherent street networks serving these neighborhoods created a lack of control between pedestrian and vehicular circulations causing congestions and unsustainable conditions for social and public realm to coexist.

Introduction

The collaborative dynamics between economy, politics, culture, society, and the natural environment are key to development of any city. The 21st Century fast-paced development cycle has seen progress but at the same time deals with a number of conflicts with densely populated cities such as Beijing. The rapid industrialization encouraged many people to move from the countryside or undeveloped areas to Beijing in order to seek more paying job opportunities.

The 1978-Chinese economic reform Act opened up investment prospects for foreign entrepreneurs to establish trade in China (Wang, 2004). Since 1980s, the growth of industrial companies accelerated from 377,300 in 1980 to 7,957,800 in 1990s (Wang, 2004) with a continued economic in 21st Century. Much higher salaries compared to farming led millions to relocate to Beijing.

Beijing's rich cultural heritage with highly speculated real-estate market expanded its urban boundaries into the existing urban districts of varying scales and densities adding more physical compactness with new mixed-used buildings as part of the existing surroundings adding serious stress on the prevailing urban infrastructure that is already crumbling to meet the needs of the current population.

The perpetual addition of ill-planned and uncontrolled building stock to accommodate the continuous influx of rural migrants added injudicious compactness in these urban neighborhoods has produced an unhealthy physical density with serious environmental and ecological repercussions that includes water shortages, crowding, traffic congestion, lack of parking spaces; scarcity of open public spaces, limited housing and safety concerns. The disjunctive and congested street networks further contributes to carbon print using coal and natural gas for heating and petroleum for transportation causing a large amount of waste per capita, originating from everyday life besides soil, air and water pollution that are detrimental to health and overall quality of urban life in Beijing (Yang, Wu, Zou, Luo, Guo, & Lin, 2007).

This paper attempts to unravel the underlying spatial structure and the level of connectivity of street networks systems that served the selected compact urban neighborhoods to distinguish if these networks can effectively foster a public realm that is socially sustainable.

Global and Local Study Areas | Xiaoxitian Pailou | Beijing

Beijing is comprised of various urban districts. Each district has its unique urban morphology that contains several compact residential neighborhoods combined with new mixed-use developments. We selected a large urban area that was further subdivided into two sub-urban areas. Each sub areas were treated as local urban morphology relative to its location within its larger urban surroundings.

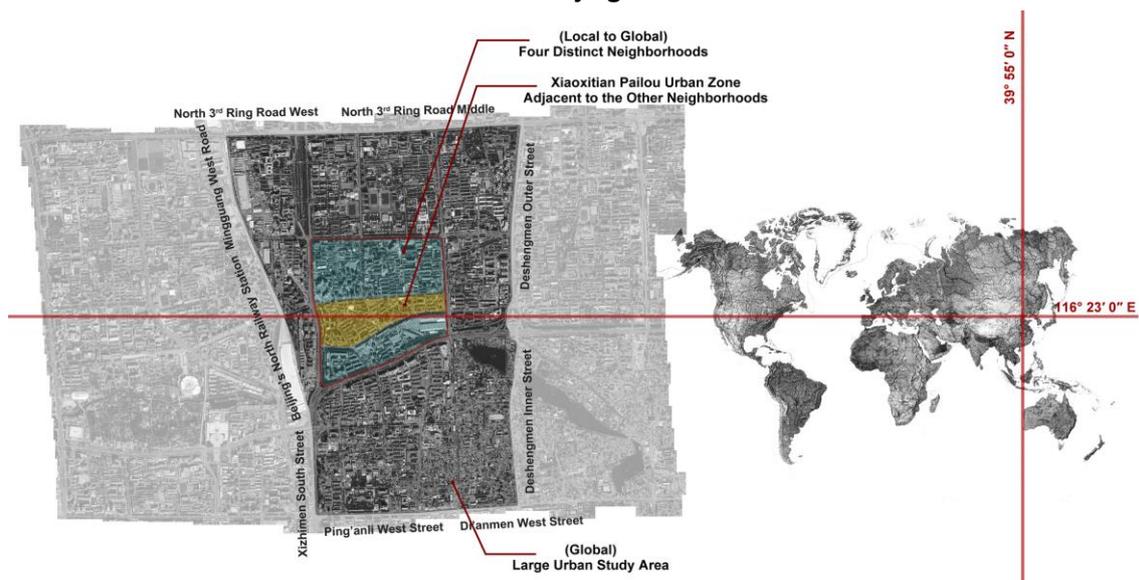
Global Morphology: Larger [Global] Urban Study Area | Beijing

The North Third Ring Road West and North Third Ring Road Middle demarcated the north boundary of the larger [global] urban study area whereas Ping'anli West Street and Di'anmen West Street shaped the south boundary with its internal street networks. Similarly, Xizhimen South Street, Beijing's North Railway Station and Mingguang West Road defined the west boundaries and Deshengmen Inner Street and Deshengmen Outer Street determined the eastern boundaries of the larger study area (Figure 1).

Morphology of Four distinct neighborhoods set within the larger [global] study area

The morphology relating to four neighborhoods [urban zones] set within the larger urban study is treated as "Local" urban morphology relative to its [Global] urban system. The four neighborhoods are bounded by Xueyuan South Road on the north and the western boundary by the Xizhimen North Street; the east by the Xinjiekou Outer Street and the south by the Deshengmen West Street (Figure 2).

Figure 1. Global Morphology of the study area in Xiaoxitian Pailou urban district in Beijing



Neighborhood Morphology within Xiaoxitian Pailou Urban Zone

Xiaoxitian Pailou urban setting is known for its old temple located in the northwest side of the site. In Buddhism, each Buddha has his corresponding temple and Xiaoxitian is one of these Buddhist temples, where Pailou is a memorial archway belonging to the temple. This selected neighborhood entails residential and mixed-use functions relative to its surrounding neighborhoods set within the Xiaoxitian Pailou urban morphology.

Figure 2. Neighborhood Morphology within Xiaoxitian Pailou Urban Zone marked in red



The selected neighborhood set within the Xiaoxitian Pailou urban morphology is bounded by the Wenhuiyuan Road on the north and is delineated by the Binhe Road (Yinmacao Road) and Lianhui Road on the south. Xizhimen North Street defines the boundary on the west; and the east by the Xijiekou Outer Street (Figure 2).

Xiaoxitian Pailou (the memorial archway) was built in 1989, which became an identifiable symbol for the residents of this urban district. Xiaoxitian Pailou urban zone consists of several residential neighborhoods co-existing with mixed-use and high-rise buildings. The selected study area highlighted in red is in close proximity to Beijing's North Railway Station and to

several imperial gardens on its southeast edge, with a memorial site to its northwest, and is close to five well-known universities (Beijing University of Posts and Telecommunications, Beijing Normal University, China University of Political Science and Law, Central University of Finance and Economics, and Beijing Jiaotong University). The significance of study area is further noted given its spatial juxtaposition to a man-made canal constructed for the 2008 Beijing Olympic Games.

The existing conditions of this area is challenged by traffic congestion, crowding and un-regulated mixed-use functions that are counter-productive to achieve a sustainable urban living that is conducive to generate healthy social and public realm which could co-exist with pedestrian-friendly activities strategically animated with street densities served by the current vehicular networks (Figure 4).

It is important to link the street density to the argument of urban compactness assuming that more compact settings served by a denser street network would be animated by more lively pedestrian-oriented activities.

Street Density | Xiaoxitian Pailou Urban Zone

This study measured street density ratios by using average line multiplied by the node count (number of streets), and then divided by the entire area [Xiaoxitian study area]. Street density refers to block sizes. A larger street density ratio indicates that the urban area is composed of smaller block sizes, whereas a smaller street density ratio implies that an area is comprised of larger block sizes.

The street density ratios of Xiaoxitian area when compared with the street density ratios of other cities during 19th century found that it is mostly composed of smaller blocks (Table 1). Further investigations revealed that most of these blocks created a “network density” (Pont, & Haupt, 2009, p. 86) that is compacted with smaller block sizes with irregular shapes and miscued land use functions (Figure 3).

Figure 3 Street Density Comparative Studies



Source: Peponis, J., Shpuza, E., & Rashid M. Comparative Spatial Analysis of Historical Cities (Unpublished raw data, Georgia Institute of Technology, 2000)

Figure 4 Xiaoxitian Pailou Urban Zone Current Conditions



The *network density* is defined as the amount of network [streets] per area unit, and is expressed as meters [*feet*] of network (length) per square meters [*feet*] of surface area (Pont, & Haupt, 2009, p. 86) that includes a network of *connected space* (*s*) for bicycling, driving, walking, or a combination of all.

The concept of network *density* is about understanding the relative connectedness comparative to the arrangement of lots and buildings in a street system relative to its connectedness with various land-use functions in an urban setting or plan. It also manages to validate the perception and the functional nature of a "public street" within a network (Pont, & Haupt, 2009) connecting various private open spaces (islands), lots and buildings in Xiaoxitian Pailou. Accordingly, the urban fabric formed by public streets and private islands may be understood as *urban public network space* linking all spatial entities together was found regularly disjointed in Xiaoxitian Pailou and in its surrounding neighborhoods.

Research findings claim that street density followed by small or medium blocks between 60 to 80 meter of one side to approximately 3600m² to 20,000m² are the optimum options for functional operation of a city and are able to provide more opportunities for lot frontages and

generate more regulated circulation flow patterns (Siksna, 1997). In addition, smaller block sizes in an urban fabric facilitate flexible spatial proportions and exposure ratio of network system to plan an entire urban area. A successful *network space* promotes movements and flows fostering connectedness, privacy and public-ness requiring most islands to be tactically distributed between public and private zones (Pont, & Haupt, 2009).

The findings further indicated that Xiaoxitian Pailou with its relatively smaller blocks is filled with incongruent mixed-use functions connected to a fragmented street system that served new developments along with the existing without much consideration to constructing a flexible *network of space* (Figure 3 and Table 1).

It is also important to point out that occasionally, *network of space (s)* within an urban fabric can also form spatial transitions and as the transitional boundaries are crossed new changes to the conditions of network density may emerge (Pont, & Haupt, 2009). Findings pointed to the spatial transitions between the study area of Xiaoxitian and its urban neighborhoods were relatively inflexible due to dead-end street network filled with incongruent land use functions.

This study further investigated the operative nature of the *network of space (s)* using Space Syntax Method (Hillier and Hanson, 1984; Al_Sayed, Turner, Hillier, Iida, & Penn, 2014) measuring the Integration, connectivity and choice of urban morphology of Xiaoxitian study area. All three are syntactic variables to analyze and understand the underlying spatial structure and the operative behavior of an urban setting.

Table 1. Xiaoxitian Pailou street density ratios compared to the evolving nature of street density in other cities in the World during the 19th Century

Area of Study		Street Density	
Year	City		Street Density = $\frac{\text{Average Line Length} \times \text{Node Count}}{\text{Entire Area}}$
2015	Xiaoxitian Pailou Urban Areas (Beijing, China)	(Global) Larger Urban Study Area	0.0787
		(Local to Global) Four Distinct Neighborhoods	0.0964
		Xiaoxitian Pailou Urban Zone	0.1748
1842	Calcutta, India		0.0122
1833	Berlin, Germany		0.0132
1835	London, England		0.0219
1834	Paris, France		0.0156
1834	Saint Petersburg, Russia		0.0120
1840	Istanbul, Turkey		0.0160
1833	Vienna, Austria		0.0176
1840	New York, U.S.A.		0.0224
1840	Philadelphia, U.S.A.		0.0253
1830	Rome, Italy		0.0194

Source: Peponis, J., Shpuza, E., & Rashid M. Comparative Spatial Analysis of Historical Cities. Unpublished raw data, Georgia Institute of Technology, 2000.

Space Syntax Method

Space Syntax studies argue that there is an embedded social logic that intrinsically operates within the network of spaces. If a building or an urban area were a system that carried movement from every space to every other space, those spaces that are most directly connected to every other space would "attract higher densities of movement" (Peponis, & Wineman, 2002, p. 271; Al_Sayed, Turner, Hillier, Iida, & Penn, 2014). This interdependent network of spaces would establish patterns of human behavior generating and affecting social functions in an urban system specific to its layout. There are several factors that can influence the patterns of behavior and movement including one's position within an urban system, the distance between two spaces and the directional turns as determined in a layout. Another important consideration is the significance of *Depth* between two spaces. Each space (a street in an urban setting or room in a building) can be considered as a *node* connected by links (connections), the *Depth of a node* is the sum of the lines (connections) that are necessary in order to reach to all other nodes in turn (Peponis, & Wineman, 2002).

Space syntax method determines the underlying nature of the spatial structure that determines the movement and the relative value of spatial relationships of one space to all other spaces within a building or from one street (node) to all other streets (nodes) of an urban setting. These spaces can be voids (open spaces such as lots or empty spaces or blocks) bounded by streets in a given urban setting or rooms in a building defined by walls, furniture or partitions (Al_Sayed, Turner, Hillier, Iida, & Penn, 2014). The aggregations of spaces voids and buildings defined by street boundaries in case of an urban setting form a network of spaces that determine and affect the pedestrian movement and vehicular circulation flows (Hillier, 2014) that intersect with aggregations of buildings composing and defining the underlying structure of different urban topographies within cities while continually evolving with new land use functions added to the existing.

This study has considered three key measures used in space syntax simulations. Among the three measures, Integration is important to understand the syntactic nature and spatial morphology and behavior of the Xiaoxitian Pailou urban area.

1. Integration is a global measure in terms of understanding the morphology of a layout (urban or building). It is a function of the mean *Depth* (number of nodes/spaces that must be traversed) if one were to move from every street (node/spaces) to every other space (node/connection) in an urban setting (Peponis, & Wineman, 2002).

The inverse relationship between *Integration* and *Depth* showed that the higher the integration value of the node (street) the lesser is its degree of *Depth* value. Integration, therefore, is considered a relative degree of syntactic accessibility of an urban setting, where spaces (node/streets) are ranked from the most integrated to the most segregated indicating the degree of accessibility from one space (street) to all other spaces (streets) in an urban setting (Al_Sayed et al., 2014).

Spatial studies have maintained that *movement* creates potential co-presence, co-awareness and encounters that can foster interactions among individuals at different frequency intervals depending upon spatial structure of a layout in a given urban setting to be able to influence

encounter by daily interval. Integration value, therefore, is a strong predictor of movement and space use patterns cultivating social encounters and space use behaviors when people explore an area in an urban setting, majority would be most likely to be attracted to more integrated spaces (Peponis, & Wineman, 2002).

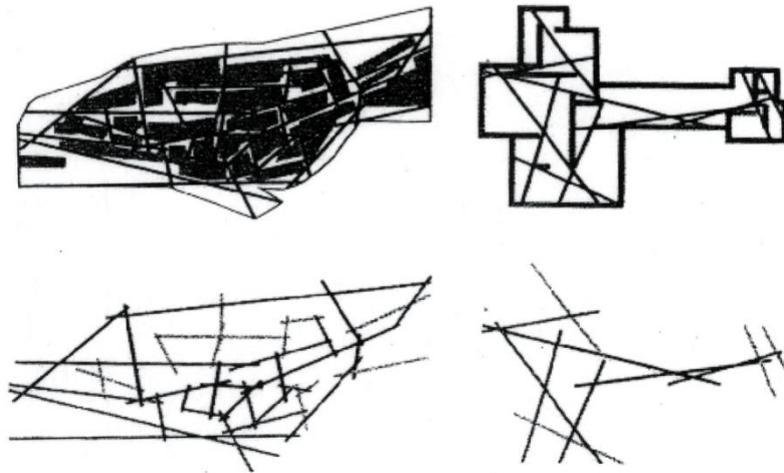
2. Connectivity is a local measure of spatial morphology. It measures the number of immediate neighbors (spaces) that are directly connected to a space that embodies the sum (s) of junctions between each axial line and other axial lines (Al_Sayed et al., 2014; Peponis and Wineman, 2002).

3. Choice is a measure of indicating the *movement flows* through spaces. Spaces (streets) with high global choice of (movement) are located on the shortest paths from all origins to all destinations. Choice is a powerful indicator at forecasting pedestrian and vehicular movement potentials" (Al_Sayed et al., 2014).

4. Axial Map: It is significant to mention the concept of Axial Map or "linear representation" of an urban setting that contains the fewest and the longest lines that can cover all ways of movement in a layout to reach all other the spaces (streets). Axial lines define and describe the relativized asymmetry of network of spaces and their degree of Integration in Xiaoxitian Pailou. The relative degree of Integration values allows describing how integrated or segregated a space is in relation to all other spaces (Figure 5).

This study has used the most current version of *Depthmap* software to be able to compute syntactic variables (Integration, Connectivity and Choice) considered to reveal the potential social interactions and urban activities (Al_Sayed et al., 2014; Hillier 2014).

Figure 5 Axial Map¹



Source: *Spatial Structure of Environment and Behavior* by Peponis and Wineman (2002, p. 273). Peponis, J., & Wineman, J. *Spatial Structure of Environment and Behavior*. In Robert B. Bechtel & Arza Churchman (Ed.), *Handbook of Psychology* (p. 271-291). New York: John Wiley & Sons, Inc., 2002.

¹"Axial map" or "linear representation" of an urban setting. **Source:** *Spatial Structure of Environment and Behavior* by Peponis and Wineman (2002, p. 273). Peponis, J., & Wineman, J. *Spatial Structure of Environment and Behavior*. In Robert B. Bechtel & Arza Churchman (Ed.), *Handbook of Psychology* (p. 271-291). New York: John Wiley & Sons, Inc., 2002.

Spatial Analyses based on Overall Urban Context (Global Values)

Global values are calculated by considering the larger urban area as one spatial urban entity.

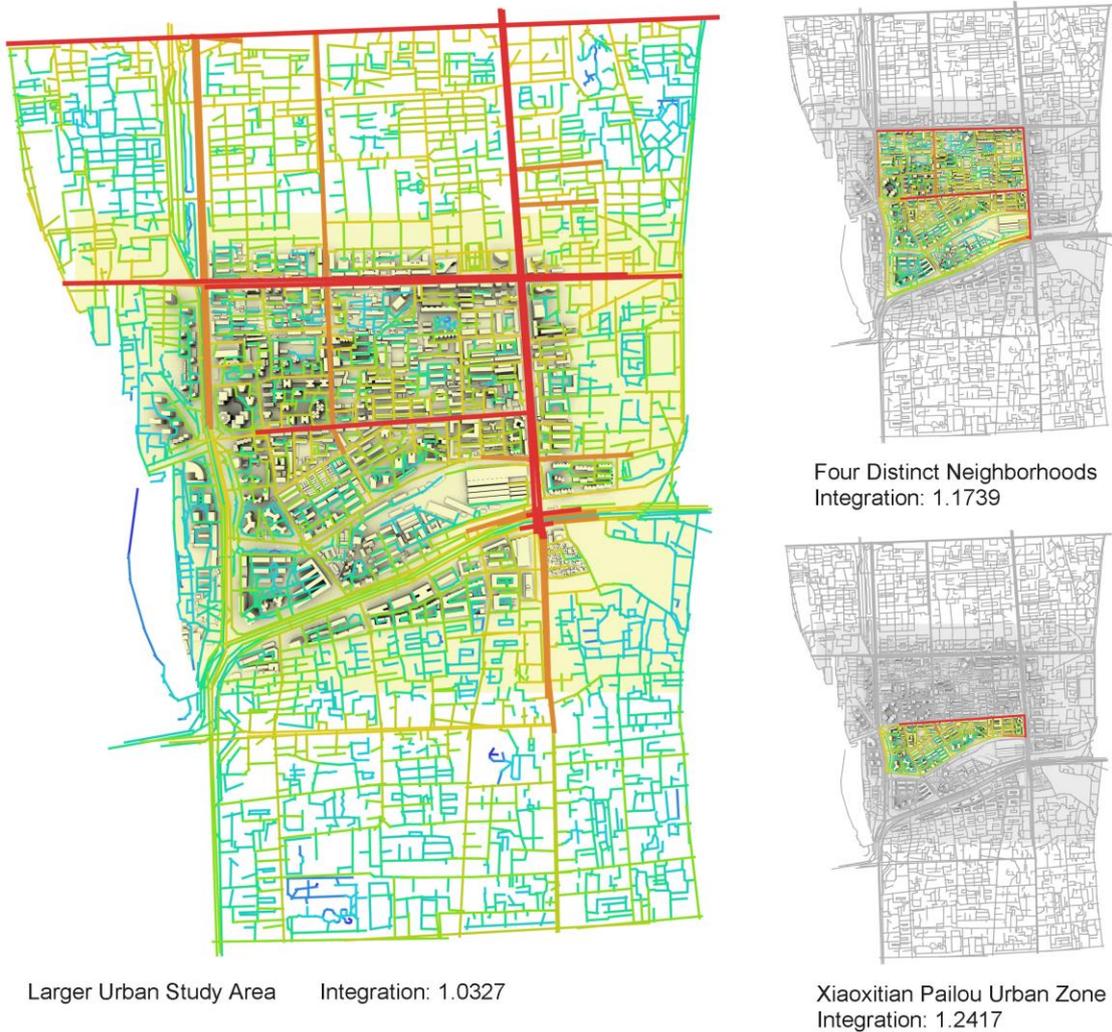
The Depthmap simulations showed that the *Integration* value for the entire urban area is 1.0327 (Figure 6), which points to a quite fragmented spatial structure in which the selected four urban neighborhoods (zones) exist with an integration value of 1.1739 (Figure 6); One of four neighborhoods --Xiaoxitian Pailou had integration value of 1.2417 (Figure 6). The fragmented pattern remains throughout with slight improvement in integration values as the spatial structure of a local urban setting become slightly improved as Xiaoxitian Pailou connects to its local surroundings. The darker blue axial lines (network of spaces) indicate the most segregated areas whereas the red axial lines indicate more integrated network of spaces (spaces/streets/nodes/areas).

Recent spatial studies have indicated that integrated spaces can be reached easily from other spaces whereas segregated spaces are hard to reach since segregated network of space create spatial conditions where people have to travel through several spaces first in order to get to the destination (Wineman, & Peponis, 2010).

The integration values in this study indicate that Xiaoxitian Pailou though compact and with smaller block size is predominantly less integrated and more due to the fragmented spatial configuration of its layout and form of space as connected to its larger urban setting. Most street network is filled with small alleys and dead-end streets that have pointedly limiting influence on people's exploratory movement and their visual connection to find intelligible reference to develop a meaningful social co-presence and co-awareness of each other.

The network of spaces (streets and roads) in Xiaoxitian Pailou area represented in red axial lines are the most integrated paths or primary circulations that are more heavily utilized than other routes by residents or visitors for pedestrian and vehicular circulation. In other words, the integrated network of space of Xiaoxitian Pailou can guide residents or visitors to its local paths and areas more comprehensibly relative to the larger urban area in which it exists. Land use functions (restaurants, theaters, bookstores, grocery stores etc.) located on the integrated routes are more reachable and have higher likelihood be visited more than others land use functions located on the segregated or (fragmented) routes regardless of the urban compactness.

Figure 6 Spatial Morphology Axial Map Analyses-Global Integration²



²Left: Spatial morphology (degree of integration) around four zones within its larger urban context. Top right: Spatial morphology (global integration) of zone 1+2+4+Xiaoxitian Pailou urban zone within its larger urban context. Bottom right: Spatial morphology (global integration) of Xiaoxitian Pailou urban zone in relation to overall urban context.

Figure 7 Spatial Morphology Axial Map Analyses-Global Connectivity³

The connectivity value for the entire (global) urban area is 3.00 (Figure 7) while the four zones in the larger urban entity is around 4.76 (Figure 7); and for Xiaoxitian Pailou urban zone within the larger urban entity is 5.62 (Figure 7). The connectivity values indicate that the larger urban area has weaker network of spaces despite its urban compactness.

The spatial analysis indicated that North Third Ring Road West and North Third Ring Road Middle have the most connections (39) compared to other routes with much higher degree of integration to become the primary circulation route.

Connectivity is a local measure to describe the local network of connections of a setting to its immediate surroundings. Thus, from a local standpoint, these roads and streets (routes) may

³Left: Spatial morphology (degree of connectivity) around four zones within its larger urban context. Top right: Spatial morphology (global connectivity) of zone 1+2+4+Xiaoxitian Pailou urban zone within its larger urban context. Bottom right: Spatial morphology (global connectivity) of Xiaoxitian Pailou urban zone in relation to overall urban context.

not have many connections in relation to all other routes. The *Integration* is a global measure, consequently, from the global view, the roads and streets that have higher integration values will have more connections than most other routes within this entire urban area where urban compactness may not be contributing spatial agent for making any area more integrated as in the case of Xiaoxitian Pailou.

Figure 8 Spatial Morphology Axial Map Analyses-Global Choice⁴



The spatial analysis indicated that the movement flows being the degree of *Choice* to choose routes within the larger urban zone is 0.004960 (Figure 8); whereas four neighborhoods within

⁴Left: Spatial morphology (degree of *Choice*) around four zones within its larger urban context. Top right: Spatial morphology (global choice) of zone 1+2+4+Xiaoxitian Pailou urban zone within its larger urban context. Bottom right: Spatial morphology (global choice) of Xiaoxitian Pailou urban zone in relation to overall urban context.

the larger urban entity is 0.01822 (Figure 8) and for Xiaoxitian Pailou neighborhood is 0.01836 in relation to its larger urban structure (Figure 8).

Findings showed that Xinjiekou Outer Street being the most integrated offer relatively more choices of movement flows of people to move from one destination to the next destination relative to its fragmented configuration and urban compactness.

Further analysis of local spatial conditions of four zones (zone 1+2+4+Xiaoxitian Pailou urban zone) as one spatial urban entity (Figure 9) showed Integration (1.2446) and Xiaoxitian Pailou urban zone only revealed (1.3985) (Figure 10). The relative higher values at the local levels are due to Wenhuiyuan Road and Wenhuiyuan Byway that are more integrated and are operating more effectively at the local levels. These two routes are the key local circulatory spines used by residents and visitors compared to other routes due to their primacy to various congruent land use functions such as shopping and entertainment located along these two routes. The findings indicate that diverse and corresponding land use functions are more integrated into the local area that can be simply reached. Similarly, the Connectivity value is 4.75 when are deemed as one urban entity (Figure 9); and Xiaoxitian Pailou neighborhood is 5.61 (Figure 10) connected to Wenhuiyuan Road that has the most connections (29) compared with other routes.

The Choice value of four zones indicating movement flows is 0.05194 (Figure 9); and for Xiaoxitian Pailou neighborhood only is 0.06465 (Figure 10) that is connected to Wenhuiyuan Road, which offers more choice of *movement flows* to access other spaces in the local urban network of spaces.

Figure 9 Spatial Morphology Axial Map Analyses-Local Values (Four Distinct Neighborhoods as One Spatial Urban Entity)

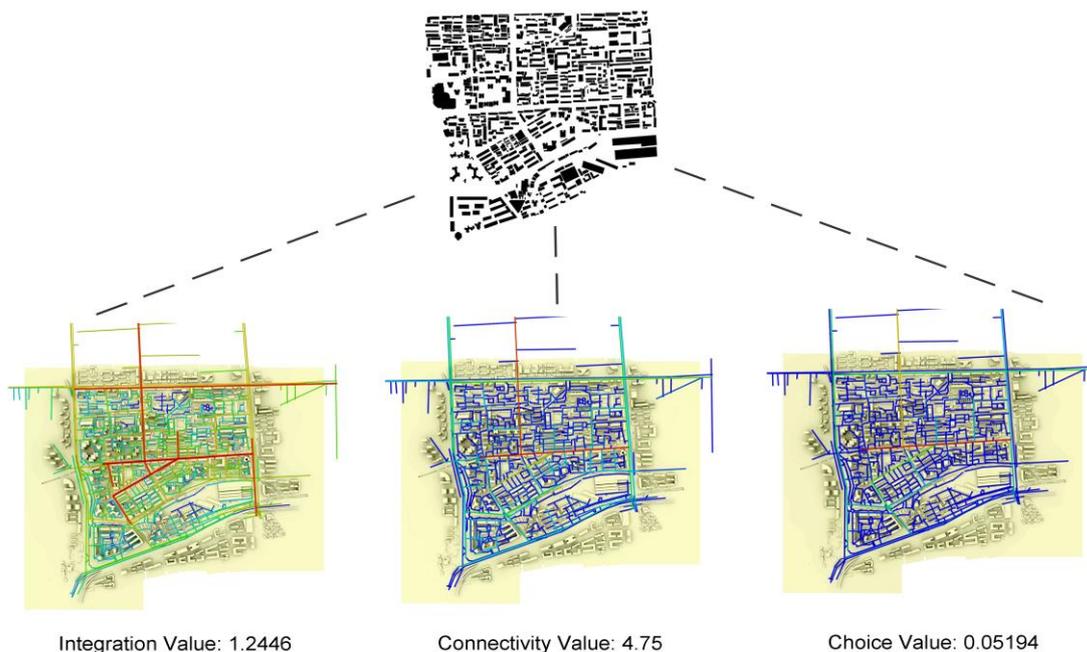


Figure 10 Spatial Morphology Axial Map Analyses-Local Values (Xiaoxitian Pailou Urban Zone as Part of Zone 1+2+4)



Figure 11 Spatial Morphology Analyses

Spatial Morphology Analyses				
	Integration	Connectivity	Choice	
Larger Urban Area	1.0327	3.00	0.004960	
Zone 1+2+4+Xiaoxitian Pailou Urban Zone set in the Larger Urban Entity	1.1739	4.76	0.01822	
Zone 1+2+4+Xiaoxitian Pailou Urban Zone as One Spatial Urban Entity	1.2446	4.75	0.05194	
Xiaoxitian Pailou Urban Zone as Part of Larger Urban Entity	1.2417	5.62	0.01836	
Xiaoxitian Pailou Urban Zone as Part of Zone 1+2+4	1.3985	5.61	0.06465	

Concluding Remarks

The findings of the *Depthmap* simulations confirmed that the selected study area (larger urban setting Integration: 1.0327) composed of smaller but irregular block sizes are seemingly compact but connected to a fragmented network of spaces both at the local and global scales including Xiaoxitian Pailou. Integration value (1.1739) of all four neighborhoods combined as part of the larger urban area vaguely improved. On the other hand, Integration value (1.2417) of Xiaoxitian Pailou urban zone slightly improved due to the higher degree of local connectivity compared to its global counterpart that is mostly comprised of disjointed network of spaces impacting all other spatial entities within it.

Other studies showed that integration values of larger urban settings in Qazvin (1.4368), (Azimzadeh, & Klarquist, 2001), and English traditional cities was 1.44 (Karimi: Choudhary, & Adane, 2012) that were significantly higher than the study area in Beijing (1.0327) confirming that the network of spaces in the study area is composed significantly of segregated routes despite being spatially compact.

The connectivity value of the larger urban zone of Beijing is 3.00 relatively is smaller than the connectivity values of urban cores in other cities in USA (5.835), Europe (4.609), United Kingdom is (3.713) (Raman, 2003), urban cores of central Indian cities (3.46), English traditional cities (3.45), Brazil (3.88), Asia Pacific (3.50) (Choudhary, & Adane, 2012). These comparisons indicate that local conditions of network of spaces were relatively were served more with fragmented connections compared to other cities. Four neighborhoods (4.76) as part of larger urban entity and one Xiaoxitian Pailou neighborhood study area (5.62) has significantly higher levels of connectivity at local scales but with low Choice values indicating restricted movement flows (Figure 11).

The spatial analysis of the selected urban area in Beijing demonstrates a pattern of fragmented urban structure predominantly served by a network of spaces that are more segregated than integrated with lower levels of connectivity and choice despite its compactness with smaller block sizes as a value to achieve sustainable spatial conditions as argued in other studies. The urban compactness filled with miscued land use functions connected to a predominantly segregated network of spaces would generate limited opportunities to sustain the social logic of space in Xiaoxitian Pailou that is impacted by the overall fragmented networks of its larger urban area.

The findings in this study illustrated that the integration and connectivity values of selected larger urban zone of Beijing, as well as some local neighborhoods, are not high as expected despite being compact with smaller size blocks that are seemingly compact and dense; however, it does not mean that these areas are well connected and integrated into the entire urban district. It will be hard to enable co-presence and co-awareness of people among each other who living in a neighborhood set in a fragmented urban fabric operated by a weak network of spaces.

The findings in the study suggest to redevelop unregulated-planned and disjointed urban zones, in order to achieve more integrated, well-connected and sustainable urban settings generating

co-presence and co-awareness to foster a strong sense of public-ness and to improve quality of life quality pertaining to a social logic to cultivate a sustainable network of spaces.

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CONTEMPORARY EUROPEAN SPIRITUALITY - NEW FORMS OF SACRED SPACES

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Key words: church, temple, chapel, place of cult, spirituality, minimalism

Abstract

The 20th century witnessed changes which altered radically the world hitherto functioning in the same way for centuries. The pluralist global culture is characterized by rapid and unpredictable changeability involving continuous challenging of traditional values. Architecture is no exception to this rule, including religious architecture, which best reflects the spirituality of its time. Revaluation which took place in the last century resulted in the need of a new interpretation of the concepts of the sacred and the profane, as they have lost their clarity and significance. In consequence of the conflict between the dogmatic understanding of stability on the one hand and the modern culture, science, thought and world interpretation as well as the pace and style of living on the other, the need has emerged to build new places of cult that embrace the Zeitgeist of today – stripped of almost all ideology, visually modest, devoid in their décor of intense expression or a large number of stimuli. There are also temples which invite into the same space people of different religions as well as people who are seeking faith or are doubtful, places focused on catering for spiritual or contemplation needs, but also offering intellectual rest.

The sacred – the profane: in the past and today

The centuries-old division of the world into the sacred and the profane, i.e. the saint and the secular, introduced order into reality and all the areas of human life and thus safeguarded the stability of the European civilisation. In architecture, the order was reflected in verticality, axial symmetry, ornamentation, adequate location and the magnificence of material. Religious buildings – revered and inviolable – over time became monuments of their period, subject to the special rules of place. Being the most attractive buildings in the landscape, they ordered and organised space as well as marked out public spaces. This bi-polar division of space was clear and easily perceivable, and the borders were visibly outlined.

The global culture of the late 20th and early 21st century is characterised by universal, rapid and unpredictable changeability in every area, involving continuous challenging of the bi-polar and hitherto invariable values sanctioned by tradition. Z. Bauman writes: everything or almost everything in our world is changing: fashions we follow and objects we devote our attention to

(as ephemeral as everything else: don't we lose interest today in what only yesterday we were attracted to? Tomorrow we will grow indifferent to what today we find so exciting), things we desire and fear, things which give us hope and which fill us with anxiety. The conditions in which we live, work and try to plan our future (...). In short, our world, the world of liquid modernity, surprises us incessantly: what today seems certain and in its right place, as early as tomorrow may turn out to have been a pitiful error, something useless and absurd. (...) we need to be constantly prepared for change.¹ The time when great myths based on permanence, transcendence and invariability were still valid has gone and will never come back. The driving forces of our civilisation now are their opposites: impermanence, variability and temporariness. Today, in the open space-time and reality built on interculturality and globalisation, on huge corporations and international projects, in which there is no longer any identity but only transformations,² reinterpretation of the concepts of the sacred and the profane has become an absolute necessity.

Spirituality of contemporary Europe

The space for the sacred understood in the traditional way is systematically marginalised in the non-homogenous, pragmatically oriented and postmodern city. Communities organised around one system of values have long ceased to function in the contemporary cities of the Western world. The direct consequence of these processes is the diminishing religious significance of churches, which translates into their less prominent status as centres organising the life of local communities. Temples, even if old and of historic value, stand vacant, unwanted and troublesome, at best doomed to be adapted for some other, secular functions. The direction and success of these transformations depend primarily on the economic considerations, which are complied with even at the cost of deformation or destruction of unique architectural values.³ There have been cases of closing churches in Holland⁴, Germany⁵, Belgium⁶ or Ireland⁷, putting them up for sale and adapting for offices, galleries, concert halls or flats. An extreme example of what a church may be turned into is the Brigittines Chapel in Brussels. In its long history it has already served as a bookshop, a weapon manufacturing facility, a military pharmacy, a shelter for homeless people, a banquet hall, a letter sorting centre or even a slaughterhouse.⁸ Finally, since 2007 it has been housing the Contemporary Arts Centre for Movement⁹. A radical example of a contemporary church defying tradition is the Dutch Transparent Church By Frank Los – mobile, inflatable transparent church which performs the function of a place for meditation

¹ Z. Bauman, *44 listy ze świata płynnej nowoczesności*, Kraków 2011, pp. 5 – 7. [*unless stated otherwise, all the quotations have been rendered into English by the translator of this text]

² After: Z. Bauman, *Dwa szkice o moralności ponowoczesnej*, Instytut Kultury, Warszawa 1994, p.30.

³ J. Rabej, *Chrześcijańska architektura sakralna — problem świątyń desakralizowanych oraz przestrzeni parasakralnych*, *Liturgia Sacra* 18 (2012), no 2, p. 559

⁴ An old Dominican church transformed into a library, Merx+Girod, Maastricht, 2008.; in Arnhem St. Joseph church was turned into a skatepark, 2011; more [in:] D. Kuśnierz-Krupa, M. Krupa, *Nowe życie średniowiecznych kościołów z Maastricht*, *Wiadomości konserwatorskie* 24/2008, pp. 103-106

⁵ *Martinszentrum*, Weis&Volkman, Bernburg 2007

⁶ A deserted Anglican church in Rue de Stassard in Brussels was transformed into a music club; Pure Sang Design Studio

⁷ The Church Bar & Restaurant, Duffy Mitchell O'Donoghue, Dublin, 2005

⁸ See: *Zamieszkać w Domu Bożym* [in:] http://www.bryla.pl/bryla/1.85298.7493386.Zamieszkaac_w_domu_Bozym.html; as of the 9th March 2016

⁹ Contemporary Arts Centre for Movement, designed by Adrea Bruno+Sum Project, Brussels 2007

or a discussion forum at various events, festivals or even private ceremonies. Undoubtedly, the outcomes of the inevitable processes of adaptation and functionality change of places of worship depend to a considerable degree on the current fads and the personal good taste of the involved designers.¹⁰

The complex issues related to the ambiguity and multithread nature of the concepts of the sacred/profane and their transformations, the need of transcendence as well as the dynamic changes in practising religion taking place in the Western societies have been subject of numerous dissertations and studies by sociologists, anthropologists, ethnologists, theologians, philosophers and other theoreticians and scientists exploring the field of culture, such as Émile Durkheim,¹¹ Mircea Eliade,¹² Roger Caillois,¹³ Erich Fromm¹⁴ and others.

Metamorphoses and transformations of forms of religious practices taking place in the Western societies “tend towards their pluralisation, individualisation and privatisation.”¹⁵ The concepts of practising religion and spirituality were initially perceived as separated and frequently set in opposition to each other. Practising religion was associated with traditional forms of group practices and related to religious institutions, whereas spirituality was presented as seeking universal truth, with the emphasis placed on individual forms of worship or convictions which put an individual in some sort of relation with the world. The individualist trends themselves originated from the broadening perspective of cultural pluralism.¹⁶

The sacred understood in the contemporary fashion withdraws from where we used to expect it, and moves to the areas where it was previously absent. An example illustrating the above are monuments and mausoleums, now acquiring new spirituality, other public utility facilities which have a cathartic effect upon their users, or spaces provoking various metaphysical experiences in people who visit them.¹⁷ The sacred seems to be less and less willing to dwell in the traditional religious institutions; moving into the sphere of the subjective, it enters mysterious and mystical places, but also popular culture and the world of advertising.¹⁸ Maria Rogińska writes in her text about the religious sensibility of the contemporary humans – the category may adopt minimal forms – reduced merely to the question about the existence of “something more” or the elusive intuition confirming this existence. Elsewhere, it adopts more tangible forms, where – referring to religious symbols – it is striving to make itself comfortable in the space of the profane. Scholars are looking for the symptoms of the secularised sacred in shopping malls, at management courses and in psychotherapists’ offices, where quasi-religious language and specific secular rituals are commonly used. Maximal forms, on the other hand, adopt the form of

¹⁰ J. Kurek, *Laicyzacja sacrum. Współczesna adaptacja świątyń do nowych funkcji*, PiF’15, pp. 225-234

¹¹ E.g. E. Durkheim, *Elementarne formy życia religijnego*, transl. Anna Zadrożyńska-Barącz, PWN, Warszawa 1990

¹² E.g. M. Eliade, *Sacrum, mit, historia*, PIW, Warszawa 1974

¹³ R. Caillois, *Człowiek i sacrum*, transl. A. Tatariewicz, E. Burska, Oficyna Wydawnicza Wolumen, Warszawa 2009

¹⁴ E. Fromm, *Szkice z psychologii religii*, transl. J. Prokopiuk, Książka i Wiedza, Warszawa 1966

¹⁵ M. Rogińska, *Sacrum ponowoczesne. Nauka i nowa duchowość w poszukiwaniu całości*, [in:] *Annales Universitatis Paedagogicae Cracoviensis. Studia Sociologica VI* (2014), vol. 1, p. 51

¹⁶ M. Jarosz, *Pojęcie duchowości w psychologii*, [in:] *Studia z Psychologii w KUL*, vol. 16, Lublin, CUL Press 2010, p. 13

¹⁷ E.g. Ghetto Heroes Square in Kraków, design by Biuro Projektów Lewicki Łatak, 2005; the Memorial to the Murdered Jews of Europe, design by P. Eisenmann, Berlin 2005

¹⁸ M. Grabowska, *Zmysłowe sacrum - jak reklama i kultura popularna ucieleśniają sacrum (na wybranych przykładach)*, [in:] <http://www.publikacje.edu.pl/pdf/10189.pdf>; as of the 6th Feb. 2016

extensive systems of beliefs, constructed to suit subjective tastes, or emerging as new religious movements or even whole new religions.¹⁹

Innovative places of cult

Architecture is the most articulate of all arts in expressing the spirituality of the era in which it is created. The liquidity and multiculturalism, so characteristic of the contemporary world, as well as the fusion of secular and religious areas, have generated demand for places of cult (meditation, tranquillity and contemplation) – modest and simple, where the narrative of archetypes is intertwined with extraordinariness, a necessary quality when it comes to the space of cult. Such chapels – of a specific religious denomination or non-denominational – often emerge in unexpected places: in metropolitan business centres,²⁰ in spaces filled with hustle and bustle: railway stations,²¹ motorways,²² shopping malls,²³ in former industrial areas²⁴, but also, more traditionally, in the mountains or in the wilderness.

Masterly examples of how the space of the sacred may be successfully created in structures of universal character and of a high aesthetic value are to be found in the UNESCO complex of buildings in Paris,²⁵ at the Swiss A2 motorway near the entrance of the St. Gotthard Tunnel,²⁶ in Austrian Locherboden,²⁷ in German Kolbermoor²⁸ and in Spanish Valleaceron,²⁹ where on a rocky hill stands a concrete chapel, whose austere form blends into the landscape and, since it is a place stripped of any traces of civilisation, it makes a perfect place for meditation. In Turku, Finland, architects Matti Sanaksenaho, Pirjo Sanaksenaho and Enrico Garbin have designed one of the most beautiful ecumenical chapels in the shape of a wooden boat hull placed upside down.³⁰ It has to be mentioned at this point, however, that designs for structures related to spirituality, without signing up to any religion, but referring to the philosophical foundations instead, have been created since the Enlightenment, called the Age of Reason.³¹ Designs by Claude Nicolas Ledoux³² or Etienne-Louis Boullée,³³ associated with the pantheist philosophy exemplifying the way of thinking characteristic of the Enlightenment, indicate an interesting

¹⁹ M. Rogińska, op. cit., p. 51

²⁰ E.g. La Defense (Paris), Donau City (Vienna), *Landhausviertel (St. Pölten)*

²¹ E.g. Hauptbahnhof in Vienna

²² The Chapel at the motorway, design by Schneider+Schumacher, Wilnsdorf, Germany 2013

²³ E.g. Silesia in Katowice

²⁴ Oasis - Pastoral Care Voestalpine, X Architekten, Linz, Austria 2011

²⁵ The concrete Meditation Space, designed by Tadao Ando, Paris, 1995

²⁶ The non-denominational concrete Chapel of the World's Religions, designed by P. Giugnard, S. Saner, Switzerland, 1998

²⁷ Night Pilgrimage Chapel, designed by G. Wiederin, Austria, 1997

²⁸ St. Benedikt Chapel, designed by Kunze Seeholzer Architektur&Stadtplanung, Kolbermoor, Germany, 2007

²⁹ Private Chapel, designed by Estudio Sancho-Madrdejos, Valleaceron, Almandejos, Spain, 2001

³⁰ (St. Henry's) Ecumenical Art Chapel, designed by M. Sanaksenaho, P. Sanaksenaho, E. Garbin, Turku, Finland 2008

³¹ W. Kosiński, *Architektura sacrum wobec konfliktów, tolerancji i pojednania. Historia, współczesność, perspektywy*, PiF'15, pp. 47-58

³² The most important design project in the life of Claude-Nicolas Ledoux – a famous visionary – were the Royal Salines de Chaux, near Besançon, the construction of which was commenced during the reign of Louis 16th

³³ His unrealised utopian designs of grand monuments, such as the round Cenotaph for Newton or the Metropolitan Basilica for Paris, as well as the designs of impressive public edifices – symbols of the new order: the national palace, the town hall, court, library and an amphitheatre for 300,000 spectators, are of unique significance in the history of architecture. All these designs were uniform in their maximum simplicity of form, reduced to the most basic geometric figures, symmetry and compositional harmony.

trend in the architecture of spirituality, in which it was believed that stimulating the human mind, memory and imagination by strong intellectual cogitation had a refreshing effect on the spirit.³⁴ Examples of new spaces for contemplation in silence are also to be found in unusual facilities situated in the open landscape in the area of Central Europe: Germany, the Czech Republic and also Poland. Of all these spaces, an absolutely unique experience is seeing the religious works of Peter Zumthor, whose body of works, showered with awards, resists classification into any of the now prevailing stylistic trends. It must be emphasised that all Zumthor's works demonstrate his great care and respect for the natural and cultural landscape.³⁵ His essays, collected in the volume entitled *Thinking Architecture*, are all about his perception of the world, about his multi-layered sensibility and experiencing a physical place where new sensual architecture is being created.³⁶ Adopting the approach of restrained rigour and using a minimum of resources, without any decoration or technological tricks, Peter Zumthor has designed an extraordinary structure in the natural scenery of an open landscape surrounded by farmland – a chapel dedicated to a Swiss saint – Saint Nicholas of Flüe, known as Brother Klaus.³⁷ The structure has been located between the two villages: Wachendorf and Mechernich, in North Rhein-Westphalia, southern Germany.

Figures 1-4. Bruder Klaus Field Chapel, Mechernich-Wachendorf, Germany



Source: Photos by Beata Malinowska-Petelenz

³⁴ B. Stec, *Architektura duchowości*, A&B, 7/8, 2014, p. 39

³⁵ M. Skaza, *Petera Zumthora myślenie architekturą*, ARCH 2(16), p. 42

³⁶ P. Zumthor, *Myślenie architekturą*, Karakter 2014

³⁷ *Bruder Klaus Field Chapel* Chapel, designed by P. Zumthor, Wachendorf, Germany, 2007

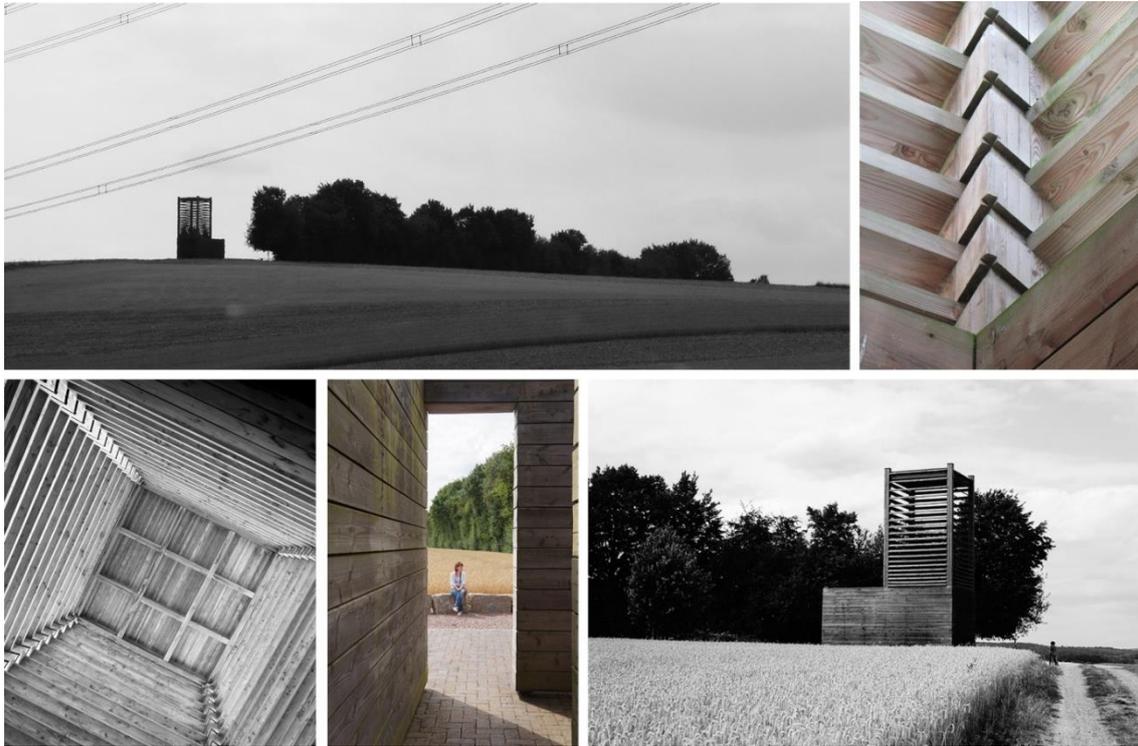
The chapel commissioned by a foundation of local farmers is private property, yet visitors are offered unlimited access.³⁸ It has been paid for by the foundation and built with the help of local craftsmen. Due to its form and context, the structure, though rather small, is a clear landmark and a strong feature, when related to the nearby village. From the outside, this small ascetic building, betraying no information as to its function, is a slender monolithic cuboid prism built of raw concrete. The only opening in the solid is the sturdy triangular door, over which hangs a delicate, barely visible cross. The dark space inside does not impose any religious symbols either, as their presence has been reduced to minimum – the only element indicating the function of the building is a small bronze figure of saint Nicholas and a small St. Benedictine's encircled cross. Through the form and the selection of materials, the architect has created a unique place, remaining in natural, physical and sensual contact with its surrounding landscape and nature. This poetically non-definable structure, closely bound with its context, emerging from arable land, stirs emotions “provoking fear, astonishment, truth of the experience and necessity of identity,” and its simple shape “seems to offer the chance to transgress the border between permanence and passing away and to satisfy the hunger for dignity.”³⁹

Another example of the universal sacred, stripped of religious references, also a powerful presence in the natural and landscape context, is the wooden Field Chapel in Buchen⁴⁰ – a project carried out in the ecumenical spirit, following the principles of religious openness and programmatic progressiveness. This minimalist structure has been erected among fields and forest, on a picturesque hilltop, in the triangle of roads between Bödigeim and Seckach. There is visual contact between the chapel and the castle on a hill in Bödigeim, crowned with a tall and square stone tower, approximately 2 kilometres away from it to the north.

³⁸ B. Stec, *Droga – Kaplica brata Klausa*, *Architektura&Biznes* 7-8/2007, pp. 41-42

³⁹ E. Węclawowicz-Gyurkovich, *Poszukiwanie emocji*, *Technical Transactions* issue 7. *Architecture* issue 1-A1, p. 153, Kraków 2009

⁴⁰ Bödigeim Field Chapel, designed by students of College of Architecture (academic supervisor: prof. Frank Flury), Illinois Institute of Technology, and Ecker Architekten, Buchen- Bödigeim, Germany, 2009

Figures 5-9. Bödighheim Field Chapel, Buchen-Bödighheim, Germany

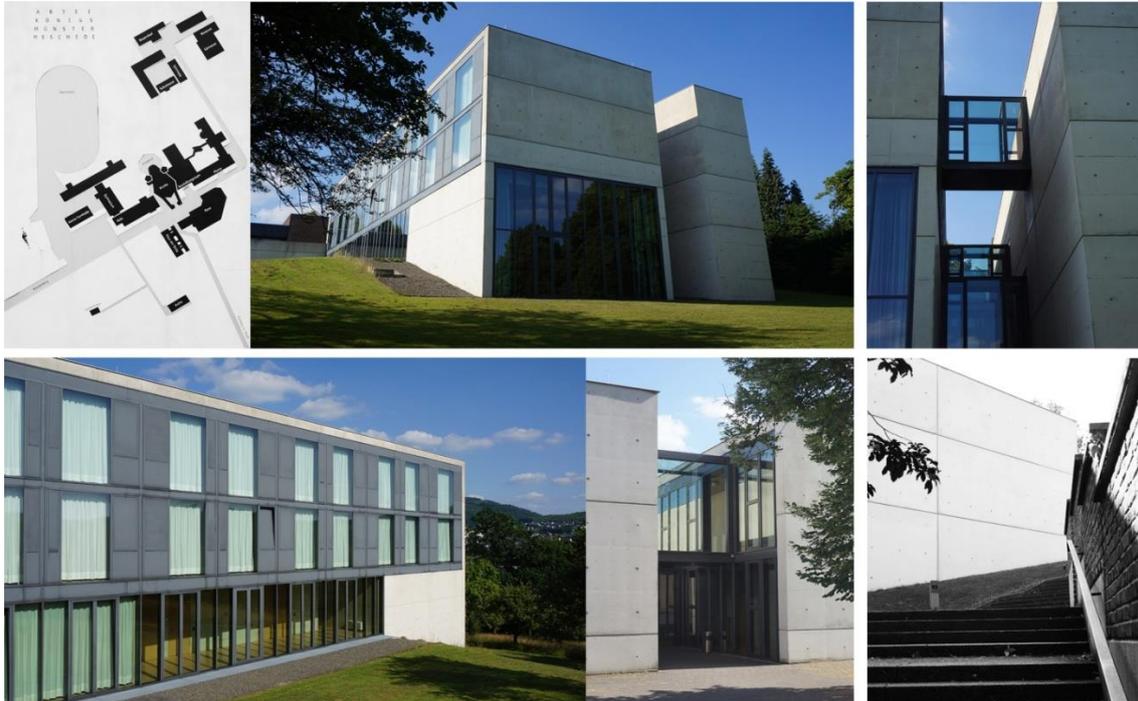
Source: Photos by Beata Malinowska-Petelenz

The authors' concept for the chapel in Buchen-Bödighheim was that it should be a combination of three motifs or models belonging to entirely different worlds. The authors drew inspiration from the main building of the Temple in Jerusalem, the castle's square stone tower in the nearby Bödighheim and the local tobacco drying barns, tobacco being the primary crop produced by local farmers in the area.⁴¹ "This ultra-minimalistic and laconic chapel is a paragon of a universal temple, going beyond, in its form, the boundaries of Christianity" – Wojciech Kosiński writes. Due to its shape and the simplified structure, its ideological foundations and a specific experiment in the organization of the project,⁴² the chapel has become an iconic sacred space of the 21st century, thus entering the textbooks on the history of architecture. A similar contemporary landscape project is the see-through church in Limburg, Belgium. This installation – Reading between the Lines – is a kind of sculpture, 10 m high, which is a structure built of Corten steel. The design reflects the scale, ground plan and the concept of traditional temples in the region, here transformed into an installation of a kind – a work of art.⁴³

⁴¹ After: W. Kosiński, op. cit., p. 86

⁴² More [in:] W. Kosiński, op. cit., pp. 82 – 87.

⁴³ Arch. Gijs Van Vaerenbergh, Limburg, Belgium, 2011; more in: A. Zachariasz, *Sacrum i ogród – wzniosłość i genius locci*, [in:] *Cmentarze i ogrody w krajobrazie. O sacrum, symbolice, kompozycji i przemijaniu*; Cultural Landscape Committee, Polish Geographical Society Sosnowiec 2013, pp.119-120

Figures 10-15. Haus der Stille, Königsmünster-Meschede, Germany

Source: Photos by Beata Malinowska-Petelenz

Haus der Stille⁴⁴ designed by Peter Kulka is yet another austere and abstract contemplation place created in the minimalist spirit. It has been erected in the vicinity of the Benedictine abbey in Königsmünster towering over the German town of Meschede like a mediaeval fortress. The abbey – designed by Hans Schilling – a huge brick monument resembling a defensive structure, was built in the period of the revolutionary changes initiated by the Second Vatican Council.

The meditation building – a stunning white parcel devoid of any Christian symbols, is composed of two ascetic, sharply cut glass and concrete cuboid prisms partly slid into the slope of a hill, with a narrow crevice between them – the entrance. The upper part of this crevice has been filled with a glazed-in junction, separating the two parts of the house. The crevice is also spanned with three glass bridges running on three storeys, providing additional connections between the two structures. At the entrance and the first floor level, the architect has designed 20 simple cells furnished only with the most basic furniture, a refectory, two parlatories, an office and a gathering hall destined for courses and meditation.

Peter Kulka's ascetic architecture, made of concrete and light, alludes in its austerity and abstract character to the works of the Japanese architect Tadao Ando, who does not differentiate between the recipients of his meditative art of building and directs his works to single-family houses residents, museum visitors or conference participants alike. The contemplative atmosphere of this place as well as the architectural modesty, sparseness and asceticism helps to break away with the outer world.⁴⁵ From the point of view of form and

⁴⁴ *Haus der Stille*, design by P. Kulka, Meschede, Germany, 2002

⁴⁵ See: *Closer to God*, Gestalten Berlin 2010, p.106

material, the structure remains in stark contrast with its surroundings, the monastery buildings – made of brick, heavy and fortress-like in their expression – provide a perfect background for the white, minimalist and cubistic structure. It constitutes a clearly outlined, extremely simplified and neutral accent in the open landscape. The whole complex, in compliance with tradition, situated on a hilltop, is a spatially dominant feature, powerfully defined by the two characteristic towers of the abbey.

Figures 16-19. Chapel Maria Magdalena, Zollfeld, Austria

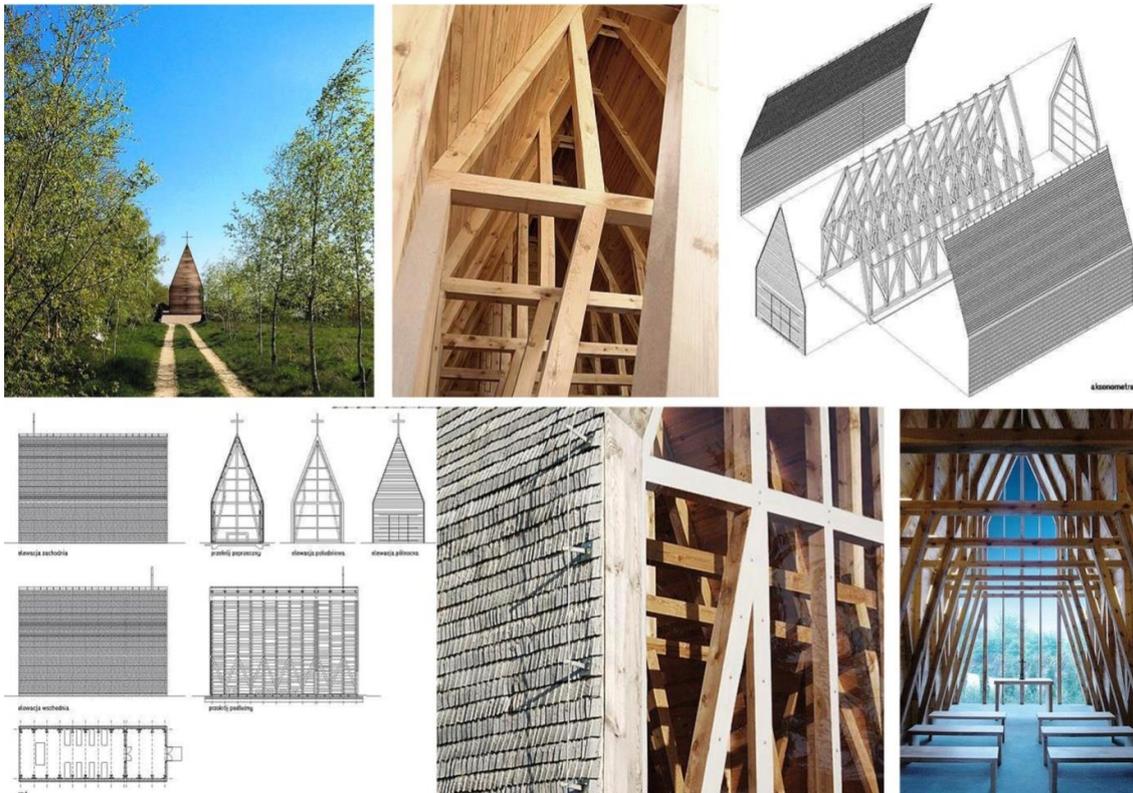


Source: <http://www.archdaily.com/770771/chapel-maria-magdalena-sacheocierrchitectes>

Another such example is the private Maria Magdalena chapel in Austria designed by the Sacher.Locicero.Architects.⁴⁶ Hidden in the Carinthia mountains and located near a small vineyard Zollfeld, it draws its richness from the natural scenery that surrounds it and fills it with almost mystic character. The proximity of the impressive Hochosterwitz castle and the pilgrimage church Magdalensberg makes the place even more majestic and noble in its expression. The restrained, classic and almost archaic form of the structure, the simplicity of its interior and the architectural purity are ideally harmonized with their surroundings. The chapel has been built of white concrete, which is an ascetic material and a perfect match for the natural landscape. The texture and colour of the materials change depending on the atmospheric conditions, but they remain almost shiny regardless of the weather. The most characteristic feature is the high pitched roof, which creates the impression that the chapel almost “reaches” the sky. The radically simple interior is decorated with furniture made of whitewashed oak, and all the other elements have been designed following the principle of simplicity: a huge brown cross situated on the axis of the entrance, the two-wing bronze door as well as the colourful stained glass slits, which are the only, and top-quality, decoration here.

⁴⁶ Chapel Maria Magdalena, design by Sacher.Locicero.Architects, Zollfeld, Austria, 2014 [in:] <http://www.sacher-locicero.com/complete-works/>; as of the 6th March 2016

Figures 20-24. Church in Tarnow, Poland



Source: <http://www.archdaily.com/39747/chapel-in-tarnow-beton>

Poland may also boast a chapel that is both universal and local in its form: a small wooden church – Votum Aleksa in Tarnów upon the Vistula river, near Garwolin.⁴⁷ Here, at the bend of the Vistula river, 60 km away from Warsaw, upon the river scarp, at the end of a no-asphalt cul-de-sac stands a tiny temple which has already gained certain renown and has been written about in international publications.⁴⁸ The building is charming in its simplicity and modesty, yet at the same time it provides a good illustration of what a powerful impact a material may have if applied to the right structure and surroundings.⁴⁹ It has been financed by a private person, the only thing that has been revealed about the donator is that he is a writer living in this village, who wanted to restore a place of cult and contemplation to the village since it used to have one – a church from the 17th century – which was destroyed during the war. The temple is a simple symmetric structure of slender proportions, with a pitched roof and no windows, in its entirety covered with aspen wood shingles. The only source of natural light is the back gable wall, made entirely of glass, thus offering splendid views over the Vistula landscape, which provides a natural background for the wooden altar.⁵⁰

⁴⁷ Votum Aleksa chapel, design by Beton (Marta and Lech Rowiński), Tarnów nad Wisłą, Polska, 2010

⁴⁸ E.g. Church In Tarnow [in:] L. Feireiss, *Closer to God. Religious Architecture and Sacred Spaces*, Gestalten Berlin 2010, and also *inter alia* in: <http://www.archdaily.com/39747/chapel-in-tarnow-beton>; <http://www.architectural-review.com/today/church-by-beton-tarnow-poland/8600964.fullarticle>; as of the 9th March 2016

⁴⁹ P. Lis, *Znaczenie tworzywa*, *Autoportret* 1[48] 2015, p. 64

⁵⁰ A. Cymer, *Wbrew schematom. Kościółek w Tarnowie nad Wisłą*, [in:] *Krytyka Architektury* 1(1), 2010, p. 29

The building is a combination of three elements: the human, the sacred and the natural, so characteristic of folk cultures, whose traditions, although Christian, have preserved a lot of primeval beliefs closely linked to nature, its cycle and transformations. Humans, being a component of a larger whole, had to understand the laws of nature and obey the established order, which in return guaranteed the sense of security and continuity of existence. Chapel Votum Aleksa evokes this archetypical union between man and nature, which is the sacred, and thus constitutes an attempt to return to tradition based on a strong spatial, sociological and cultural context.⁵¹

The need of privacy and greater distance from the world manifests itself also in the increasingly more popular form of recreation: going into retreat combined with fasting and meditation, simple healthy food within silent monastery walls. More and more big city dwellers choose this type of relaxation and recreation, they spend their holidays with monks, hoping to run away from their daily rush, the stress and the merciless reality of corporate toil. When we write Benedictines of Tyniec near Kraków or Camaldolese monks of Rytwiany or Camaldolese nuns of Złoczew, we will find places of rest, "spiritual spas." This form of relaxation and rest, combined with getting a taste of monastic life is also offered by the Trappists from the famous Plzno monastery.

Figures 25-28. Monastery of Nový Dvůr, Czech Republic



Source: Photos by Beata Malinowska-Petelenz

⁵¹ P. Dudko, *Kościół Votum Aleksa w Tarnowie*, *Architektura współczesna* seminar [in:] http://www.architektura.pb.edu.pl/arch-wsp/index.php?option=com_content&view=article&id=11:kocio-votum-aleksa-w-tarnowie-arch-grupa-beton&catid=1:artykuy&Itemid=2; as of the 20th Dec. 2015

An interesting example of how a former noble family house could be incorporated within the cluster of monastery buildings is the minimalist design by British architect John Pawson.⁵² His strict architecture fits perfectly the rule of the Trappists order, a branch of the Cistercians, and makes an extraordinarily successful, discreetly outlined intervention into the natural landscape. Extreme and austere décor, combined with the historic Baroque edifice, have produced an exquisite effect of harmony, simplicity and purity – a synthesis of the mediaeval ideals of the Cistercians and the contemporary minimalism. White monastery walls, white light coming in from the cloister, white habits of the monks, white surfaces in the interior, which seems to know no other colour, unmistakably invoke silence, tranquillity, nobility and immateriality.⁵³ The structure is situated in an inaccessible place on a high hill surrounded by old trees, at the edge of a small hamlet. It would seem that combining a Baroque mansion with an extremely minimalist chapel may be a bit risky, to say the least, yet the designer has managed to create the effect of entrancing architectural asceticism.⁵⁴

Summary – conclusions

Spirituality is a field of study for theologians, philosophers, psychologists, sociologists and researchers into culture. The semantic complexity of this concept encompasses both the lifestyle focused strictly on religion and the atheist attitude, there is also room for the existence, desired by many, that is free from the influence of institutionalised religion – the Church. If sociologists are to be trusted, contemporary spirituality is a category which may be placed beyond the religious context, however, with the sensibility of the soul still preserved.⁵⁵ Such religionless spirituality gains popularity, attracts more and more proponents among former Catholics and people subscribing to various other Christian denominations as well as to other religions.⁵⁶ All these people are looking for what G. Van der Leeuw described as “the religion of peacefulness,” which would be the antidote to insecurity and a chance for liberation from fears, offering a kind of therapy.

The spirituality of contemporary Europe manifests itself in small unpretentious chapels – of some denomination or non-denominational – resulting from the need to put community over divisions and to break away from the rush and overstimulation of everyday life. These chapels are secluded places of silence, rest, contemplation and encounter with another human being. Similar symbolic spaces of universal character, stripped of any religious emblems or having them barely noticeable, emerge in various parts of Europe. They originate in the ever greater craving for silence, concentration, alienation, regeneration of the mind and the spirit. Their often minimalistic and abstract form, not infrequently rising above the language of symbols, stimulates the visitors to set off on their own, individual inner journey and embrace intellectual rest.

⁵² *Monastery of Nový Dvůr, design by J. Pawson, Czech Republic, 2004*

⁵³ A. Mielnik, *Architektura klasztorów cysterskich a współczesna architektura prostoty*, Technical Transactions CUT Press, issue 13-A/2005, p. 129

⁵⁴ *Novy Dvur Monastery* [in:] E. Heathcote, L. Moffat, *Contemporary Church Architecture*, Great Britain 2007, pp. 172-177

⁵⁵ J. Baniak, *Wielowymiarowość i konteksty kulturowe duchowości religijnej a inne formy duchowości*, [in:] *Humaniora*. Czasopismo Internetowe No 2 (2)/2013, p. 16

⁵⁶ J. Baniak, op. cit., p. 32

Simplicity and asceticism are universal ideas present in architecture and art for ever. Modernism has absorbed them, but they should not be associated exclusively with this trend. Their sources may be found in Cistercian monasteries, Japanese philosophy and architecture, in abstract art, Adolf Loos's theory or Mies van der Roë's famous "less is more." Perhaps the architecture of silence and visual modesty is the antidote to the multi-threaded chaos and restlessness of the contemporary world. Simplicity with no attached ideology, a constituent of the universal sacred – acceptable in the model of a temple in the multicultural Europe – is probably the only way to arrive at the inner truth.

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DOES POLYCENTRICISM INFLUENCE RESIDENTIAL VALUES? AN ANALYSIS FOR THE METROPOLITAN REGION OF BARCELONA

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Key words: Polycentrism, land values, urban structure, value of centrality

Abstract

This paper explores the relationship between centrality and land values. While in literature centrality is simplified as the proximity to centres, which normally are identified using qualitative approaches, in this paper a novelty vision is proposed. It differs from state of the art approaches since centrality is derived from an integrated indicator coming from data regarding the time-space behavior of citizens. In order to test whether centrality correlates with urban values, a regression model is used departing from data of Metropolitan Barcelona, such a method allows for controlling architectural variables that influence residential housings, as well as other locational factors beyond centrality that may affect land values. The results suggest that urban form does influence the spatial distribution of urban values; nevertheless such an impact is not as high as other locative factors such as socioresidential segregation. So urban policies intended to democratize urban quality should be focused not only in urban structural factors but also those regarding social differentiation of space.

Introduction

The “standard urban model” based in the bid rent theory, with roots in the von Thünen’s (1826) and Hurd’s (1924) works, as it was depicted by Alonso (1965) explains that both land rent and urban density declines as the distance to center increases. In such a model, it is assumed that most of the employment is concentrated in the center, which foster a daily commuting between peripheral residential zones and it. By having the employment clustered in the center it also is assumed that services follow such a spatial trend. All in all, result in increasing transport cost and time (Haig, 1926) as distance to center increases, and consequently a trade off with rent allocated to residential land. It is the existence of the land rent gradient that underlie the formation of density in a competitive market scenario. If it is considered that developers invest capital in land and building when developing a site, and constant returns per unit of land are relaxed (i.e. once substitution between land and building costs is allowed), real estate developers economize on the use of expensive land in more central locations where prices

peak. In optimizing developments they add more building capital per unit of capital invested on land, i.e. they build multi-storey structures instead of low rise ones, despite the fact that high rise building is more costly per sq. meter than low rise ones. Nonetheless, the capital saved in land outbids the over cost invested in the construction. Because of such a process, it emerges a density gradient following that of land prices. The parallelism between rent and density gradients depends upon the elasticity of substitution between land and capital (Kau & Lee, 1976). Mills and Hamilton (1984) demonstrated, starting from the monocentric city model, that under certain constraints, such as Cobb-Douglas's production function for housing, users with identical tastes and income and unit price elasticity of demand for housing, density gradients adopt a negative exponential function. According with the above state theory, built densities are proxies for centrality, and theoretically, if land rent does not only reflects accessibility but all the remaining local amenities, built densities also proxies for them and not only for centrality.

Nonetheless, monocentric metropolises does not more exists and probably have never existed as they were stylized in theoretical models (Anas *et al.* 1998; Batty, 2001). Furthermore, employment is not the only driver of urban mobility and recent studies have reported a decrease of its relative importance in relation to non-obligated mobility (Cerdeira & Marmolejo, 2010). On the other hand, taking the distance to subcenters and/or CBD is problematic itself for a number of reasons:

1. Firstly, it is necessary to previously identify subcenters and validate them which is itself problematic (McDonald, 1987)
2. Secondly, it is not possible to identify clear limits of centralities, since centrality quality is an attribute that has an spatial fading (centrality gradient) departing from centers, even in very well planned cities using exclusive zoning
3. Thirdly, the centrality gradient is not regular enough to be substituted by the simply distance to centers. Of course it is always possible to use more sophisticated locally adjusted regressions models, like those used by Marmolejo & González (2009)
4. Fourthly, in polycentric metropolitan areas, where multiple centers give structure to quotidian flows, taking as many distances as subcenters there are results into multicollinearity when hedonic prices are calibrated (Aguirre & Marmolejo, 2010). Conversely, taking only the distance to the nearest center neglect the fact that sites may receive the multiple influence of neighboring subcenters not only the nearest (García-López & Muñoz, 2010).

For the above stated issues, in this paper we test whether 2 continuous indicators of centrality, one based on built density and other on the spatial-temporal behavior of population (depicting all urban activities not only labor ones), are able to explain the spatial trends of housing prices formation. In doing so, a hedonic price model (Rosen, 1974) is built departing from listing prices for multifamily dwellings in Metropolitan Barcelona and taking as explanatory variables both structural constructive attributes and locative ones. In this latter continuous indicators of centrality are included.

The remaining of the paper is organized as follows. First, a brief literature revision is offered; followed by the presentation of the data, case study and methodology used; the results and discussion is presented next; in the concluding epigraph, the main findings are highlighted.

Brief literature review

For analytical purposes real estate values, can be easily split in land rent and the value related to the building (quality, area, design, facilities, etc.). In urban economics land rent is basically associated to accessibility to centres where services and employment is supposed to be concentrated (O'Sullivan, 2007).

In Barcelona, the pioneering work of Josep Roca (1988) uses many proxies for accessibility:

1. The *average accessibility index*, that measures the average distance/time both in public a private transport to access from a given zone to all the others
2. The *average weighted accessibility index*, is the same that the previous one but weighted by the actual commuting flows between zones. This index accounts for the actual location of employment, and is plenty coherent with the bid rent theory, since it allows for account the residential/job location functional tensions
3. Finally, the author tests the distance to some "qualitative" hypothesis of centers such as the Plaça Catalunya, the Cinc d'Ors and the emblematic Plaça Francesc Macià.

His findings found an exiguous relationship between land value and accessibility indexes. On the contrary, the distance to "historic" landmark centralities were highly correlated to land prices. These results suggest that the trade-off mechanism behind transport costs between the site of residence and the site of employment exerts a weak influence on residential prices. Conversely, social hierarchy imbedded in qualitative centralities is more correlated with real estate prices. In Roca (1986) the author studies price formation in the context of the 26 municipalities of the Metropolitan Corporation of Barcelona. Again, the results of this latter study, suggest that employment accessibility has a small role in explaining prices, that in some case become null or even erratic (i.e. prices increases as distance to employment centers increase). Such findings are compatible with in influence on prices that is exerted by other locative factors, such as the environment quality and the social segmentation produced by residential segregation that may imply both market premiums for prestigious locations and market discounts for stigmatized neighborhoods (Roca, 1988).

In the international scene, McMillen (1996) analyses the relationship between housing prices and the urban structure (proximity to CBD and subcenters) using historical data from Chicago and found an ambiguous relationship. Using a locally weighted regression the author estimates regression surfaces for the period 1936-1928 founding that the monocentric model correctly represents the spatial distribution of land values during the 19th century in such a city. Nonetheless, in the post-war period, 1960-1990, especially after the suburbanization boom in the UE the models suggest that Chicago is no longer a monocentric city, since subcenters, such as that located near the O'Hare Airport, are important employment clusters and as

consequence also influence land prices. Such a finding was consistent with previously published evidence for the same city, as matter of fact McDonald and McMillen (1990) reported that as early as 1928 that specific aeronautic subcenter was already significant in the distribution of land values. The same authors (McDonad and McMillen, 1998) also have studied whether land values were affected by the introduction of exclusive zoning for residential blocks in 1923 in Chicago. Their results indicated that exclusive zoning did not produce any modification of spatial trends in land values, except for that non-residential blocks where, departing up to zoning ordinance, were allowed to have also residence.

The problem with those studies is that most of them does not suffices in including all control variables that influence land values, such as amenities, externalities and social status, obscuring, in this way the role of centrality on real estate values. Aguirre and Marmolejo (2010) try to cope with these issues in their study for Metropolitan Barcelona, nevertheless they found multicollinearity problems since the distance to the nearest subcenter results pretty well correlated with the proximity to other subcenters and CBD.

This study is different since it controls both the structural and location variables that may influence values, and non-distance to subcenter is used, but instead *continuous* indicators of centrality, as it is explained in the following section.

Case study, data & methodology

The study area is the Metropolitan Region of Barcelona comprised by 164 municipalities, nonetheless after discarding those municipalities without information or erratic outlier values only in 137 municipalities containing 3,479 dwellings are analyzed here.

Listing data was acquired from Habitaclia.com, as for November 2014, this website is one of the most important real estate listings specialized in sale and lease transactions in the residential market at Catalonia. The original data set retrieved comprises 35,116 selling cases for flats (multifamily dwellings), however, due the very recent obligation to obtain the energy certification in Spain (1st June 2013), a vast majority of cases did not reported the energetic qualification claiming it was on pending of issue. Since this research was also concerned with the inclusion of such an environmental performance variable it was decide to exclude from the analysis all the cases where such information was not available.

Beyond asking prices, listing information include variables regarding both the structural features of flats, and condominium services. Structural features include: area, number of rooms, number of baths, living room area, terrace/balcony area, story where the flat is placed, heat/air conditioning systems, information regarding renewal, energetic qualification, penthouse position, number of levels (in the case of duplex/triplex dwellings), etc. Condominium services/features include: lift, swimming pool, private greenery, age, etc.

Besides listing information the following data and sources are used to control the effect of location on asking prices:

From the 2001¹ National Census, at census track level:

- Information regarding the social status of the neighborhood (e.g. education level, hierarchic position of resident employed population in the context or their productive organizations, percentage of residential buildings with doorkeeper service, etc.)
- Information regarding the accessibility level (e.g. declared time to get the work)
- Information regarding the environmental quality of the neighborhood (e.g. greenery perception)
- Information regarding the available services (health, education, sociocultural, retail, office based services, etc.)

From the Cadastral database, at census track level:

- Built up surface, net built area, floor area allocated for different land uses

From the 2001 Metropolitan Mobility Survey, at transport zone level

- Information regarding the chain-trip or chain of daily activities
- Information regarding the length and duration of travels

Using this latter information regarding the spatial-temporal behavior of people a synthetic indicator of centrality is built as follows:

- 1) Firstly some intermediate-variables were computed. Some of such intermediate-variables are: time-density (Marmolejo & Cerda, 2012); diversity of activities; socioeconomic diversity of people that make activities in a given zone; distance travelled by people making activities in a given zone, etc. All the variables were computed for different days in the week and 5 time-strips.
- 2) Secondly intermediate-variables were encapsulated in a synthetic indicator of centrality using DP2 methodology (Pena, 1977, Zarzosa, 2009)

In Marmolejo & Cerda (2014) all the details concerning the construction of the synthetic indicator of centrality are provided, see in Fig. 1 below the spatial distribution of such a variable. Since the geographical entities of data used are divergent: points for studied dwellings, census track for census and cadastral data and transport zones for mobility information, it was used a geographic information system. Using a buffer of 300² m radius around each flat and geospatial queries all the information was transferred to the 35,116 selling cases contained in the original database. The following table of Fig. 1 summarizes basic statistics for selected variables.

¹ Unfortunately, it was not possible to use 2011 data census since, due the crisis in Spain, such a census is based on a restricted sample survey, which is not reliable at census track level.

² In addition, it was used a buffer of 600 m radius; nevertheless, the model built with such data was less able to explain prices in comparison to that presented in this paper.

Figure 1. Descriptive statistics of selected variables

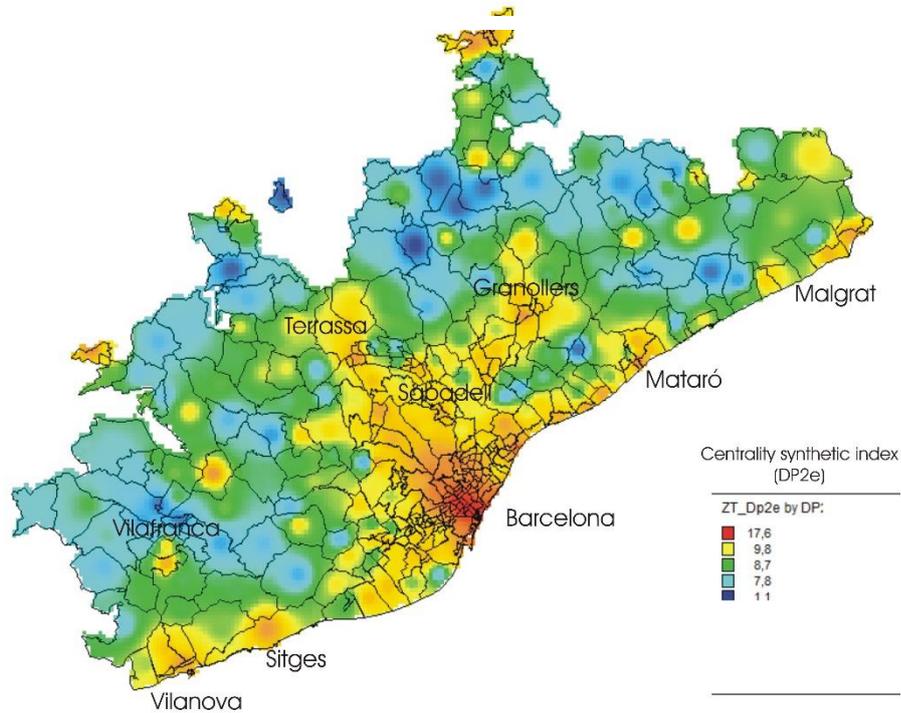
	Variable	N	Min	Max	Mean	Std. Deviation	
Structural features of Dwellings	Price (Euros)	3479	34.000	715.000	159.707	88.018	
	Unitary price (Euros/sqm)	3479	845	3.542	1.885	662	
	Area (sqm)	3479	25	234	84	28	
	Number of baths	3479	-	4	1,29	0,51	
	Number of rooms	3479	-	15	2,91	0,90	
	Baths/room	3459	-	2	0,48	0,23	
	Energy qualification (ordinal)	3479	1	7	5,29	1,25	
	Story	3479	-	13	2,14	1,63	
	Terrace/balcony area (sqm)	3479	-	256	9,73	14,53	
	Livingroom area (sqm)	3479	-	90	12,04	9,83	
	AC (dummy)	3479	-	1	0,29	0,46	
	Heating (dummy)	3479	-	1	0,42	0,49	
	Renewal (dummy)	3479	-	1	0,10	0,30	
	Penthouse (dummy)	3479	-	1	0,04	0,18	
Duplex/triplex (dummy)	3479	-	1	0,06	0,23		
Structural features of Building	Swimmingpool (dummy)	3479	-	1	-	0,05	
	Private greenery (dummy)	3479	-	1	0,09	0,28	
	Building year	3479	-	2.014	737,87	957,61	
	Lift (dummy)	3479	-	1	0,45	0,50	
Centrality	Built density (zone)	3479	0,19	5,90	1,93	1,24	
	Time-density	3479	324	1.134.098	118.964	146.950	
	Centrality index	3479	2,52	20,41	11,29	2,29	
	Diversity of land uses (zone)	3479	0,35	1,64	1,02	0,21	
	Diversity of activities (zone)	3479	-	2,92	2,03	0,38	
	Average time-to-work (zone)	3479	8,94	37,01	23,47	4,59	
	Diversity of land uses at basement (zone)	3479	-	1,77	1,11	0,23	
Environmental quality	Average age of buildings (zone)	3479	21	124	53,99	14,33	
	Perception greenery presence (zone)	3479	12,45	97,89	64,37	13,58	
	% premises devoted to health services (zone)	3479	-	42	2,01	2,89	
	% premises devoted to educative services (zone)	3479	-	93,00	2,13	2,97	
	% premises devoted to social services (zone)	3479	-	66,66	1,85	4,32	
	% premises devoted to cultural services (zone)	3479	-	95	1,52	3,35	
	% premises devoted to retail services (zone)	3479	-	89,93	41,45	13,47	
	% premises devoted to office services (zone)	3479	-	100,00	14,09	11,11	
% premises devoted to manufacturig (zone)	3479	-	97	9,51	11,57		
Neighborhood	Residents with university grade (zone)	3479	2,34	66,10	19,07	11,25	
	Residential buildings with doorkeeper	3479	-	52,55	6,37	6,77	
	PCA factor for low professional profile	3479	-	1,70	7,42	0,13	0,93
	PCA factor for high professional profile	3479	-	3,26	3,24	0,32	0,77

Notes:

Energy qualification 1=A=more efficient, 7=G=less efficient

Source: Own elaboration

Figure 2. Spatial distribution of synthetic centrality index based on the spatial-temporal behaviour of population



Source: Open elaboration

In table of Fig. 1 diversity indexes were computed using the entropy index proposed by Shannon:

$$H_i = -1 * \sum_i^n P_{x_i} \cdot \ln(P_{x_i}) \quad (1)$$

In (1) H is the diversity index for an i zone, P is the probability to find the x category from n possible of a given phenomenon in the i zone. (for example to find an office oriented premise among all the premises in zone i).

On the other hand PCA factors refers to a principal component analysis carried out departing from the socioprofessional classification of residents (managerial, professional, clerical, manufacturing, non-qualified, etc.). High values for PCA factor for high professional profiles are associated to zones where live the working population occupying the most-remunerated job positions. High values for PCA for low professional profile are associated with traditional zones of residence of working-class population.

The final selection of the cases introduced in the model was the result of an elimination process as follows:

- first all those flats with unitary prices beyond +/-1 standard deviation from the average unitary price where discarded.
- Next, a family of regression models was computed, using the model with the best fit the Mahalanobis Distance was computed. According to Marmolejo & González (2009) this procedure allows for the elimination of outliers in the n -variables used in the regression analysis.
- Finally, using a sedimentation analysis it was detected the Mahalanobis Distance breaking point (i.e. the value where the slope increases abruptly).

After applying the above stated process there were identified 3,479 valid cases.

The functional model used is log-linear since it accomplishes with the basic statistics premises for MCO calibrating process: normality of residuals, homoscedasticity, and multicollinearity absence.

Results and discussion

The best of the models was able to explain 65.2% of the variance of asking prices of multifamily dwellings at the Metropolitan Region of Barcelona.

Table 1. Model performance

Model Summary ^a				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
14	.808 ^a	.653	.652	.28556

Table 1 reports the result of coefficients that have resulted significant at 95% of confidence; such coefficients are reported both in their original scale and in terms of z-values (Beta coefficients), this latter allows for comparison among independent variables. According to Beta coefficients the listing price is obviously influenced first by the floor area of the analyzed flats, nonetheless such a relation is not linear since the square of such area has a negative influence on prices. Such a finding suggests the existence of diminishing returns in the formation of prices, so the marginal addition of extra square meters produce a reduction in the willingness to pay in comparison with the previous incorporated area.

According to the beta coefficients, the next predicting variables are those related to the socioeconomic aspects of the neighborhood. In this dimension, the presence of resident population (PCA factor for high profile professions) employed in managerial and professional positions do have an important positive impact on real estate selling prices, as well as the presence of very well educated population in the surrounding of the dwelling (percentage of residents with university degree). Also in this field is worth to note the positive impact of the existence of buildings with high standing services such as doorkeeper. Whether those results evidence that such population has a higher acquisitive power or there is a market premium coming from the existence of a segregation process remains on the analysis.

Figure 3. Coefficients of the best model

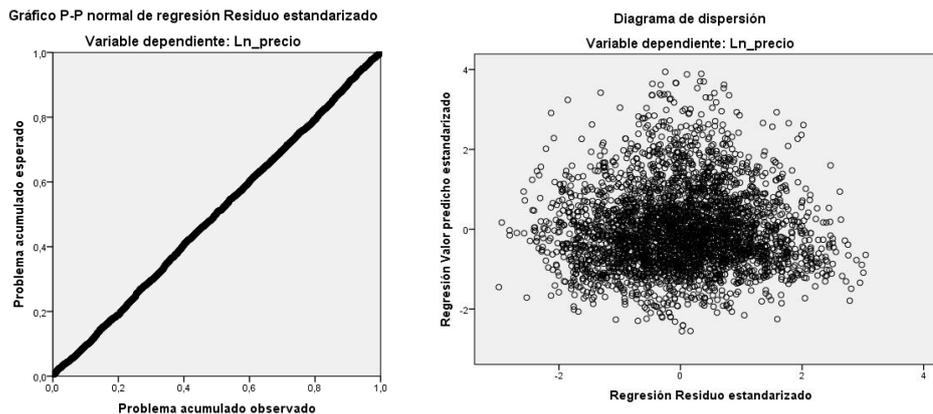
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
14 (Constant)	10,297	,055		186,731	0,000
Area (Sq. M.)	,018	,001	1,023	23,435	,000
Residents with university degree (%)	,005	,001	,112	4,452	,000
AC	,101	,013	,095	7,503	,000
Area (Sq. M.)^2	-4,104E-05	,000	-,505	-11,880	,000
Built density	,038	,006	,097	6,264	,000
Interaction lift*story level	,013	,002	,070	5,846	,000
Swimming pool	,136	,026	,055	5,204	,000
Number of baths	,062	,012	,065	5,189	,000
Heating	,046	,013	,046	3,453	,001
PCA factor for high professional profile	,061	,014	,096	4,466	,000
Residential buildings with doorkeeper (%)	,005	,001	,063	4,128	,000
Centrality synthetic index	,010	,003	,049	3,481	,001
Renewal	,043	,017	,027	2,512	,012
Energy qualification	,009	,004	,022	2,076	,038

Next, it appears an indicator of centrality (built density), which is associated to dense and central zones and proxies for the existence of local based services and land rent gradient explained both by accessibility and other amenities. It is worth to point that the synthetic centrality index, built on the spatial temporal behavior of population, also appears producing a complementary positive impact on residential asking prices. The inclusion of both of the continuous indicators of centrality in the model, having non-serious multicollinearity problems, means that they are measuring different aspects of centrality. Therefore, the built density (sq. meters of floor space/sq. meter of land) proxies for the historic fixed capital accumulated over the years; meanwhile the synthetic centrality index accounts for the actual use of the city by residents whose give contents and make differentiation between centers and non-centers. Some structural variables associated to the quality of flats and buildings are in the next position with a positive impact such as the heat ventilation air conditioning, the interaction variable³ lift presence*story level where the flat is located, the existence of condominium services like swimming pool, the number of bathrooms. The energy qualification has a positive impact on

³ Such interaction variable is constructed multiplying the level of the flat by a dummy variable, such a latter variable adopts the unitary value when the lift is present; and a negative unitary value otherwise.

prices, for each step that it increases, in the “ladder of environmental efficiency”, the listing prices increment 0.9%. That means that the difference on selling prices between the worst qualification (G) and the most efficient flats in terms of energy efficiency (A) is 5.11%, that implies that taking as a reference the mean value in the sample the difference is *ceteris paribus* 8.167 Euro.

Figure 4. Analysis of residuals



Conclusions

Our findings suggest that, apart from structural variables concerning the quality and fittings of studied flats, centrality does exert an intermediate impact on real estate values. By using continuous centrality indexes such as that related to built density or the actual use of the city (synthetizing the spatial-temporal behavior of population) some of the habitual problems in multicentric hedonic price models have been solved with basic econometric approaches.

As it has been found previously in Barcelona (Roca, 1986, 1986b, 1988, Roca *et al.* 2003, Marmolejo, 2007), most of the locative variables with the highest incidence on residential values are associate to the spatial segregation of population. So, locations characterized by very well educated population employed in managerial and professional positions do imply a significant and important positive impact on asking prices in our model. According to the b coefficient, which measures semi-elasticity in our log-lin model, by increasing 1% the neighbors with university studies, asking prices rise 0.5%, that implies that the value gap between the zone with the lowest presence of high educated residents and the zone with the highest level of such population foster residential values 3.2 times (320%!), by solely modifying this factor. Whether such finding are masking a higher acquisitive power and not or not only the existence of a market premium linked to the social perception (prestige/prejudice) remains in the impossibility to isolate the income effect since in Spain such data is not asked in the Census.

It is necessary, thus, to review the enthroned importance of trade-off theory by relativizing it with other important factors such as socioresidential segregation. Especially in cities where real estate markets arbitrate both the formation of land values and land use allocation.

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IDENTITY OF THE RIVER - CONTEMPORARY TRANSFORMATIONS OF URBAN EMBANKMENTS OF THE VISTULA RIVER

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Key words: river cities, public space, urban identity, transformation

Abstract

For centuries large European rivers have been the material for building the identity of states, regions, and individual cities. Their significance for the process of building of the European civilisation is unquestionable. These rivers have become one of the dominating factors deciding about the choice of locations for towns and settlements, as well as one of the key motors of their development. Linking cities and towns with one another, they influenced their forms and identities, creating formal and informal relations between them. As carriers of so many values, they have become fundamental elements of the natural as well as urban landscape. Through their prism an assessment of individual cities, as well as entire regions, is performed. The river, as a certain framegenic axis, changes its character while pursuing civilisation changes. The once dominating trade and industry-related aspect is complemented, and often dominated, by the recreational and tourist one.

Amongst such great European axes – watercourses as Loire, the Rhine, or the Tiber, one should also point out to Polish rivers: the Oder and the Vistula. The latter, and most of all the towns and cities strung along it, will be the subject matter of this paper. Selected cities depicting the condition of the Vistula river over its entire course have been subjected to an analysis. These are: Cracow, Warsaw, Płock, Toruń, and Gdańsk. Programmes and strategies referring to the waterfronts are studied in terms of their common features with European tendencies.

The river, irrespective of the continent and culture, constitutes - and has always constituted - one of the most important motors of the development of civilisations. It could be a stimulus, but frequently it would manifest its destructive power, destroying, and often putting an end to towns and settlements connected with it. Building supraregional relations, rivers were becoming the foundation for the identity of urban layouts based on them.

Posing limitations and boundaries for the urban development, they influenced the process of defining their territories. By creating their own territory, in a way they forced some social

relations between subsequent systems, they stimulated the creation of what we can call territorialism, whose semantic axis will be the river. Adopting the definition by Paola Viganó, a territory is a set of borders, forces, and relations between entities¹. It is a geographical space – a physical collection of characteristic qualities and properties. In this sense, territorialism is a combination of the physical aspect of urban structures and of the sociological aspect.

In light of territorialism, one can perceive urban planning somewhat differently, posing a question: what is the effect of the river on individual elements of the system, on subsequent cities strung along it, for which it becomes a kind of a life-giving artery? Does the historical process emphasise or obliterate the features and relations testifying to the common synergic need of the urban structure and the river to co-exist? Perceiving the river and the region that surrounds it from the level of the macro-scale, it is clearly evident that its most important attribute is *continuity*; continuity understood as a structural domain, but also a functional, social and cultural one. Continuity of the natural landscape, based on the landscape of the river, may become a superior element, linking often defragmented urban structures, and in so doing becoming the basic factor of the spatial order, as well as the material that the quality of the entire region is made from². In light of the progressive climatic changes, the river returns to the centre of interests of urban planners. The growing threat of floods, or the willingness to obtain energy, force technological transformations of the river landscape. This situation entails certain risks (destruction of the natural ecosystem of river valleys), as well as it creates positive challenges that stimulate to pursue new forms of residence, recreation, and land development around rivers. If we regard the city as a landscape, it will be most conveniently read from the perspective of the river – the river, which providing distance, at the same time emphasises the permanence of the urban structure and the dynamism of changes that accompanies it. The river, by becoming a type of connector between an urban area and an open area, may become a decisive element in the city sprawl. Being a communication axis, it may become a backbone for more or less chaotic urbanisation, stimulating the occurrence of such urban forms as 'city-regions' (in-between cities, Zwischenstadt). Here, the key importance seems to be attached to the protection of indigenous forms of urban settlement, characteristic for a specific river, in order to preserve the uniqueness and identity of river valleys and of urban complexes that accompany them.

Simultaneously, one could observe certain design tendencies towards river, changing over the recent years. Projects that refer to European rivers, manifest a definite shift from the resource approach to the ecosystem approach³. As a consequence of the former approach, within the scheme of the European Union legislation the so-called River Basin Districts have been established, illustrated in the graphic enclosure: 'Map of National and International River Basin District' (Fig. 0). Such an approach seems to be still dominating in the water management policy

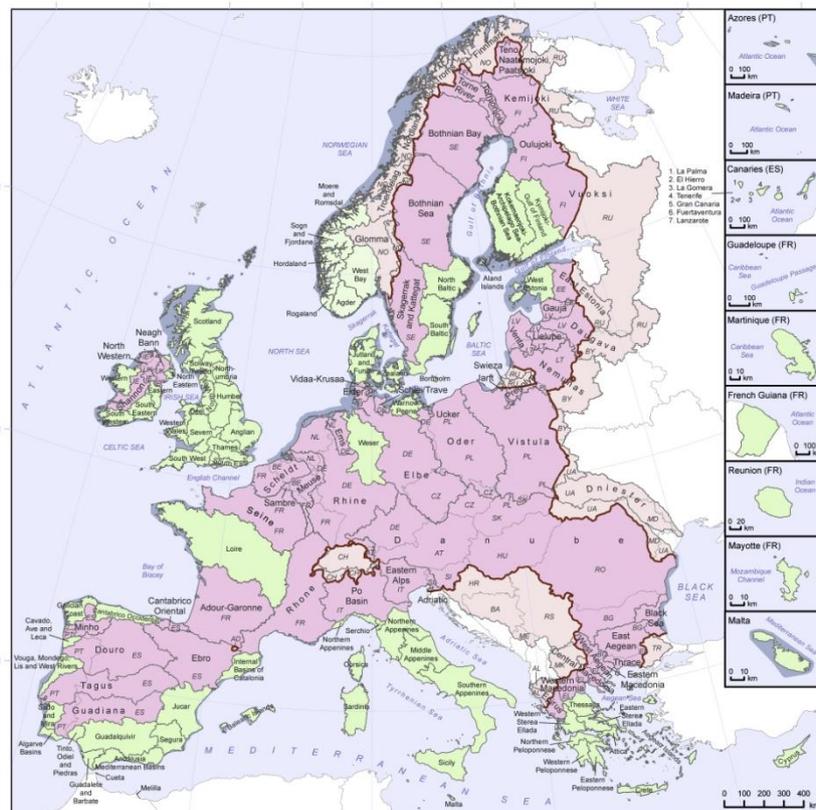
¹ Paola Viganò writes more on the aspect of territorialism in the context of the relation urban structure - topography in: Viganò Paola, "Territorialism", Harvard University, Graduate School of Design, Cambridge, 2014, pp. 10 - 22.

² Such an approach to urban design is clearly visible in the process of transformation of cities based on the Rhine river. Cf.: Hölzer Ch., Hundt T., Lüke C., Hamm O.G., "Riverscapes. Designing Urban Embankments", Birkhäuser Verlag AG, Berlin 2008.

³ The topic of changes in the design approach to the river as a whole in landscape is presented in more detail in: Ribot Silvia, Driva Lida, Bra Dimitra, "Flooding Mechanisms: a New Ground for Water Management Policies", AA Landscape Urbanism, Architectural Association School of Architecture, London, 2014/2015, pp: 12 - 25.

in Poland. In the Union itself, especially in its western part, the latter approach has been implemented. In 2000 the so-called European Water Framework was established, which is a set of guidelines concerning all water management projects implemented in Europe. Eventually, a set of principle was formulated, defining what and to what extent is included in the scope of interests of the ecosystem approach. This approach has the character of a strategy that integrates land, water, and living resources management in order to preserve them and utilise in a sustainable way. A statement that is extremely valuable – and particularly interesting for this paper – is that man, with his diversified culture, is an integral part of the river ecosystem. The tendency to respect the natural character of the river has found its reflection in the national (local) legislation, as well as in specific urban projects. Both these scales of activity influence the shape of the contemporary city in a more or less direct fashion.

Figure 0. Map of National and International River Basin Districts



source:http://ec.europa.eu/environment/water/waterframework/facts_figures/pdf/River%20Basin%20Districts-2012.pdf

Against the background of the phenomena and tendencies referred to above, the following questions could be posed. What place of the development of European cities was occupied by the river? What is and was its influence on the process of shaping of urban structures? Does it stand a chance to become a bridge in the search of a connector between what is built and the natural landscape? By introducing elements of the open landscape in the city, does it allow to

implement the assumptions of a multifunctional, compact city? Does the activation of frequently dead banks of rivers contribute to the effect of city polarisation?

These questions can be referred to the situation of Polish river cities, which are currently being subjected to processes of transformation – processes which Western Europe has already experienced.

In this respect, issues connected with cities situated at the Vistula river, the largest river of Poland, and at the same time a river whose entire course is located within the territory of Poland, becomes particularly interesting for the Author. The Vistula river has always had a strong identity and identification, influencing the area connected with it. The first historical mentions concerning it appear as early as in the 7-5 B.C., and simultaneously its image was built through legends and stories.

For the towns and cities basing on it, the Vistula river was becoming the source of their prosperity and their driving force over years of their history. For ages it was a natural axis of exchange of goods, concepts, traffic for the entire country. Today this role, due to civilisation transformations, has been changing. The character of this enormous axis, once connected with trade and industry, may become more dominated by recreational and cultural functions. Their vitality will be connected, however, with the quality of public spaces of subsequent towns and cities bound with it. What does this relation look like today? How many towns and cities have an active contact with the course of the river that still guarantees a good quality of life?

With reference to the definition of the ecosystem approach in the process of designing river valleys, where an integral part is the cultural heritage of man, this paper presents examples of selected cities located on the Vistula river, currently implementing projects which to various extents and in various scales pertain to embankments of the Vistula. At the same time, the selected cities illustrate the character of the course of the Vistula river in its individual characteristic sections – representing its Upper, Middle, and Lower Course. In all those examples one could speak of the phenomenon of polarisation of the urban structure – in its special case, which is the activation of embankments and their effect on the condition of the entire urban organism.

Cracow – activation of the left-bank edge of the Vistula river – cultural corridor

By the post-war period, Cracow was developing along the north – south axis, nearly perpendicularly to the Vistula river. By joining one of the last units, which was an Austrian town of Podgórze, Cracow became a city located on both banks of the river. It did not, however, secure cohesion in the public space of the city – the river still functioned more as a spatial and social barrier rather than a connector. The gradual increase of the popularity of the right-bank part of the city was eventually confirmed by the construction of a pedestrian and cycling crossing (Fig. 1b), linking Kazimierz with Podgórze. This project opened a new chapter in discovering of this part of the city.

Figure 1a. Cracow – relations of the urban structure to the waterfront, taking into account the size of the channel of the Vistula river. Diagram: A.Matusik. (legend: blue – course of the Vistula river, grey – urban structure, red – important public facilities) **Figure 1b.** Cracow – channel of the Vistula at the height of Podgórze. Photo: W.Matusik. **Figure 1c.** Cracow – the edifice of Cricoteka. Photo⁴



Today the Vistula Boulevards constitute a symbol of the city. In the local spatial development plan they are dubbed the 'salon of the city', whose furniture was to consist mainly of facilities and spaces of a cultural character. Thus this section of the Vistula river begins to play the role of a new cultural backbone of the city (in opposition to the traditional north – south axis of the city's development).

Until recently, the space of the boulevards was dominated by structures exhibiting high cultural values, such as the Royal Castle, the 'Skalka' Church, or the Monastery of the Norbertine Sisters. At the beginning of the 21st century, new structures joined these icons: Museum of Japanese Art and Technology Manggha⁵, later on completed with the edifice of the Japanese

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source:
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⁵ Design by Arata Isozaki, Krzysztof Ingarden and Jacek Ewy, 1994.

Language School⁶, the edifice of Cricoteka⁷ (Fig. 1c), or Bohaterów Getta square⁸, which opens the path to getting to know the tragic history of another city quarter located at the Vistula river, which is Zabłocie, currently being revitalised. An extremely interesting project is also the reconstruction of the forefield of the Wawel castle. The Powiśle Tourist Service Centre⁹ is a facility accompanied by an embedded public space of an urban piazza, whose aim is to lead the pedestrian traffic smoothly from the boulevards towards Powiśle and Podzamcze streets. The structure itself, located below the level of the boulevards, is supposed to not collide with the skyline of the Wawel hill. The last icon, a bit distant from the river itself, although still associated with it, is the edifice of the new Congress Centre¹⁰. Despite so many individual investments, the Vistula Boulevards have not waited to see the implementation of an urban project which would define a new character of the undeveloped waterfront at the height of the quarters of Grzegórzki and Zabłocie (before the Dąbie barrage).

Warsaw – revitalisation of the left-bank boulevard from Żolibórz to Czerniakowski Port

Warsaw, in spite of the fact that its centre is situated on both banks of the Vistula river, for quite a long time was deprived of any contact with the river. It was so due to the construction of the Wisłostrada highway, cutting off the city from the river. Currently, Warsaw has commenced the revitalisation or new development of both Vistula boulevards along nearly the entire section within the city. This broad programme is to be started with the implementation of a project of the city-centre section from Tamka street to Bolesć street. The whole project will cooperate with subsequent local investments. The care for new solutions based on the philosophy of sustainable development is definitely worth attention. The entire project has been developed within the scheme of the Warsaw Water and Cycling Hub 'Bike & Sail', stage 1.

Amongst detailed designs the implementation of the Copernicus Science Centre attracts our attention¹¹ (Fig. 2b, Fig. 2c) along with the adjacent Discoverers' Park¹². This investment, implemented already before the closure of the local plans, defined the character of the waterfront, strongly emphasising the contact of the city with the natural landscape, and most of all with the Vistula river, making it accessible for users. The designing approach is best described by an excerpt from the author's account: 'the proposal of the design aims at the recovery of characteristic elements of the topography of contact points between land and water on the left urbanised bank of the Vistula river.'¹³

⁶ Design by Ingarden & Ewy Architekci, 2004.

⁷ Design by nsMoonStudio (Piotr Nawarra, Agnieszka Szultk), Wizja sp.zoo (Stanisław Deńko), implementation 2014

⁸ Design by Biuro Projektów Lewicki - Łatak, implementation 2005. The project won the first prize in the Urban Quality Award 2011 competition.

⁹ Design by ASYMETRIA, 2006.

¹⁰ Design by Ingarden & Ewy Architekci, 2014.

¹¹ architect: Rar2 Laboratorium Architektury, Ruda Śląska.

¹² architect: Rar 2, implementation: 2006 - 2010, source: <http://coquimalachowskacoqui.com/park-centrum-nauki-kopernik-w-realizacji.html>

¹³ The entire description available on: http://www.sztuka-architektury.pl/index.php?ID_PAGE=27895

Figure 2a. Warsaw – relations of the structure of the city towards the waterfront taking into account the size of the channel of the Vistula river. Diagram: A. Matusik. (legend: blue – course of the Vistula river, grey – urban structure, red – important public facilities) **Figure 2b.** Warsaw – course of the Vistula river at the height of the Copernicus Science Centre, with the National Stadium in the background. Photo¹⁴ **Figure 2c.** Warsaw – edifice of the Copernicus Science Centre on the embankment. Photo¹⁵



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Płock – yacht marina

The city of Płock has connected its spatial policy largely with the vicinity of the Vistula river. One of the priority goals has been a broad revitalisation of the embankments of the river, which in this section is the widest. A wide channel of the river, a broad embankment with a separate bay, and a vast escarpment at the river define the character of the city, becoming its greatest potential advantage at the same time.

Figure 3a. Płock – relation of the structure of the city to the waterfront taking into account the size of the channel of the Vistula river. Diagram: A. Matusik. (legend: blue – course of the Vistula river, grey – urban structure, red – important public facilities) **Figure 3b.** Płock – course of the Vistula river together with the yacht marina and the hill with the oldest part of the city. Photo¹⁶ **Figure 3c.** Płock – pier against the background of the course of the Vistula river. Photo¹⁷



The design considered for this area aimed at the increase of the attractiveness of the embankment itself, as well as of the entire city, predominantly by the extension of the

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source:
https://www.google.pl/search?q=p%C5%82ock+przysta%C5%84+jachtowa&espv=2&biw=1366&bih=623&source=Inms&tbn=isch&sa=X&ved=0ahUKEwiOnaGJsO3LAhXJXCwKHdAZCu8Q_AUIBygC&dpr=1#tbn=isch&q=p%C5%82ock+molo+Wis%C5%82a&imgsrc=sdRqYfkgpPmHbM%3A

recreational and sports functions. The municipal plans for the period 2008-2010 included a complex of sports and recreational facilities along with the development of the Płock Vistula Embankment. The main catalyst for the activity was to become the yacht marina (Fig. 3b, Fig. 3c) (currently under construction) and enabling access to Sobótka reservoir by creating infrastructure around it with a training / social / technical backup facilities¹⁸. The unfinished revitalisation process waited to see its continuation. Currently the entire embankment along the section of 2.5km is to be included in the public space of the city. It became possible thanks to the implementation of new investments within the scheme of the Regional Territorial Investments, co-financed by the European Commission¹⁹. Within the scheme of this project, the entire embankment, together with the so far undeveloped surroundings of Sobótka, is to be revitalised. Along with the necessary infrastructure, such as roads, car parks and new facilities supporting recreational functions, a network of cycling lanes is planned, as well as a connection with the Vistula escarpment via an escalator or a lift. The latter investment would link the oldest part of the city, located ca. 50 metres above the river, with the new recreational grounds.

Toruń – Filadelfijski boulevard along the section from the road bridge to the harbour of the Academic Sports Association

Revitalisation of the section of the Vistula embankments in the direct vicinity of the Old Town in Toruń is nearly like touching its historical layout. Still legible and one of the most beautiful skylines of the medieval town is to be bestowed with a forefield of a relevant quality

Figure 4a. Toruń – relations of the structure of the city to the watercourse taking into account the size of the channel of the Vistula river. Diagram: A. Matusik. (legend: blue – course of the Vistula river, grey – urban structure, red – important public facilities) **Figure 4b.** Toruń – skyline of the historical city with Filadelfijski boulevard. Photo²⁰ **Figure 4c.** Toruń – design of Filadelfijski boulevard according to Riegler Riewe Architekci sp. z o.o. from Katowice. Visualisations²¹

¹⁸ Data according to the information from the Department of Municipal Development of Płock: http://www.dane.plock.eu/ump/dane/wpi/412_39.pdf

¹⁹ it is worth pointing out that the goal of the Regional Territorial Investments programme is uniform development of the region via investments of a subregional significance. In this respect, the programme of revitalisation of the waterfront of Płock inscribes in the improvement of quality, reception, and functioning of the public space in the scale of the entire Lower Course of the Vistula River. In 2014 the city of Płock and eleven neighbouring local governments, with counties of Płock, Gostyń and Sierpc, communes of Stupno, Radzanowo, Stara Biała, Nowy Dunin and Łąck, and towns of Gąbina, Sierpc, and Wyszogród, signed an agreement on the Regional Territorial Investments programme

²⁰ https://www.google.pl/imgres?imgurl=http://img.targeo.pl/i/cache/wikipic/tor/Toru_C5_84__Bulwary_Wis_C5_82y_01_JPG-seo.jpg&imgrefurl=http://mapa.targeo.pl/torun-bulwary-wisly-01-bulwar-filadelfijski-14-torun-5920636/zdjecia/adres&h=372&w=642&tbnid=hhQZV0WMmsVBCM:&docid=DTqzXu05fBwu2M&ei=imb-VszSGYShsAHF6rmYDg&tbnid=isch&ved=0ahUKEwjMv5bBte3LAhWEEcWkHUV1DuMQMwgdKAewAQ

²¹ http://www.torun.pl/sites/default/files/pictures/torun_i_nagroda_konkurs_bulwar_pow.jpg



The forefield, referred to as Filadelfijski boulevard (Fig. 4b), once a domain of military engineering, dominated by fortifications, now is to be oriented towards recreational purposes and is to become a sort of the salon of the city.

The winning design (Fig. 4c) assumes a minimum intervention into the physical space of the embankment. Special attention was put on the creation of social places, basing on solutions of a greenery system. The space of the boulevard is to be dominated by diversified heights of vegetation and vast lawns, completed with open and closed pavilions. Furthermore, road traffic has been limited by narrowing of the lane and the priority given to the pedestrian and cycling traffic. The project respects the previous urban investments, including in the proposed space the renovated embankment in the form of majestic stairs leading to the river.

Young City Gdańsk – a new quarter on post-industrial areas by the river

Gdańsk is an extraordinary city amongst other urban layouts connected with the Vistula river. Its structure has always spanned two rivers: the Motława and the Martwa Wisła (the Dead Vistula). It did not, however, build any urban structure along the latter. The historical layout of Gdańsk is connected with the Motława – it reinforced the moats of the municipal fortifications with its water. Along with the Radunia Channel, it created a system which provided the city with protection, as well as constituted backup for the industry of the city. At the end of the 17th century Gdańsk becomes one of the largest modern fortifications of Central Europe – its basic elements are the city of Gdańsk, the port, and a system of fortifications located along the Dead

Vistula and completed with the fortress of Wisłoujście. Until the end of the 20th century the waterfront will be dominated by military and industrial functions. Only the 20th century opens new opportunities to build a different landscape of the river.

To the north from the Old Town, within the territory demarcated from the property of the former Gdańsk Shipyard, the so-called Young City is to come into being (Fig. 5c). This quarter is to be equipped with a trade and service programme, completed with the residential and recreational functions. The entire planned area is divided into three zones: Galeria Stocznia, Kolonia Robotnicza, Stocznia Cesarska, and Marina. The two latter units will create the waterfront landscape of the final part of the Dead Vistula in the future, and thus it will be the last section in the entire Vistula delta that is so urbanised. The entire area will be connected with the city of Gdańsk by municipal investments: the main traffic axis – Wałowa street, and the European Solidarity Centre (Fig. 5b). This edifice reflects the climate of this place and what has shaped the 'ecosystem' of this part of the Vistula for a long time – the 'ecosystem' perceived as the co-existence of the natural landscape and man along with his history and activity.

Figure 5a. Gdańsk – relations of the structure of the city to the waterfront taking into account the size of the channel of the Vistula river. Diagram: A. Matusik. (legend: blue – course of the Vistula river, grey – urban structure, red – important public facilities) **Figure 5b.** Gdańsk – European Solidarity Centre in the premises of the former Gdańsk Shipyard. Photo ²²
Figure 5c. Gdańsk – course of the Vistula river against the vision of the new quarter, Young City, according to Garteh Hoskins Architects. Visualisation²³

²²

https://www.google.pl/imgres?imgurl=http://r-scale-8d.dcs.redcdn.pl/scale/o2/tvn/web-content/m/p107/i/1f3202d820180a39f736f20fce790de8/71de460c-306a-11e4-b6ad-0025b511229e.jpg%253Ftype%253D1%2526srcmode%253D3%2526srcx%253D1/2%2526srcy%253D0/1%2526srcw%253D640%2526srch%253D360%2526dstw%253D640%2526dsth%253D360&imgrefurl=http://uoliuoli.blogspot.com/2015/10/europejskie-centrum-solidarnosci.html&h=360&w=640&tbnid=mhXnujQ1aSAhuM:&docid=s_kexlfUillzYM&ei=UHR-Vv3SKYmTsgHlob-QAw&tbn=isch&ved=0ahUKEwj9uoavyO3LAhWJiSwKHeXQDzIQMwg4KBuWFQ

²³

https://www.google.pl/search?q=gdansk+dawna+stocznia&espv=2&biw=1366&bih=623&source=lnms&tbn=isch&sa=X&ved=0ahUKEwjrgqvgu3LAhVJICwKHSZAAEQ_AUIBygC#imgcr=MkRTQyT8gwXH_M%3A



Summary

The composition of the city, relations between elements of its structure and landscape, are and have always been the subject matter of discussions and one of the most important civilisation dilemmas. They have reflected philosophical, economic and social tendencies. As Spiro Kostof emphasises²⁴, the river, coming into contact with settlement, provides it with an urban form and defines it. Today this form and its functional contents depend largely on the challenges faced by the global urban planning. It could be stated that probably the greatest challenges of the 21st century is combating the constantly growing pollution of the environment, including the constantly growing level of carbon dioxide in the atmosphere, and creating environmentally friendly structures and buildings. In the sphere of search there is the topic of the river as one of the fundamental elements that link the city with the natural environment.

The examples of transformations of waterfronts in Polish cities located on the Vistula river, presented in this publication, depict the scale and character of the changes in the spatial policy which currently come into being in the Polish reality. A comparative analysis allows to identify the basic similarities of the aforementioned projects between individual analysed cities, as well as to prove convergences with projects implemented on the European scale.

Starting from the macro-scale, one of the most crucial similarities is a consistent introduction of the natural landscape into the public space of the city. In this case the river becomes a certain 'communication corridor' between the suburban and urban landscape. It is connected with

²⁴ Spiro Kosfor writes more about issues connected with the evolution of urban systems towards rivers in the process of their historical development [in:] Kostof S., "The city assembled. The Elements of Urban Form through History." Thames & Hudson Ltd., London 1992, pp. 39 - 46.

specific decisions pertaining to traffic infrastructure (priority given to the pedestrian and cycling traffic) and with the selection of a relevant functional programme. Referring to strategies undertaken in terms of the programme itself, it could be stated that in most cases they are based on addressing the revival of the social activity of the city²⁵. The informal character of these spaces, contrasting so much with the strongly urbanised urban space of the city centre, becomes a characteristic feature of these spaces. It could be stated that it is an effect evoked by the aforementioned tendency to preserve the natural landscape, or landscape with abundant greenery. Such a phenomenon is characterised by – for instance – solutions in terms of greenery undertaken along the waterfront in Toruń, or the noteworthy Discoverers' Park at the Copernicus Science Centre in Warsaw, defining the further character of the programme of the embankments in the centre of the capital city.

Another important aspect that links the aforementioned examples is the progressing polarisation of the urban structure as a result of the creation of a new space, rich in spatial and functional terms. This process could be two-way. In one case, new zones of public activity become a natural consequence of the development of the urban structure and are smoothly included in the public space of the city, forming no structural or functional discontinuousness. A good example of such a phenomenon is Cracow, where the revived waterfront contributes to the consistent broadening of the living public space to subsequent quarters located in the closest vicinity of the city centre.

An opposite example is an attempt to create a completely new activity zone, so far unrelated to the active public space of the city. Such examples comprise Płock and Gdańsk. In Płock the problem of the spatial and functional discontinuousness, necessary to be overcome, has been caused by one of the most important elements of the identity of the Vistula cities – the Vistula escarpment. Here the condition for a living public space of the waterfront to exist was the solution of considerable differences of height between the waterfront and the city centre.

The problem of lack of spatial continuity in Gdańsk consists in taking a decision about the construction of a new quarter on post-industrial grounds. The attempt to revive the waterfront of the so-called Dead Vistula, so far not connected with the public space of the city historically situated at its tributary, the Motława, becomes a challenge here.

Problems connected with the lack of continuity also appear on the supraurban scale. Perception of the Vistula river is not just the question of sectional projects focusing on individual cities located along its course. To a greater extent, it is a question of policy of cooperation of entire regions. In this respect, one could identify cooperation between individual communes, as well as activities undertaken by individual cities, but operating for the benefit of the supralocal integration. At this point one could mention the establishment of a system of water trams (e.g. Gdańsk, Cracow), or yacht marines, the operation of which allows for the occurrence of a system of 'water' public spaces, linking individual cities (e.g. Gdańsk, Płock, Warsaw).

Going back to the local aspect – this micro-scale in the context of the river – urban planning activities focusing on waterfront areas often refer to spaces indigenous for many cities. Their

²⁵ Building of this informal social activity in the aforementioned projects is largely dictated by what Jan Gehl defines as the richness of the 'choice activities', leading to potential 'social activities' – activities undertaking of which stimulates rich public space. Cf.: Gehl J., "Life between buildings. Using public space", Arkitektens Forlag. The Danish Architectural Press, 2006, pp. 9 - 14

extremely important aspect is the reinterpretation of historical skylines of cities. This intervention in the historical urban context not only entails spatial changes, but it also introduces a new way of social functioning within their area. Waterfronts, once dominated by industrial and defensive functions, now become a recreational domain, often completed with cultural functions, previously reserved for the very hearts of cities. Such processes happen in many cities, including Cracow, Warsaw, Toruń.

Polish cities, after years of negligence and misguided spatial policies, often dictated by political reasons, have been slowly making up their structural and functional backlog. Due to a political blockade resulting from the need to function in the communist bloc, Poland did not undergo such a strong period of transformations resulting from the moment of shifting from the industrial to post-industrial period. Blocking, or even freezing of urban planning processes has, however, some positive aspects to it. Currently, Polish cities can benefit from experiences of European cities in a tangible way. It seems that the investments which are being implemented now are – at least in their dominating part – convergent with the aforementioned 'ecosystem' approach, where the management of natural resources and urbanised space is to be executed in a sustainable fashion, protecting the existing ecosystem and building a new one, where the contemporary city resident can experience the integration of the natural environment with the cultural space created by him.

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THE CITIZENSHIP TERRITORIES PROGRAM AND THE CHALLENGES FOR THE RURAL EXODUS COMBAT IN NORTH PLATEAU CATARINENSE: A CASE STUDY IN MUNICIPALITIES OF SÃO BENTO DO SUL AND RIO NEGRINHO

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Key words: public policy, Citizenship Territories Program, rural exodus, Brazil

Abstract

In February 2008, the Brazilian Federal Government created the Citizenship Territories Program, whose purpose is to promote and accelerate the elimination of poverty and social inequality in rural areas, including gender, race and ethnicity, through a sustainable territorial development strategy. The choice of the territories entered in the Citizenship Territories Program results from pre-defined criteria, examples of the low Human Development Index (HDI) and low economic dynamism, in which were chosen 60 territories to be benefited with structuring actions in 2008 and more 60 in 2009, totaling 120, divided into five regions of Brazil, where, within these territories, are being applied three axes to support productive activities, citizenship and access to rights and the qualification of the infrastructure. In this sense, this article aims to demonstrate the challenges of combating rural exodus, since the implementation of this Program in the North Plateau of Santa Catarina State, specifically in the municipalities of São Bento do Sul and Rio Negrinho, Citizenship Territories Program members. The case study is based on bibliographic and documentary research; data analysis provided by the Brazilian Institute of Geography and Statistics (IBGE), and; in analysis of thematic maps produced in

environment of Geographic Information Systems (GIS). With the found results expected to ratify that despite the efforts and actions taken by the Citizenship Territories Program, in these members municipalities, public policy has not been able to be effective in combating rural exodus, where it is believed that the appeal to such an act are still insufficient.

Initial considerations

Since the industrial revolution that occurred in Europe in the late nineteenth century, the rural exodus appears as a one of its most important consequences. In Brazil, the phenomenon happened in the mid-twentieth century, starting in the southeast, the main industrial center of the country. The rural exodus is the migration of people from rural areas to urban centers, which occurs in many countries across the globe and involves the search for better working conditions and quality of life. At this process of search for human sustainability, cities become more attractive rural populations, because the various possibilities of employment, education, health, infrastructure and leisure.

Therefore, from the demographic growth of the great centers that urbanism arose. As a multidisciplinary study, studies and urban actions have been trying to answer the questions related to territorial planning problems, the migration processes and unprecedented urban development, which generated multiple exhaustion physical, social and environmental issues in urban areas.

Among the various process problems, it is observed, environmental problems related to unhealthy conditions and solid waste, government in which favored the upper classes of society and sociocultural related to health, education and the process of segregation that among the consequences, do raise the crime rate and poverty in large cities.

In seeking to ameliorate the problems caused by the rural exodus, various events and global discussions happened, mostly focused on achieving sustainable territorial development. Among the international past events for this purpose, it can be highlighted as propellant to the Stockholm Conference in Sweden in 1972 and the recent Rio+20 that occurred in Brazil in 2012.

In Brazil, in order to contribute to a better quality of life of rural populations and, in order to minimize social inequalities in the field, the Federal Government instituted the Citizenship Territories Program, in which one of the challenges is to establish ways to combat rural exodus from structuring actions proposed by state and municipal governments with the participation of communities. This challenge of combating rural depopulation, has been observed, in some groups of municipalities until then termed as territories without greater progress, as we shall see from the data presented in this research.

Citizenship Territories Program

“Citizenship Territories” at the national level

Linked to the Presidency of the Republic, through the Ministry of Civil House, with participation of 22 ministries, state and municipal governments and community representatives on 25

February 2008, the Brazilian Federal Government created the Citizenship Territories Program (PTC), with the purpose of "promoting and accelerating the elimination of poverty and social inequality in rural areas, including gender, race and ethnicity, through sustainable territorial development strategy" (Our translation) (BRAZIL, 2008).

According to the decree that created the program, the main objectives listed:

"I - integration of public policies based on territorial planning; II - expanding mechanisms of social participation in the management of public policies of interest to the development of territories; III - increasing the supply of basic citizenship programs; IV - inclusion and productive integration of poor populations and the most vulnerable social groups, such as rural workers, quilombolas, indigenous and traditional populations; V - appreciation of social, cultural, economic, political, institutional and environmental regions and populations" (Our translation) (BRAZIL, 2008).

In order to put this public policy in practice, was created several structuring actions, directed to planning and sustainable rural development in support of productive activities, citizenship and access to rights and the classification of the infrastructure, which linked the strategies of state governments and municipal, which were presented to civil society organizations and the collegiate of each territory for the creation of a sustainable territorial development plan and later it passed to be executed (TERRITORY OF CITIZENSHIP, 2015).

The criteria for the choice of the territories inserted in the Citizenship Territories Program were:

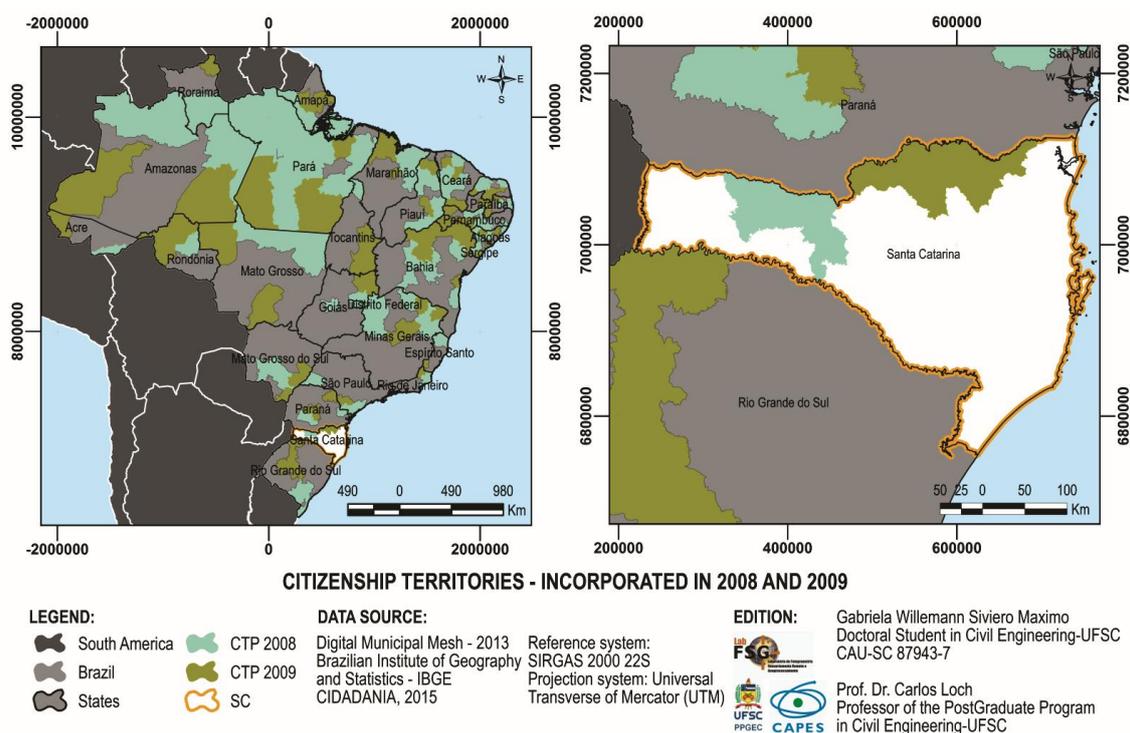
"I - to be incorporated into the Sustainable Development Program for Rural Areas, the Ministry of Agrarian Development; II - the lowest Human Development Index - HDI territorial; III - the highest concentration of beneficiaries of the Family Allowance Program; IV - higher concentration of family farmers and agrarian reform settlers; V - the largest concentration of traditional populations, quilombolas and indigenous; VI - low economic dynamism, according to the typology of constant regional inequalities of the National Policy for Regional Development, the Ministry of National Integration; VII - convergence programs to support the development of different levels of government; VIII - the largest social organization; and IX - the highest concentration of municipalities with the lowest IDEB - Basic Education Development Index. Single paragraph. The criteria described in section IX will be used for the incorporation of Territories from 2009" (Our translation) (BRAZIL, 2009).

In 2008 and 2009 were chosen 120 territories, 60 per year, in which the municipalities needed to have the same geographical, socioeconomic, cultural identity and social cohesion, to be beneficiaries of the Citizenship Territories Program. These territories would need to be divided by all Brazilian regions (North, Northeast, Midwest, Southeast and South), at least one in each state for the year 2008 and 2 for the year 2009. According to the Citizenship Territory (2015) estimated that 1,852 Brazilian municipalities (32.9% of the country) were the beneficiaries of this public policy.

"Territories of Citizenship" at the state level

In the state of Santa Catarina, were listed two territories for the practice of public policies of the Citizenship Territories Program (Figure 1). The Middle West Contestado, composed of 29 municipalities, first implemented in 2008 and the second, the North Plateau of Santa Catarina, whose municipalities of São Bento do Sul and Rio Negrinho corpus of this research make up this territory, which was inserted in 2009 and it consists of 14 municipalities (Figure 2) (TERRITORY OF CITIZENSHIP, 2015)

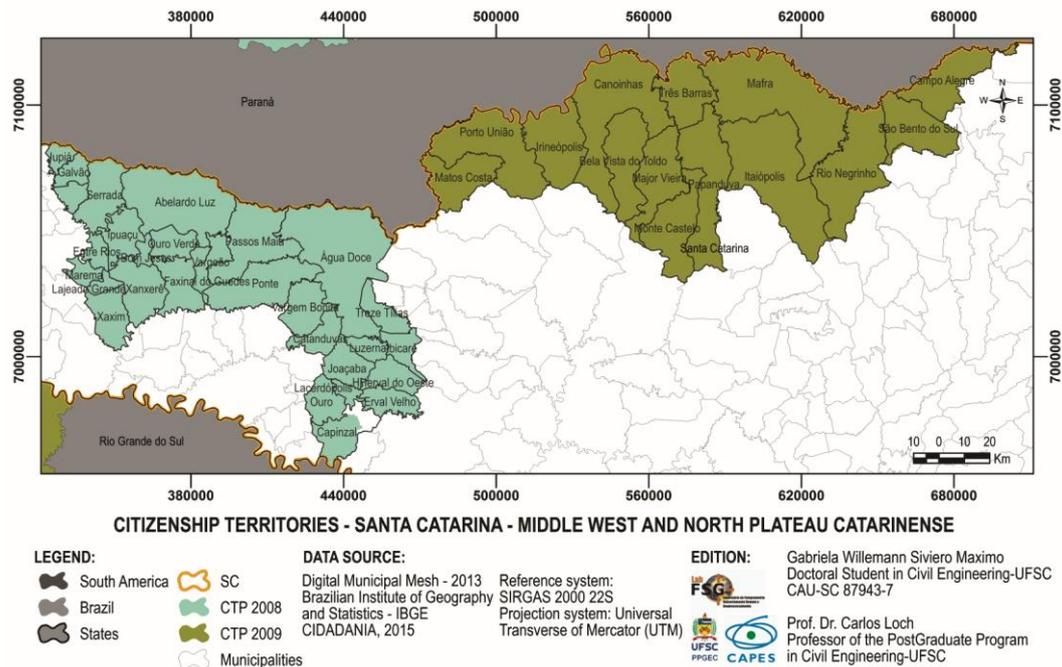
Figure 1. Map of Citizenship Territories in Brazil and Santa Catarina



Source: Authors

The land area of the municipalities that make up the Citizenship Territories Program Middle West Contestado is 8288.10Km² consisting of: Abelardo Luz, Água Doce, Bom Jesus, Capinzal, Catanduvas, Coronel Martins, Entre Rios, Erval Velho, Faxinal dos Guedes, Galvão, Herval d'Oeste, Ibicaré, Ipuaçú, Joaçaba, Jupiá, Lacerdópolis, Lajeado Grande, Luzerna, Marema, Ouro, Ouro Verde, Passos Maia, Ponte Serrada, São Domingos, Treze Tílias, Vargeão, Vargem Bonita, Xanxerê and Xaxim (Figure 2). The total population is 271,996 inhabitants, of which 72,666 (26.72%) live in rural areas, with 13,155 farmers, 2,105 settler families and four (4) indigenous lands and, in particular, the Human Development Index (HDI) Average 0.81. (TERRITORY OF CITIZENSHIP, 2015)

Figure 2 - Map of Two Citizenship Territories in Santa Catarina State



Source: Authors

Already the land area of the municipalities that make up the program Territories of Citizenship North Plateau is 10,466.70 Km², consisting of: Campo Alegre, Canoinhas, Irineópolis, Itaiópolis, Mafra, Major Vieira, Matos Costa, Monte Castelo, Papanduva, Três Barras, Bela Vista do Toldo, Porto União, Rio Negrinho e São Bento do Sul (Figure 2). The total population of this territory is of 357,082 inhabitants, of which 84,430 (23.64%) live in rural areas, with 12,909 family farmers, 460 families settled and two (2) indigenous lands and, in particular, the Human Development Index (HDI) average of 0.79 (TERRITORY OF CITIZENSHIP, 2015).

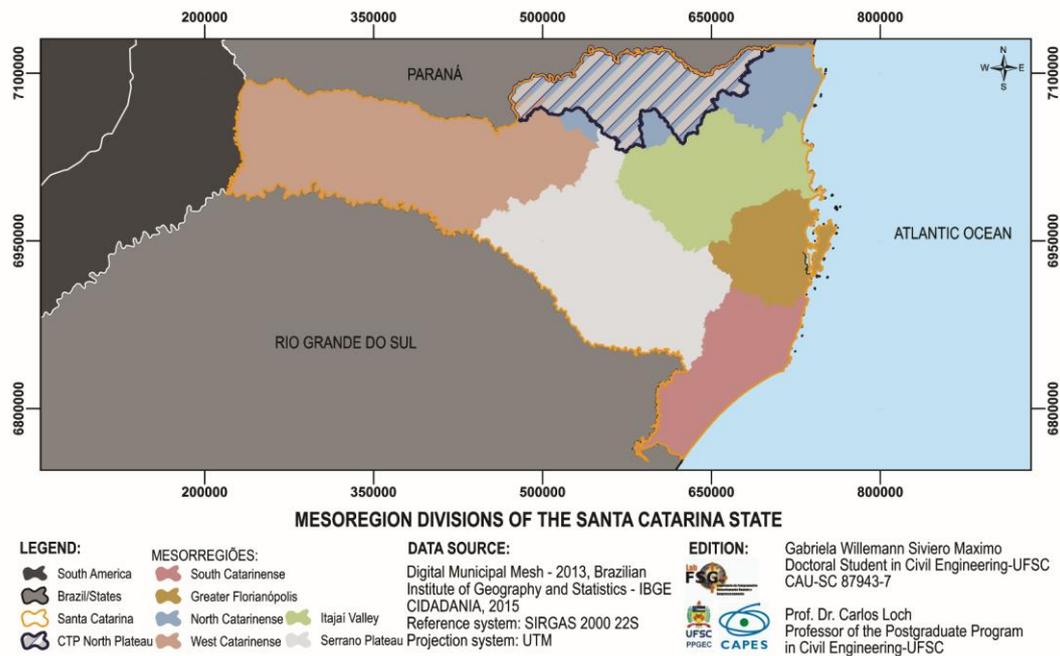
General aspects

Physical Characterization, Economic and Demographic

a) Santa Catarina

Santa Catarina is the twentieth State of Brazil in area with 95.733,978km² (square kilometers) equivalent to 1.12% of the entire national territory is divided into mesoregions 6 (Figure 3), it has a total of 295 municipalities, with around 450km (kilometers) of coastline in the Atlantic Ocean. The state, whose capital bears the name of Florianópolis, has 6,248,436 inhabitants, according to census data from 2010, and 1,000,523 the population living in rural areas and 5,247,913 in urban areas (BRAZILIAN INSTITUTE OF GEOGRAPHY AND STATISTICS, 2016a).

Figure 3. Map of Three Mesoregions in Santa Catarina State



Source: Authors

According to the Government of the State of Santa Catarina (2016a) colonization of the state was given predominantly by European immigrants where:

"(...) the Portuguese colonized the coast in the eighteenth century; Germans colonized the Itajai Valley, part of the South and the North of Santa Catarina in the mid-nineteenth century; and the Italians the southern state at the end of the same century; already the West was colonized by gauchos of Italian and German origin in the first half of the twentieth century" (Our translation).

With a humid subtropical climate, pleasant and well-defined and distinct seasons between their regions between the plateau, the mountains and the coast, the state has pluvial indexes that spin at 1500 mm / year and rains well distributed throughout the year. Santa Catarina has a relief of different altitudes ranging from coast to peaks of 1827 meters of altitude, with portions of the Atlantic Forest, Forest of Araucaria, Savannah, Sandbank and Mangrove (UFSC, 2014).

The state's economy is diversified and has a strong agriculture of national importance where the main products are rice, corn and soybeans. In other sectors the Florianópolis metropolitan area stands out for its technology, tourism, services and construction; the north by the technological center, furniture and mechanical engineering; in West concentrate the food production and mobile activities; the Serrano Plateau paper industries and wood; in South garment segments, plastics, coal and ceramic and; in Itajai Valley there is a predominance textile and clothing industry, shipbuilding and technology (GOVERNMENT OF THE STATE OF SANTA CATARINA, 2016b).

b) The region of the Citizenship Territories Program, the North Plateau of Santa Catarina

The exploitation of wood was always significant for the region, the Citizenship Territory, the North Plateau of Santa Catarina, which is inserted in Mesoregion North of the State of Santa Catarina, in which the economic feature prominent is the branch of wood, especially by industries furniture sector and the paper industry. Within this panorama, currently the region is also composed of forests with native trees - Mixed Ombrophilous Forest - Araucaria Forest - and pine reforestation areas.

Among the divisions of Catarinenses Mesoregions, the Northern region, 1970-2010 remained on the list of municipalities that together always preserved below the national average, regional and state in the question of the number of inhabitants living in rural areas as it can be seen in Table 1, behind the metropolitan region of Florianópolis.

**Table 1. Demographic data the urban population and rural
Brazil – Region – Federation Unit - Mesoregions**

Resident population by sex, age groups and situations - Sample - General Population Characteristics						
Variable = Resident Population (People)						
Sex = Total						
Age groups = Total						
Brazil, Region, Federation Unit, Mesoregions	Household Situation	Year				
		1970	1980	1991	2000	2010
Brazil	Urban	52.097.260	80.437.327	110.990.990	137.925.238	160.934.649
	Rural	41.037.586	38.573.725	35.834.485	31.947.618	29.821.150
Souh	Urban	7.305.650	11.876.780	16.403.032	20.318.991	23.261.985
	Rural	9.190.672	7.155.210	5.726.345	4.791.358	4.124.906
Santa Catarina	Urban	1.247.158	2.154.250	3.208.537	4.217.763	5.247.903
	Rural	1.654.502	1.474.042	1.333.457	1.140.100	1.000.533
West Catarinense	Urban	-	-	532.959	702.849	860.563
	Rural	-	-	518.124	414.114	340.149
North Catarinense	Urban	-	-	680.254	875.481	1.063.909
	Rural	-	-	157.957	151.125	148.934
Serrano Plateau	Urban	-	-	267.304	312.470	332.431
	Rural	-	-	107.817	88.714	74.310
Itajaí Valley	Urban	-	-	718.164	993.376	1.322.041
	Rural	-	-	225.456	193.808	186.939
Greater Florianópolis	Urban	-	-	521.069	725.358	915.804
	Rural	-	-	98.196	77.897	78.291
South Catarinense	Urban	-	-	488.787	608.230	753.156
	Rural	-	-	225.907	214.441	171.909
Note:						
1 - For the year 1991, the universe data. For other years, Sample data						
2 - By the year 1991 the age groups go up to 80 years or more; from 2000, going up to 100 years or more.						

Source: IBGE – Statistic data

The fact of the Mesoregion North State not be characterized with rural prevalence may be related to the inclusion of coastal municipalities in grouping as Araquari, Balneario Barra do Sul, Itapoá, Joinville (largest and most populous county in the state), São Francisco do Sul. In Table 1, you can see that in mesoregion North of Santa Catarina, the number of inhabitants in rural

areas is 12.28% and, when considering only the group of municipalities in the territory of the Northern Plateau Citizenship and Santa Catarina that are inserted this mesoregion (Table 2) this figure rises to 36.98%.

**Table 2. Demographic data the urban population and rural
Brazil – Region – Federation Unit - CTP Plateou North Catarinense**

Resident population by sex, age groups and situations - Sample - General Population Characteristics						
Variable = Resident Population (People)						
Sex = Total						
Age groups = Total						
Brazil, Region, Federation Unit, Mesoregion North	Household Situation	Year				
		1970	1980	1991	2000	2010
Brazil	Urban	55,94	67,59	75,59	81,19	84,37
	Rural	44,06	32,41	24,41	18,81	15,63
Souh	Urban	44,29	62,4	74,12	80,92	84,94
	Rural	55,71	37,6	25,88	19,08	15,06
Santa Catarina	Urban	42,98	59,37	70,64	78,72	83,99
	Rural	57,02	40,63	29,36	21,28	16,01
North Catarinense (Only municipalities in CTP - North Plateau)	Urban	34,41	46,89	58,05	59,39	63,02
	Rural	65,59	53,11	41,95	40,61	36,98

Note:

1 - For the year 1991, the universe data. For other years, Sample data

2 - By the year 1991 the age groups go up to 80 years or more; from 2000, going up to 100 years or more.

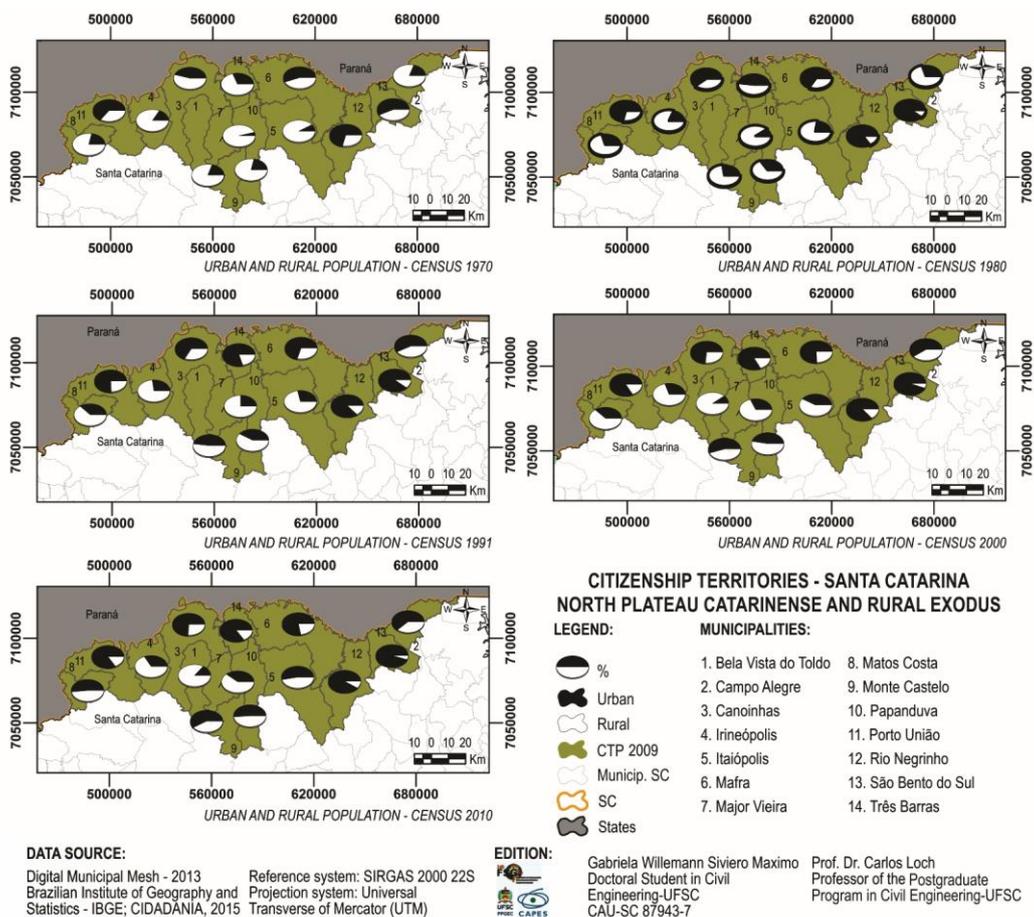
3 - The municipality of Matos Costa was not considered in this table because, despite being inserted in the Citizenship Territories Program - North Plateau Catarinense, is not a member of Mesoregion North of Santa Catarina

Source: IBGE – Statistic data

Despite this demographic characteristic for the region, the Citizenship Territory, the North Plateau of Santa Catarina, there are some municipalities whose vocation does not help in determining the man in the field, such as the municipalities of São Bento do Sul, Rio Negrinho (neighboring municipalities in the eastern portion the Territory) and Porto União (municipality located in the western portion the Territory) that since 1970 have always had the majority of the population residing in its urban areas, always staying below the average national, regional and state. Leaving aside the three cities mentioned above, only the municipality of Três Barras, from the year 1991, reversed his balance and started to be part of this statistic, remaining below average.

These four municipalities have an economy highlighted by the manufacturing products in which the feedstock revolves around the wood chain. São Bento do Sul and Rio Negrinho in the furniture area, Port Union in producing wooden frames and Três Barras by the paper industry. In the proportion of residents in urban and rural areas of the Citizenship Territories Program - North Plateau of Santa Catarina, presented in Figure 4 visualizes the evolution of each municipality since the year 1970 and the numbers have been increasing in recent decades.

Figure 4. Map of Citizenship Territories North Plateau and rural exodus



Source: Authors

According to the Brazilian Institute of Geography and Statistics, for the group of municipalities that make up the territory of citizenship, the North Plateau of Santa Catarina, in the Census 1970 only Mafra, Porto União, Rio Negrinho and São Bento had the largest number of urban population. Over the decades this statistic has changed to such an extent that in the Census of 2010, only three municipalities remained classified as typically rural populations: Bela Vista do Toldo, Irineópolis and Major Vieira.

Aspects that characterize and strengthen the rural exodus in the municipalities of São Bento do Sul and Rio Negrinho

According to the Brazilian Institute of Geography and Statistics (2016a), the municipality of São Bento do Sul is the most populous territory with 74,801 inhabitants and the 2nd Human Development Index - highest, with the value of 0.782, having a land area of 501,634km²; Rio Negrinho already has 39,846 inhabitants, a Human Development Index of 0.738 and a land area of 907,311km² (ranked as the 4th largest city in area the Territory).

The municipalities of the Territory of Citizenship - North Plateau of Santa Catarina, São Bento do Sul and Rio Negrinho are those with the largest number of people living in cities, in which 95.23% and 91.22% are in urban areas respectively (BRAZILIAN INSTITUTE OF GEOGRAPHY AND STATISTICS, 2016a). This factor can be related to many industries in these municipalities, in particular, to furniture, to classify the region as the largest number, followed by the West of Santa Catarina.

"Santa Catarina stands out at the national level in the production of furniture with a predominance of wood. The municipalities of São Bento do Sul, Palhoça and Rio Negrinho, focuses the largest volume companies, while in the West is the second largest center of state furniture manufacturer. The catarinense furniture industry has a share of 7.5% of the national industry, taking into account the value of industrial transformation. The state is the country's second largest furniture exporter (2014) "(Federation of Industries of the State of Santa Catarina, 2015, p. 16).

The municipalities that make up the territory of Citizenship - North Plateau of Santa Catarina four figured as part of the ranking "*number of exporting companies by municipalities of Santa Catarina in 2013 and 2014*" in Santa Catarina state, where, São Bento do Sul (has the highest Gross Domestic Product - GDP) appeared in 7th place with 51 companies, Rio Negrinho in 21st place with 19 companies, Mafra in 24th place with 15 companies and Canoinhas in 30th place with 13 companies (FEDERATION OF INDUSTRIES OF THE STATE OF SANTA CATARINA, 2015).

**Table 3. Demographic data the urban population and rural
Brazil – Region – Federation Unit - CTP Plateou North Catarinense – municipalities Rio
Negrinho and São Bento do Sul**

Resident population by sex, age groups and situations - Sample - General Population Characteristics						
Variable = Resident Population (People)						
Sex = Total						
Age groups = Total						
Brazil, Region, Federation Unit, Mesoregion North, SBS, RN	Household Situation	Year				
		1970	1980	1991	2000	2010
Brazil	Urban	55,94	67,59	75,59	81,19	84,37
	Rural	44,06	32,41	24,41	18,81	15,63
Souh	Urban	44,29	62,4	74,12	80,92	84,94
	Rural	55,71	37,6	25,88	19,08	15,06
Santa Catarina	Urban	42,98	59,37	70,64	78,72	83,99
	Rural	57,02	40,63	29,36	21,28	16,01
North Catarinense (Only municipalities in CTP - North Plateau)	Urban	34,41	46,89	58,05	59,39	63,02
	Rural	65,59	53,11	41,95	40,61	36,98
Rio Negrinho	Urban	70,84	84,69	87,06	86,59	91,22
	Rural	29,16	15,31	12,94	13,41	8,78
São Bento do Sul	Urban	56,76	89,74	89,62	94,48	95,23
	Rural	43,24	10,26	10,38	5,52	4,77
Note:						
1 - For the year 1991, the universe data. For other years, Sample data						
2 - By the year 1991 the age groups go up to 80 years or more; from 2000, going up to 100 years or more.						
3 - The municipality of Matos Costa was not considered in this table because, despite being inserted in the Citizenship Territories Program - North Plateau Catarinense, is not a member of Mesoregion North of Santa Catarina						

Source: IBGE – Statistic data

In order to illustrate the transformations that have occurred in the numbers of people in rural and urban populations within the two municipalities corpus of this study, Table 3 presents the time series of statistical data on the demographics of São Bento do Sul and Rio Negrinho and the numbers at national, state, mesorregional and also in his Territory Citizenship. In this table is clear rural exodus information that occurred over time in these two municipalities, especially since the 1980s when, São Bento do Sul jumped from a rural population of 43.24% (1970) to 10.26% (1980) and currently (2010) figure with only 4.77% and Rio Negrinho jumped from 29.16% (1970) to 15.31% (1980) and in 2010 has a rural population of only 8.78%.

Final Considerations

The realization of a demographic study proves that combat challenges rural exodus still exist within the municipalities of Citizenship Territories, which are becoming a worrying fact, since there was no decrease in the last census. Combat it, this will not be an easy task.

Although the program presents the four municipalities, the Territories of Citizenship Program - North Plateau of Santa Catarina grouped, considering geographical, cultural and similar economic characteristics, it is observed that within the territory are distinct economies, which does not favor the application of same strategies for all except a complementary action to another. The need of predominantly rural municipalities will be different from the predominantly urban.

The municipalities of São Bento do Sul and Rio Negrinho, for example, have different characteristics from the others, which are believed to be included in this group for reasons of location. The two furniture makers, municipalities in northern Santa Catarina are at the start of the plateau, along with Campo Alegre (municipality whose population ratio between urban and rural has changed considerably in recent decades). The three together - Campo Alegre, São Bento do Sul and Rio Negrinho - have an important link with the coast, with mountainous region of Santa Catarina and one of the largest consumers poles of relevance of Brazil, the city of Curitiba, State of Parana.

Data from the Brazilian Institute of Geography and Statistics show that despite the actions taken within the program, the rural exodus is present in all member municipalities, which shows that the actions are not enough, because even before this program started, other They have already been implemented, such as the Rural Territories Program.

The analysis demonstrates that despite investments in actions aimed at regional reality, there is a low reflection in combating rural depopulation at the municipal level and show that more effective action is necessary in the municipalities that make up the territory. Perhaps the secret to some, is to create opportunities more job options and study in the field, instead of promoting the closure of schools in rural areas, as occurred in recent years; for others, greater infrastructure road system that connects the field to the city. In sum, a good strategy for the case of the Citizenship Territories Program can be individually think some strategies for the collective good of all municipalities.

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URBAN EXPANSION AND RURAL SPATIAL CHAOS IN THE FRINGE AREA

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Key words: city life, agricultural areas, space management, construction technologies

Abstract

Due to the constant increase in human population, man, citizen of the planet Earth, faces many momentous questions and challenges. First of all, they concern problems of accommodation, sustenance, proper health care, education, leisure, transport, development of technical infrastructure, etc.

It seems, however, that the pace of progress and the accumulation of new challenges related to the needs of modernising and developing towns significantly exceed the existing capabilities of planning processes and work. Newer and newer investment projects always seem to be one step ahead of these possibilities.

It is also noted that despite the great progress of civilization, life in cities does not become easier, but, on the contrary, more and more difficult. Therefore, city dwellers either fully or partially run away from them, seeking an opportunity to live in hitherto rural areas close to nature. Above all a tempting target for city dwellers have become villages surrounding these cities. As a result of this complex process, the nearest villages become the suburbs of cities with detached houses, in a sense blocking the development of these cities. Thus, existing rural areas cease to be such areas, losing the title of host sites.

All of this is a kind of a trap as simultaneously these phenomena become unrestrained and generate spatial chaos. The more so that the chaos also affects interpersonal relationships, the quality of which is influenced by cultural differences as well as lifestyle. Nowadays the problem exists in most Polish cities, but observation in this article is limited to Cracow and Lesser Poland only.

Introduction

There have always been problems in the rural-urban fringe. Cities — due to their civilizational and political status — for most of history have acted as superior to villages (this claim is simplified out of necessity). Thus, they often forced the annexation of rural areas, although sometimes, for various reasons, those processes were perfectly natural (beginning with

settlements beyond the town walls absorbed by the town itself). Economic and political determinants, including the size of cities play a key role in the process of those transformations. A dominant city in Lesser Poland is obviously Cracow. Among other big cities in the region (over 20,000 inhabitants) there are Tarnów, Nowy Sącz, Nowy Targ, Oświęcim, Chrzanów, Andrychów, Bochnia, Zakopane, Miechów. There are 43 smaller towns (of fewer than 20,000 inhabitants according to the Central Statistical Office)¹ in Lesser Poland².

Administrative and constitutional transformations can be considered as the main ones in Poland. One can (conventionally) distinguish the following periods here: 1) since the end of World War II (the transition from capitalism to socialism) until 1975; 2) in 1975 communes returned to existence and a new administrative division was introduced (47 provinces instead of the current 17 ones and liquidation of districts) — until then small towns existed in the contemporary conditions of the territorial division; 3) the transition from a socialist economy to the capitalist one (1989), we are witnessing the second administrative and constitutional transformation (restoration of districts and instead of provinces 47 - 16), which with a variety of consequences continues today.

Transformation of cities is also affected by their socio-economic and political functions (state-administration, local and judiciary authorities' centres, etc.). For example, in Lesser Poland there are towns whose dominant function is recreation and tourism: Krynica, Piwniczna, Szczawnica, Rabka Zdrój or Zakopane. Those transformations occur in a different way in towns whose dominant function is industry, such as Trzebinia, Libiąż, Chelmek, Andrychów or Chrzanów. Those processes also look in a different way in towns around which strongly developed agriculture is focused, including Proszowice, Słomniki, Skąta, Kazimierza Wielka, etc.

The article outlines only those factors that have a direct impact on the transformation of cities — in the context of incentives ensuring preservation of existing workplaces and / or the creation of new ones. These outlines are necessarily superficial as nowadays the pressure of various factors related to the creation of workplaces is changing unpredictably, often quickly and dramatically — irrespective of characteristics previously assigned to the given localities or regions (defined e.g. as tourist, industrial or even agricultural ones).

It should also be mentioned that Lesser Poland is the most geographically diverse region in Poland. It pertains to landscape and colonial values, namely: the upland, submontane and mountainous areas. Urban and rural settlement falls within this physicogeographical conditioning determined by such colonial priorities as access to water, the communication network having a connection with national and international roads or prosperous agriculture.

After the Second World War, as a result of political and economic conditioning, the main strategy of formation and development of cities was transformed in a fundamental way. Priorities of the centrally planned economy (and its legal and ideological reflections) allowed decision-makers rather uninhibited treatment of private property, especially private land. On the

¹ In some studies, it is assumed that a small town has fewer than 10,000 inhabitants.

² The influence of political transformation processes on small towns in Lesser Poland has been researched by Agnieszka Kwiatek-Sołtys. *Małe miasta województwa małopolskiego w okresie transformacji systemowej*. Wydawnictwo Naukowe Akademii Pedagogicznej, Kraków 2004, p. 8.

one hand, they were abusive (not to say looting under the guise of the law sometimes), but on the other hand, those practices generally excluded land speculation and even free trading in land in the natural development goals, notably to foster entrepreneurship. After 1989, the restoration of the principles of private property opened up the possibility of previously inhibited speculative land trading and its free circulation. As a result, the availability of relatively cheap land in the previously agricultural areas enabled to locate there various types of industrial plants, shopping centres and warehouses, housing developments, etc.

To control these processes (after diagnosing any abnormalities), it is necessary to have a specific concept and strategy. The inability to regulate these spatial and architectural problems in our country often ridicules us in the eyes of specialists in the field of planning and architecture from other countries... These disturbing phenomena and trends provoke a broad discussion among men of science and culture, especially among spatial planning and architecture professionals. Scientific discussions are, therefore, to identify and propose — through the exchange of views and experiences — possible solutions to the above identified problems.

Critical description of the situation

It is undisputed that after 1989 very thorough transformations took place in Poland. Their pace outdistanced both the pace (and possibilities) of spatial planning and the applicable legal standards related to architecture and management of space. Space, representing the shared value of the whole society, is in many respects treated carelessly, not to say — wastefully. Nature and landscape, cultural, agricultural, social, infrastructural values, and, above all, the requirements generally understood as **sustainable development** cease to count — for the crudely conceived “ad hoc” dominant, “arithmetical” economics and profit at (almost) all cost. Fig.1.

Figure 1. Fragment of a housing estate in Krzeszowice from the period of the 80s



Source: photo by H. Melges

Agricultural areas with high quality soil are reclassified in the majesty of the law into construction sites for expanding cities. Giant shopping centres with huge car parks are

constructed on the outskirts of these cities. The introduction of any radical changes in order to control those disastrous transformations of agricultural land (at the stages of variously advanced investment projects) has so far proved impossible.

The early attempts to order the situation

Synchronously speaking (or statically, in a given moment) the boundaries of cities are defined precisely, but in practice (diachronically, that is, in time) these boundaries are reviewed, and thus due to the very nature of urban sprawl – constantly enlarged (extended). In Lesser Poland as many as 31 out of 55 towns were located in the Middle Ages, most often on the Magdeburg law and less often on sredenses law (*ius Novi Fori*).

Fires but also the periods of partitioning in Poland had a huge impact on the transformation of cities (changing their spatial shape) – the invaders introduced foreign archetypes, styles and manners of building to the native Polish tradition. However, the destructive elements of various wars had the biggest impact. It should be (to be objective) noted, however, that, paradoxically different destructions changing or even completely eliminating the existing structure (shape) of cities or their districts fostered the introduction of new solutions and urban and architectural concepts — previously impossible due to the existing and permanent state of things.

As we know the first and second world wars caused particular havoc in the structures of cities. After World War I people attempted to solve problems connected with the destruction of cities by developing plans for their logically intrusive repair or reconstruction of buildings, expansions and new construction. The then outstanding legislative document in the field of planning and architecture was the unified building law of 1928. That law introduced a rule that plans for cities should take into account the functional and spatial dependence taking place in the relations between a city and the surrounding areas. The intention of these methods of planning were among others making integral, harmonious (and according to the hierarchy) plans interlocking with each other to — to increasingly lower levels of administration on a specific geographical space.

After World War II the destruction of cities in Poland exceeded 40% of their total assets. Industry (over 50%) and villages were destroyed even more. The war also decimated intelligentsia, that is, experts from various fields, including urban planners, architects, builders, etc. Inconceivable post-war poverty — in addition in politically altered conditions of real socialism — despite the huge public enthusiasm for the country's reconstruction from the devastation could not be (apart from certain exceptions³) guarantee for proper operations within the meaning of all decisions and planning, urban and architectural works. Noteworthy is also the fact of the great determination of planners and architects who survived from the war to implement the thoughts and experiences of the pre-war period in the country which was rebuilt after war. This determination demonstrates itself in the fact that already in 1946 a decree on “the planned land development of the country” was issued. It marked the three-tier system of planning: national planning, regional planning, planning of individual cities and towns. The primary requirement for these plans was to limit the movements of migrants in the destabilized

³ E.g. The total reconstruction of Warsaw's old town (and not only).

country (so as to obtain obvious and necessary stability), further — distribution of industry, setting the major transport and infrastructure routes.

In consequence of the following changes and verification of spatial plans different variants of planning were introduced, including: Act of 1961 on spatial planning and the government's resolution of 1976 on the rules and procedures for the preparation of local development plans⁴. After 1989 a special legal act in an altered political and economic system was the “Law on Spatial Planning” from 1994. The novelty of this extraordinary act was that of entrusting local authorities with powers to create local plans. The main emphasis of this law was placed on the issues of sustainable development (an interdisciplinary perspective). So designated priority meant that many of the planning and architectural issues theoretically fitted into the modern and global trend of thinking about human environment. Another problem, however, which has remained was that of **competence of staff at this level** necessary (and independent from the influence of non-experts) to properly create such plans (to meet their leading and legitimate idea).

The author is only taking here a far-reaching shortcut — indications of planning procedures and acts which “created” our urban-rural spaces. All of them, however objectively “collide” with spatial and architectural effects — widely visible effects which most dramatically manifest themselves in a simply spatial and architectural clutter in urban and rural areas⁵.

Without knowing the broad context of the causes, understanding of the current state of planning and architecture is difficult. The conclusion may be that throughout the post-war period planning was strongly determined by the economic and social system. However, after 1989, the complexity of the political transformation of the socialist state into a radically different system of the capitalist state once again brought new methods and ways of spatial management. Yet, at the same time, that situation brought serious complications. It is therefore particularly important for the rapidly transforming cities — constantly being “the task of the moment” — is the introduction of restrictions on the mechanisms of forming a kind of planning and architectural chaos.

Determination of the place of residence - in the countryside or in the city?

The condition of good planning is the precise identification of issues relating to demography, workplaces, education, etc. The immediately post-war period in Poland was dominated by reconstruction from the devastation and the identification and preparation of places to live for frequently distributed human masses moving around the country and looking for “their place to anchor”.

⁴ The assessment of changes in urban planning after World War II in the context of political transformation was explored by Bolesław Malisz in the book *Problematyka przestrzennego zagospodarowania kraju*. Polskie Wydawnictwo Naukowe, Warszawa 1974, p. 23

⁵ The authors of the study: E. Radziszewski, W. Wieczorkiewicz and M. Wiśniewska diagnosed relations of legislative acts adopted after World War II in the face of the post-war Polish reality. *Planowanie przestrzenne i zabudowa wsi*. Arkady, Warszawa 1983, pp. 15-18

A particular example for the then Cracow and now Lesser Poland province is the city of Cracow. Before the war it was not an industrial city — industry employed only approx. 10% of the population. The residents of the city were mostly artisans, merchants, civil servants, students and academics. The situation changed fundamentally during the post-war population movement. Intelligentsia from Warsaw, Lvov and Vilnius and dispossessed as a result of land reform wealthy landowners looked for a new place to live in Cracow. Those decisions were often difficult (especially emotionally), burdened with uncertainty and future risk, but dictated by necessity and common sense.

A special and dramatic event for Cracow was the decision of 1949 to implement the biggest six-year investment plan (i.e. accelerated industrialization) – i.e. Vladimir Lenin Steelworks. Two villages near Cracow were requisitioned for its construction — Mogiła and Pleszów. This happened anyway – which is today commonly known – within the strict guidelines of a foreign power, namely the USSR to make Poland a supply base of raw and industrial material for heavy industry — for the final needs of the defence industry. Additionally native ideological factor was at stake — the desire of the then authorities to change the intelligentsia (and therefore always suspect and “reactionary”) character of the city to the character and image of class “workers”. The upstream population was to become a “cure” for the current state of affairs ⁶.

The expansion of steelworks progressed, making it a national juggernaut of heavy industry and a leading polluter of nature, and the destructive intoxication not only of public health but also the sights and in general the building substance of Cracow. The process of expansion continued uninterrupted until the end of the 80s. As a result, the city of 300 thousand has become the city of 800 thousand inhabitants due to the influx of people (necessary hands to work). Mostly immigrants from the mountainous villages and towns flocked here.

The demand for workers in the region was to be covered by people from the countryside, farmers generally subsistence ones, farming on small acreages of low or very low profitability. For those people, a source of additional, permanent and guaranteed income became a “lure” they could not refuse. Additionally, in the mentality of these people (skilfully shaped by the propaganda of the political system) migration to the city meant social ennoblement. Thus, in the whole Silesian-Cracow agglomeration evolved a special type of farming population commonly referred to as the “peasant-workers” — country people employed in the industry, who still (with their family) worked on the land after the work in the city. As a result, the boundaries of Lesser Poland cities steadily widened, absorbing additional areas of suburban village.

Socialist economy trends focused on the development of heavy industry were dramatically slowed down in 1990, which was connected with a reduction in employment. The population was forced to retrain — mainly in the fields of retail. Those changes had almost immediate consequences in the processes of spatial and architectural management. A fairly radical change is occurring — from the tendency to live in the cities to that of settling down in attractive rural areas adjoining or adjacent to cities.

⁶ Andrzej Delorme, „Stalinowska industrializacja przyczyną klęski ekologicznej Krakowa” (in:) *Klęska ekologiczna Krakowa*, collective work edited by Maria Gumińska and Andrzej Delorme, Kraków 1990, pp. 33-40

Return of urban population to rural areas

After 1990, as a result of the initiation of the market economy and the restructuring of industry, and therefore the reduction in the employment, people were forced to search for new ways of life, including earning money. New processes of settlement and location of homes and workplaces were indeed initiated in villages. For those who previously lived in the countryside, and were now living in cities, these processes were partly facilitated by the fact of still having family houses and land suitable for development and to create workplaces in villages: workshops, small production plants, processing plants, etc., and new the so-called dream houses.

It looked different in the case of materially well-off people who lived in cities. These people have become fed up with urbanized world and acknowledged that the values related to life in rural areas (social climate, peace, contact with nature) will release them from tiring, stressful, and at the same time “rigorous framework of urbanity”. Furthermore, currently the majority of people (not just the wealthy) have cars. There also exists a well-organized public transport – buses (also private ones) and rail to a lesser extent. Assuming that commuting from home in the countryside to work in the city takes an average of 30 minutes up to one hour, the decision to settle in the country ceases to be significantly difficult. The existing technologies of Internet (electronic) communication also open up new ways and methods of working from home (especially in the case of liberal professions, but not only).

This then raises an additional diagnostic question – do these people isolate themselves from the cities? A village is their place of residence, but their workplaces are still in cities. Their children continue to benefit from the schools located in cities. They use all kinds of urban amenities (cultural centres, cinemas, etc.); health care available to them is usually located in the city, etc. And so — the isolation or abandonment of relations does not occur.

There is also another question — will these rural (but half-hearted) inhabitants from the cities be accepted by local residents; is there a possibility of good integration in the presence of cultural and intellectual differences and creation of new local rules and customs of participation in the social life of these different groups? It seems that will take some time for these differences to be blurred in these new cultural and social relations. And there is still a number of such complex questions.

Suburban villages in new reality — spatial planning and architectural issues

The image of modern-day villages, especially these near the cities, is changing before our eyes. In the 50s of the last century **social realism** was “officially” introduced as a binding ideological and aesthetic directive (as regards the content and form) which brutally dissect cultural trends of native Polish architecture. After 1956 there was a return to modernism (although the relevance and meaning of the name is in the author’s opinion debatable here). Urban construction became dominated by precast technology, concrete slabs, and above all the technical and aesthetic mediocrity. Fig.2.

**Figure 2. The quality of technology in housing as a problem of many housing estates.
Krzeszowice – the beginning of the 90s**



Source: photo by H. Melges

In the case of Cracow, but also almost any city in Lesser Poland, among the many crises in the field of dehumanized urban planning and architecture (including urban-rural structures) simultaneously appeared crises of health of the residents of these cities, environmental problems and the problem of destruction of national culture. Historically shaped spatial structures of the village were in the majority blurred carelessly — with the introduction of new technologies, trends and architectural fashions (often erroneous or downright ignorant from the point of view of the art and science of architecture). Fot.3. Professor Juchnowicz — otherwise one of the creators of Nowa Huta — rightly notes that: “Gigantomania and totalism of housing estates is increasingly under attack”⁷ This finding is particularly relevant for the villages from the 70s and 80s.

Their ties with tradition were broken, the continuation of good practices and local archetypes were abandoned. Poor quality of construction and “non-quality” or poor quality of architectural eclecticism are the main features of the contemporary village in Lesser Poland. Fig.4.

⁷ Stanisław Juchnowicz, „Źródła patologicznej urbanizacji i kryzysu ekologicznego obszaru Krakowa” (in:) *Kłęska ekologiczna Krakowa*, collective work edited by Maria Gumińska and Andrzej Delorme, Kraków 1990, p. 250

Figure 3. View of the entrance to the town characteristic for many of our cities – the town of Zator



Source: photo by H. Melges

Figure 4. Fragment of “Ćmany” housing estate in Krzeszowice - the 70s



Source: photo by H. Melges

The period after 1990 is a time of great changes and attempts to catch up in terms of all kinds of construction. Access to new architectural solutions and increasingly better technologies and construction materials brought a boom in construction. However, there was no **planning and architectural preparation** for that boom. Strong (and sometimes even overwhelming) property developer lobbying determined the whole tracts of countryside with the new forms of building, often by creating isolated settlements, closed like a kind of ghetto. Although in the area of

planning and architecture regulatory limits for single-family housing has already been established, even these (as practice shows) did not properly immerse into the architectural and spatial shape and character of different localities.

Conclusions

Spatial-architectural changes since the days after World War II until now have been characterized by effective blurring of regional architectural and cultural diversity. As a result, the principle of good continuation, above all, has been broken (in the broad sense). Fig.5. Especially the new “suburban revolution” carries huge risks — selfish forms of overuse of rural areas by their new residents⁸. The speed of the occurring changes has long outdistanced zoning plans, somewhat paralyzing them fait accompli. Fig.6.

Figure 5. View of single-family housing development in the neighbourhood of large blocks, Raclawicka Street in Cracow



Source: photo by H. Melges

⁸ This complex issue is addressed by Marek Kowicki in the book *Patologie/wyzwania architektoniczno-planistyczne we wsi małopolskiej, studium na tle tendencji krajobrazowych i europejskich*. Kraków 210, p. 20

Figure 6. Characteristic process of expansion of residential development in former agricultural areas – the area near Olkusz



Source: photo by H. Meiges

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THE DIFFERENCE IN LIFESTYLE. 'A SHOPPING LIST' AND SOCIAL ENGAGEMENT AS URBAN PROCESS STIMULATOR

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Key words: Commercialization, Urban Process, Lifestyle, Social Engagement

Abstract

The urbanized space mirrors the way the society works. We have on one side the commercialization of the space and on the other side attempts to make the space more human through the social engagement of architects and urban planners. The yearning for authenticity is confronted with different forms of standardization of urban space and the domination of global brands. The space of a city core's streets is full of brands, which symbolize the progress. The researchers concentrate mostly on this most visible aspect of globalization phenomenon when describing the urban processes, which are visible in the space. At the same time the strategies based on the idea of 'the creative city' for rather many of the cities, also polish towns, became an element of specific survival strategy in the time of profound changes in social and economic areas, caused by globalization. The author analyzes some of these contradicted? or/and consistent? types of nowadays urban culture trying to answer the question about the role of urban design in the context of contemporary trends shaping the locality and the global aspects of the city and its structure and concentrates on different examples of contemporary cities. The search for possible solutions based on sustainable development and the confrontation with the real urban development strategies (examples include the case study for the city of Lodz) are the starting points for the author to find answers how to re-shape the urban space into a user friendly city.

'Architecture however do not exist in vacuum – the same space, the same building after few years can be a different building. Not because the space have changed. Simply because of the change of context.'

Krzysztof Nawratek in interview with Bogna Swiatkowska (Nawratek, 2014, p. 90)

The culture of shopping experience

What makes a city a working urban space is and was essential to every generation. In year 2013, in the book "The Metropolitan Revolution", Judith Rodin, the President of the Rockefeller Foundation, states that 'a city's true measure goes beyond human-made structures and lies deeper than daily routine. (...) cities and metro areas are defined by the quality of the ideas they generate, the innovations they spur, and the opportunities they create for people living within and outside city limits'. (Katz, Bradley, 2013, p. vii)

This point of view is somehow obscured by the image of the urban space which we can find around us all over the world. The urban public space became a place for concentrated marketing of global brands, commercialized to the point where the form of the space get extremely uniformed because of the needs of consumption and advertisement. Everywhere, global brands as Starbucks, Zara, McDonald's etc. are placed also in the spaces which pride themselves as symbols of locality. Standardized services standardize also the visual space – from shop interiors to the exterior of squares and streets. The feeling of the uniqueness of the space is starting to be problematic. In the contemporary urban space the user seems able only to satisfy his or her very narrowly defined consumer needs. The authenticity of a place is mostly achieved by the means of 'staginess' of the space – secured through adaptation to the image of space of these social groups, which have the means to satisfy their needs. The requirements of the virtual space in which we exist in personal and professional lives also cause that the constant need to be present in virtual community alienates us from the real surrounding space. A habit taken from virtual reality - to get a constant flow of changeable impulses – make impossible to focus on the elements of urban interiors. And perception of stable images needs concentration. Such use of space realizes itself in a concept that a city it is not what builds the outside space, but the image of the space in ourselves (such phenomenon is described in a book 'The City is Me'; Brazilian researcher Rosane Araujo analyzes there the philosophical impact of such spatial image of the city). The city is then not a geographical element, it is a notion connected with the life style and the space use (Araujo, 2013, p. 139 and next)

But even defining of the city through individualized perception we can distinguish some rules of functioning of the urban space.

The urban space builds always a multifaceted conglomerate with repeatable and unique elements. And actually this 'recipe' for the city have not changed, even when spatial composition have changed. Nowadays analysis of the urban structure shows that the urban life concentrates mostly in different shopping centers – from 'normal' shopping malls (one big network store and a 'street' enriched with some smaller brand shops) to revitalized postindustrial complexes (f. ex. Manufaktura in Lodz, Poland), housing estates (cultural and commercial centers in Shanghai, China as Xiantandi), or even parks (f. ex. in Bercy in Paris, France, where a stylized commercial centre realized as a pedestrian city street is connected directly with park area). The need for displacement emphasizes the island character of the contemporary city space. Urban space composed and used as constant shopping experience.

The shopping culture grows from the consumerism of our society which still in majority defines progress with accumulation of goods. Goods with a very short life span. Such kind of behaviour

results in very globalized urban space with repeatable patterns of use and spatial order. Even if exchange of goods was always essential feature of city space nowadays it took sometimes grotesque dimension. Even in distant sometimes exotic locations we meet the same brand names. The variety of stock in the shops does not differ significantly – the same coffee, the same hotel room, the same character of uniformed space... People and nature still make the difference but otherwise the cityscape bases on a mock feeling of security brought through already seemingly familiar surrounding. In present time local identity is standardized through the worldliness and cultural belonging to accepted value system, even when foreign tradition and believes are implanted to different culture.

Figure 1. Globalized shopping. Commercial center Xiantandi in refurbished old shikumen-houses. Shanghai, China



Source: Renata Mikielwicz, 2010

Such unified shopping space copies in form old city structures as streets and squares, but left the real city empty from users. They gather in secure excluded spaces of specially created centers not in the 'real' urban space where they can encounter poverty and problems. Such centers as postindustrial factory complex Manufaktura in Lodz, otherwise very valuable as the place where the cultural heritage of the city got preserved, take the 'life potential' of other city parts and create an artificial space – vivid and full of attractions, but also lacking the notoriety of the city center. The social differences, the ugliness and everyday problems are pushed to the outskirts of the consciousness of the users. The world seem friendly and unproblematic, secure and free from danger. In the terms of urban and architectural design the space is staged as such kind of traditional urbanity where the human scale, details and pedestrian solutions make it desirable for frequent use. But in such spaces even the possibility to sit down and rest is connected with consumption. If something changes, as in the shopping gallery in Manufaktura, is connected still to the profit – more unpaid sitting possibilities enable the women to shop freely

when their man can wait patiently sitting slightly bored. Such model works so the shopping space got equipped in more unpaid seats. In the beginning there were just few (extremely lovely designed) chairs in the whole center. The consumption space is sometimes jeweled with some cultural functions as museum or other exhibition spaces (Manufaktura in Lodz, Shanghai's Xiantandi, Stary Browar in Poznan) but they even if centrally placed physically, they exist on the periphery of the perception for the majority. But still it is significant that the need to implement such 'foreign' elements shows the desire to consume not only on the basic level of human needs. But the chosen functions implemented in the space cover only the 'civilized', unproblematic aspects of life of the privileged. Everything else stays outside, in the sometimes strangely centrally placed periphery as the periphery in Lodz, which is strictly the city center with the main street and its neglected 19. century tenement houses. And just planned revitalization still lacks programs which enable to integrate the old inhabitants and in the effect will not push them from the renovated space somewhere in nowhere, but outside the gentrified, cleaned space. The urban design and architecture make the space friendlier but only aesthetically, the ethic part remains somehow nonexistent.

Social induction

Even if the new commercialized urban spaces meet our expectation in terms of urban design, the essence of what builds a community is lacking. It is very significant that the criticized by environmentalists 'production of space' with its capitalist usage of even empty space defined solely as an asset for further development also started the movements gathered under the headword 'the right to the city' (both notions formulated by French philosopher Henri Lefebvre). The notion 'right to the city' is understood as 'the right to urban life'. (Lefebvre, 2006, p. 61-181) Such urbanity is based on the idea of a man realizing himself in urban space used as the meeting space. And the form of such space is not relevant. The space functioning without people who enjoy its use, is impossible to be described as habitable. Inhabited space is also full of contrast, it projects the hierarchy and divisions of the real society. And as the alternative to the urban spaces - polished, deprived of the edges – we can observe a tendency to use architecture as a form of activism. There are such ideas as "the third places" where people can gather and build (again) social networks. (Oldenburg, 1989, p. 2)

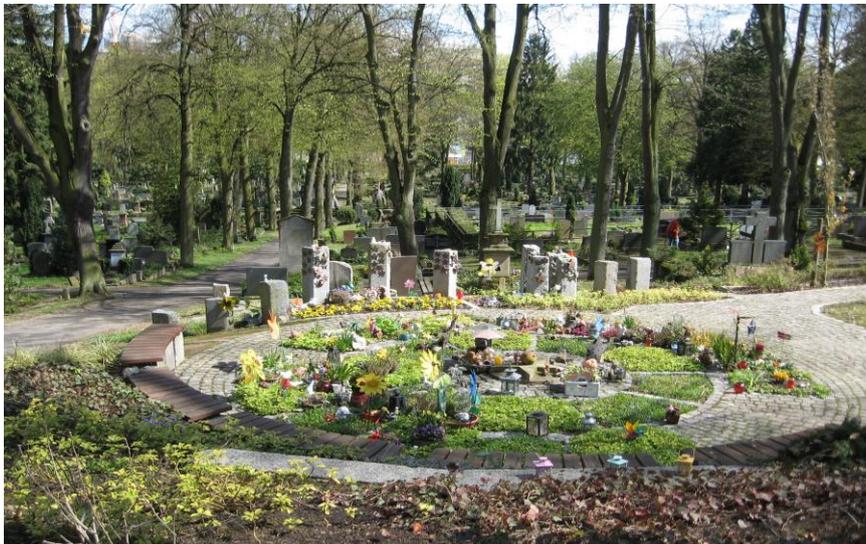
Extreme individualization and the quest to achieve very selfishly defined happiness common in our society are visible in our treatment of space and its urban form – unharmonious, overridden with brand symbols and gated whenever possible. But a growing trend of 'the right to the city'-activists and also socially oriented architects try to develop a very different approach to the space. It is based on participation, where architects can have a leading role but not the solutions based on superior position.

'Think global, build local!' (Arch+, 2013, p.04) – the slogan and the title of the exhibition in Architecture Museum in Frankfurt am Main in Germany (8 June – 1 September 2013) is also a program for many contemporary architects. This exhibition showed a trend already presented in 2010 in Museum of Modern Art in New York (exhibition 'Small Scale, Big Change: New Architectures of Social Engagement'). That event presented the contemporary attitude of many architects who try to make Project involving the users and stressing the local participation. At

the moment that kind of professional stand got awarded through the Pritzker Prize 2016 for Alejandro Aravena. The social engagement of the architect for many seem necessary to maintain a standard of space and its purpose as the frame of the social life. Engaged design should enable socially weak groups of people to express themselves in public space. The architect or urban planner should include the implications coming from the local context and also try to help to build the competence of local people. And even then other aspects of sustainability are important the most pressing issue seem to be to show social equality with diversity of social qualities and identities. The main rule is the right for everyone to live in a community with healthy social, economical and environmental principles. (Wilson, 2008) So the main idea of such projects is not the composition and its aesthetic impact but the community. Not the material but the people living and using the space are the focus of the project. The social aspect of sustainable thinking is the most important. And such approach changes also the outcome – the designed space often is a rough one, not the eye pleasing one which is the common goal in most projects.

An attempt to find spatial solutions for creation of urban spaces which can answer the needs of the contemporaneity incline to analysis of the smaller urban organisms and their communities. The nowadays concentration of people in big urban structures tends to cause anonymity and spatial dispersal. (Mikielewicz, 2015, p. 113) What differs small urban structures from the big ones is their closeness, the possibility to reach the borders on foot, to know the passersby to identify with space known in every element (through its past and present). In mega-cities the pace of life depends upon speed.

Figure 2. Commemoration place for unborn children. A social action in cemetery in Mainz, Germany



Source: Renata Mikielewicz, 2008

Such aspect of the city life as the need for reflection is present in social activities of many formal and informal groups in Germany, where in the space of the cemeteries the multifaceted spatial

structures implemented in existing space try to help to understand the mystery of life and its end. Otherwise the urban actions concentrate on the public involvement and a specially effective tool is the participatory budget which enables local communities to involve in the change in the use of the surrounding space on different levels. One of the actions of an artistic group Urząd Miasta in Lodz in the 1980s. helped to stimulate the awareness of the importance and the real sense of the urban heritage of the city. The action helped to understand that what makes a city is not a single building however beautiful but a street and its row character, the pattern not the singled element. The happening organized through young architects on 7th May 1981 after drastic widening of a one of many Piotrkowska (main street of the city) cross-streets elevated the remaining single tenement house to the rank of a monument - the Monument of the House.

Figure 3. Heightening of the monument for the city of Lodz, Poland, during a yearly anniversary



Source: Renata Mikielwicz, 2014

Figure 4. Piotrkowska Street, Lodz, Poland. Mobile figures of a famous Polish poet, Julian Tuwim, born in the city, placed in the new furnished and paved main street



Source: Renata Mikielwicz, 2013

Figure 5. Model of the city prepared by children. An social action in Old Market on the anniversary of the city of Lodz, Poland



Source: Renata Mikielwicz, 2014

Figure 6. A new pedestrian-friendlier street in the city center, remodeled after voting in participatory budget in Lodz, Poland



Source: Renata Mikielwicz, 2015

Nowadays the same people are bound in formal organized structures in the city and try to reshape it with other means but also with symbolic actions as the yearly heightening of the Monument of the City, which shows all years from the 1423, when Lodz was given the city rights. The most significant achievement of such groups is the 'public awareness' awakening. The city starts to fulfill the sense of belonging which is not connected with the privileged. We see changes in the way the people act in space with which they start to identify. What is mostly disturbing in revitalization schemes is the gentrification of urban space with only differently ghettoized space, attractive in the sense of urban composition but lacking the real urban value – the sense of community. The new space serves only these citizens who share the same social and economical position in the society.

Catalyzed space

Throughout centuries urban space in its shape emphasized the structure of social values. Nowadays we can observe the dominating tendency to unification of the urban space. The creation of false homogeneity responds with the obligatory consumption model. The space becomes uniform, cleaned out of contrasts. It looks illusory safe and domesticated. Without need for any other way of engagement as passive contemplation. Such users, who from cultural or economical reasons are not compatible with the desired consumption pattern are moved to the peripheries of the world of these who can compete. What is not seen is not disturbing the

sense of indulgence. The social well-being is defined through such self-satisfaction and safety which creates urban spaces gated and not accessible for strangers. Such preferences create a world of people copying similar activities based on the same consumption ideal, but separated from the others and tolerating only the alike.

In the process of globalization the cities the cities even more generate all goods. But even more they replace states in the global economy competition. So they need to look for new resources and for enhancing of their position on the market. In this specific ranking the skill to use the image of the city to exist in public imagination seems extremely necessary and sufficient. For many cities as Dubai, Shanghai or Madrid it is the main strategy. The iconic city is then a magnet (with the use of the immaterial qualities) for gathering the potential urban space users and generate the development conditions. (Landry, p. xviii) on such strategies of possible city development growing number of cities try to implement a policy based on sustainability. Still worldwide we can count such examples nearly on the fingers of one hand. And this is not because we do not have examples of successful implementation of sustainable design in the form of sustainable oriented districts as the European examples as Swedish Malmö or German Freiberg im Breisgau. But the holistic approach to urban design using the knowledge and understanding that about the nature of the natural, social, economical etc. processes and the use of such way of thinking is making very slow progress. In build solutions nearly always there is one main focus point, a much cherished "show case" which obscure the idea of sustainability as implementing the balance between needs and necessities. And sometimes such ideas as 'the creative city' do not work properly because of somehow falsely made assumptions. This idea was basically formulated as a solution underlining the exceptionality of the place, but because of its massive implementation in contemporary world looks like some means for mere survival in constantly changing world. (Florida, 2010)

Interesting point in this approach builds the idea of intercultural exchange (different from the multicultural notion) which enables the flow and exchange of values coming from different cultures, which allows to live together and not only near each other in closed communities. (Landry, p.xix)

There are some examples of different social approach in building new social values based on the philosophic ideas of 'deep ecology'. The community is then changing the communication and co-operation structure (using also the tools of modern capitalist society) and tries to establish new links between the inhabitants. An example of such solution is Ecovillage Munksgård near (or now in the outskirts of) Roskilde. With 100 row houses in 5 groups and 'common houses' for each group, where 225 inhabitants gather at least once a month for common meal, it builds an enclave of new social understanding. The whole structure is centralized. In the terms of ecology there are not only energy efficient architecture solutions as conservatories, solar panels or sea-shells roof coverings, but also shared gardens. The function base on accessibility, visibility and togetherness. New social ideas for our atomized, self-centered society but with amazingly old fashioned urban and architectural patterns and aesthetic solutions. Such attempt to build a kind of community where everybody is important to the others and all care about each other is possible because of the scale of the estate and brings difficulty when considered as something not repeatable in the sense of multiplying but

enlarging and interconnecting. But what is important in the whole idea is the conviction that to get better living space the actions of the society should change. And then we can repeat the old ways of creation of the habitable spaces in form but not in mental use. Such kind of thinking that only the change of mind will help dominates in the way of thinking of many researchers and as expressed as in Naomi Klein's book about climate change the change gets 'suddenly, everyone'. (Klein, 2014, p. 464)

So we have to approach a 'technical' one which looks for advantages of technology, looks for new shapes, materials and more refined modernity (and brings it to the extreme) and on the other side a kind of thinking where the sense of the city should be found in the people not structures. Desirable but also very difficult affair.

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NEW REGION URBAN NETWORKS IN THE COLOMBIAN CARIBBEAN

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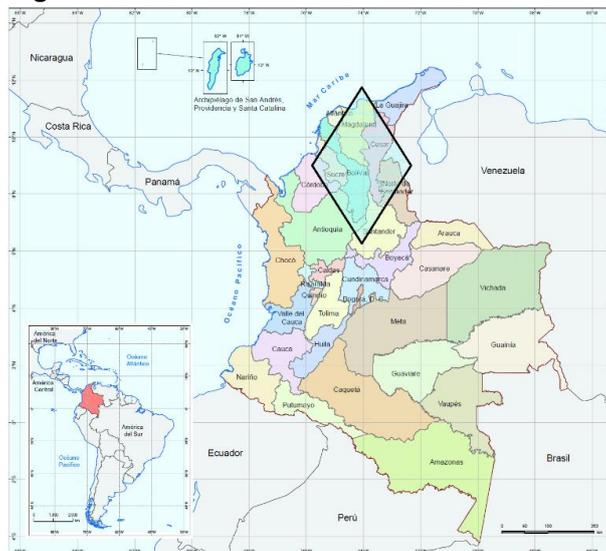
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Key words: Urbanism, Indicators, Networks, Regional

Abstract

The Caribbean region in Colombia has large land areas and low connectivity between urban centers, the study proposed a methodology of analysis of 10 major cities to validate a regional project called “Diamante Caribe-Santanderes”. The methodology was structured from 4 hubs and 11 indicators of urban analysis that was applied to each of the urban centers. From the mapping results of an image analysis of the various aspects of urban reality was obtained. This study was able to identify trends and potential of the territory and is accomplished propose a new political and administrative structure that integrates large unconnected areas. It also qualifies intervention projects in different scales for each local center, inter between municipal centers, and finally large territorial unions to consolidate a regional identity. The most important of the study is to propose within the categories of analysis systematic search of polyvalent interactions develop joint responses to the needs of communities at the same time elements of conservation measures and restoration of ecosystem dynamics of the environment. Finally, the study shows that under current legislation it is possible to create this new territorial entity, with cultural identity and articulated planning parameters under new regional organization of urban centers.

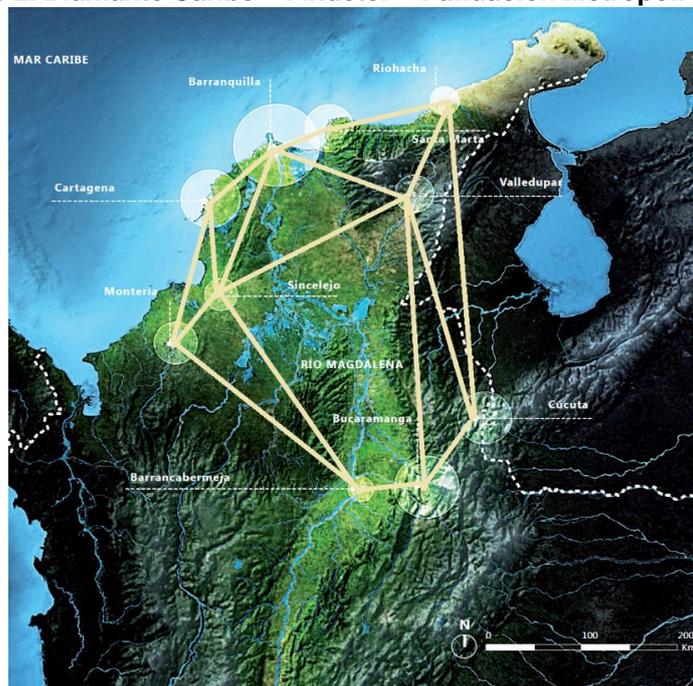
Figure 1. Localization of Colombia – DANE 2012

Introduction

Colombia is located in northern South America. Its total area is 2.070.408 km², comprising 928.660 km² of maritime territories in the Pacific Ocean as well as in the Caribbean Sea; and 1.141.748 km² of land. According to official demographic projections, Colombia has an estimated population of 48.600.000 inhabitants in 2016. Also, considering the whole extension, Colombia shares borders with eleven countries: Costa Rica, Haiti, Jamaica, Dominican Republic, United States, Nicaragua, Panama, Venezuela, Ecuador, Brazil and Peru. (Departamento Administrativo Nacional de Estadística - DANE, 2012) (Graphic 1)

The project named Diamante Caribe – Santanderes is located north of the continental land, including 10 cities, 9 of which are the departmental¹ capitals that constitute the edges of this big polygon; the cities are, from south to north: Bucaramanga (capital) and Barrancabermeja (municipality) in Santander department; Cúcuta, capital of Norte de Santander department; Montería capital of Córdoba department; Sincelejo, capital of Sucre department; Valledupar, capital of Cesar department; Cartagena, capital of Bolívar department; Barranquilla, capital of Atlántico department; Santa Marta, capital of Magdalena department and Riohacha, capital of La Guajira department. (Graphic 2)

¹ Departments are territorial entities of the Colombian state that hold a certain autonomy in administration and spatial planning it was established in the Political Constitution: Article 286: Territorial entities are the departments, districts, municipalities and indigenous territories. The Law might also give such category to the regions and provinces to be constituted according to the Constitution and the Law. Article 287. The territorial entities hold autonomy to manage their interests, within what the Constitution and the Law allow, so the territorial entities will have the following rights: 1. To rule over their selves through their own authorities. 2. To exert their competencies. 3 To manage the resources and establish the tributes required for the accomplishment of their functions. 4. To share the national estate.

Figure 2. Diamante Caribe – Findeter – Fundación Metr poli - 2014

Since the enactment of the Land Use Planning Law - 388 of 1997, a new mechanism came into force, which impels the municipalities to adopt land use plans (POT for its initials in Spanish) with a certain level of autonomy and adjusted to equity parameters. The law aims to protect the environment and the cultural heritage as well as to practice a proper land use according to its suitability and capacities under the sustainable development concept. Thus, the urban planning encompasses the politic, administrative and spatial planning actions focused on multiple social groups to seek the social and economic development in harmony with the environment. (Rep blica de Colombia, 1997) 20 years after the Land Use Planning Law enactment and the start-up of the POT a changing and constructive planning culture has emerged, granting the characterization of the national territory from a multidimensional perspective.

To develop a multidimensional vision of the territory as proposed in the land use plans (POT), it is necessary to identify the production and the offer of services consumed in urban centers. (Fern ndez, 2000). But the permanently growing consumption of natural resources transforms systematically the ecosystems and also causes the extinction of raw materials, which leads to widen the need of energy from neighboring territories and requires more land to meet the demands of the urban center. (Ni o Soto, 2012). The dynamic of the urbanization or urban growth has not been quantified to make visible the level of environmental transformation, which was not regarded at first in the POT methodology. In addition, neither the level of synchronization of these transformations nor the harmony among the different systems created to meet the urban demands were considered, so the quantification or relation of measures to identify balances and equitable dynamics were not either considered. (Camargo Ponce de Le n, 2005) Within this context, the process of urban configuration of the Colombian cities

shows a rapid urbanization and urban growth caused by migration phenomena, which generated an apparent and favorable relation between urban and economic growth, since the human development index has apparently risen, but the process is certainly accompanied with marginality and poverty. In consequence, the cities show nowadays a bad quality of life, bad urban design, unsustainability and pollution. (Jaramillo, y otros, 1993) (Libertun de Duren, 2014)

The Diamante Caribe - Santanderes

The proposal Diamante Caribe – Santanderes comes from a public initiative that aims to improve the capabilities of the territory, after the exploration of new alliances and the development of functional dynamics, by generating other level of interactions based upon a set of networks between the urban centers. This initiative proves to be valid under the constitutional frame, owing to the faculty of creating territorial entities like regions and provinces (Title XI of territorial organization, Chapter I, article 286).

The Diamante Caribe – Santanderes outlines opportunities for agreements with the local communities and for functional mergers along the national territory, as well as international alliances in the case of border municipalities. (Article 289). Therefore, the faculty of creating regions, established in article 306, allows the creation of new administrative and unified-planning regions with legal status, autonomy and its own estate from two or more departments after the popular approval by means of a referendum (Article 307) (República de Colombia, 1991)

Within the previously depicted context of multiple physical, environmental and cultural variables, the special qualities of the Diamante Caribe – Santanderes project were appraised to distinguish a profile of the basic urban features of the urban centers that form this big proposed polygon in Colombia.

Methodology to analyze the basic urban features of the urban spaces

Colombian cities, as other Latin American cities, share similarities rooted in their socio-cultural conditions, that is analogue technologies, access to economic resources, polarization of the occupational structure (González Romero, y otros, 2004), which end up generating rapid urbanization processes without articulation to the urban networks, exacerbating regional disparities and widening the distance between the rural and the urban, all accompanied with the related socio-spatial segregation, which in turn triggers concentration processes in spaces with no capacity for collective uses and weak local administration devices. (Jaramillo, y otros, 1993) These dynamics reflect the big contradiction within the sustainable development: environmental protection amidst high levels of production and consumption as a sign of the environmental plundering. (Sayer, y otros, 2004) (Niño Soto, 2012).

Within this context, indicators and trends are formulated to enrich the urban planning methodologies based upon the analysis of several hubs that group indicators to identify a set of monitoring and orientation mechanisms for planned processes. The indicators, as tools for monitoring and evaluating, help to measure and parametrize models with comparable measures. (Leal Del Castillo, 2004). These indicators when grouped by hubs allow for analyzing the level of adaptation of the urban systems. They are also useful to qualify other spatial dynamics that can be analyzed through the crossing of cartographical approaches with some

significant values, such as those contained in census or inventories or standards with an optimal category for a given place or inside a system. (Camargo Ponce de León, 2005) (Agencia de Ecología Urbana de Barcelona, 2010). Following the Agencia de Ecología Urbana de Barcelona (2010) 4 hubs were defined: Compactness, Complexity, Efficiency and Social Cohesion, each one is developed with indicators that have been adapted to the ambiance, aiming to analyze the current conditions in the urban cases chosen for the study.

Hub 1 Compactness

This hub refers to the land occupation model of the city, as well as to the dynamics that this model produces in the space according to that model and to the urban landscape that it reflects. (Hermida, y otros, 2015). The appraisal encompasses six indicators:

1. Morphology: identification of regular polygons and organic sprawl of the urban form within the expansion processes generated by political, cultural and economic dynamics; (De Solá Morales, 1997) showing the current stage and growth patterns (Azócar García, y otros, 2010).
2. Urban-Fringe-Rural relations: this hub focuses on the urban relations with the territory determining the diffuse, continuous or steep forms depending on the forces among those interactions. These relations build up permeable or steep limits of activities, as well as variable dimensions and specialization or mixture of uses. (Toro Vasco, y otros, 2005) (Serenio, y otros, 2010).
3. Land occupation and density: relation between free and occupied areas that provides the means to identify the degree of saturation or the amount of free space. (Agencia de Ecología Urbana de Barcelona, 2010) (Hermida, y otros, 2015)
4. Equipments: specific elements that shape the support system of the urban activities in relation to the users, setting levels of connectivity, identity and socio-cultural relations. (Agencia de Ecología Urbana de Barcelona, 2010) (Mier y Terán, y otros, 2012)
5. Public space: given urban capacity for the free movement of people, comprising a network for the use and enjoyment of the population and also the capacity for the habitability understood as universal, ergonomic and secure access. (Agencia de Ecología Urbana de Barcelona, 2010) (Ferrer, y otros, 2009).
6. Mobility: efficient connectivity that eases the exchange dynamic and transportation of resources and people through different means and services in order to improve the social conditions of integration. (Agencia de Ecología Urbana de Barcelona, 2010) (Jirón M., y otros, 2010)

Hub 2 Complexity

To identify the diversity and quantity of interactions given by the infrastructure and the uses of the urban land. (Agencia de Ecología Urbana de Barcelona, 2010) (Moroni, 2015) Two indicators serve as basis for analyze this hub:

7. Urban complexity: the city is a multidimensional structure that encompasses the interconnection between dynamic relations with hierarchies alongside multiple levels to shape an interdependent structure ciudad (Salingaros, 2005).
8. Green Areas: places for the conservation of ecosystem dynamic in the territory, granting the preservation of the biodiversity through spatial networks (Agencia de Ecología Urbana de Barcelona, 2010) (Annerstedt Van Den Bosch, et al., 2016)

Hub 3 Efficiency

Referred to the proper management of the systems that support the functioning of the urban centers, this hub analyze the relation between the production process and the resources consumption, the welfare and the production of waste (Kim, y otros, 2014) in terms of substances and energy. (Cohen, y otros, 2010). This process involves the suitable development of interconnection systems in order to grant the good functioning (Agencia de Ecología Urbana de Barcelona, 2010). For this work the following indicator was selected:

9. Urban metabolism: the identification of relations among support systems and general waste in regards to recycling systems. (Agencia de Ecología Urbana de Barcelona, 2010) (Conke, 2015)

Hub 4 Social Cohesion

This hub seeks to identify the quality and quantity of interactions among different social groups in order to moderate the situations that lead to marginalization or urban marginality scenarios. (Agencia de Ecología Urbana de Barcelona, 2010) (Jaramillo, y otros, 1993) This includes the evaluation of elements and isolated structures inside the human settlements (Salingaros, 2005). Two indicators that value the cohesion and housing compose this hub:

10. Cohesion: this indicator identifies social integration processes with special approaches to the socio-economic stratification. (Agencia de Ecología Urbana de Barcelona, 2010) (Cassiers, y otros, 2012)
11. Housing: this indicator identifies the location and articulation of housing complexes within the city, valuating the quality of the interconnections of services and housing typology. (Agencia de Ecología Urbana de Barcelona, 2010) (Garcia Rodriguez, y otros, 2015)

General Results

This work deals with urban and rural areas ruled by the land use plans and fixed limits among the forms of territorial organization. From a functional and geographical perspective, most of the cases show discontinuity of the urban sprawl and how the urban population is predominant in comparison to the rural, although the rural area is larger than the urban (except for Barranquilla, where the rural area is smaller). There is no planning or appropriation binding the environmental spaces to the urban development.

The hub Compactness shows a concentrated landscape with some vacant spaces, in which planned processes of occupation are desired. Hence, there is a need for strategic projects in order to strengthen the public space capabilities and broaden the offer of urban mobility through intermodality. All of the urban centers have regulated homogenous big polygons, among which

we can highlight some neighborhoods that were originated from a planning process with certain morphologies of orthogonal figures.

Coastal cities have a valuable environmental offer barely linked to the urban processes, but this offer is suffering deterioration. There is evidence of a physical and functional conurbation tendency, so the urban sprawl shows processes of physical conurbation and functional and administrative metropolization. The urban fringe has two constant characteristics: a) limits with environmental assets such as rivers, swamps and coastlines; and b) large extensions of land, as agricultural land as forestry reserves, with no planning processes in both cases.

Respect to the urban land occupation, the study found some vacant spaces within the city perimeter, in reference to spaces with certain environmental restrictions. Zones where construction is possible hold mainly medium and small-sized buildings, which means a high-density level of land occupation. The small amount of available equipments in urban centers make possible the projection of a category for interconnection or urban endowments networks.

Regarding to the public space the study identifies some areas of diverse dimensions and residual spaces with no functions articulated to a network of free spaces for the use and free movement of people. In addition, the habitability shows reduced circulation systems for pedestrians and low standards of universal accessibility, little or none ergonomic facilities, sparkling light comfort, high temperatures and high levels of suspended particles, all this leading to low levels of comfort in most of the cases.

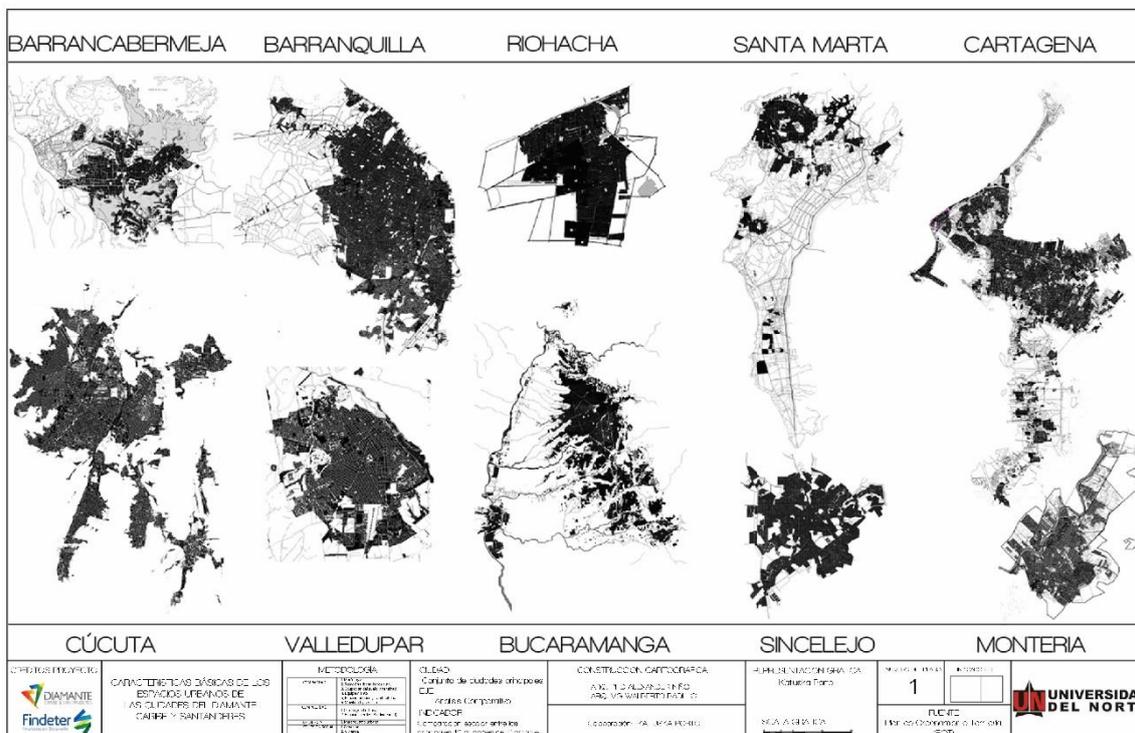
For mobility the urban centers have some infrastructure with low quality and no connections allowing the change of scales in a proper manner. As for services, nearness and availability are observed, but also little specialization and low-density levels are detected, which means that a lot of areas have little or none trade centers or financial, health and education services exchange enclaves.

The size of urban sprawl enables complexity processes because it comprises the possibility to generate a big amount of interactions related to the infrastructure and the uses of urban land. The green areas inside the urban centers are little and do not contribute to the conservation of the ecosystem dynamics of the territory. It is necessary to improve the quantity and the quality of the green areas in order to consolidate urban networks that favor the transit and permanence of biodiversity through an environmental network that harmonizes the complexity of the coastal ecosystems. The urban centers show traditional characteristics of energy and water supply and waste management, evident in landfills or transitional cells at open space. There is not any massive model of energy alternative systems aiming to improve the efficiency, the ecological footprint and the urban metabolism, for example with solar energy, recycling waste or urban agriculture programs.

The study identifies a good quality and quantity of interactions among the different social groups, what might reduce marginalization processes and improve the social cohesion. Social integration processes and some levels of socio-spatial segregation and compactness of urban communities are also observed. The indicators show homogeneous polygons of social stratification and little scenarios that constraint the marginal or peripheral areas, all this making the integration by spatial proximity possible. The analysis of housing areas with assorted quality and typology highlights a good level of social cohesion within the urban center. Thus, the

articulation of housing areas to the rest of the city is well located due to little endowments for operative support.

Figure 3. Urban Sprawl



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NODAL POINTS IN THE STRUCTURE OF KRAKÓW'S INNER CITY

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Key words: spatial structure, polycentricism, central districts, nodal points

Abstract

In line with the leading topic of the conference *Back to the Sense of the City*, the author discusses problems related to the process of emergence of key fragments of the contemporary city. These are activity and development concentrations of various kind called nodal points. Their form and content reflect both the condition of a city as a social organism and the influence of the mechanisms (of the market and regulatory nature) responsible for its spatial growth. The article presents the general theoretical and methodological grounds on which the study of this problem area has been based as well as the analysis of the situation in certain selected areas in central Kraków, such as *Krakowskie Centrum Komunikacyjne* /Kraków Transportation Centre/, *Zabłocie*, the area of the *Market Hall in Grzegórzki* and the *Mogilskie Roundabout*. In conclusion, the author defines the main spatial problems in shaping nodal points in Kraków's central districts and presents them against the backdrop of how similar areas have been dealt with in other European cities.

The research objective, definitions and typology

The author's research objective was further development of expertise in spatial planning and urban design of contemporary large city and metropolitan structures. What is needed, for example, is tuning the techniques of planning graphic representation to the contemporary social, economic and infrastructural conditions as well as to the theoretical and visionary trends. The inconsistency between the present approach to defining spaces and the actual dynamics of transformations and currently occurring phenomena is particularly visible at points and in areas of special significance for crystalizing the urban structure, which for some reasons stand out because of their tendency to cumulate activities and their corresponding spaces (see: Zuziak, 2011).

Such places, called *nodal points*, become of key importance for numerous aspects of life in the contemporary city. Their unique character is generated by convenient transportation

accessibility, the merits of their spatial development or by other beneficial factors. They stand out in the structure of the city owing to their high level of functional integration. The nodal points or areas are not synonymous with the concept of the urban centre, but instead they are more of a component of such centre or a germ from which such centre may develop. The building material of nodal points are diverse forms of urban spaces: passages, courtyards, enclosures, foregrounds of buildings, public transport stops, footbridges or large crossroads, which ever more often co-create the environment in which metropolis inhabitants live their daily lives. They may be identified by interpreting knots of relations, connections, movement, activity and behaviour types in the so-called “*space of flows*” (Castells, 2008).

The author is striving to offer a more in-depth analysis of nodal points by examining the spatial structure of city central areas. In this part of the city, nodal points exist within a complex and multi-layered system of spatial, functional and symbolic relations, emerging at movement and activity concentration knots, at the crossing points of major transportation and composition axes, they may also focus around the so-called primary components, i.e. structures or spaces which generate the development of urban fabric (Rossi, 1984). A special role in crystallization of an inner city spatial structure is reserved for sites located in the surroundings of public transport intermodal transit hubs, due to their accessibility and the potential to create and strengthen spatial connections.

The basic typological classification of nodal points is based on the criterion of location within the spatial structure of a metropolis:

- nodal points in the strict city centre – concentration of potentials characterised by the highest spatial, functional or culture-related merits in the surroundings of major city squares or the main market square,
- nodal points in the city central areas – they are characterised by the intensely concentrated development and heightened levels of activity in the area of major crossroads, squares, railway stations or transport interchange points,
- nodal points within the city structure – major spaces in mono- or multifunctional centre-generating complexes,
- nodal points outside the city structure – monofunctional concentrations, insular in character, separated from the urban fabric, located in the area of major roads.

Another classification is related to the leading role of nodal points in spatial structure crystallization:

- transit hubs within the public transport network,
- places integrating the network of public spaces,
- keystones of metropolitan urban composition,
- culture-related spaces: remembrance sites, symbols,
- nodes in a network of economic, social and administrative connections (decision centres, creativity centres).

The following factors indicating nodal potential have been derived from the functional and semantic contexts outlined above:

- accessibility with the use of various modes of public transport, on foot and on bike;
- the level of activity concentration, not only in the sense of the land use (density and height of development), which may be subject to limitations, e.g. by historic monument conservation restrictions, but also in the sense of the intensity of contacts, interaction, events and processes, assessed in the aspects of quantity, capacity and quality,
- diversity and attractiveness of spaces, programme and function, variety of users, functional and spatial integration,
- urban character and vitality: the structure of contacts and urban life manifestations which demonstrate the nodal role of a place,
- presence of potential and real elements or relations which are significant for building a metropolitan urban composition (axes, dominant features, urban enclosures, culmination points),
- the range of connections and influence of the concentrated functions and activities: local, regional or global.

Planning the polycentric Kraków

An examination of the nodal structure of Kraków's central areas requires looking at the issue from the perspective of the history of planning the polycentric growth of the city structure. The concept of developing points and areas of nodal character was first envisioned and included in strategic plans for Kraków presented sometime in mid-20th century. Building Nowa Huta in the 50s of the 20th cent. as an independent entity resulted in creation of a bipolar structure of a kind, which considerably affected the way in which growth of the Kraków region structure was planned in many aspects – the question of finding the “*centre of gravity*” of this structure is just one example. The 60s brought some new concepts of rebuilding the inner city and building a new city centre in the vicinity of the main railway station, these concepts were important yet disputable – due to the problems they referred to. However, we may see, in these ideas from 50 years ago, the germs of the nodal points which are developing now.

The Plan for Kraków Urban Complex */Plan Krakowskiego Zespołu Miejskiego/* from the 70s of the 20th century introduced the principles – propagated at the time – of the “*bands and nodes*” system of settlement network. The General Plan of Spatial Development of 1994, which followed the previous plan, really initiated building new urban centres in the seven strategic areas: Krakowskie Centrum Komunikacyjne */Kraków Transportation Centre/*, Kraków-East, Olsza, Dąbie, Ludwinów-Zakrzówek, Kazimierz and Pychowice, all of which were characterised by attractive locations. The plan stipulated that these places would become locations of modern financial and banking, commercial, scientific and cultural centres or exhibition areas of various range of significance (Mydel, 1994, pp. 59 – 65).

The Study of Conditions and Directions of Spatial Development for Kraków of 2003 highlighted the role of the city central areas as well as urban and suburban centres in the process of making the spatial structure of the city more polycentric. An idea was sketched of developing a network of public spaces, integrating the urban structure of the central districts. Its geometry

was based, with the exception of the Old Town, on the major transportation and commercial routes running along the historic streets and contemporary thoroughfares cutting through the city centre. The existing and potential “*spaces of travel*” adjoining railway stations and stops as well as the semi-public enclosures of e.g. office and commercial complexes, including the ones which already were (or were to be) created outside the inner city, were listed among important elements forming the network of public spaces.

In the document of 2014, amending the Study of 2003, the typology of centre-generating concentrations was expanded and special attention was paid to the role of nodal points. Centres and nodes of activity were considered important components of the spatial structure, due to their unique symbolic, aesthetic etc. significance, and were to be characterised by three parameters: transportation accessibility, adequate intensity of flows and development density. The document concluded that the characteristic feature of the policy for building a sustainable polycentric network had to be creation of a spatial urban network with several urban centres of metropolitan significance and one clearly marked out main centre, focusing the functions which are most important for preserving the identity of Kraków.

Nodal points in the structure of Kraków’s inner city – case studies

The selected examples are places adjoining public transport hubs (figure 1). We find there complex aspects of activity concentration and urban character creation. The analysis has been based on the factors determining the nodal point potential which are presented in the introduction.

The nodal area of *Krakowskie Centrum Komunikacyjne KCK* /Kraków Transportation Centre/, i.e. the so-called New Centre in the area of the main railway station is one of the particularly interesting examples of modernisation of a transit hub and rebuilding a city central area as it was one of the first large developer projects in Poland to be realised at the site formerly owned and used by Polish Railways. The project evolved for many years, which in consequence led to its alienation from the scale and forms characteristic of its urban context. Moreover, its use programme had been limited, the amount and size of public spaces reduced, with some of them appropriated, and the issues related to transportation had been sidelined and downgraded.

The subject of analysis are the spaces co-creating the main transport interchange of Kraków: the complex composed of the railway and bus stations, connected with public transport stops and car parks, directly accessible from the second central ring road. It is a densely developed area, situated in close vicinity of the main centre of the city. The major concentration of centre-generation functions is the area to the west of the railway station, i.e. the shopping mall and the still nascent route of services along Pawia street.

The area directly adjacent to the transport hub is insufficiently diversified functionally. The interchange square to the east of the railway tracks is monofunctional and dominated by the road system. The western side has been dominated by the concentration of retail and services, i.e. the shopping mall. In a broader context, however, the nodal area seems to be characterised by a programme variety: block residential development is studded with public facilities,

institutions, universities, culture-related amenities and churches, it is also being gradually completed with facilities of the office and hotel function.

The complex and extensive shape of the transport hub, unclear geometry and scale of the urban module defined primarily by the large-scale commercial facility as well as the road and railway barriers generate the major problem of this nodal area, which is disintegration. The above-mentioned deficiencies weaken the potential of such nodal points in the process of creating the network of public spaces. It must be pointed out, however, that the extensive area of the transport hub, which is an inconvenience from the point of view of passengers, generates flows of movement stimulating concentration of activity in their surroundings.

Vitality is generated primarily by the transport hub, but also by the concentration of services in one of the largest shopping malls in the city – we observe the greatest intensity of contacts here. One component which stands out from the others is the passage under the crossroads between Lubicz and Basztowa streets, connecting the railway station area with the historic city centre. The small scale, the presence and type of services, accumulation of movement and the variety of users have all contributed to the emergence of a true public space here.

The western side of the railway station, particularly Pawia street, the square outside the railway station and the passage under Basztowa-Lubicz crossroads are spaces characterised by a high level of activity throughout the whole day. They possess features typical of a central city space, such as: compact development forming street frontages, integrated routes lined with facilities offering services, public life created by diverse users (visitors, clients, passers-by, employees, residents). It is one of the most vibrant areas of the city central district. The activities are generated mostly because of the close vicinity of the main city centre, the transportation hub and the shopping mall, and – to a slightly lesser degree – by the two universities and other institutions located in the area. The eastern side of the railway station features few movement generators, hence urban life periodically dwindles.

The high potential of this area as the so-called “*space of flows*” is affected by the following: the main hub of the public transport network with a connection to the international airport, a commercial facility of significance going far beyond its adjacent areas, public institutions of higher education, organs of administration, hotels and, finally, the close vicinity of the world-class historic city centre. When it comes to weaknesses, it will certainly be the low number of decision or creative centres.

The KCK area focuses several important axes of the metropolitan composition (Lubicz, Pawia, 29 Listopada and Lubomirskiego streets) which create visual connections and display areas for potential dominant features. The way in which the area over the covered railway platforms (now a car park) is developed will be of crucial significance for completing the urban composition of the district. There have been concepts of locating a multifunctional building at the site, but certain structural problems enforce looking for an alternative ways of developing it, e.g. a light structure hosting a public garden and viewing terraces.

The area of the square at the *Market Hall in Grzegórzki* is potentially one of the major transit hubs of public transport (the planned integrated hub of fast metropolitan railway and numerous

tram lines). The hub may compete with the KCK /Kraków Transportation Centre/ due to its location at the distance of a short walk from the main city centre and many important centre-generating concentrations in the district of Kazimierz. However, the area needs certain improvements related to accessibility and integration with its surroundings, and two issues seem to be of key importance here – clearing the areas around the railway line (a flyover instead of the now existing embankment) and revitalisation of Wielopole street as the main pedestrian route leading towards the Old Town.

The options of putting the area to some more intensive use are limited mostly to tidying it up, complementing the blocks where they are adjacent to the railway line with some new development and using the space under the planned flyover and the fast metropolitan railway (SKM) stop. Considerable flows of pedestrian movement are generated by the market place of significance (also in the cultural aspect) exceeding the neighbourhood in which it is situated, the district of university hospitals and the vicinity of Kazimierz (tourist traffic). The direct surroundings are dominated by block development, mostly residential, of moderate potential to increase the variety of use programme.

The area is characterised by high activity intensity throughout the whole day, mostly owing to the transit hub and market place integrated in one space, but also to the close vicinity of the city main centre. This vitality will be strengthened once the SKM stop and the railway line flyover have been built, which will also improve the accessibility of activity focuses in the surrounding area.

The discussed nodal points are characterised by a lower position in the network of connections going beyond their districts, yet this may change when a railway connection with the airport is launched into operation (access for the tourist- and business-generated traffic). There are relatively few public facilities or significant decision centres in the neighbourhood. This location – in one of the major streets of the city central area – does not stand out much from the metropolitan composition, the only distinguishing features being the historic railway bridge, the building of the Market Hall and the building of the bank in Wielopole street.

Mogilskie Roundabout is one of the major nodes in the public transport network, located at the second central ring road. It may be seen as a gate providing access to the strict city centre at the crossroads of the city's major streets: Lubicz, Mogilska, Lubomirskiego and Powstańców Warszawskich. The Kraków City administration centre, the campus of University of Economics, the Kraków Opera and the complex of Jagiellonian University clinics are all within walking distance.

The specific character of this nodal point has been determined by the transit hub which has been located within the extensive roundabout flanking the remnants of the former defence fort. The road arrangement has aggravated disintegration of the already clearly incoherent structure, which is composed of an affluent residential neighbourhood, an office and services complex (courts, prosecutors' offices, administration, a hotel), block development characteristic of city centres and a university campus.

The area in question is of key importance for integrating this part of the city centre. The problem of this place is that urban space disappears where it meets the roundabout. Several attempts have been made to propose a concept of development that would put this space into adequate scale, breathe some life into it and improve the connections with its surroundings. The focus has been placed on assessing the possibility of building some structures inside the roundabout and overcoming the barriers of the wide thoroughfares. The fundamental question is how to design the multifunctional public space of the transport hub and how to define the pedestrian connections with activity focuses in the surroundings, which is particularly difficult because of the “bottlenecks” situated between the development and the road system. Answering these questions seems to be of fundamental significance for strengthening the vitality of this nodal point and its urban character.

It is an area of a discernible diversified programme (culture- and science-related facilities, offices, public administration, health care, residential development, services). Individual functions are grouped into quite extensive and uniform complexes, which are separated from one another. The programme of the nodal point may gain some attractiveness once the project of rebuilding the so-called “Szkieletor” /the Skeleton/ – a high-rise tower commenced in the 70s of the 20th century and never completed – is successfully carried out. The plan for the Skeleton provides creating a residential-office-commercial complex with a representational public space.

Mogilskie Roundabout is a keystone of numerous axes of metropolitan composition, marked out with a high-rise dominant feature. The structures to be built within the roundabout would potentially create terminating vistas of many streets. The urban design implemented in this nodal point will be a particularly interesting example of completing a large-scale composition, combining aspects of integrating transport infrastructure with a multifunctional urban fabric and a network of public spaces.

Zabłocie is one of the largest and at present one of the most dynamically transformed of all former industrial areas in Kraków, with a still considerable stock of sites suitable for development. The concentration of office and residential spaces which are being built here will be of significance for the growth of the city central districts. The local land use plan allows building structures from 15 to 25 metres in height, with the development ratio of up to 70%, which creates a considerable potential of development accumulation in the area easily accessible by transport.

The area is characterised by a potentially very diverse use and activity programme: flats, culture-related and educational facilities, work places, services for the tourist traffic, start-ups and microbusinesses. International corporations are also interested in locations here. However, the appeal of the space comes primarily from the services related to culture (museum of contemporary art, historic museum) and remembrance sites of worldwide significance (the Oskar Schindler’s Factory monument). The level of vitality in the area of Zabłocie is growing mostly owing to the intensification of the tourist traffic flowing to the historic remembrance sites, the presence of people employed in the numerous offices in the neighbourhood and students.

After working hours, most of the area seems empty, yet it is beginning to change as the ever more numerous new residents will certainly breathe in some life into the streets.

Due to the configuration of the tram line and the fast metropolitan railway (SKM) stop, which are situated at the distance of 200 m from each other, this place is not very likely to play an important role as a mobility node. Pedestrian accessibility of the stop improves, though, owing to the growing network of public spaces, such as the Ghetto Heroes Square, Lipowa Avenue, the planned foot- and cycle-bridges to Kazimierz and Grzegórzki and the Vistula river park. The weakest link of this network is the area of the SKM stop. The problem with this place is that its urban design has not been integrated with the projects related to the infrastructure. A striking example of the above is absence of any clear connection between the entrance to the planned stop and the urban square planned in Kącik and Lipowa streets, which was to be an important component in the network of public spaces in the area covered by the revitalisation project. Moreover, the square has been dominated by vehicle traffic (the roundabout). Isolating the surroundings of the SKM stop by erecting, nota bene in compliance with the local plan, of an enclosed monofunctional block of residential development, has also been a mistake. This trend, jeopardizing development of a vital network of public spaces, may also be observed in the case of some complexes of office buildings, fenced away and resembling suburban development.

Revitalisation of Zabłocie may also be studied as an example of an emerging node in the city's cultural space. The former industrial structures have concentrated social activities creating cultural life in the city (concerts, film screenings in the open air and food festivals). Today, they are being pushed out of this area by developer projects. The way in which the existing cultural heritage of industrial architecture is being dealt with is also questionable. For example, new owners have been able to obtain permits to demolish the Korngolds' factory or the former Czesław Śmiechowski's Soap Factory (Miraculum) – both historic relicts of industrial architecture.

The railway stop is a specific place – it draws a border line between “the world” of the post-industrial district and the space of the city. This nodal point is hidden within the area of Zabłocie. Perhaps it would not be a bad idea to locate a dominant feature here, which would constitute a visual accent in the panorama of Zabłocie as it is seen from Kotlarski bridge, i.e. along one of the major thoroughfares of the central Kraków.

Conclusions

The synthesis of the problem situations presented in the article should be preceded by a few observations made by the author while examining the significant examples of transformations carried out in the central areas of several European cities (*inter alia* Amsterdam, Copenhagen, Milan and Turin). Both the already completed projects and the assumptions of the planned undertakings demonstrate the desire to achieve coherence between the three values of nodal points: accessibility, diversity/vitality and connectivity. The resulting urban form reconciles investors' and developers' intent and objectives with the public interest. The success stems from the following grounds on which the city planners' and designers' choices must be based:

clear spatial idea which manifests itself both in the scale of a metropolitan composition and in the development morphology detail, integrated design of city structures and spaces, including the multimodal transportation infrastructure, tuning the zones of various development and activities to the configuration of places of the highest accessibility, striving to strengthen the structure-generating potential by stimulating nodal points' vitality.

Looking at the examples from Kraków in the context of the above observations, we will immediately distinguish the following problems:

- the geometry of the urban fabric in the nodal points is characterised by insufficient clarity, which results primarily in aggravated dysfunctions in the network of public spaces and other adverse functional – spatial phenomena,
- surrounding nodal points of the most convenient accessibility with public transport has been dominated by excessively monofunctional concentrations of services, which weakens the integrating role of the nodal point and lowers the level of vitality of these spaces,
- integration between the network of public spaces and the infrastructure of public transport hubs is clearly insufficient.

Functional or compositional connections emerging between a nodal point and activity focuses indicate development of a specific area of influence, which could be described as a nodal area. Defining relations present within the nodal area is of significance for the proper development of its structure-generating potential or the ability to create and integrate components of the city space. These relations and activities as well as their accompanying spatial features should be subject of *inter alia* morphological study of urban fabric carried out with the objective of arriving at optimum planning graphic representation and defining the conditions of shaping and evaluating important development projects, considerably modifying the inner city structure.

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**Figure 1. Nodal points in the structure of Kraków's inner city.
Interpretation of potentials.**



Source: the author, 2016

METROPOLIS - WHICH WAY TO THE FUTURE?

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Key words: Metropolis, City, Society, Planning

Abstract

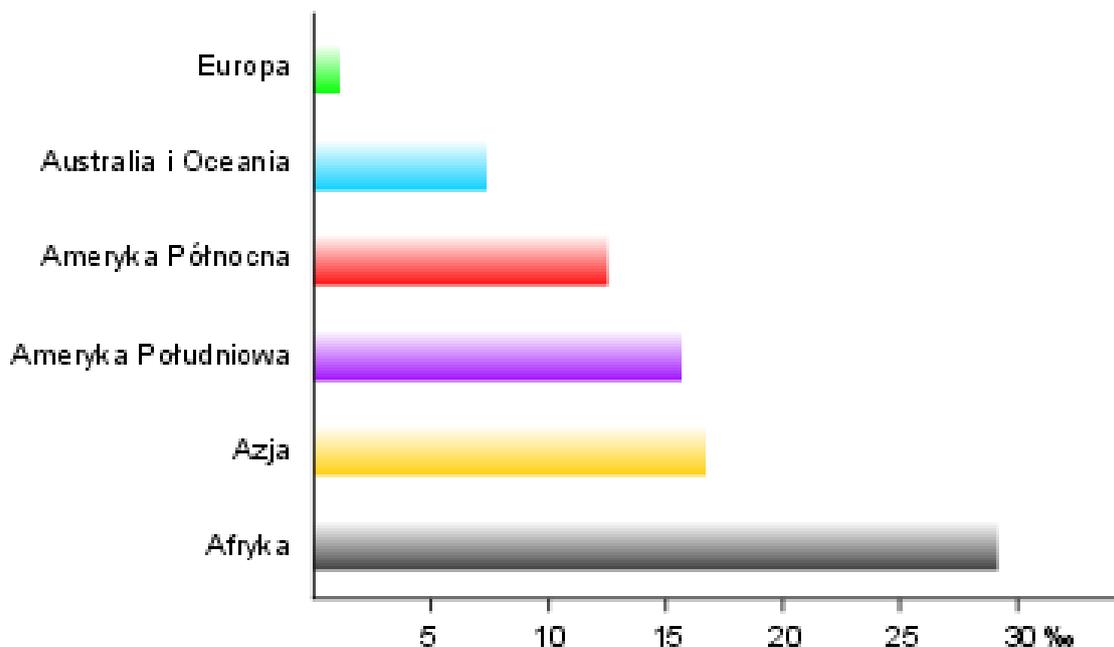
There are two new persons born each and every second on Earth, persons that will need space to live, just as we do. Should we build new cities, then, without question? The “population of a single day” is going to require territory, which, according to today’s standards, equals the area of France or Ukraine (Zipser). Therefore villages, cities and especially metropolises require much more space for expansion. Things become problematic when metropolises are faced with a lack of space to expand. Metropolises behave like cancerous tumors – they try to possess or occupy any urban structure within their reach, including agricultural lands and forests. Is it even possible to plan such a rapid growth? Certain cases point to the fact that it is indeed possible, while others – that it is not possible at all. Thus, we are faced with the question of what should we do when the development of metropolises outpaces even the fastest planning processes? In these cases, metropolitan authorities need to anticipate problems related to infrastructure, transportation, as well as unemployment and rising crime rates. The metropolitan way of life causes not only spatial, but also social problems as well. The subdivisions within the social structures of metropolises are transformed in accordance with the quality of their spatial structures and vice versa. The question as to who “owns” the public spaces of metropolises is more important than the real ownership of the land they are built upon. Public spaces become an expression of their respective metropolises through the image of their urban and architectural forms. The inhabitants and people “that are coming in” can only identify themselves with and respect the rules of the space that they live, work and relax in only under the condition of the existence of spatial order. Contrary to those metropolitan areas that have been abandoned or are underused, the social aspect of reusing land that has once been converted from an agricultural form of use, or any other for that matter, plays an important part in the appropriate creation of social and spatial balance in the development of public spaces, as well as modern metropolises, oriented towards innovative technologies.

Introduction

It is exceedingly difficult to imagine the future urban form of a metropolis in light of the fact that the pace of population growth around the world is quite rapid, and the time required for it to increase by a billion inhabitants is systematically becoming shorter and shorter. The dynamic increase of the population of India, according to current forecasts, is going to cause substantial changes in the balance of power between the various economic world powers. In light of the depopulation of Europe, we can easily attempt to compare the future relations between the metropolises of India and China, and those of Europe. The latter are probably going to resemble small villages in comparison with the mega-metropolises of Asia. A certain basis for this assumption is being provided by comparing the birth rates of Africa and Europe, as well as the information regarding the mega-metropolises that are being designed in China, which can potentially be inhabited by around up to 250 million inhabitants.

Fig.1. Population growth by continent.

Przyrost naturalny według kontynentów



Source: <http://www.edukator.pl/Liczba-ludno-ci-wiata,4808,offset,1,object,4764.html>

In 2015, Tokyo-Yokohama had a population of 37,84 million people and a land area of around 85,5 km². By the end of 2014, the population of Poland reached the level of around 38,48 million, with a land area of 312 679 km², according to information published by the GUS (General Statistics Office) on its website. A brief look at these two sets of data allows us to draw the appropriate conclusions. The U.S. Census Bureau has provided estimates that on the day of the 1st of January 2016, the world population should be somewhere around 7,3 billion, which constitutes a 1,08% increase from the year 2015. When thinking solely in economic terms, the construction of cities with a very high population density per unit of space is more efficient than

the construction of extensive cities, due to a lower cost of the associated technical infrastructure and its increased effectiveness. The comparison between the quality of life of the residents of dense metropolises and those which are more spread out, as well as in regards to the preferences and the possibility of choosing a place to live, is difficult to make without access to specialist research. However, we can risk making the statement that the ability to freely choose one's place of residence is reserved only to a select few that are wealthy enough. The majority of society simply lives in the area where they can find a job, with other factors often being a lot less important, while matters of the aesthetics of the future place of residence are barely even considered by most average families.

The problem of the territorial expansion of metropolises

When asking the question about the possible level of the concentration of a metropolis, we cannot expect to be given an easy answer. The advancement of technology has made it possible to construct tall buildings that were deemed impossible only yesterday, while tomorrow brings the hope of even more spectacular achievements in this regard. The steady rise in land prices in the centres of metropolises causes them to change their spatial structure into a polycentric one, which allows a multiplication of sub-centres, at the same time increasing the possibility of increasing the density of the built environment in larger and larger areas. It is probably impossible to predict the limit to this growth, not only in terms of territory, but also regarding technology. However, the problem of psychology remains unsolved, and which boils down to the issue of the individual perception of personal space, understood as the minimum distance to a stranger that does not elicit a feeling of emotional discomfort, which is then followed by physical discomfort. This border changes depending on culture, and is interpreted differently in a situation involving a casual stroll around the public spaces of a city and in one of a crowded metro train.

The tolerance of people to reducing their personal space is an individual matter. However, it is being very intensely tested, ultimately being meaningless in a situation where space is limited. A large part here is being played by conditions related to one's culture, which can determine the mutual relations between individuals and social groups, and these are of paramount importance within metropolises, where the type of social ties typical of an agrarian model of society are practically absent. This topic, however interesting and broad, is not the focus of this paper. There exists another, different problem, which boils down to the issue of the spreading out of the built environment of metropolises. The cause of this phenomenon is the growing speed and efficiency of rail-based transport. By transporting large amounts of people in a short amount of time, efficient means of rail transport are a factor which acts against the verticalisation and concentration of the built environment, leading to its spreading out, and thus the occupation of more and more land. The situation that arises from this phenomenon resembles a self-perpetuating mechanism, where the concentration of the built environment is simultaneously accompanied by its spread. Within the areas that are less dense, the locations of the transportation hubs become new sub-centres, which provide further development stimulus and the construction of higher structures within their borders.

When plotting a three-dimensional graph of the intensity of the built environment of a metropolis, we would obtain a form roughly resembling a group of tents, starting from a normal tent, moving on to a circus tent and then to an entire complex of interconnected (usually along radial lines that go out from the centre) tents, each larger than the other, surrounded by smaller ones. This image of the metropolitan form requires complementation in the form of green areas, that are usually situated along rivers and larger forested areas and open waters. The larger the scale of a metropolis, the more difficult it is to define its borders. The only elements that directly halt the spread of a metropolis are clear geographic obstacles, like large rivers, lakes, mountains or the coastline. Even the ownership structure, by changing over the course of time, is not capable of fully stopping this process. The increase of the territory of metropolises is becoming more dynamic - when viewed from the point of view of the surrounding areas, a metropolis behaves like an aggressor, or using a medical comparison - like a cancer, which develops at the cost of other tissue, causing a remodelling of its surroundings in a manner which is impervious to natural disasters, rebuilding itself after they had passed.

The development of metropolises - planned or unplanned?

In order to avoid distant examples, let us evoke the case of Krakow. There is no doubt that Krakow is a metropolis¹, it also does not develop in an unplanned manner. However, can we truly say that its development is entirely planned? By looking at the information provided on the website of the Office of Spatial Planning of the Krakow City Hall², we can see that only 48,2% of the area of Krakow had a zoning plan in effect during the first quarter of the year 2016. That is less than half, and that is after 13 years since the "old" plans were scrapped in 2003, which covered 100% of the area of the city! Provided that the development of zoning plans is going to proceed at its current pace, it is estimated that we are going to reach a level that we have already had before the year 2003 in the year 2029. This begs another question: how, then, is space itself is going to be transformed and how is the spatial structure of the city going to look like by that time? The inhabitants, in addition to some areas of the city, pass away in terms of the form of their use. The growing advancement of technology makes some forms of activity obsolete, some which have a tradition going back a couple of centuries.

The areas and buildings that are left behind them become sites of new development, which radically changes not only the functional, but also the spatial structure of a metropolis. This is an important challenge for urban designers and architects, who, in the name of the public good, should shape space in a manner that is harmonious and logically coherent with its surroundings. Areas such as these, provided that they had not been polluted by chemicals or industrial waste, are turned into residential areas. When this is done in accordance with an enforced zoning plan, then all is well and good. However, experience has provided us with nothing to be optimistic about. The multi-family residential developments that are built on the basis of administrative zoning decisions do not properly complement the spatial structure of a city. By analysing generally available satellite imagery or birds-eye view photography, even the casual observer can tell apart the areas of Krakow that have been developed on the basis of

¹ Podhalański B. The Integration of Metropolitan Spaces, Monograph 443, Politechnika Krakowska, 2013

² <https://www.bjp.krakow.pl/?id=412> retrieved on 01.05 2016

administrative zoning decisions by using only two criteria: the density of the built environment and the amount of greenery within a housing estate.

The typical element that makes these housing estates stand out is the lack of new buildings with schools and kindergartens - they are mono-functional, used strictly as "bedrooms", and as such, they act like parasites on the surrounding older structures, which are also inhabited by younger people. The lack of educational buildings and at times of even the smallest commercial spaces in these (often walled off) estates causes a needless increase in the demand for transportation on the scale of the entire metropolis, as well as nearly unsolvable problems with providing parking spaces for cars. The number of cars is practically twice as high as the amount specified in the zoning decisions - the modern standard is two cars per family, especially when its members work in different areas of the city and when there is a need to drop the children off at a school, and the time required to get to one's place of work makes it impossible to use only one vehicle to that end. The spread of the built environment and the shifting of its development (especially regarding single-family houses) to areas in the adjacent towns leads to a situation, in which the time lost to travel great distances negatively influences the living standards of those persons that are attempting to flee from the hustle and bustle of the city. Instead, they expose themselves to even more hustle, caused by the vehicles that are seemingly perpetually stuck in traffic jams, which makes it impossible to fully take advantage of what the city's cultural life has to offer. Furthermore, there is, paradoxically, less time for family life. In comparison to the phenomenon that is currently observed in German metropolises that are of a similar size, Krakow has not yet shown evidence of a "return to the city".

In exchange for the pleasure of losing a quarter of a day's time in their cars, the inhabitants of German cities opt to live inside cities and use public and pro-environmental transport, as well as electrically powered modes of individual transport and simply walk around the centres of metropolises. As it turns out, this approach is healthier and less costly, and with benefits to families. Perhaps it would be good to propagate the spread of this trend to Krakow? In order to achieve success, it is imperative that an efficient system of rail transport be organised. The current one, despite being quite good, can soon prove to be insufficient. Another key element is the provision of park and ride infrastructure.

Are metropolitan public spaces being taken over?

This is an important question. In those countries of Europe where the concept of property is respected in its myriad forms, we do not see the phenomenon of the "chair in the street", which is common in Mediterranean culture, and which shows a symbolic taking over of a fragment of a public space for private use. It is also a manifestation of one's presence, of the existence of an individual within a given space, of "domesticating" that which is considered public and borrowing a part of it for a private purpose.

Phot. 1 A chair in the street in Beirut.



Source: Madrigal José M.P., Eastern Mediterranean Heritages. Statements and Perspectives.

Surprisingly, this custom has spread to Poland in a quite distinct manner, which can be effortlessly observed in the courtyard of the campus of the Cracow University of Technology. It proves that the customs of the Mediterranean culture are constantly and dynamically influencing those of the countries of the Baltic Sea.

Phot.2. The "chairs" blocking a parking space in a semi-public space in the courtyard of the Cracow University of Technology



Source: Phot. by the Author

However, we are yet to see (perhaps due to the weather) evidence of another popular custom, common in Portugal, of the senior citizens spending their time in the streets. This custom is an interesting social phenomenon, allowing senior citizens to participate in the life of the local community in a manner which is comfortable for them. This phenomenon is also very practical, especially in a socially diverse environment and the widespread anonymity of metropolises, as it forms a sort of neighborhood watch over public spaces and, indirectly, the dwellings of these micro-communities. However, the issues of the main public spaces of metropolises are more important than local problems.

The problem of these spaces is the manner of constructing their attractiveness, as well as the conflicting forms of their use. Under normal circumstances the central spaces of historical cities are areas of unrestricted pedestrian traffic, creating, along with the surrounding cafes and restaurants a certain "teatrum populorum", which allows people to see other people and be seen by them in turn. It would be very difficult to show a public space in a historical European city that is used in a different manner. This custom cannot be changed even by difficult circumstances, like the Aqua Alta of Venice,

Phot.3. People walking in the water during Aqua Alta on St. Mark's Square arcade, Venice



Source: Phot. by the Author

which does not hinder the tourists in their contemplation of the beauty of the architectural and urban form of the Square of St. Mark from the perspective of their water-drenched tables. Perhaps it is even a manifesto of the impact of mass tourism, as tourists are the main users that currently reign over all of the public spaces of metropolises.

Phot.4. Tourists sitting on chairs in the water during Aqua Alta on st. Mark's Square, Venice



Source: Phot. by the Author

The number of tourists that visit Krakow each year - 10 million (more than Venice and Seville) - is thought provoking. Probably each and every one of them has been to the Main Market Square for at least a moment. The question is what is there in that space, apart from the beauty of architecture and the harmony of the medieval urban layout that could possibly surprise them? Perhaps it is not falling down on the ground while looking at the trumpet of the *hejnał* player, glimmering in the sun in the open window, playing the melody that is world famous by now, having stumbled upon the holes in the pavement surrounding the Basilica of Virgin Mary, as enduring as the city itself?

Conclusions

The physical beauty of the public spaces of the historical city centres of metropolises and the ceaselessly played out theatre of events within them that proves their attractiveness, cannot be replaced, thankfully, by any form of virtual reality. Therefore, the efforts that are being undertaken on the urban and architectural scale should make the use of these spaces easier

and ensure that it is done on equal terms by all, while preserving the appropriate functional and spatial relations. We can, however, imagine the entirety of the area of the Main Market Square in Krakow covered in tables, chairs and umbrellas, which could even be economically feasible, but would this be the same space which so many people from all over the world travel to?

The preservation of balance and harmony in terms of both function and space in an equal manner in the entire area of modern metropolises is impossible. Regardless, there is a need to strive to balance out the divergent interests of the parties that participate in the development of the spaces of metropolises in a manner that is logical and functional, wherever possible.

The simpler the laws and the more transparent the rules that govern the management of resources, the more efficient the transport system and the economy itself, the more harmonious and proper the social relationships become and the manner of the management of metropolises becomes more friendly to their inhabitants. These actions regulate their creativity, their willingness to work and facilitate improvement in the quality of life in their everyday environment.

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DETECTING OPPORTUNITIES: NEIGHBOURHOOD DATA DYNAMICS FOR URBAN REGENERATION IN VALLADOLID (SPAIN)

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Key words: Urban regeneration, urban data, neighbourhood units, Valladolid.

Abstract

Urban regeneration has become a priority for urban planning in Spain, because it is one of the best ways to foster a more sustainable, compact and mixed-use urban model, founded in the improvement of existing city. The Master Plan of Valladolid (Spain) has been an opportunity to tackle this objective by a thorough study of existing urban fabrics, in order to program future actions and projects.

The built city was divided into units, and each of them was carefully analysed in order to identify opportunities for improvement, such as vacant spaces or deprived areas. Every regeneration action was then designed to also generate a positive impact on its surroundings, which requires knowing the needs and structural deficits of each neighbourhood. That's why a homogeneous "neighbourhood data system" was created, in order to propose the most appropriate action for each case.

However, "measuring" the city is a difficult task. There are different official sources of urban data, but they are not oriented to this kind of evaluation. For instance, census data have lost accuracy due to its new methodology (2011), and their level of disaggregation is often inadequate. Other sources such as Cadastre are aimed at tax purposes and they must therefore be reinterpreted.

Through the case of Valladolid we can show a method based on both identifying opportunities for improvement and analysing available urban data. Avoiding the loss of a global overview of the whole city, it builds a working knowledge that allows programming more efficient urban regeneration actions.

Urban regeneration context

In recent years, sustainability, energy efficiency, social equity or building rehabilitation become dominant axes in the European urbanism. Especially in the Spanish case, one might consider whether this is a firm commitment or whether it is a temporary situation, due to the economic crisis and the slowdown in urban growth. Anyway, it is demonstrated the increase of social inequalities and the problem concerning sources of energy and global warming. Although the first one is a hypothesis that only time will answer, the fact is that discipline and regulatory framework are strongly oriented to this extent.

After assuming the principle of sustainable development, European regulations have tried to be more specific in this way. The Leipzig Charter on Sustainable European Cities (2007), the Toledo Declaration on Integrated Urban Regeneration¹ (2010) or the Territorial Agenda 2020: towards an inclusive, smart, and sustainable Europe of diverse regions (2011) could be mentioned.

Urban regeneration as a priority to Spanish urban planning

In Spain, urban regeneration and building rehabilitation intend to be priority goals. After 30 years of experiences on Comprehensive Rehabilitation Areas and Urban Plans, regulations have been recently renovated. The 8/2013 Act, of 26 June, about rehabilitation, regeneration and urban renewal, has helped to this trend. Having national range, it is oriented to facilitate interventions concerning to property regulations, intervention initiatives or neighbourhood communities.

At our regional level, where legislative urban competency resides, it is also evident the commitment to urban regeneration in order to improve existing cities. In the Autonomous Region of Castilla y León —the largest Spanish region—, we find the 7/2014 Act, of 12 September, about measures on rehabilitation, regeneration, urban renewal and sustainability, and also about coordination and simplification in urban planning. It is a reform of the previous urbanism act, and it makes an approach that "goes beyond the strictly physical aspects". This law recognise the importance played by the so-called "vulnerable urban spaces", promoting urban regeneration actions on those spaces where physical degradation comes together with other factors of social vulnerability. To sum up, 7/2014 Act orients urban development towards regeneration of unconsolidated spaces with the purpose of improving existing cities instead of expansive growth. In addition, Castilla y León has recently drawn up separate rehabilitation

¹ The *Instituto Universitario de Urbanística* worked for the previous studies which ended on this Declaration: **Álvarez Mora**, Alfonso; and **Roch Peña**, Fernando [dir.]. *Integrated Urban Regeneration in the European Union: Toledo Informal Ministerial Meeting on Urban Development*. Toledo: Ministerio de Vivienda, 2010.

plans and regeneration strategies as complementary programs of intervention, which are related to housing plans².

Within this new context, urban planning is called to play a decisive role, guiding urban regeneration actions. In this sense, the figure of the "urban units" emerges as a great opportunity.

Urban units: an instrument for the analysis of existing urban fabric as a prior action for the regeneration program

The concept of "urban unit" is contained in the Urban Planning Regulation of Castilla y León — RUCyL, approved by the 22/2004 Decree of 29 January—. Thus, municipalities from 20,000 inhabitants have to divide the consolidated urban space in areas called "urban units" in their General Urban Development or Master Plans —PGOU—. Units refer to traditional neighbourhoods, homogeneous areas or spheres of influence of their facilities.

The interest of these units lies on going beyond simple zoning ordinances, affecting socioeconomic characteristics and not just morphological. They aim to control the built density and they assess the functional adequacy of existing or future facilities in relation to their needs. Thus, imbalances of global urban structure can be detected and built and population density can be controlled, limiting its increase where they are already high.

From this point of view, urban units becomes a mechanism oriented to the assessment of existing tissues, but legislation is open enough to leave to the planner the possibility of extending the functions of this figure. This operative function is what we find as a new possibility in the urban practice in Castile and León. Thus, it is possible to use urban units not only as an analytical tool, but also management, connecting to an urban tradition with a clear proactive vocation. The use of the neighbourhood as a planning figure has a wide number of precedents, being linked to urban growth and decentralization proposals but also to ensure an adequate distribution of facilities and services. Throughout the twentieth century this idea could be explored through diverse concepts, like the neighbourhood units, the *grilles d'équipement* for the French *grands ensembles*, the satellite towns, planned communities, etc. Anyway, the basic concept of these views revolves around their inhabitants and the amount of services and facilities required in order obtaining certain self-sufficiency.

After all this baggage, and being into the urban and socio-economic context set out above, the Revision of the PGOU of Valladolid has outlined the use of this tool from a regeneration perspective. The Revision tries to extract its full potential as a diagnostic tool and simultaneously oriented to the management of existing urban fabric. The analysis of each unit and comparative study allows a better understanding of the urban structure of the city, which is especially necessary for a regeneration strategy.

The aforementioned 7/2014 Act has introduced flexibility criteria, defining new instruments to undertake rehabilitation, regeneration and urban renewal, so that urban units can serve as the strategic framework to guide and to help to develop future interventions. So, they would operate

² The *Instituto Universitario de Urbanística* has developed the Strategy for Urban Regeneration in Castilla y León, to be adopted during 2016.

as an instrument of control of density and functionality, ensuring that the specific actions have a positive effect not only in its own unit, but also in the environment of which they are part.

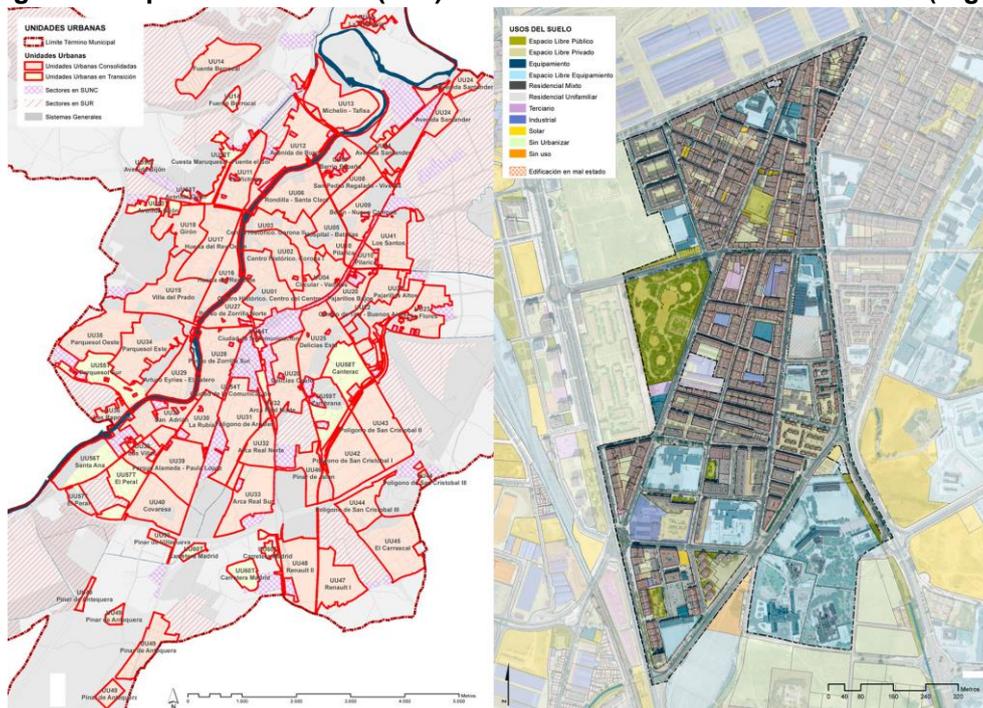
Difficulties for "measuring" the city

The practical application of the figure of the urban units within the framework of the Revision of the PGOU of Valladolid has consisted of two basic processes: (i) spatial and functional delimitation of urban units and (ii) obtaining a set of indicators to show their needs and being useful to apply management criteria.

Thus, the study of Valladolid for subsequent planning began with the division of the city in 60 urban units. This fact arises from the 28 neighbourhoods that had already been detected in the phase of planning information and advancement. After this, we ought to adapt them to the limit of 100 hectares per unit which establishes the RUCYL trying to distribute equitably the existing amenities —services and open spaces— when a neighbourhood had to be divided.

Then, the RUCyL sets out the obligation of knowing the resident population, the number of homes and properties with other uses, the built surface for each use and their percentages —in order to know the predominant use in each one of them— and areas of public facilities and open spaces, with the intention of having a detailed knowledge of each unit and its position compared with others (figure 1).

Figure 1. Maps of Urban Units (Left) and Urban Unit 26 – “Delicias Oeste” (Right)



Source: Authors

Delimitation of urban units according to our established regulations and urban criteria meant the necessity of manage data per block, to be accurate with the limits. That is why we could not use pre-set statistical areas like census one, which had been valid for a first approach at the

neighbourhood level. Fieldwork and several data sources ought to be used, like the Population and Housing National Census, the National Statistics Institute —INE—, the Municipal Population Census and the information provided by the Cadastral General Directorate, so as to face difficulties arising from the level of disaggregation of the required data.³

Population and Housing in National and Municipal Census

The Population and Housing National Census is conducted every 10 years by the INE, being the last one from the 1st November 2011. At the moment of working for the analysis of urban units in 2013, it was already available the exploitation of population data, while housing data were only available to general levels, remaining insufficient for this work.

Demographic analysis consisted on direct exploitation of the Municipal Population Census, with data from 2012. Employees from the City Council proceeded to disaggregate data at the level of city blocks in order to achieve the desired accuracy level, since official data of the INE can only be studied at bigger levels. Going further than the usual data offered by the INE, information about family structures and homes was also obtained. This disaggregation required manual check in some cases, assigning to the correct block data that otherwise would remain untraced in the plane.

For housing analysis, to achieve a similar level of detail like demographic, data from the 2001 Census would have been demanded —data from the last Census, 2011 were not available yet—. Even now, with the new data already available, another factor needs to be considered: the change in the census methodology compared to the previous census in 2001. In 2011, the collection of information was performed using statistical and administrative sources, generating an initial territorial directory with data related to Cadastre, Tax Office, etc. The rest of the information was obtained from a survey of approximately 12.3% of the population, filled in by Internet, mail or through fieldwork visits made by census agents. Therefore, it is preferred to use the information provided by the Cadastral General Directorate.

Cadastral Data

The Cadastral General Directorate was created as an administrative register where real estate properties —for urban, rustic and special real state ownerships— are described in a tax purpose. It provides periodically updated data of real estate, both rustic and urban, in each municipality.

Although its purpose is not the urban knowledge of the city, the evolution of the cadastral service and the evolution of technologies that support it make it a territorial database of great interest to the approach to built spaces of the city. After collaboration agreements for cadastral updates between the State and other administrations, their use has been expanded for other purposes, like mapping, data provided and information associated with it.

³ In this regard, see: **Ariza López**, Francisco Javier. *Fundamentos de Evaluación de la Calidad de la Información Geográfica*. Jaén (Spain) : Universidad de Jaén. Servicio de publicaciones e intercambio, 2013.

Technical and legislative developments —like European Directive INSPIRE⁴, related to the reuse of public sector information, etc.— provide access to unprotected alphanumeric data and mapping in vector format. These data are regularly updated by The Cadastral General Directorate and they are available for download over the Internet. In the case of Valladolid, for measuring data of the urban units, information from 20th September 2012 was used.

Alphanumeric information, available through the Cadastral Virtual Office, is structured in five tables depending on the type and the information in each record. This way, records with information by plot, construction unit, building, property unit and other records as sharing common elements can be found. Therefore, it is observed that the unit on which the cadastral information is available depends on the content, so the unit may be even smaller than plot level —until the unit of individual property—.

Available data, depending on the type of record, are very diverse. For every plot, location and positioning, land surface, built surfaces above ground and below ground and covered surface are provided. The construction unit provides data about the year of construction, year and types of reform, total cadastral area and built typologies. The Cadastral Technical Assessment Standards ranks 10 construction types at its first level of classification: 1. residential, 2. industrial, 3. offices, 4. commercial, 5. sports, 6. shows, 7. leisure and hostelry, 8. health and charity, 9. cultural and religious and 10. singular buildings⁵. For a correct assessment in the calculation of the surfaces it was useful to differentiate the second and third level of classification for some types: garages, storage rooms, empty rooms, porches and annexes -in residential typologies- and surfaces of garages and parking -in industrial typologies-. Finally, at the level of individual property records, data uses, codified in 16 different uses, are offered. After all, a very detailed breakdown of typological structure, uses and urban morphology can be achieved.

The different purpose of the data, from fiscal to urban planning ones, required a reinterpretation to fit the established criteria for urban units' measurement. Thus, the exploitation of cadastral data has been done by adding them to plot and block levels, from each element of the different tables. The block level corresponds to the same detail achieved using the Municipal Population Census. Combining tables, built surfaces, uses and typologies are reached.

Fieldwork

Facilities and public open spaces adequacy level required measuring them in each urban unit. To do this, it was necessary to compare the data provided by Cadastre on built facilities surfaces, according to the typological classification, as mentioned above. As the purpose of this

⁴ Directive 2007/2/EC of the European Parliament and of the Council, of 14 March 2007, establishing an Infrastructure for Spatial Information in the European Community (INSPIRE). It is also related to Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, and to Spanish legislation: 14/2010 Act, of 5 July on infrastructure and geographic information services in Spain (LISIGE). See also: **Tóth**, Katalin; **Tomas**, Robert; **Nunes de Lima**, Vanda; and **Cetl**, Vlado. *Data Quality in INSPIRE: Balancing Legal Obligations with Technical Aspects*. Luxembourg : Publications Office of the European Union, 2013; and **Kerski**, Joseph J.; and **Clark**, Jill. *The GIS Guide to Public Domain Data*. Redlands (California, USA) : ESRI Press, 2012.

⁵ Royal Decree 1020/1993, of 25 June, on Technical Assessment Standards and Framework Table of Land and Buildings Values land and buildings to determine the cadastral value of real estates of urban nature (NTV).

classification is the establishment of cadastral valuations, it does not always match what urban planning criteria could consider as facilities, especially in some types and buildings. For example, “Singular buildings” comprise both administrative buildings and representative ones, while under “health and charity” types are included not only large hospitals, but also smaller clinics, both public and private.

Fieldwork consisted therefore in identifying facilities and open public spaces plots, through both current urban planning or inventories of public goods and the “in site” identification, which in the advance phase of the review of the PGOU resulted in the Inventory of Facilities in the municipality of Valladolid. Once these plots were identified, their surfaces were measured so as to get the final count for each urban unit.

Homogeneous system of neighbourhood data

After obtaining all the necessary information and adapting it to this particular project, a homogeneous information system was obtained. The information collected at block level was reassigned to the corresponding urban unit, in order to obtain their basic data and to calculate some indicators to characterize their profile. It was possible then a diagnosis by comparison that would serve to design further actions of the PGOU.

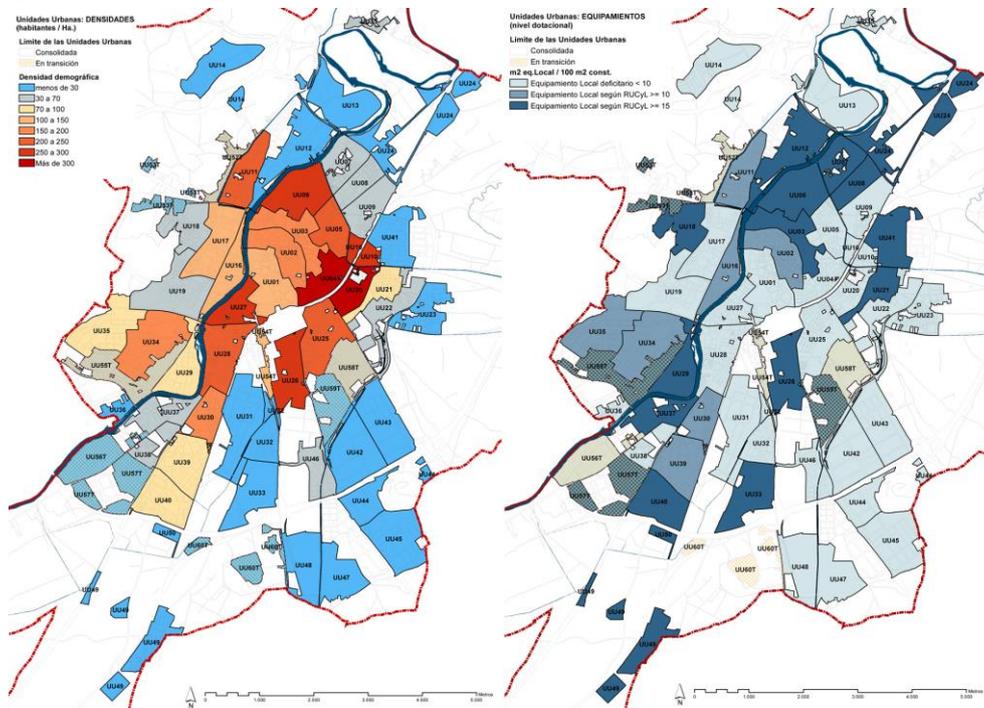
Specifically, the data collected for each urban unit from the data sources described above were its surface, the population in 2012, the number of households and the total number of cadastral properties and their built-up area. It has also been necessary for PGOU urban purposes to calculate both the number of properties for each of the 16 uses established by Cadastre and the built-up area for each of the 10 main types of the Cadastral Technical Assessment Standards. In this case, areas corresponding to garages, storage rooms, porches and annexes—in residential use—and areas corresponding to garages and parking lots—in industrial use—were considered apart.

The basic data of each unit were needed to calculate some density levels and compare them with the density levels established in the planning legislation, in order to control future increases or variations thereof. These densities are residential density—number of dwellings per hectare—and built density—main use built-up area in square meters per hectare—. Areas corresponding to garages, storage rooms, etc. are deducted from the built density calculation, in order to get a value as close as possible to the urban planning concept of buildable, different from cadastral areas, which are defined for tax purposes.

The relationship—percentage—between the surface for residential or industrial uses with respect to other typological uses was obtained from the surfaces by type, differentiating residential units and those with an industrial profile for their different treatment in terms of urban standards. It allows to design a complete set of data required to characterize the profile of each urban unit and to compare them, highlighting possible imbalances or misalignments between their densities, functional variety or services level, both of facilities and public open spaces. These characterization data include the population density—inhabitants per hectare—, the residential and industrial densities, the relationship between areas for offices, retail, hospitality or other types and the total area of main use and the surfaces occupied by facilities and public

open spaces —in square meters— per 100 built-up square meters of main use, per capita and per household (figure 2).

Figure 2. Maps of Population Density (Left) and Surface of Local Facilities (Right)



Source: Authors

Urban regeneration beyond isolated actions: looking for positive impacts on their urban environment

The urban diagnosis represented by the delineation and characterization of urban units has its counterpart in the programming of a series of actions aimed at correcting, as far as possible, the deficits detected in this diagnosis.

Obtaining equivalent indicators in all urban units avoids losing the city scale and facilitates an accurate representation of the relative position of each urban unit with respect to the rest. However, this work must be complemented by an approach to each urban unit in order to respond to their particular needs, by taking advantage of the opportunity areas that the fieldwork in the previous phase of analysis allowed to locate.

Starting from the precise knowledge of the existing city, a logic of systematic improvement of consolidated or semi-consolidated spaces was thus set, in order to correct deficiencies and foster positive interactions between neighbouring areas. All proposed improvements have to combine with each other to increase their positive effects. The target consists of carefully designing each individual intervention, so that the sum of all of them is consistent and contributes to improving the urban conditions of every urban unit. This resulted in a program consisting of different actions, depending on the characteristics of each area of intervention.

Although this program extends to the whole of the existing city, its effects especially unfold in those urban units that correspond to the more densified areas, where deficits related both to facilities and public open spaces are more serious. This is the case, for example, of urban units that correspond to the neighbourhoods of “Pajarillos Bajos” or “Delicias”, two of the densest spaces of Valladolid and that therefore received much more attention.

Thus, a first level of action corresponds to the so-called as “Isolated Actions”, applied in consolidated urban spaces and that consist of small corrections of alignments or roadway sections, in order to improve streets conditions, whether in terms of continuity, section, etc.

A second level corresponds to sectors in unconsolidated spaces, which consist of inner improvement micro-projects that take advantage of small empty plots and/or ruins or abandoned buildings. They pose more complexity than “Isolated Actions”, because some operations, such as re-parcelling, are required. The aim was to replace these "urban voids" by renewed spaces that would include new mixed-use buildings and, most importantly, small public open spaces or spaces intended for local facilities. For example, a sector in “Delicias” neighbourhood to be highlighted posed the elimination of substandard housing in the inner courtyard of a block in order to replace it by a parking area, one of the clearest deficits of this neighbourhood, and a space for the location of retail activities that would complement the predominant residential use (figure 3).

Figure 3. Aerial Photography and Layout for Sector 25-02 in Delicias



Source: Authors

Finally, “Building Rehabilitation Areas” and “Urban Regeneration Areas” were also proposed. They correspond to large homogeneous housing estates that due to the deficiencies in their materials suffer an important deterioration, which counsels to intervene in them or even in surrounding public spaces and streets. The delimitation of these areas has rather a recommendatory character and seeks to guide the investments of the various public administrations in support of rehabilitation and urban regeneration operations, with more flexibility.

For instance, in the case of “Delicias” neighbourhood, it was proposed a “Building Rehabilitation Area” that corresponds to the so-called as “Arca Real” Industrial Village, a 1,000 dwellings housing estate built in the sixties and currently quite deteriorated. Alternatively, the delimitation of an “Urban Regeneration Area” was also proposed, if in addition to the housing rehabilitation it is decided incorporating the underused courtyard of the “Juan de Herrera” Professional High School, in order to generate a new public square that would increase the very limited public open spaces inside the neighbourhood, while also allowing to incorporate underground parking for residents or new residential blocks on the perimeter (figure 4).

Figure 4. Aerial Photography and Delimitation for Building Rehabilitation Area 26-04 in Delicias



Source: Authors

This way, urban units become a diagnostic tool but at the service of an ambitious urban regeneration project in Valladolid, translating the indicators obtained in an operating program, aimed at producing a systematic improvement of the existing city.

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WATER SUPPLIES BUILD THE CITIES: THE CANAL DE ISABEL II AS ORIGIN OF THE METROPOLIS OF MADRID

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Key words: Public Works, Water Supply, Urban Processes, Water Management

Abstract

Water supply systems in big cities are fundamental parts of their metabolism. They respond to a *scenario of increasing demands, and they actually act as a catalyst for their growth*. This last reason is essential to explain the development of some big cities. A model example of this is the city of Madrid and its water supply, built up and managed by the public enterprise *Canal de Isabel II*. Since its origins in the 19th century, the *Canal* laid down the foundations that allowed Madrid to develop and shape itself as a metropolis.

Public works, dams, channels and reservoirs, constitute the technical solution to water supply as well as they *extend the influence of the urban area to wider territory*, connecting urban and rural. The paper studies the origins of the *Canal* and its principal works which enabled the metropolitan growth of Madrid until today, and analyzes the influence of this works in the development of the city, in the processes of exchange and water management.

Public works are not just useful infrastructures in contemporary polis, they have strong influence in social cohesion and urban processes.

Introduction

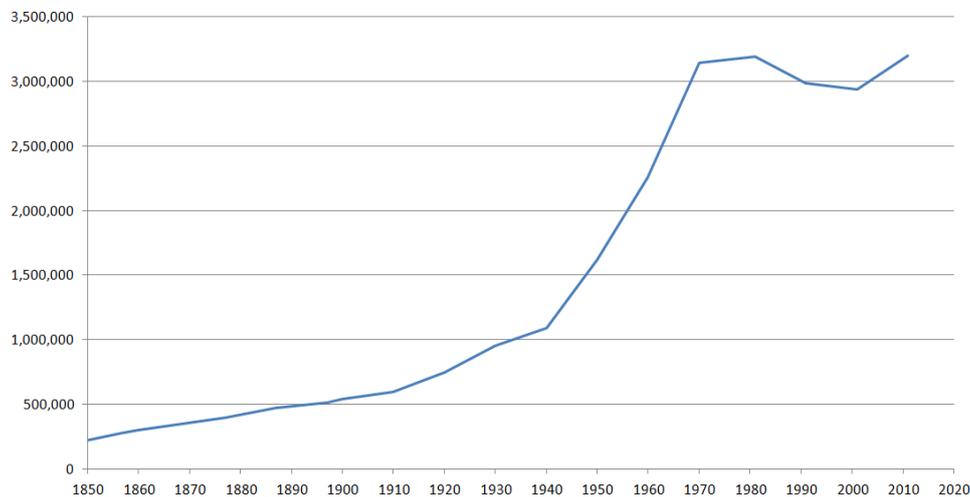
Cities in the 21st Century grow spatially, forming large areas and absorbing new territories. Water supply systems in big cities are fundamental parts of their metabolism. For their water supply, they take water from the ground or from rivers many kilometers away from the city. They establish nets that distribute water from the catchment areas to the city to allow the different

urban uses. Public works extend the influence of the urban area to a wider territory, connecting urban and rural.

During the 19th Century, most of big European and Northamerican cities had to rethink their water supply systems because they were not adequate in terms of quality and quantity. Cities grew because of rural migration and industrialization and the consequences were the growth of water demand and the decline of quality. Madrid was no exception. New sources were to be sought justified by the demographic growth, the citizen's hygienic habits change and the risk of pollution of the traditional medieval water supply system, known as "viajes del agua" (Arroyo Illera, 2004). From the 18th Century new projects to solve the water supply problem by bringing water from the mountains of Madrid arise. But none of these projects succeeded. The proposal of the engineer Manuel Cortijo to bring water from the Lozoya River in 1846 may be considered the direct precedent of the first modern water supply system in Madrid. The Interior Minister approved this project to bring water from the mountains using the traditional system of "viajes del agua"¹ but including the innovation of lifting water with hydraulic pumps, and created the "S.A. corporation for the expansion of water supply in Madrid"² (Gavira, 2001, p. 209). Finally, water is caught from this river basin through the Canal de Isabel II but using gravity to transport water. In the 1960s, due to the city's demographic growth (Figure 1), the catchment area expands to Jarama, Guadalix, Manzanares and Alberche river basins, extending the influence of Madrid to the whole region.

The paper highlights the key role of water supply in the construction of the city. The case of Madrid is significant to show in parallel urban growth and public works development, and the water management systems that build them up.

Figure 1. Madrid's population: year - inhabitants



Source: Elaborated by the authors based on INE data.

¹ Qanat: gently sloping underground channel with a vertical access shafts, used to transport water.

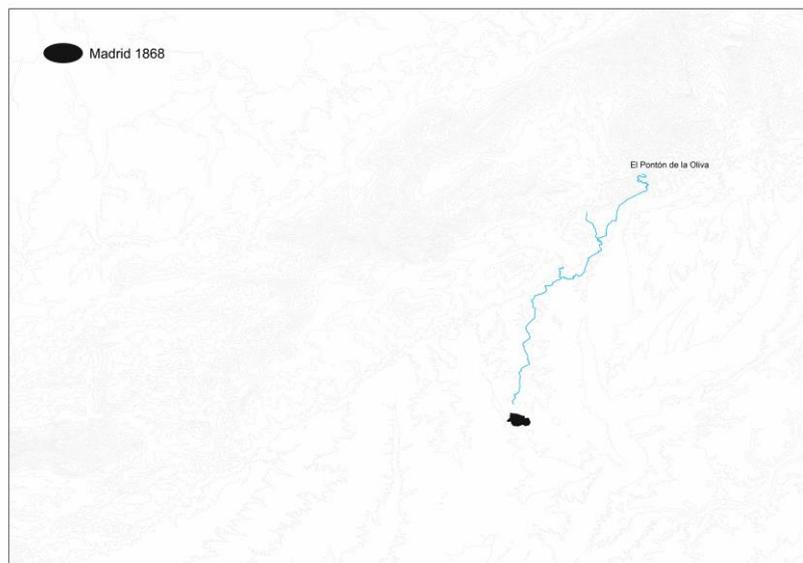
² "Sociedad Anónima para el aumento de aguas a Madrid"

Water Supply Public Works

Water Supply acts as a catalyst for the growth of urban settlements. To explain the case of Madrid three representative moments of the construction of water supply public works are depicted and analyzed. With these three pictures, the evolution process of the city and the extension of the influence of the urban area to wider territory are drawn. Channels and reservoirs appear in urban areas as significant elements of the urban pattern that become part of the city. Each temporal scenario is illustrated by a cartography that presents water supply nets and the land use of urban area in a territorial way, as well as a sequence of photographs of public works built up in that period.

1868: the first channel

Figure 2. Water supply net and urban area, Madrid, 1868.



Source: Elaborated by the authors

The first channel brought water from the Lozoya river basin, traveling more than seventy kilometers from the Navarejos diversion Dam to the diversion in Madrid through tunnels, siphons and bridges. The first dam constructed was the Pontón de la Oliva but it had numerous problems of infiltrations because of the limestone bed. This problem forced to catch water from the Guadalix River while the Navarejos diversion Dam was being built up upstream of the first dam. In 1868, water arrived to the city through the old channel and filled the first underground reservoir of Campo de Guardias (Figure 3), that had already begun to have infiltration problems (Martínez Vázquez de Parga, 2001, p. 171). From this first reservoir two pipes took water to the distribution network starting point, from where water was transported through the two principal waterlines, Fuencarral and San Bernardo (González de Agustina e Iribarren, 1954, p. 31). The first distribution net, designed by engineer José Morer (Morero, 1885, pp. 11–12), was still in construction at this time.

Since the ecclesiastical confiscations of Mendizábal, the city had been growing inside its walls by means of constructing new residential buildings in open spaces left by convents, and new floors on existing houses up to four (Gavarrón Casado, 1978, p. 30). The population had grown from 206.714 inhabitants in 1845 to 289.043 in 1860, exceeding 300.000 in 1868 (González de Agustina e Iribarren, 1954, p. 52). But the city couldn't depend only on the first channel (Figure 3), the population continued to use fountains, waterwheels, wells and hand pumps (Gómez, 1868). The Canal was criticized by the City Council and citizens, for the difficulties of supplying water to some neighborhoods and bringing up water to taller houses, as well as for the issue of water quantity and quality. The major problem was water turbidity caused by deforestation with different origins in territories nearby the Lozoya River basin (Gutiérrez Andrés & López-Camacho y Camacho, 2004, p. 41).

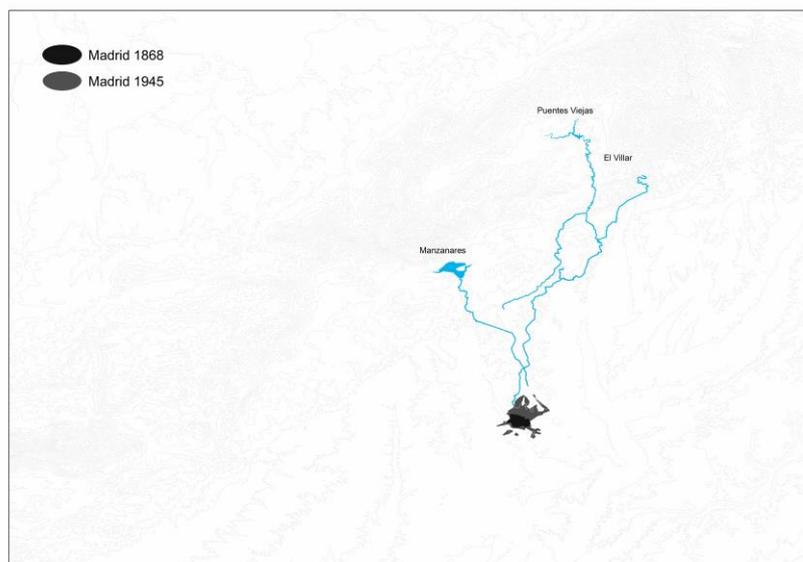
Figure 3. Canal Bajo: Amanuel Bridge (1858), El Espartal Bridge (1858), First reservoir of Campo de Guardias (1858).



Source: Photographs by Charles Clifford, 1858

1945: regulation and multiple-supply

Figure 4. Water supply net and urban area, Madrid, 1945



Source: Elaborated by the authors

The city was supplied by the old channel, the new Lozoya channel called the Canal Alto, and the Canal Manzanares. To solve issues of water quantity and quality, three regulation dams and two diverting dams were built up by the institution. The first one, the El Villar Dam, was constructed upstream Navarejos, and was designed to catch water from snowmelt of the Lozoya mountains. But when it started operating, problems of turbidity of city water during river overflows were even worse. The third storage reservoir in Madrid pretended to solve this matter but for different reasons it wouldn't be finished until 1915. The turbidity of water continued and Navarejos Dam was soon sediment-filled and therefore a new diverting dam, La Parra, was constructed. Meanwhile another hydropower company, Hidráulica de Santillana, was given a royal grant to supply water to the north neighborhoods of Madrid that began when Grajal Dam was finished in 1908 (Villanueva Larraya, 1995, p. 41). This context of competition, the hydropower arrival to the region, the need to lift water in the core of the city, and the poor conditions of the Canal Bajo, pushed forward the construction of the Canal de El Villar that connected the reservoir and the Canal Bajo (Aguinaga Arrechea, 1911, p. 64). The first hydropower central of the Canal was located in this channel between two intermediate reservoirs and the energy generated pretended to be used to lift up water to the First Water Tower in the city (Figure 5). This First Water Tower improved the distribution in the city that had underpressure problems caused by the lack of planning and coordination between the City Council and the Canal and the fact that numerous individuals connected themselves spontaneously to the network.

Years later the Puentes Viejas Dam was built to ensure the storage capacity of the system and in parallel El Tenebroso system was materialized to attend to turbidity problems. El Tenebroso consisted on two lateral channels that intercepted the runoff that went to El Villar Dam to discharge it downstream of the dam. Through another channel, the "Canal de aguas claras", water flowed from Puentes Viejas to El Villar to feed this last one with clean water from the first one. When cloudy water from Puentes Viejas couldn't be retained for decanting, it was discharged to the river downstream of El Villar through a channel that started at El Tenebroso diverting Dam (García Augustín, 1945, p. 25). At the same time, the Canal Bajo reached its maximum capacity and the construction of the Canal Alto began. The new channel carried water from Torrelaguna down to the fourth reservoir, Plaza Castilla Reservoir (Figure 4). This reservoir, together with the Second Water Tower beside it, allowed the supply of the north expansion of the city, the highest area.

At that moment, the quality issue in the head is solved and the capacity of waterworks is increased. The capacity expansion is almost to be achieved as well in the distribution system. In 1945 this network is working with the first leg of the Canal del Este, that followed the water divide of the Jarama and Manzanares rivers arriving to both the 5th and 6th reservoirs of Hortaleza and Puente de Vallecas under construction. The principal network, a grid with multiple-feed, had almost all galleries already done. As well, to give the final integrity to the network and be able to feed the urban network with the Canal Alto, the fourth reservoir was

joined with the second and third reservoirs and the principal elevated network, by another gallery (García Agustín, 1945, p. 25).

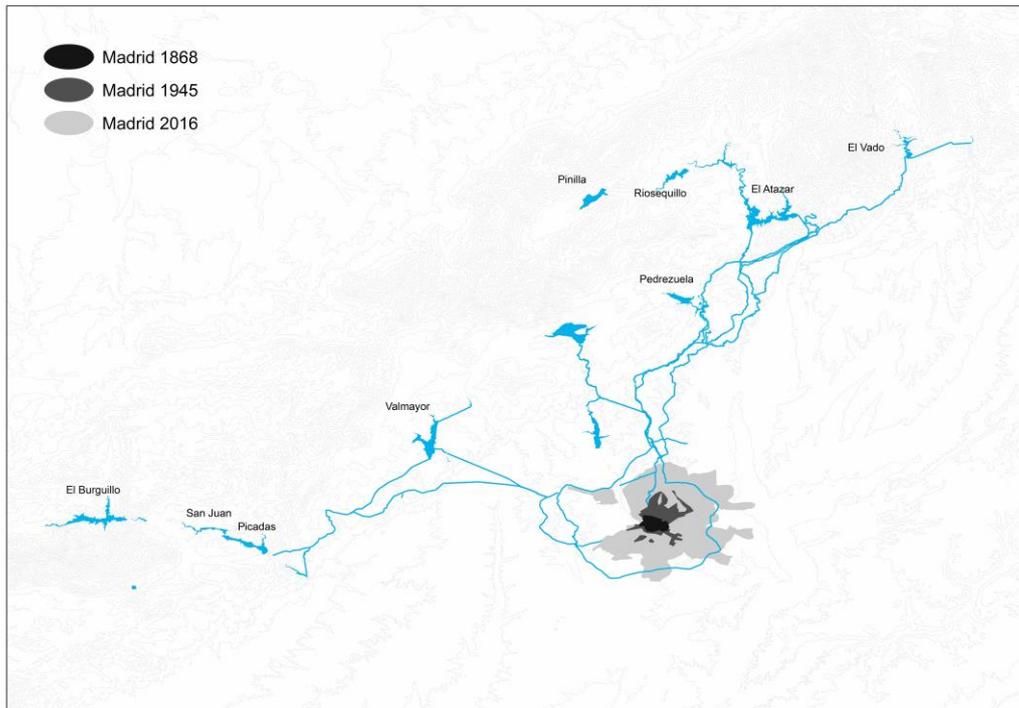
The important problem in 1945 comes to be the storage capacity of the catchment area, insufficient for the growing population (García Agustín, 1945, p. 25). Rural exodus, the change of hygienic habits, and a severe draught in 1944, led the Canal to a critic situation. From 1900 to 1945, Madrid's population triples, and arrives to one and a half million inhabitants. The city is extended lengthwise its radial roads. The developments of Ciudad Universitaria, Nuevos Ministerios, and the residential colonies of Ciudad Jardín are finished (Comisión de Planeamiento y Coordinación del Área Metropolitana de Madrid, 1979, p. 1). Water supply had complications in furnishing the south area of the city from the second and third reservoir due to Villaverde and Legazpi industrial expansions. The Canal had also to give supply to the independent municipalities of Getafe and Leganés, because of an imposition of a Ministerial Decree of 1946 (García Agustín, 1970, p. 197). The same happened with Campamento and Cuatrovientos further aggravating the situation. Carabanchel Alto and Puente de Vallecas also depended on the Lozoya and were willing to have finished the works on the Canal del Este (Terán, 2006, p. 282). Furthermore, tall buildings constructed in the north extension of the city didn't have water supply in the highest floors.

Figure 5. First Water Tower (1912), third reservoir (1915), Plaza Castilla Water Tower (1935)



Source: Fundación Miguel Aguiló, P. Candela 2005 , the authors

2016: water supply for the metropolis

Figure 6. Water supply net and urban area, Madrid, 2016

Source: Elaborated by the authors

Madrid's water supply works are completed to provide water to the circa 3.2 millions inhabitants of the city (INE, 2011) and other municipalities of the region. The water conveyance goes further away from the Lozoya River basin, with the Canal del Jarama and the complex driving system of the Alberche River (Figure 6). The system is the result of different actions carried out during the sixties and seventies, after a difficult period of the Canal. The Canal had problems of turbidity, deficiencies in the discharge during overflows, and lack of pressure and of water lines capacity. But the principal issue was that there was not enough storage capacity to ensure the supply of a city in continuous growth (Martínez Vázquez de Parga, 2001, p. 268).

A number of severe draughts (1945, 1948 and 1949, and again in 1965) and typhoid fevers occur after 1945. In 1947 Canal de Isabel II elaborated a plan to improve supply in twenty five years. The plan projected the construction of Riosequillo Dam, Matallana and Los Ramos dams, two new channels from Jarama and Sorbes, as well as an increase and improvement of the distribution network. After the draught of 1949, as an interim measure, another catchment at El Roncadero is done, to elevate water from the Jarama River to the Canal Bajo. Then the construction of both channels begins: the Canal del Jarama starting from the El Vado Dam, and the Canal del Sorbe, that takes water from the Pozo de los Ramos Dam to the beginning of Canal del Jarama.

The sixties are crucial in the demographical growth of the city, and therefore problems to provide basic needs accentuate, especially in the case of water supply. From 1950 to 1960 the population increased from less than one million and a half to two million three hundred

thousand. Moreover, in 1963, the Commission of Planning and Coordination of the Metropolitan Area of Madrid, incorporated fifteen new municipalities and extended the area of water supply of the Canal. New catchments in other river basins were investigated and a new Works Plan in 1961 was developed. The forecast for the growth and the demand made in 1947 was definitely insufficient (García Augustín, 1970, p. 197).

The greatest relief to the tensions of the system's demand occurred when the Atazar Dam entered into service in 1972. It balanced the supply warrant and achieved the complete regulation of Lozoya river basin (Aguiló, 2002, p. 88). The new Canal del Atazar that arrived to Plaza Castilla's Dam was projected at the same time, augmenting the waterline capacity. The Canal also incorporated to its system the Santillana Dam in Manzanares River that was property of Hidráulica Santillana until 1963 when the Canal purchased 93 % of its shares. A channel of circa four kilometers was done from the Marmota to the Canal Alto, to transfer water from this river basin. Both Canal del Este, with the seventh and eight reservoirs, and the Canal del Oeste, were finished to furnish the urban fringe, specially the south.

While the construction of Atazar Dam and channel (Figure 7) was taking part, different short-term solutions were carried out in the different river basins of the region. Pedrezuela Dam in Guadalix and Pinilla Dam in Lozoya River with their respective channels were finished in the late sixties. The impulsion system was done in 500 days and took water from the Alberche River, at the Picadas Dam, and transported it to the Canal facilities at the El Plantío Dam. At Jarama River, the impulsion of El Roncadero was substituted with a catchment of ground water by means of two Ranney wells. Years later, in 1975, also the Guadarrama River was regulated with the diversion dam, azud de las Nieves, and water was transferred through a tunnel to Valmayor Dam.

Until 1992, when another severe drought happens, no other catchment works were done. At this moment the Canal rethinks its supply and the use of water: In first term it puts in operation its ten well fields to get water from the underground. Some of these well fields discharged directly to the general network of the Canal and others supplied water to the different municipal reservoirs (López-Camacho Camacho, 1995, p. 34). After this year total water demand in the region declined sharply for reasons that are not clearly identified: environmental education campaigns, increased efficiency in industries or the permanent effect of drought among society (March & Saurí, 2010, p. 11)

The principal problems in the distribution network were to ensure pressure and to enable the expansion of the system, and they were solved with a perimeter ring outside the city with radial waterlines that followed the principal roads finished in the 80s. The stability of the system has enabled the supply of the new low-density peripheral neighborhoods developed during the last twenty years. Madrid has increased its developed residential area with the PAUs – Urbanistic Intervention Programs – that were planned and constructed between 1995 and 2010 and extends the influence of the Canal to an area of 20 square kilometers and circa 70 thousand households (López de Lucio, 2013, p. 106).

Figure 7. Riosequillo Dam (1958), Valmayor Dam (1975), El Atazar Dam (1972)

Source: Fundación Miguel Aguiló

Water Management for Water Supply: CYII

Water management policies are indissolubly associated to the construction of water supply public works. They are at the base of their promotion, construction, regulation and exploitation. The management model determines the growth of the city and the sociocultural signification of water. This section identifies the turning points in water management that have influenced the urban development.

At the beginning the Canal de Isabel II (CYII) was organized as a public company addressed by an Administrative Board constituted by the state, the City Council and a small group of stakeholders. But soon in 1868 it became a public entity dependant on the Ministry of Public Works and Transport. It is not until hydropower arrived in the region and the private company Hidráulica Santillana was constituted, that this management scheme changed. Hidraulica Santillana put in service the Colmenar hydropower central in 1902, and achieved a royal concession to supply water the northern neighborhoods of the city, supported by the City Council, in 1906 (Sánchez de Toca, 1925, p. 20). These two events created a situation of threat because of competitiveness that forced the administrative reorganization of the company in 1907. The CYII became an autonomous body under an industrial society model, still dependant on the Ministry of Public Works (Gavira, 2001, p. 214). It was from that moment on that the CYII posed the modernization of its infrastructures and its organization (Canal de Isabel II, 1907, p. 483). In 1976 it became a public ownership enterprise with its own legal personality, own patrimony and autonomous administration and dependant on the Ministry of Public Works and Transport, until 1984, when it started to depend on the regional government, Comunidad Autónoma de Madrid.

But the crucial turning point started in 2002 when its objectives and the composition of its management board were modified by Decree. From this moment on, the CYII has the authority to provide services out of the Comunidad Autónoma de Madrid territory and is allowed to carry out any kind of commercial or industrial activity directly linked with its functions, including taking a minority or majority shareholding in companies with the permission of the regional government (Ortega de Miguel & Sanz Mulas, 2007, p. 144). This way the CYII, and the city, become part of the virtual networks system that organizes the new international-scale economic processes. This new conception of CYII as a multinational company widens its territorial influence making it difficult to draw.

An Act of the regional government in 2008 goes one step further in this idea of liberalization and extension of the influence of the CYII. This Act permitted the creation of a public limited company whose object is the provision of services related to water, and allows the privatization of 49 % of its shares. In June 2012 the new society “Canal de Isabel II Gestión, S.A.” was constituted, separated from the original CYII that remains as regulation entity. Canal de Isabel II Gestión, S.A assumed the operations of water supply, sanitation and hydraulic works for the following 50 years. Even though nowadays more than the 80 % of the shares are held by CYII and the rest by the municipalities (Marcos, 2015), there is still tension between the citizenship and the regional government. Hydraulic technique has replaced water culture in Madrid, as it happened in the 19th siècle when the Canal de Isabel II was constituted (Gavira, 2001, p. 208). Under political, technical and hygienic arguments water has been transformed into a commodity.

However, in global city water does not arrive only through the water supply network. The consumption of water hidden behind products, freights and goods – virtual water – extends the water footprint to a global geographical scenario where local water management agents are insufficient. Madrid is gradually consuming more virtual water type and less regional resources. The annual per capita use of water from the region has decreased from 261 m³ to 191 m³, and virtual water consumption has increased from 1.169 m³ in 1984 to 1.667 m³ in 2005. (Naredo Pérez, Carpintero Redondo, Frías San Román, Saa Requejo, & Gascó Montes, 2009). Water supply in contemporary cities is water supply of global economy.

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RESIDENTIAL AREAS IN THE STRUCTURE OF THE CITY. CASE STUDIES FROM WEST EUROPE AND KRAKOW

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Key words: Housing settlements, city structure, public spaces

Abstract

Once they adopted the sedentary lifestyle, humans set to building settlements which were to protect groups of families and give them the sense of belonging to a material and social community. The settlement unit which could be called a housing complex goes back thousands of years BC. The scale of problems related to housing environment grew considerably with the emergence and development of cities, yet truly distinctive quantitative and qualitative changes occurred in the early 20th century.

Implementation of the programmatic assumptions of the Athens Charter resulted in the emergence of spatial and functional structures based on hierarchic dependence of components. The initial projects reflected the pursuit of a human-scale environment and the structural division into neighbourhood units. Undoubtedly, the second part of the 20th century brought about a change in the trends of development in cities. Large housing estates were abandoned in favour of a much greater diversity of housing complex forms – the revived form of city street, urban block or the classic form of a residential complex with clearly delineated structure, services and – most frequently – some recreational areas. The 21st century draws from well-known patterns, complementing them with new elements and solutions imposed by the requirements of the principles of sustainable development.

Due to the limited availability of land in highly urbanized central city parts, contemporary housing development occupies more peripheral areas, often at the border between urban and rural neighbourhoods. The development process involves numerous participants, often with opposing interests – public authorities, whose concern should be sustainable growth of the whole city, and developer firms and investors, whose motivation is to maximize profit. This situation has led in most Polish cities to the emergence of disconnected fenced-away residential ghettos with no spatial order.

Meanwhile, housing development in Western Europe continues to be built as planned urban complexes drawing from the experience of the past and satisfying the needs of the contemporary city dwellers.

The article presents several urban complexes with dominant housing development (Orestad in Copenhagen, Monte Laa and Nordbahnhof-Area in Vienna, Ijburg in Amsterdam and Riem in Munich) built relatively recently. It discusses their functional, spatial and social characteristics, which make them examples of good practice in contemporary urban planning. They demonstrate clearly that only comprehensive planning in a broader scale guarantees creation of high-quality urban spaces, where the welfare of resident communities is a priority.

Introduction

Kenneth T. Jackson wrote: *“It may turn out that futurologists are right and great cities of our time will fall like Carthage – by the end of the next century they will have disappeared without a trace. (the text was written in 1998) Yet, it is probable that the metropolises of the 90s of the 20th century will continue to be metropolises in the 90s of the 21st century.”* (K. T. Jackson, 2001, p. 533)

The above words of a history and social sciences professor are basically proving true. Although only a part of metropolises are experiencing rapid growth, particularly in the Far East, indeed, most big cities have preserved their status.

Cities, having emerged as a result of people gathering in one place and developing economic relations and dependencies, take their origin in prehistoric settlements. Humans used to build settlements to protect a group of families and to manifest their alliance as well as the material and social union. With time, prehistoric settlements developed into urban organisms, complex enough to contain settlement units, which we could call housing units or estates. Cities were becoming more and more attractive places to live, offering diverse chances and opportunities. As cities grew and more areas were taken up by housing development, the scale of problems related to building new houses for the incoming population was expanding

Utopian Charles Fourier, observing the development of the society and its spatial framework, concluded that the 19th century society was situated only between stage IV (barbarianism) and stage V (civilisation). Stage VI (guarantism, which would guarantee universal order) was to come next, according to him, followed by stage VII – “great harmony.” (H. Syrkus, 1984). Fourier held that in order to achieve the final stage of harmony, which would enable people to realise the passions of the human nature, they should be grouped into phalanxes –

communities of 810 men and 810 women, occupying the area of 400 ha and living in phalanstries, i.e. hotels surrounded by facilities offering services. His proposals related to balancing the land fertility and climate in the world scale, treating work as passion and as a sport subject to healthy competition sound very modern even now. The author envisioned means of transport that would enable travellers from Brussels to have breakfast in Paris, lunch in Lyon and dinner in Marseilles without even getting tired.

A question then could be asked about which stage we are now? Have we made a step forward? It seems that there is no universal order nor great harmony. The definition says that spatial order is the manner of organising space which, taking into account in its orderly relations all the functional, social, economic, environmental, cultural and aesthetic conditions, creates a harmonious whole (Z. Paszkowski, 2015, p.207).

Definitions, trends and theories

It is obvious that the significant quantitative and qualitative changes in city development took place at the turn of the 19th and 20th century. Expansion of industrial cities provided inspiration for starting a debate on the most rational way to build housing districts. Implementation of the programmatic postulates of the Athens Charter of 1933 resulted in the emergence of spatial and functional housing structures based on hierarchic interdependence of their functional programme components. Building projects designed by Werkbund architects and Walter Gropius demonstrated the pursuit of a human-scale environment and structural division into neighbourhood units. The concept of the unit appeared in the works by Doxiadis, for whom the housing estate was a growing organism, always composed of the same cells. According to him, the smallest community was supposed to be created by minimum 500 and maximum 3,000 families. His concept for Islamabad was based on two scales: walking accessibility within the unit and fast transport between the units and the centre. In the case of rapidly growing cities, interesting were also experiments exploring the concept of a housing unit in dense urban development, such as for example the housing estates in Vienna, the so-called superblocks (G. Schneider-Skalska, 2004).

The beginning of the 20th century brought the designs and projects built by Taut, such as the Onkel Toms Hütte (1926-31), which offered good housing conditions in contact with nature. It was precisely the scale, the buildings' height of approximately three-storeys and the enclosures penetrated by greenery that created the atmosphere which, according to the words of Helena Syrkusowa, allowed the residents to develop emotional bonds with them, and therefore they may justly be given the name of true housing units (H. Syrkus, 1984).

The whole urban organism was also undergoing changes. The situation in which there was one administrative and commercial centre providing services for the growing number of inhabitants resulted in the fact that the newly emerging residential districts had to be built at increasingly greater distances from this centre. They started living their own lives, had no features of inner city development and created residential zones, which were soon emerging in almost every city. Suburban areas were also growing. Initially uniform in character, they were losing their

structural purity over time. Clarity of the spatial-functional structure of the new city districts became a problem of primary importance.

The question, asked in the middle of the 20th century, whether new residential areas should be closely connected with the city and constitute a part of the structure that could be called urban, or perhaps they should constitute self-sufficient units, remains valid.

Considering the problem of the role of residential areas in the structure of the city, we may not ignore the necessity of defining the area we are discussing. As has previously been observed, the city is not a uniform system. At least three basic zones may be distinguished within it: the central zone, the residential zone and the suburban zone. Each of them includes the housing function, yet each one in a different degree. Defining them from this perspective, we could say that: (G. Schneider-Skalska, 2004).

- the leading features characterising *the central zone* are multi-functionality and an attractive form; the housing environment remains secondary and subordinate to the dominant features of the zone and to its urban structure; the primary role has been reserved for public spaces, neighbourhood spaces are often absent or they adopt non-typical forms; elements of nature are present in forms requiring intensive technical interventions;
- *the residential zone*, with the dominant housing function, should have all the features desired in a housing environment and at the same time the characteristic urban structure composed of compact forms; this zone should be characterised by closer contact with nature and a prominent presence of elements of nature treated as urban material; public spaces should be the binding element in the urban structure, the main identity-forming role is performed by neighbourhood space, whereas private areas take the form of balconies and terraces; urban residential zone is characterised by a high level of diversity in spatial forms, and it often requires some remedial action to give it some features of an urban structure;
- in *the suburban zone*, the leading function is recreation and contact with nature; the structure is dominated by open areas and residential development forming a suburban and self-sufficient habitat; both compact and dispersed forms are present, however, they are subordinated not only to contact with nature but also to the well thought-out and consistently implemented concept of the city growth; private spaces are dominant, neighbourhood spaces may also play an important role; this zone is characterised by the supremacy of close-to-natural landscape.

The above definitions are important in the context of the changes which took place not only in Poland in the late 20th century – the economic dictates of the developer and departure from designing large multi-family estates. Developments have started to take up areas located inside cities, often left vacant by declining or collapsing industry (greyfields and brownfields), yet suburban areas (greenfields) have also been and continue to be built up. The new developments are most frequently small units, in which the functional programme is limited to an inner yard with a playground for children. Documents and publications evaluating the quality of residential areas, such as *Polska Polityka Architektoniczna / Polish Architectural Policy/* or *Przestrzeń życia Polaków / The Living Space of Poles/*, point out to important problems plaguing

the residential districts built in Poland in the late 20th and early 21st century as well as the ones which are being built now. The list includes: spatial and functional chaos, absence of clear structure, absence of a coherent vision of the city and what place should be reserved for housing areas in this vision, absence of transportation network continuity, poor location or absence of public services, absence of organised green areas, dangerous reduction of distances between buildings and poor quality of common spaces in the estates. Such components as kindergartens, nurseries, community integration centres or social spaces are no longer situated within the area of interest of planners and designers.

A classic example which epitomises the advantages and disadvantages of individual development stages of contemporary residential areas is the place in Kraków known as Ruczaj, the area between Kobierzyńska and Grota-Roweckiego streets on the one side and Bobrzyńskiego on the other, in the outskirts of the city. Looking at the land which has already been built up and the land which is planned for further development, we could distinguish three zones here: “the old Ruczaj” (the 80s of the 20th century), “the new Ruczaj” (late 20th, early 21st century) and “Ruczaj of the future” (allotted for multi-family development in city plans). This area will be characterised further on in the article.

The phenomena occurring in Polish cities seem to be common for many European countries. Fragmentation and increasing spatial chaos, quantitative and qualitative changes, more free time, pursuit of comfort oescape into suburban areas are noticeable in most cities. Hence it is no surprise that a number of urban theories emerged at the turn of the centuries and in early 21st century which, taking into account the principles of sustainable design, reach for the good, often well known, functional and spatial patterns. In most of them, the fundamental indicators of quality of life are clarity of the structural organisation and pedestrian accessibility.

Richard Rogers proposes a high quality environment, with a varied programme of services and recreation options accessible on foot and with jobs situated in the vicinity. Millennium Village designed by Ralph Erskine, a symbol of the housing environment of the late 20th and early 21st century, is based on structural organisation, pedestrian accessibility and intense contact with elements of nature.

According to Léon Krier, a city's growth may only be based on Urban Quarters, self-sufficient and autonomous districts with their own centres and the size limited to no more than 35 ha and the number of inhabitants of up to 15,000. Their internal division should be based on pedestrian accessibility (L.Krier, 2001). Structuralisation and the role of pedestrian accessibility are also prominently featured in American concepts, such as e.g. the ones described by Douglas Farr in his book *Sustainable Urbanism*.

In order to highlight the invariable character of the approach to the structural organisation of residential areas, we could invoke the design of the residential tower *Bionic Tower* for 100,000 inhabitants, whose authors are M. R. Cervera and Javier Pioz from Spain (G. Schneider-Skalska 2004). The concept, one might think, is totally different from the hitherto followed patterns and tradition approved of in Europe, yet when it comes to the question of structure and residents' access to recreation, it exhibits far-reaching traditionalism in the positive sense of the

word. Aware of the needs of human psychic, the authors have divided the structure into 12 segments – estates, each of which is organised along the pattern of a housing unit for approx. 8,000 inhabitants, organised around the common space of a park and a water reservoir.

Case studies

The contemporary European practice offers various examples exhibiting noticeable classic and clear spatial layout and a wealth of services. A characteristic feature is the presence of a system of public and semi-public spaces, which determine the clarity of the inner structural division and the links with the surrounding areas. The examples include independent units, though connected with the mother city, such as Solar City in Linz, and estates and units inscribed into the structure of the cities, such as Monte Laa – “the estate over the motorway” – and the Nordbahnhof-Area estate in Vienna or the Danish Orestad in Copenhagen, Dutch Ijburg in Amsterdam or German Riem in Munich.

These are mostly urban units with the dominant housing function, erected towards the end of the 20th and at the beginning of the 21st century. They are examples of contemporary good practice in urban planning, demonstrating that solely comprehensive planning in a broader scale guarantees creation of a high quality space, where the welfare of the inhabitants is the main priority.

Solar City – an iconic example of a sustainable housing estate – is an exceptional project even among the many estates/areas where the structure, programme and detailed solutions meet the requirements of the sustainable development paradigm. The idea seems to combine E. Howard’s notion of “the garden-city” with Soria y Mata’s linear city, obviously, taking into account all the natural differences resulting from the time when these concepts were created. It is most certainly very close to the theoretical ideas created one hundred years before.

An important condition for the emergence of the series of independent, concentrically composed units “strung” on the fast tram line was locating the whole system outside the concentrated compact urban development. Hence both the whole planned series and the already erected and now functioning unit, which is a part of it, were placed at a certain distance from the city of Linz, separated from it with rather large industrial areas. The completed part is a classic estate, with a school, kindergarten, recreational areas and a services facility located in the centre and connected to the fast tram stop. Due to its rather peculiar location, the development is mostly of suburban character, firmly established in greenery and the placing of buildings was determined by the desire to make the best possible use of the sun exposure of the privileged façade. We could ask a question whether reaching back to the classic idea of a self-sufficient modern estate is a good direction of city growth. It must be noted, however, that it is not a totally self-sufficient unit, but the first part of a larger, well thought-out string of estates. Once the subsequent links of the chain are built, it will be possible to see whether the concept has proved feasible and may become an attractive suburban alternative for the dense development of central and residential zones of the city.

Figure1. Solar City: development scheme and central public space view

Source: photos: G.Schneider- Skalska

Monte Laa Estate in Vienna, called the metropolitan suburb, could only come into existence owing to a bold decision to step beyond the growth barrier which was the motorway – one of the major roads leading to Vienna. Introducing a bridge structure over the motorway and closing it in a tunnel enabled construction of an estate above it (A. Drapella-Hermansdorfer, 2015.). It is undoubtedly the most characteristic feature of this project, which is a clear continuation of one of the “rays” radiating from the Favoriten district. It is not this feature, though, that determines the positive evaluation of the new housing environment. Its greatest assets are the green areas located in close vicinity and large green areas situated within the estate, a clear structure built of units in good scale and the diversity of accompanying functions, such as a kindergarten, a school, shops and office buildings, but first of all – an attractive, formally and functionally diverse linear garden. This garden is a form of a semi-public space, separated from any contact with vehicle traffic. It ties the whole estate together, giving it a clear structure and making it safe. Individual units of development have their own neighbourhood spaces, marked out spatially, yet without fencing, organised as green backyards. The result of good location, good planning and good design decisions is a housing district of great value as a part of the city and a friendly living environment for its inhabitants.

Figure 2. Monte Laa settlement: plan

Source: author P.Tor, based on maps.google.com

Figure 3. Monte Laa settlement: neighbourhood and semipublic space views

Source: photos. G.Schneider – Skalska

The Ørestad district in Copenhagen seems to be a good example illustrating an attempt to establish a new district as a part of a comprehensive concept of developing the whole urban system. Copenhagen was one of the first cities in which the positive transformations, continuing to take place in the city until now, were started; the first changes were introduced as early as in the 50s of the previous century and they were based on a general plan developed in 1947. According to the plan, the capital city was to grow following the five-finger layout, where each of the “fingers” was to become an axis of the city growth based on the essential means of public transport – the underground. The plan was verified and modified in the 90s of the 20th century, the result of which was supplementing the five-finger layout of 1947 with “the sixth finger” – the Ørestad district, located on Amager island to the south of Copenhagen. Its significance has grown since the opening of the Øresund Bridge in 2000, linking Denmark with Sweden. Thanks to the bridge, “the sixth finger” has been lengthened to reach as far as Malmö. Copenhagen is characterised by highly developed urban culture, so it is worthwhile having a closer look at the solutions implemented in the creation of this district and maybe using this example for comparative purposes when discussing the above-mentioned Ruczaj area in Kraków.

Amager had been previously absent in the development plans for Copenhagen because the area lacked adequate infrastructure (including in particular transportation). This is why the development of this district started with investments into infrastructure. The most important in the spatial and functional aspects was building the underground line, which was to constitute the backbone of the whole project. The funds for implementation of the project were to be obtained from the sale of land in the new district, which was owned by the city and the state, as well as from the expected income generated by the sale of tickets. *Due to the existing conditions (the suburban development of the Sundby district to the east and the nature reserve to the west), Ørestad took the shape of an elongated rectangle with the dimensions of approx. 5.5 x 0.6 km. The proportions of the district required dividing it into four smaller units of similar size, each with a different dominant function.*

Figure 4. Ørestad district: plan and main passage linking particular areas



Source: author P.Tor based on maps.google.com, photo: P.Tor

The unit situated furthest to the north – Ørestad Nord – is directly adjacent to the historic fabric of Copenhagen. Its area is occupied by public utility buildings, such as the Copenhagen Concert Hall (designed by Jean Nouvell), DR Byen – the headquarters of the Danish national broadcasting corporation or some of the facilities of the Copenhagen University, together with residential development of approx. 1,000 flats (half of which are accommodation for students). The next unit – ØrestadFælled – most of which is located within the area of the nature reserve AmagerFælled, is characterised by a low degree of development on the eastern side of the above-ground section of the underground line, it is just a narrow strip of low-density development. Ørestad City in turn is dominated by the exhibition and conference centre Bella Center and the Field's shopping mall, supplemented by multi-family development focused mostly around the extensive Byparkenpark area. The unit situated furthest to the south – ØrestadSud – is characterised by numerous commercial, office and services buildings in its northern part, whereas its southern part, the outermost area of the district, is dominated by the residential function.

According to plans, the development structure is to be composed of office and commercial buildings (60%), residential development (20%) and buildings related to culture, commerce and

services as well as other purposes (20%). It is expected that 80,000 people will find employment in the area and it will provide homes to 20,000 permanent residents; additionally, a large group of users are supposed to be students, 20,000 of whom are already studying at the institutions located here.¹ These data demonstrate an actual departure in the planning of the Ørestad district from the modernist concepts of mono-functionality and putting emphasis on diversification of functions in the area, with highlighting one dominant function as determining its character.

The four structural units are connected by a route of vehicle transportation, an underground line and a water course – the most important element in the district's spatial structure. Together with its accompanying lakes, canals and other water reservoirs, it forms a compositional backbone of the district. At least such was the original concept, yet the length of the water canal and the barriers existing in the area have obscured the continuity of the system, and apparently it would be better to consider the district as separate neighbourhoods. The easiest to evaluate is the northern part of the area since it is most advanced and the development is the closest to the ultimate plan.

The perception of the Nord unit is unambiguous and clear – it appears to be an integral part of the city, more a completion and a closing component of the development in central Copenhagen than the beginning of a new district. Here, we must return to the question asked in the introduction, whether a new estate/residential neighbourhood should be the continuation of the city structure or it should be a separate entity. It would seem that the examples discussed above demonstrate that both solutions are equally valid, and the choice will depend on local conditions.

The impression one gets of the Nord unit as being well integrated with the city results from the already-discussed diversity of functions of urban characters as well as from the clear spatial layout with well-planned public spaces. The most important role in this part is played by the water canal and its adjacent area, which is a compositional and functional axis of the neighbourhood. Owing to various forms and heights of buildings, the area abounds in numerous alleys, squares and mini-beaches, which provide a venue for many urban activities. The diversified development around the canal (on the east side – the university buildings, on the west – residential units, including students' dorms) creates a place that is vibrant with life at every time of day. The area is very close to being completely "urban," yet there is still one thing that is missing from the picture – ground floors of the buildings lack the additional generators of daily life – restaurants, small shops etc.²

The space in Ørestad Nord is very clearly organised in a sequential and hierarchic way as well as in the aspect of its functional division. The public part is discernibly separated from green areas belonging to their surrounding residential buildings. These may be reached along two

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<http://www.orestad.dk/english/uk-5minutes.aspx>

² The importance of attractive ground floors in the city structure is discussed *inter alia* by Jan Gehl in his books *City for People* and *How to study public life*.

axes crossing the representational part with the canal. On these axes are “strung” more secluded yards, whose different function is indicated by street furniture and greenery. The division between the generally accessible zones and the ones which are more private is quite clear, yet the absence of unambiguous barriers (fences) considerably contributes to the positive reception of the area as a uniform organism. Formal diversification of the areas attached to the residential and commercial development has been additionally highlighted by the varied form of the water courses, which, in some parts of the area, wind across the green spaces planned for residents’ use – meandering freely –and elsewhere create a straight canal, forming the backbone of the commercial and public part of the district.

Figure 5. Ørestad district: public and semipublic space views



Source: photos: P.Tor

The southern part of Ørestad Nord, situated at the end of the main canal, seems to be the least friendly part of the district, creating the impression of being subordinated to the organisation of the transportation infrastructure (it is closed by a busy road with a car park connected to the station of the underground). A large, partly open area in the form of a square, lined with representational buildings on one side, does not encourage visitors to stay within its space, thus becoming solely a place of transit, where people change their means of transport and walk to the station. It turns out, however, that this area is the last undeveloped part of Ørestad Nord, which is destined to be built up; the planned structures will surround future public spaces, thus completing the development of the district.

Analysing the local land use plan³ as well as the designs to be executed in this area, we can see that the idea underpinning the establishment of the new district is going to be continued. Similarly to the earlier projects, the area that is to be developed last will be filled with units of

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<http://soap.plansystem.dk/jsp/getdoklink.jsp?planid=2585619&planttype=20&status=V> (as of 24th Jan. 2016)

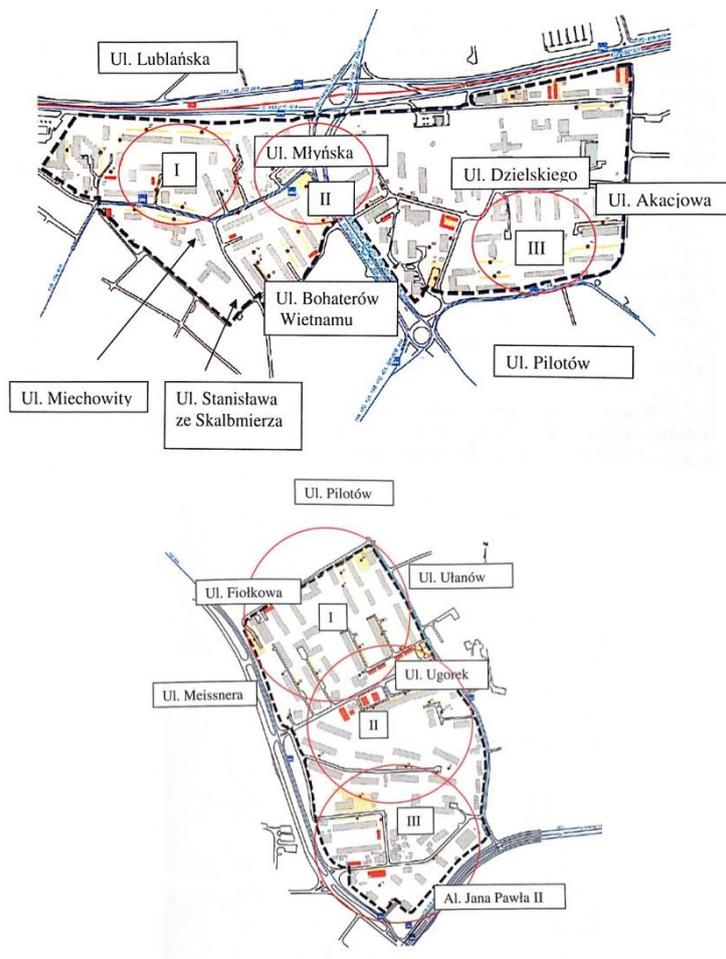
mixed functions: office and residential, including accommodation for students. The example in question indicates the return of block development, with irregular network of streets and squares creating small-scale urban spaces, contrasting in their form with the straight-line composition of the development along the canal. Public spaces in the whole area are surrounded by structures of different functions – the square in front of the building occupied by the radio broadcasting corporation will be closed with a line of residential development, and the inner pedestrian routes will be lined with office and residential buildings. One change with regard to the hitherto prevailing practice is the requirement, included in the local land use plan, of reserving some space in the ground floors of buildings for commercial services, with special emphasis on cafés, restaurants and boutiques. Once such establishments start their operation, public spaces are bound to fill with the lively crowd of passers-by, cyclists and people simply hanging out there.

The experience of Kraków

The examples discussed above are relatively new projects, emerging at the turn of the 20th and 21st century, and thus they exhibit the contemporary trends in diversified design of sustainable housing environment. It must be noted, however, that in every European city there are housing estates built in the mid-20th century, and in the countries of Central Europe the area occupied by such estates is particularly extensive. *In Poland, and we could use the example of Kraków here, we are witnessing a characteristic metamorphosis of these large post-war housing estates, which – once located in the peripheries – over time have found themselves in the strictly residential zone. Their role in the city structure should not be underestimated since they occupy a considerable area and provide homes to a great number of people.* At present, functioning of such estates, their evaluation, diagnosis and, subsequently, suggestions of what should be done in the future have become subject of the Programme of the Kraków Housing Estates Rehabilitation undertaken by the Municipality of Kraków. The first stage was the Pilot Programme of Rehabilitation of the Ugorek and Olsza II Estates.⁴ The team of scientists from the Institute of Urban Planning, Faculty of Architecture, Cracow University of Technology, carried out analyses in the “macro” and “micro” scales and prepared a functional-spatial diagnosis, at the outset defining the relevant points of reference. It had been decided that the estate should create a “*living, comfortable and healthy*” environment. These descriptors were given attributes, which were subsequently searched for in the examined estates, and the results of the examination provided grounds for formulation of certain conclusions for the future. The research in the “micro” scale was done in units which were discernibly separated spatially, called “neighbourhoods.”

⁴ The authors of the analysis: the Team of the Institute of Urban Planning, Faculty of Architecture, Cracow University of Technology: Justyna Kobylarczyk, *doctor habilitatus* in Architecture – the head of the team, prof. Grażyna Schneider-Skalska – expert, Patrycja Haupt, PhD in arch., Kinga Racoń-Leja, PhD in arch., Paweł Tor, M.Arch, Wojciech Sumlet, M.Arch, Students' Study Group *Sustainable Design*.

Figure 6 Olsza and Ugorek settlements : neighbourhood schemes



Source: author J.Kobyłarczyk

In all the examples discussed above, as well as in the research on the housing estates in Kraków, several basic components and features of a housing unit/estate/area have been highlighted which affect the quality of their inhabitants' lives regardless of their location within the city structure. These are most certainly: convenient connections with the city centre, logical spatial structure, good availability of a varied programme, hierarchy of space elements, a clear system of public and neighbourhood spaces as well as presence of a network of green areas providing contact with nature.

Another research project on the housing environment quality and the role of a large housing estate in the structure of a city was undertaken in the Institute of Urban Design, FA CUT, within the framework of the post-diploma study programme entitled *Housing Estates in Urbanised Areas: Development, Transformations, Revitalisation*. The subject of the research was the already mentioned area of Ruczaj in Kraków developing roughly at the same time as the described Ørestad district. The Kraków estate has been growing incessantly since the mid-80s.

It is not a uniform structure, yet in large parts – mono-functional. As has already been mentioned, it is made up of three developments. The one that is situated furthest to the north, called conventionally “the old Ruczaj,” is a typical great-slab housing estate built in the 80s of the 20th century, composed as an integral whole and devoid of any accompanying functions, yet in a way constituting certain continuation of the urban fabric featured in the neighbouring areas. The hitherto conducted research suggests that it is possible to rehabilitate this estate by increasing its functional diversity and developing clear public and semi-public spaces.

The second development unit is the neighbourhood built after 1990, which we have called “the new Ruczaj.” Its northern part is occupied by an independent “entity” comprising the areas and facilities of the Jagiellonian University Campus III and office buildings. On the other side of the busy street, there are solely residential buildings. Comparing these two very different parts as well as comparing Ruczaj with the Ørestad district, we cannot fail to notice how the legislation concerning town and country planning and the form of land ownership, or rather the ensuing possibility of deciding its use, affect the shape of spaces. The comprehensively planned JU Campus III, creating an intentionally composed system, contrasts with the chaotic development of the residential part, which – due to the absence of local land use plan – has been built in small chunks on the grounds of separate administrative decisions.

Figure 7. Ruczaj settlement : plan and main passage linking particular areas



Source: author P.Tor , based on maps.google.com (photo: P.Tor)

One of the most important components of the space under consideration, exerting disintegrating influence on the whole neighbourhood, is MichałaBobrzyńskiego street, running between the university campus and the residential area. Through its very form (two lanes of traffic separated from the neighbouring development with sound barriers), it creates a strong barrier cleaving the space, both from the formal and functional perspective. The areas of key importance, constituting a kind of seam between the areas of different functions, have been subordinated to the motor vehicle traffic. All the other activities characteristic of urban life have thus been

eliminated, and using the street as a compositionally and functionally important element of the city fabric (similarly to the canal in Ørestad Nord) has been made impossible. It is all the more incomprehensible now when all the modern urban concepts are based on giving priority to pedestrian traffic, removing cars and returning the space in cities to their rightful owners. Especially so, that it is the city authorities who have direct influence over the solutions which are chosen to be implemented. The form of the road crossing Ruczaj and the barrier thus created is particularly important given the deficit of public spaces in the areas in its closest vicinity, occupied by multi-family residential development.

Due to the ownership structure of these areas, the developers' desire to maximise profit and absence of any legislative limitations, the residential units that have emerged here do not form an urban structure superimposed on a network of streets, squares and plazas. They are solely a randomly composed collection of fenced-away developments linked by an unclear system of roads, reducing their residents to the role of secondary users of these spaces. Insufficient amount of places serving social contact in the space of the estate does not encourage people to stay between the buildings and create human interrelations. Because of the low quality of public spaces in the residential part of Ruczaj, there are no activities going on here apart from moving between the place of residence and commercial venues (retail and services facilities) or public transport stops. The place of residence does not offer inhabitants any space where they could hang out and thus the district is reduced to the status of one of the city's dormitory neighbourhoods. The low quality of urban space in Ruczaj is additionally affected by the fact that most of the open space in the estate is used as a car parking area.

Figure 8. Ruczaj settlement : edges that divide spaces of different purposes



Source: photos: P.Tor, G.Schneider-Skalska

A chance of improving the quality and attractiveness of the public spaces in the neighbourhood would be creation of stronger links between the residential areas and the Campus facilities in their vicinity. The existing and planned plazas and promenades accompanying the University buildings could become a meeting place not only for the students, who are their exclusive users now, but also for the inhabitants of Ruczaj; they could make an important place of social

activities on the map of the estate and the whole city. Strengthening the connection between these areas could also reduce the significance and the negative influence of the substandard solutions implemented in Bobrzyńskiego street, which are the reason why at present the Campus public spaces serve only the students.

The Ruczaj estate, like many other contemporary developments, is situated next to large green areas, which could be a place of active recreation for its residents. Unfortunately, whereas in the examples in Western Europe, such areas are directly connected or, indeed, they fuse with each other, in the Kraków estate they are separated by a busy road and an extensive area of the University campus. Such location, combined with the absence of any clear mutual links and a considerable distance (exceeding 500 m in a straight line, and in reality amounting to 1 km), limits the possibility of the Ruczaj residents to use them, or, it may be said, it totally excludes such possibility.

It is to be feared that the areas of “the new Ruczaj” which have been built up so far are irreversibly lost as a chance for Kraków to create a modern urban district – vibrant with life at all times of day, with various mixed functions combined with public spaces, friendly to all kinds of users. Perhaps the hitherto conducted research and debates going on in academic as well as local government circles will help to avoid the now recognised errors in the next, third part of the estate, called “Ruczaj of the future,” and make it a showcase of modern thinking about designing urban housing environment.

Conclusions

- The analysis of the presented contemporary examples from abroad allows us to draw the conclusion that the timeless principles of the Athens Charter, put into practice in Polish estates built in the 70s and 80s of the 20th century, are still valid, yet they must always be considered jointly with the proposals included in the New Athens Charters of 1998, 2003 and 2012 as well as with the Charter of European Planning. We have collected some new experience and understood where we had gone wrong before. Numerous attempts at structural organisation of residential developments indicate that there is a need to create units whose sizes are comprehensible and easily identifiable for their residents, regardless of whether they are integral parts of the city or partly independent organisms.
- The discussed developments all exhibit common trends in creating urbanised environment. Despite different formal and compositional solutions, they all share certain similar features: a varied functional programme, creation of formal and informal links – both in the direct context and the larger scale – and a similar way of organising the space within them.
- Special attention should be paid to the solutions related to public areas as they decide whether the whole development makes a clearly organised structure and whether it forms an integral part of the city fabric. Generally accessible streets and squares, and – with time – also green recreational areas have always created *genius loci*. These are the spaces where the life of a city and its inhabitants have always been going on, and they determine “the urban character” of a given space.

- Humans are looking for a stable and safe place which is easy to relate to. In the scale of large agglomerations, the city as a whole has ceased to be such place. This role may be played by a housing neighbourhood, as it is an organised and spatially defined space, partly open and of a clearly higher density than its surroundings, with its own characteristic features, facilitating identification and communication with its surroundings.
- Creating a clear structure of the housing environment is necessary if the offered spatial, emotional and functional values are to be coherent with the needs of its inhabitants.

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REVITALISATION OF URBAN SPACE UPON THE EXAMPLE OF COPENHAGEN

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Key words: architecture, urban space, revitalisation

Abstract

The objective of this paper is to present selected contemporary activities in the urban space of Copenhagen aimed at the recovery of land in the process of revitalisation. They constitute examples of rational and economical management of areas inside the city limits and they inscribe in the concept of limiting of the urbanisation costs.

The current harmonious development of the capital of Denmark constitutes a result of a strategy, in force for decades now, based on the implementation of architectural and urban planning solutions aimed at the continuous improvement of the comfort of living of the city residents. The urban culture is expressed in the creation of top quality public spaces, especially in the organisation of pedestrian zones based on the principles of the universal design.

Introduction

The capital of Denmark is currently recognised as one of the most friendly places for living in Europe due to the quality of the housing environment and urban public spaces, to the organisation of the transport system with cycling lanes, and the cleanliness of water of the entire waterfront along which the city develops.

The current harmonious development of Copenhagen constitutes an effect of a strategy, consistently in force for decades now, based on the implementation of architectural and urban solutions aimed at the continuous improvement of the quality of life of its residents. The urban culture is expressed in the creation of safe, sustainable, healthy, and universal public space, with special attention paid to the needs of pedestrians. Such an approach fosters the occurrence of all sorts of relations between residents, stimulates their activity, and facilitates their contacts. It encourages them to remain in the public space and to make use of diversified forms of services. At the same time, it assumes that the development of the urban community should be based on the relevant dynamism of public life and on limiting of its pace (the concept of slow motion)¹. All possible activities for the benefit of protecting, defending, and continuing of

¹ M. Żakowska Kopenhaga. *Najlepsze miejsce na ziemi*, Miasta, No. 11, 2015, p. M086

all values which constitute the tradition of the city and should be handed down to next generations are promoted, as well.

The attractiveness of Copenhagen as a place of residence is also dictated by its unique character, expressed in the scale and typology of the city centre architecture, which reflects the history of the development of the city, as well as the great advantages of its location in connection with water and green areas².

The city is fit in the central part of a finger-like urban structure, which has developed around the intensely developed historical City. Its spatial layout clearly exhibits a legible division into a medieval and renaissance city and downtown quarters surrounding it concentrically, which started to develop after the city walls had been demolished. The outskirts of the downtown areas are characterised by low architecture, surrounded by greenery.

The city centre constitutes the largest concentration of the service programme in the scale of the region, with the widest range of impact. This is the place where one of Europe's longest main pedestrian promenade, Strøget, broadly developed, is located, together with representational recreational paths that run along the seashore and a channel located within the limits of the city³.

The spatial policy of the city takes into account principles of sustainable city planning and architecture, open to the natural environment, consistent with social expectations and economic requirements. The municipal authorities make every effort to make Copenhagen a leader as a sustainable model city (Eco-Metropolis) amongst metropolitan cities in the scale of the globe. Diversified activities for the benefit of the creation of sustainable urban space combining economic requirements, social needs, and comfort of the natural environment are regarded as priorities and of key importance by urban planners and architects⁴.

The city vs. regional plans

The development of the metropolitan area of Copenhagen was particularly intensive in the second half of the 20th century. This area occupies a leading position in the spatial structure of the country due to its location, as well as its population, international relations, fulfilling the role of a capital city, and the investments in progress. The strengthening of the rank of the city in the scale of the country, as well as in the region of Øresund and in Europe, was fostered by its connection via traffic routes with Malmö, Sweden (2000) executed under a legal act dated 1991 (Øresund Link).

² In 2008 Copenhagen took the first position in the list of 25 cities of the world recognised as the best place to live. After: *A metropolis for people Visions and goals for urban life in Copenhagen 2015*, City Council, Copenhagen, 2009, p.3

³ In 1962 the process of excluding of the city centre from the road traffic was commenced by introducing the priority for the pedestrian traffic in this area. The next transformations for the benefit of the pedestrian traffic took place in Nyhavn (1980). More: Gehl J. *Miasta dla ludzi*, RAM, 2014, p. 12

⁴ Cf.: *Copenhagen city of architecture. The architecture policy of the city of Copenhagen*, published by the Technical and Environmental Administration, City of Copenhagen, Copenhagen 2010, p.8

According to the far-reaching assumptions of the development strategy of Great Copenhagen, it was assumed that its territory would be inhabited by ca. 2 million people⁵. The municipal plan from 2011 forecast that by 2025 the population of the city itself would have reached 637,000⁶.

The urban structure of the metropolitan area is shaped as a result of the first regional plan (Finger plan), consequently continued for nearly 70 years now and possessing the status of an icon, developed in 1947, which to this day determines the planning policy and the main directions of the spatial development of the region⁷. It decided about the development of the suburbs in the form of belts along five radial railway and road routes, which converge in the city centre. The space between the belts, free from any development, is occupied by protected green areas and agricultural lands.

The next regional plan (1961) assumed the extension of two belts towards the west (to the towns of Roskilde and Køge), and yet another one (1973) proposed to prolong the three remaining belts towards the towns of Helsingør, Hillerød, Frederikssund, in order to balance the development of the metropolis.

The regional plan from 1989, which is also in force as the municipal plan for Copenhagen, as the main centre ('the palm') of the finger-like structure, introduced the principle of concentration of general urban services within its territory, and secondary services – in hubs of the 'finger' belts of development. It was also decided that the development of housing architecture would consist in completing of free spaces in these belts, as well as in the area of Ørestad on the island of Amager. The goal was to obtain harmonious development of the entire metropolitan area, maintaining the green wedges reaching the limits of the city of Copenhagen⁸.

Subsequent regional plans continued and developed the assumptions referred to above, including the last ones developed in 2007 and 2013, getting adjusted to the constantly occurring new challenges connected with the development of the city and its growing position in the scale of the region of Øresund. The capital of Denmark combined with Malmö, Sweden, currently forms a centre of an integrated metropolitan area.

The regional plans were strictly connected with the municipal plans. One should point out to the municipal plan from 1993, which outlined the still continued priority principles of housing architecture within the territory of the city itself (the palm of the finger-like structure), which comprises Copenhagen and Frederiksberg. Four most important directions and principles of the development of urban architecture were also defined at the time: in close relation with the public transport system, in close relation with the sea, development of the concept of the green city, and care for the urban landscape and scale of architecture. The city development policy also comprised the preservation of the historical substance and the preservation and exposition of all values of the historical City, as well as modernisation of the existing architecture and

⁵ It was assumed that by 2025 the region of Øresund would have the population of nearly 3.9 million. Source: *The Finger plan. A Strategy for the development of the Greater Copenhagen Area*, Ministry of the Environment, Denmark, 2015, The Danish Nature Agency, Copenhagen 2015, p. 2 .

⁶ Cf.: *City of Copenhagen Municipal Plan 2011*, City of Copenhagen, Centre for Urban Development, 2011, p.3

⁷ The plan was published in 1948.

⁸ Location of services near the public transport hub allowed to limit the need to use cars by the region inhabitants considerably. More: *Copenhagen Municipal Plan 1993*, The Municipal Corporation, The Lord Mayor's Department, Copenhagen, 1993, p.22

revitalisation of selected downtown areas in order to secure standards of living and of public space corresponding to the comfort of living on the outskirts of the city.

The assumptions listed above were continued by subsequent municipal plans. The plan from 2009 based the city development strategy on four fundamental priorities, assuming that Copenhagen should be: accessible to everyone, green, dynamic, bound with water (blue Copenhagen)⁹. The last of the municipal plans, introduced in 2011, continues the directions of the city development set in the previous plans. Simultaneously, it concentrates on the policy of the development of the Øresund region by 2015. It assumes the creation of healthy, sustainable, non-emission (CO₂) urban space (Malmö and Copenhagen as a laboratory of new healthy technologies), equipped with economical transport systems. At the same time, it is planned to create in this area a zone sustainable in social terms, with the most favourable living, residence, and working conditions. It is planned that the region will constitute the centre of development of knowledge, innovation, and scientific research¹⁰.

Examples of contemporary activities in the urban space

As it has been mentioned in the introduction, the goal of this paper is to present selected contemporary activities in the urban space, undertaken today for the benefit of the development of the city 'from within', inside the existing limits of the city. These activities are being undertaken in nine selected areas, located in different parts of Copenhagen. They are demarcated in the municipal plan from 2011 as priority areas for the development of the city in response to the forecast increase of its population¹¹. These are: Nordvest, Science City North Campus, Valby South, Sydhavn, Nordhavn, Kødbyen i Polititorvet, Nordøst Amager, Carlsberg, and Ørestad¹².

The proposed transformations in the areas listed above differ considerably due to their scale and character of the architecture located there, different values of landscape and natural environment. They refer to the completion of the existing housing architecture by the introduction of new complexes, as well as by sanitation of the existing buildings and broadening of the service structure along with recreational grounds, streets, and urban piazzas. It is also planned to support the existing traffic networks and to develop new ones, including the promotion of cycling. Generally speaking, the goal of the transformations is to obtain the improvement of the residents' living conditions, to stimulate the revitalised space, as well as to improve its attractiveness in functional and aesthetic terms. A brief description of the strategy of actions in the areas referred to above is provided below.

Nordvest- the plan of the transformations, partially already implemented, comprised three areas of activity – territories located at Dortheavej, Bispebjerg along with a large complex of the

⁹ After: A. Skovbro *Urban Planning in Copenhagen –Towards a Sustainable Future*, Danish Ministry of the Environment, <http://siteresources.worldbank.org>, access 10.03,2016

¹⁰ *City of Copenhagen. Municipal Plan 2011*: published by City of Copenhagen, Copenhagen, 2011, pp. 8-9

¹¹ *City of Copenhagen. Municipal Plan 2011*: published by City of Copenhagen, Copenhagen, 2011, pp. 30, 31

¹² After: *City of Copenhagen. Municipal Plan 2011*: published by City of Copenhagen, Copenhagen, 2011, p. 30

hospital, the area of the Nørrebro station. They belong to the most neglected areas of the city, with lower standards of flats, as well as of the public space. Currently, different initiatives are being implemented in these areas, financed from the municipal budget, aiming at the levelling of the living standards of their residents with the ones inhabiting other city quarters. It is planned to reach better integration of the area of Nordvest with the surrounding housing areas, as well as the entire city.

Transformations in the vicinity of Dortheavej street comprised the completion of the existing housing substance with complexes of council buildings, the introduction of a programme with public utility functions: a youth club, a library, and a culture centre. It was also planned to broaden the public space zones by the introduction of new squares (e.g. Møntmester square).

Bispebjerg is an attractive area, located on a hill. It is characterised by the occurrence of larger greenery oases in the form of parks and allotment gardens. Transformations in this area are planned to be carried out in the decade to come; they comprise the extension and renovation of the complex of the existing hospital in connection with the extension of the green areas. It is also planned to organise better traffic connections between this area and the surrounding residential areas, as well as green and recreational areas and the entire city. The traffic network linking Bispebjerg with the city centre will also be developed.

Nørrebro constitutes an area inhabited predominantly by young residents, diversified in terms of their ethnic origin. Transformations in this area, planned to be implemented in 2018, aim at the improvement of safety and extension of the programme of services in public zones, with special emphasis put on the areas in the vicinity of underground stations. It is planned to extend and modernise the existing traffic complex (Nørrebro Station) as a hub that integrates different transport systems – high-speed rail, underground, coaches, pedestrian and cycling traffic.

These plans constitute a continuation of the activities already undertaken for the benefit of creating a sequence of attractive urban spaces in Nørrebro. They comprise the transformation of a wide belt of land spanning from Nørrebrogade street to Tagensvej street (Superkilen, arch. Big, Topotek1, Superflex). A belt of land parallel to the one referred to above, between the underground stations of Nørrebro and Bispebjerg (Mimersparken), has been put into order, too. An urban recreational space was organised there, filled with greenery and sports facilities, walking lanes, and organised places for residents' meetings. This space is linked with the aforementioned green zones near the Bispebjerg hospital.

Science City North Campus is adjacent to the area of Nordvest described above. Transformations in this zone of the city comprise the modernisation of the northern university campus (Niels Bohr Science Park, Panum and Pharma Science Park), the modernisation of the university hospital, and of public transport. The goal of the activities is to obtain better solutions and to facilitate the cooperation of the university with the city and the business sector.

Valby South belongs to urban areas obtained as a result of the liquidation of industry. It is located near an important hub – the Ny Ellebjerg station. The territory is situated between the streets Vigerslev Allé, Vigerslevvej, and from the south it is filled with green areas along with a park- Idrætspark.

The programme of the transformations comprises the creation of new attractive residential complexes, referring with their character to the traditions of this area. It is also planned to create a network of new roads and walking lanes linking this area with its surroundings and the city centre.

Sydhavn is a quarter by the port, intersected with canals. Many industrial facilities are located here – now monuments of history, recognised as the heritage of the Danish industry. These are e.g. the old HC Ørstedsværket (1916), the Uniscrapbygningen (1917), the buildings of the pump station and the old harbour (1917).

The area is well linked with the city centre via public transport lines. The local plan, modelled on e.g. the revitalisation of territories on the Java island in Amsterdam, as the main design concept assumes the opening of residential areas and pedestrian promenades towards internal canals and the main canal of Sydhavnen.

The plan of transformations, which were partially carried out, comprised three areas of activity: Sluseholmen, Teglholmen, Enghave Brygge. They constitute individual enclaves separated from each other by means of canals, which are connected by bridges, walking lanes, and roads. The function that dominates in all the three areas is the residential one and services relating to it. The block development, filled with greenery, is accompanied by recreational waterside belts, and in Enghave Brygge large open green areas are introduced¹³.

The first of the areas referred to above, its northern part, is a place where an attractive recreational complex has been realised, with promenades, bridges, and swimming pools.

Teglholmen is to be an area dominated by the residential function, shaped in the form of blocks filled with greenery and forming a compact frontage along the water canal.

Enghave Brygge, located the closest to the city centre, is divided into two zones: industrial and residential, separated by means of greenery. The residential block development has been designed in a belt along the waterfront, and its interiors open up towards the water. From the north this area is adjacent to Havneholmen, where a large shopping complex Fisketorvet has been erected, along with administrative and office buildings and housing complexes. This area is linked with the Amager island by means of a foot and bike bridge¹⁴.

The area between **Kødbyen** and **Polititorvet** borders on the historical city centre, and from the south it is adjacent to Sydhavn referred to above. Kødbyen is an area of an industrial character (the old meat district). It is separated from the internal canal and the complex of Polititorvet by a railway line.

A favourable location within the urban structure enables to extend the service programme in this area, predominantly in the field of administrative and office services, which fosters the creation of new jobs for city residents. To this end, it is planned to improve the options of using public transport and the connections with the adjacent areas, also by the extension of walking lanes along the canal that intersects the city centre. The extension of the programme of diversified

¹³ *Enghave Brygge, Lokalplan*, Københavns Kommune, 2015

¹⁴ More : *Copenhagen city of architecture. The architecture policy of the city of Copenhagen*, published by Technical and Environmental Administration, City of Copenhagen, Copenhagen 2010

services, especially the ones that support recreation connected with water, is to increase the attractiveness of this part of the city for residents.

Along Kalvebod Brygge street a new public space was created in recent years, by the introduction of representative edifices, such as e.g. SEB Bank (2007-2010, Lundgaard & Tranberg Arkitekter, SLA), Nykredit bank – the Crystal (2008-2010, Schmidt Hammer Lassen Architects), together with attractive squares that accompany them.

Nordøst Amager constitutes a post-industrial area, located in close vicinity of the airport. Due to the proximity of waterside parks on the island of Amager, it is planned to extend services for city residents relating to recreation in this area, especially with water and sailing. It is also planned to locate all sorts of institutions and companies here, which would generate new jobs. These decisions are justified by good connections with the city centre, particularly via the public transport and the underground line. The introduction of the programme referred to above also aims at the stimulation of this part of the city and the improvement of safety of its residents.

Ørestad constitutes an area located in close vicinity to the historical city centre, on the outskirts of a natural reserve. This reserve comprises a large south-western part of the island of Amager along with the seashore belts, and it reaches the city centre with a green wedge. The municipal plan from 1993 included this largest natural territory in the existing system of green wedges in the metropolitan area. This plan assumed the transformation of Ørestad, along with the execution of transport connections with Malmö, into a new attractive urban space located in the geographical centre of the region of Øresund¹⁵.

Over the last decade Ørestad transformed into a modern sustainable urban space, concentrating diversified services with the dominating function of culture and residential architecture, and connected with the city centre by means of quick public transport lines. Currently, it is a place where top model standard architecture is being erected.

Carlsberg is an area located in the district of Vesterbro, in the vicinity of Frederiksberg and Valby. Currently it is subjected to intense transformations due to the transfer of the Carlsberg breweries beyond the territory of Copenhagen (2009) and rendering it accessible to the city residents.

Unique historic buildings, exhibiting high aesthetic values, dating back to the 19th century and the beginning of the 20th century, as well as historic gardens, constitute one the most valuable historic industrial complexes in the country. They are the testimony of over 160 years of production and scientific and experimental works relating to it, conducted in laboratories, in the research centre, and in Carlsberg Academy¹⁶.

Transformations which currently take place in the area in question are implemented according to a concept of a team of Danish architects Entasis, which was awarded as the best developed master plan (Best Master Plan in the World, 2009) at the world architecture festival in Barcelona.

¹⁵ After: *Copenhagen Municipal Plan 1993*, The Municipal Corporation, The Lord Mayor's Department, Copenhagen, 1993, p. 98, 217

¹⁶ Source: www.carlsberggroup.com, access in December 2015.

The post-industrial area reclaimed by the city is to play the role of a new sustainable attractive public space, harmoniously linked with the industrial complex of the historic breweries. Its aim is to stimulate residents, to create new forms of social life, and to be a place for meetings, concerts, and festivals, as well as different cultural events. The nearest 20 years will see the erection of new residential complexes and administrative and office facilities in the vicinity of this historic structure, as well as buildings of educational institutions. It has been assumed that all new edifices shall satisfy the standards of energy efficiency.

The revitalised space is concentrated around the main central square of Bryggernes Plads. It has been designed as a vibrating space of social life, filled with elements of street furniture and surrounded with attractive services: a cultural programme, coffee shops, restaurants. The new public space (Carlsberg City District) is linked with the recently revitalised area near Sønder Boulevard in the place where a new underground station is located.

Figure 1. Transformations of the territory of Carlsberg – construction works at Ny Carlsberg vej street. Figure 2, 3. Historic buildings of the complex of the Carlsberg breweries



Source: Photos by the Author

Nordhavn is an area located in the northern part of Copenhagen, so dominated by the port and industrial function. In the municipal plan (2011) it was demarcated as the largest area of transformations within the territory of the city, as well as in Scandinavia itself. It was assumed that it would fulfil the role of an urban planning laboratory with the application of intelligent technological solutions. The works have been in progress for 10 years now and they are planned to continue over the next 50 years, and the territory of the investment is divided into 5 stages¹⁷. The land development is a result of an international competition (2009), won by a designing team of COBE, SLETH and Polyform¹⁸.

It is planned to transform the post-industrial areas located in the southern part of Nordhavn into a new attractive zone of the city, filled with the service, administration and office and residential programme for 40,000 residents. Currently, within the scheme of the first stage of the works, a residential complex consisting of multi-family buildings has been executed at Marmorvej street, in the vicinity of the seat of the United Nations, UN City (2013, arch.3XN).

¹⁷ After: <http://urbantransform.eu>, access in March 2016.

¹⁸ The study was prepared in a larger team, together with Copenhagen City and Port Development and Rambøll.

Another residential complex, Århusgade Kvarteret, with dense residential architecture, is under construction at the moment.

All the facilities erected in Nordhaven inscribe in the principles of designing sustainable architecture. The public space is dominated by pedestrian and cycling traffic, as well as public transport. In order to improve the accessibility of this area, it has been linked with the city centre by means of a new underground line.

Northern parts of this area are to still fulfil the function of a port. To this end, a complex of four new terminals for tourist traffic services has been erected. Innovative methods of increasing the surface area of the land are applied here by means of using the soil obtained from the construction of the underground and roads within the city limits. The works connected with the new investments in Nordhavn are carried out under the supervision of specialists employed in the new facility located here, the Soil Centre Copenhagen, which serves as an example of sustainable architecture.

Nordhavn. Figure 4, 5. The edifice of the Soil Centre Copenhagen. Fig.6. Buildings of new terminals in Nordhavn. Figure 7. Marmorbyen- a new residential architecture complex. Figure 8. The edifice of the UN City. Figure 9. Adaptation of the existing silos for residential purposes and newly erected complexes of residential buildings



Source: Photo by the Author

Figure 10. Territories covered with the development plan defined in the Municipal Plan from 2011 (source: City of Copenhagen. Municipal Plan 2011)



Source: City of Copenhagen. Municipal Plan 2011

Summary

In recent years, the capital city of Denmark has been subjected to great transformations. The municipal development policy is inscribed in the spatial development policy of the entire country. It also reflects the role of Copenhagen connected with its location in Europe, especially with its significance as the centre of the region of Øresund, connected with Malmö, Sweden. The development of the city is based on the strategy that specifies its leading functions and on the implementation of coherent actions undertaken in different scales – from the scale of the regional and municipal plan, to local plans.

Special recognition should be given to the consistent continuation of the principles of the municipal development since 1947, basing the first regional ‘finger’ plan developed then, which still constitutes an icon of the urban planning art. Subsequent plans developed its assumptions in response to new challenges, connected with the processes of urbanisation and the growing number of residents of Great Copenhagen, and the changing living standards. The principles adopted nearly 70 years ago, referring to the creation of belts of architecture along the routes of the public transport and the preservation of green wedges that separate them, are still taken into account.

The contemporary city (the 'palm' of the finger-like structure) constitutes a model example of creating sustainable space friendly for its residents and harmoniously developing, which today occupies the highest position in studies devoted to the quality of urban life. The practice of prototyping of planned public investments is one of the aspects which have a decisive effect on the attractiveness and approval of architectural and urban planning solutions by residents. It allows to test and correct the undertaken design-related decisions prior to their implementation in the investment process. It also aims at obtaining optimal solutions adjusted to the needs of residents. Currently, it constitutes a permanent element of the urban planning process and it is based on the cooperation of the municipal authorities with specialists from various fields and users of the urban space.

Special attention should be paid to actions connected with the protection of historical heritage in Copenhagen, and with displaying of all values which should be handed down to the next generations. The pursuits of balance in terms of the attractiveness of the place of residence and comparable living conditions downtown as well as on the outskirts of the urban development is also crucial. This objective is reached within the scheme of the examples of revalorisation actions presented in this paper, which are undertaken in different scales and scopes, depending on individual conditions of the place and its tradition. Territories inside the city limits, reclaimed as a result of the removal of industrial, military, port and transport buildings and facilities, are transformed. Within the scheme of the concept of shaping of a sustainable urban environment, they are replaced with new eco-friendly architecture, as well as the existing buildings are adapted. The pedestrian zones and cycling lanes are extended and linked with the public transport routes. Also, different activities for the benefit of the residents' activities and the creation of a healthy living environment for them are promoted, e.g. by extending green areas and spaces connected with water.

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THE INNER EDGE OF LANDSCAPE

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Key words: cultural expression, public space

Abstract

This paper attempts to describe the specific urban-architectural forms that emerge in the space between the traces of the urban fabric, disintegrating into a chaotic, dispersed and deteriorating structures and landscape. The unregulated expansion of civilization into nature is not only a planning and structural problem, but also an economic and social one. While discussing the possibility of halting urbanization on open areas (in reality, when planning is the object and not the subject of the economy), the author focuses on the phenomenon of the domestic sprawl. In Poland, this problem equally affects large cities (which is widely described in the literature as urban sprawl) as well as small towns and villages, which is defined by the author as the *rural sprawl*. The paper uses the term *inner edge of the landscape* understood as a virtual boundary between the areas with dominant forms of human activity from the space defined by the elements of the natural landscape. The concept of the inner edge of the landscape is formulated as a structure of typological units (point / trail / region) that allow you to *indirectly* limit the development by exposing cultural values. While many researchers searching for the new forms of centrality (for the construction of identity - in areas where urbanization steps in or the concentration of activities on greenfield sites), the objective of this paper is to define the rules of maintaining the remoteness. It is hypothesized that urbanly and architecturally defined peripheral spaces (edges), can be a stimulus for the emergence of public places in the landscape, which can limit its urbanization.

Introduction

The profound social, economic and technological transformations that have taken place in the last few decades, have led to a change of the ways of building up space, as a consequence of which, one talks of the birth of new, characteristic forms. Concepts such as *suburbanization*, *sprawling urbanization* or *multi-centricity* have become key terms in the urban analysis. One of the effects of the above-mentioned changes is the concentration of the researchers' attention on

cities, that is forms of spatial organization that are economically efficient and whose population is on the rise. It is often assumed and proved that the contemporary city has lost its “sense”; in other words, it has ceased to be normal, to have its proper – chiefly political and social significance.

Nawratek (2008) contrasts the contemporary city with *polis*, emphasizing that the greatest deficiency of the present-day city is its lack of conditions for creating informed communities which would be able to manage themselves. According to Nawratek, in order for these communities to become reborn, it necessary for the enclaves (socially uniform spaces) to become united by joining each other with the “link” places – spaces of interaction with the “external” space. Baum (2008) on the other hand, raises the issue of a lack of and need for creating “urban places” – that is areas that would be functionally and socially varied and also characteristics – possessing their own *atmosphere*. A remedy for this state of things is to be found in the organization of space by analyzing the process of creation of central and significant places – in the form of public spaces (e.g. Gyurkovich, 2007). The latter trend is represented by numerous projects whose goal is to improve the quality of the latter spaces. The majority of researchers turn to the historical, condensed forms of the city which had been shaped over centuries; it is there that they look for answers to contemporary problems. Public spaces, including the newly-created ones, arising within the historical complexes, are being carefully analyzed and evaluated. Yet the issue of public spaces which are situated within recently urbanized areas, on territories which have only just been incorporated into city organisms, on the peripheries of cities, between urban and rural areas, is still taken up relatively rarely. Taking a closer look at the contemporary form of the city, and in particular at those peripheral places, may lead to the conclusion that the idea of building public spaces on the basis of historical patterns, is extremely close to the notion of *thematization*, i.e. that it constitutes a conscious process of endowing space with forms associated with the past as well as different cultural spheres¹ (Lorens, 2006); and there are still very few conceptions which would shed the light on how the new public spaces on these territories are to restore sense to the modern day city.

In both cases, on the territories shaped within the historical complexes and those which constitute a part of the modern-day urban spaces, the newly-designed and reshaped public spaces have become an arena for the ongoing changes and a tangible proof of the efforts undertaken by the authorities and local communities struggling with the “loss of sense”. What is more, the success or failure of space (or to put it differently, of the process of looking for sense – i.e. the urban character of a city) is associated with the creation or restoration of central places: that is ones that are popular and frequented by the society; places that are of interest to different stakeholders. Sieverts (2008) observes that in the contemporary “in-between city”, every point in space has a chance to become transformed into a center, independently of the historically shaped urban layout and it is in such planning activity that he perceives a chance for an improvement of the quality of the sprawling urbanization.

¹ I am specifically referring here to *thematization* into „local culture”, which is *de facto* borrowed from the historical city center.

Apart from the lack of public spaces or else their low quality, another equally important problem which undermines the sense of the city is the phenomenon of the urban sprawl of typical urban tissue onto areas which it would seem more sensible for a number of reasons to leave untouched as an undeveloped (for ecological, economic and social reasons). In spite of the fact that the need to counteract this phenomenon had been diagnosed a long time ago and that methods of doing so had been devised (supporting the notion of creating new, close-knit, satellite urban complexes in problem areas, protection of green areas (Gzell, 2012, 12-14), yet difficulties in implementing them continue to persist, inclining one to look for new solutions. Thus, in accordance with the recommendations of Ildefons Cerda, and concentrating his activity on green areas as public spaces, Gzell (2012, 72) propagates the idea of simultaneous urbanization of the country and a ruralization of the city. In the article, the topic taken up which is both similar and diametrically different at the same time. It is similar in that it combines two trails in the search for the sense of the city: a limitation of the negative consequences of the urban sprawl through the creation of public spaces. And it is different as it looks for solutions in the culturally expressive architectural tissue creating public space, and not in the public spaces “constructed from plant material”.

Moreover, the main objective of the article is to prove that valuable clues concerning how to plan and design public spaces in order to restore sense to the contemporary cities, may be found far away from their historically shaped structures² - namely in rural areas. The above assumption is of particular significance from the point of view of the selection of objects which are subject to analysis; it should be in this case the objects in question are not traditional buildings, but architectural structures that noted that organize public space which are referred to as *objects of cultural expression*. The number of such objects – meeting places which emphasize local cultural narratives – realized in peripheral areas, is continually growing; among flagship examples of such objects, one finds among others, the realizations encountered on the *National Tourist Trails* of Norway. This article focuses on a presentation of a Polish realization of this type – namely, the complex in Wola Krogulecka, which had been designed by the author of the present article. Information regarding the above realization had been gathered in the course of structured interviews³, conducted with the representatives of the local authorities and the local community between the years 2008 and 2015 as well as in the course of the observation of this place throughout that period during the design, erection and post-realization phases of the project. The author of the article checked how the various actors understood the sense of the construction and to what extent the realization of the project has fulfilled the objectives which had been set up during the design process. In the majority of cases, public space is created with a view to promoting a place that builds up local identity. It is rarely described in the context of economic or spatial expectations which, *nota bene*, are strongly articulated by the local communities. The present article seems to bridge this gap by emphasizing the tension between social and economic expectations which a well-managed space may, and even should,

² This also differentiates the present paper from the research of Gzell (2012) who tends to look for his model solutions in however small, but nevertheless, towns.

³ Subdivided into questions concerning the localization, function and perception of context.

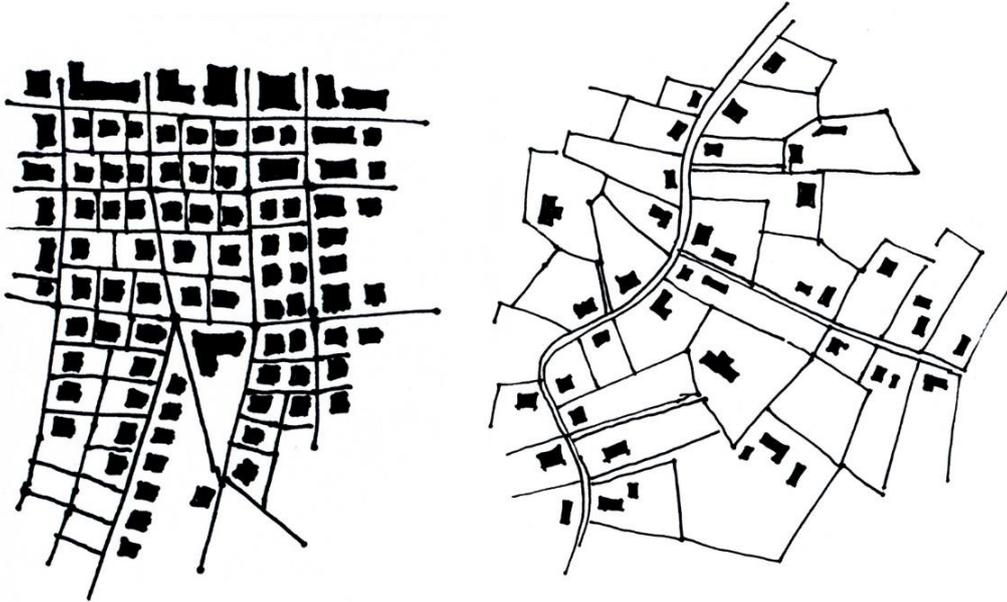
relieve. In the next section, the author presents briefly the political context which accompanies the creation of public spaces in landscape and its spatial consequences. Subsequently, he discusses the theoretical assumptions behind the design conception which attempts to realize political needs while at the same time controlling their consequences in space. The author then presents the case of the realized project in Wola Krogulecka which had been designed in accordance with the above-presented guidelines. He also briefly describes the social attitudes and the relationship of the local authorities towards the project – before and after its realization. Finally, he points to the role of *public space in landscape* and describes the various possibilities of taking advantage of the results of the research in other realizations of this type.

Rural sprawl and the need to restore rural and suburban areas

The rural areas in Poland are characterized by a specific type of rural sprawl. It is not uncommon to come across long and extensive villages and places such as Ochotnica or Zawoja, have become notorious due to these very parameters. What is particularly characteristic of the present-day rural areas is the lack of public spaces and the ever-increasing number of landless farms. In spite of this, attempts are still being made today to preserve the character of rural development through the Local Development Plan, among others, by defining larger minimal surface areas of building plots than in the suburban areas characterized by urban sprawl, restricting the dimensions of buildings and imposing the obligation to adjust the form of buildings to the local traditions (e.g. by determining the shape of the roofs). Such solutions lead to the phenomenon of rural sprawl which is more characteristic of the urban land use. At the same time, the population of rural areas has remained almost on the same level since the period immediately after the war [Main Statistical Office, 2013, 2]. One may, therefore, conclude that an acceptance of *rural sprawl* constitutes a Polish model of urbanization (understood – to use the words of Cerda quoted above – as an activity aimed at ensuring better housing and services for the working classes). While the historically shaped cities have ousted the production and manufacturing industry outside their borders, and the contemporary work methods allow one to work from home, the urbanization of rural areas should be perceived as a city-forming process – the process forming the contemporary *in-between cities*⁴. Finally, it is worth emphasizing one more characteristic feature of the Polish *rural sprawl* which sets it apart from the widely diagnosed *urban sprawl*, namely the individualization of the objects that are erected by investors who are personally involved in their realization. This individual approach leads to the construction of individual buildings, rather than single-family housing estates (Fig. 1).

⁴ In light of the research on the phenomenon of *urban sprawl*, it is worth drawing attention to the rather paradoxical figures denoting the levels of the more balanced population flows in the sub-regions surrounding the capitals of the Polish provinces (Main Statistical Office, 2015, 148). In spite of the fact that the inhabitants of Polish villages commute to the cities on a large scale (it is estimated that around 1/5 of the inhabitants of rural areas work outside their place of habitation), in areas surrounding big cities, the number of commuters is on the whole more balanced than in areas which are more distant from them. Research devoted to the phenomenon of urban sprawl assumes that rural areas situated near the cities are inhabited by inhabitants who commute to work in the cities, while research indicates that this direction of migration is in fact less obvious than on territories which are situated further away from the cities.

Figure 1. Urban vs. rural sprawl



Source: Drawing by author

When assessed from the perspective of the above-described phenomena, the rural area transformation policy, seems to be insufficiently nuanced. After reading the Rural Areas Development Programs (RADP), we can conclude that a systemic change of approach to rural areas has recently taken place, as the latter ones are no longer perceived as agricultural land. Yet, the above programs refer to morphologically and socially varied areas; there is little chance of finding in them any detailed solutions to the problem that is raised in the present article. A change in the policy regarding rural areas, should involve, above all, a greater number of regulations expressing an interest in the improvement of the quality of life on these territories and in the preservation of cultural heritage – and – what is particularly important in the context of the present article – in *supporting investments in objects of cultural program and shaping of public space* (Ministry of Agriculture and Rural Development, 2014, 15). Within the pattern a aforementioned programs, new local planning documents have been drafted, including: The Place Renew Plans, indispensable for obtaining financial aid and cognizing the local needs and possibilities within a given community and locality. It is also worth emphasizing that granting public aid is associated with expectations of effects within the realm of economic development. At the same time, it should be stressed that the above funding cannot be granted to investments which are to be made available to the public for a fee. Experience shows that such an assumption arouses much controversy among local communities – particularly with regard to the *cultural functions and public spaces*, whose creation is supported by the RADP but which have no direct impact on economic indicators. This discord between the idea of strengthening the local identity and profitability constitutes the main background of the conflict which enfolds in space and whose main actors are the local inhabitants and the local mayors and community leaders.

Public space as an *inner edge of landscape*

Creating public spaces in rural areas is to contribute to economic growth. The above guideline is fulfilled by those investments which adapt places to the needs of mass recreation; in Kowicki's opinion (2010, 11), the above requirement often *results in directing investment initiatives onto the peripheral areas of villages*. The effect of this trend is the creation of public spaces on the edges of settlement areas – in the open landscape.

If the problem of public space in villages, within the boundaries of village building alignment seems to be rather widely discussed (among others Górką, 2012), the issue of shifting the boundaries of village building alignment onto open ground, through building new places, does not appear to be sufficiently analyzed. In the light of rather sketchily presented documents and regulations, leading, as it seems, unintentionally to the phenomenon of rural sprawl onto open territory, it appears necessary to discuss the issue in more detail, particularly that due to the investment pressure – both individual (being an expression of a search for a better life environment), and public, aiming at the rejuvenation of rural areas (or rather, as is postulated in the present article, the creation of characteristic *in-between city* places), there are no signs that this pressure is likely to stall or decrease in the near future.

In non-urbanized areas, a public space, as an area which is important for the local identity, fulfills quite a different role than in cities, where it is perceived above all a generally accessible place of direct personal contacts. Szewczyk-Świątek (2015) maintains that public spaces in peripheral areas are perceived by their users as useful, but not because of the opportunity of social encounters with others⁵. What then should be the role of a public space which is situated outside the built-up area? The different functions of public spaces, induces one to look for new typological forms. Without a doubt, such places should emphasize the local natural and cultural values, but from the point of view of spatial planning, they should create conditions favorable towards limiting the phenomenon of urban sprawl and its expansion onto green areas. Bearing in mind this very goal, one needs a diametrically different approach than the one expected to produce the effect in the form of a central public space, which is to attract successive investments.

In the course of his search for suitable design solutions, the concept of *inner edge of landscape* has been formulated which describes the conception of a geometrical form of the newly-designed object. The open space, where the object is situated (in this case, the *in-between city* landscape), which requires protection against investment, is initially recognized as valuable and worthy both of being exposed and protected. An attempt to counterbalance these two opposing needs results in searching for forms that harmoniously merge in with the surroundings and “disappear” against its background. The above goal is realized in the majority of cases through the use of transparent or light-reflecting materials, or else materials that can be found in the surroundings. Such solutions may lead to satisfactory results, yet it is also worth exploring the

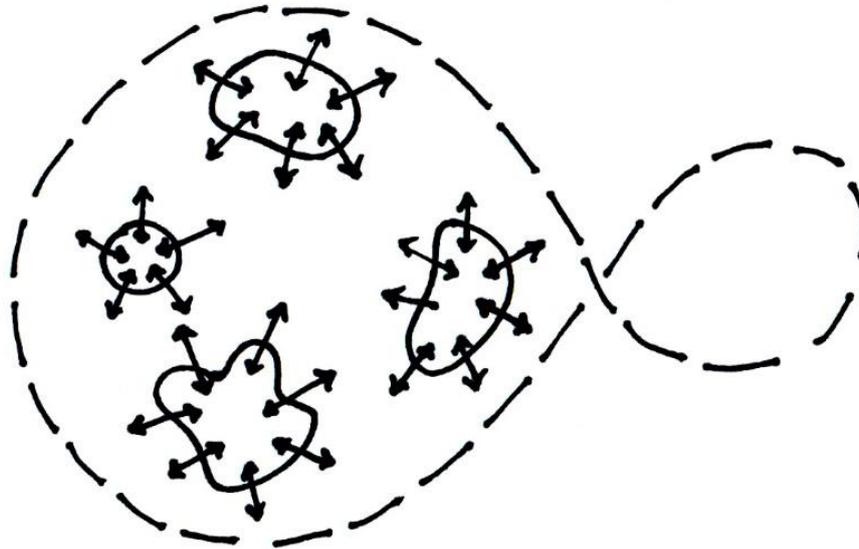
⁵ A sample survey conducted among 100 visitors (every 3 visitor to the venue took part in the survey), in 4 different localities, resulted in 0 replies confirming that the reason of the visit to the particular venue was the encounter or possibility of meeting someone.

very structure of the architectural form as the latter makes the attainment of the desired effects more likely. The above analysis has led the author of the article to an attempt at finding an application – to use the geometrical terminology – for a one-sided surface⁶, that is a form whose use is not limited by a boundary-line between the object (structure) and the surrounding landscape. In other words, the aim of this research was to try and find a geometrical figure which would allow one to freely explore space, directing the user's attention beyond the coordinates of form, or object constituting a part of the trail, so as to permit an unhampered exploration of the landscape. Unlike in three-dimensional forms that encompass a collection of points, combined into a single entity within its interior, the essence of a form that is embedded in a trail, is its failure to connect the points contained within an urban interior, ultimately giving rise to a linear and open construction. In order to preserve the clarity of architectural form creating the *inner edge of landscape*, whose all surrounding points constitute a part of landscape, rather than an urban interior – it becomes necessary to retain the so-called protective field. The latter one is generated by the “edge” and creates a chance for limiting the expansion of the sprawl. The objects which direct our attention towards the surroundings create a chance for proper exposure of cultural values, which require a preservation of the foreground that constitutes at the same time a protective field for the object and a sphere which stalls urbanization efforts in its immediate vicinity. The range of this foreground is mapped out by the virtual boundary of the protective field.

Public space created in the landscape, outside the built-up areas, is used in most cases to expose the public to the beauty of nature and is associated with certain natural features that are due to the topographical properties of the terrain that constitute a natural barrier to the process of urbanization. Therefore, the investment pressure on its immediate surroundings is even stronger than elsewhere. The attempts aimed at limiting the extent of this phenomenon, preceded by the above-mentioned analyses of the *inner edge of landscape* lead to the conclusion that there is a strong need for finding and shaping open forms directed towards the exterior and different from those which focus one's attention on landscape *interiors* (Fig. 2).

⁶ An example of such a surface is Möbius strip.

Figure 2. The inner edge of landscape



Source: Drawing by author

The case of Wola Krogulecka – creating public space through *objects of cultural expression*

The Peripherality of the Center in Wola Krogulecka – a location consensus

Before discussing a specific case of an architectural realization which may serve as an example of an *inner edge of landscape*, it is worth describing the site of this particular realization. Wola Krogulecka is a traditional agricultural village situated in the province of Lesser Poland /Małopolska/, in the Stary Sącz district in a little more detail. It is located on an open slope, within the Nature 2000 area, at the height of 450 m above sea level; the village is located on the territory of the Poprad Landscape Park, due to which nearly the entire place constitutes an attractive viewing and sightseeing area. Yet, the village itself lacks a central space and its houses are scattered along the main district highway. The immense natural and cultural assets are not taken advantage of; there is no tourist infrastructure to speak of, in spite of the fact that as many as four different tourist trails cut across the village and the head office of the Complex of National Parks in the Province of Lesser Poland is situated precisely here. It was once the local leaders had noticed this fact that they finally admitted that there is an urgent need “to create better housing conditions for the local residents and more tourist attractions for the visitors”; having passed this resolution, they also accepted it as the number one priority in the Village Rejuvenation Plan (RMSS, 2013). In the context of the present article, it is also important to emphasize that in accordance with the above-mentioned Rejuvenation Plan, the plot selected for the construction of the viewing-platform had been recognized by the local authorities as a fragment of the village central area of special significance, in spite of the fact

that in reality it is situated on the peripheries of the village and lacks any obvious features that would distinguish it from the surroundings⁷ (Fig. 3). The selection of this particular localization was the result of a consensus reached between the local community (expressed through its leaders) and the local district authorities (granting the financial resources and dealing with these types of investments). Yet, as was revealed by the subsequent research, if the selection of the locality proved to be satisfactory to both sides, the expectations as to the role which the venue was to play within the local community, were quite different.

Figure 3. The “central” plot of viewing platform in “urbanized” structure of Wola Krogulecka



Source: Drawing by author

The debate concerning the need to create public spaces in landscape leads one to another query, which has already been alluded to earlier in the article, namely, the issue of their functionality. In other words, it becomes necessary to answer the question: what role a public space should play in the process of the “rejuvenation” of space; what is the political and social sense, in the name of which it is called to life.

⁷ The plot is indeed very attractive from the scenic point of view, but as has already been mentioned, the majority of plots in this village are characterized by precisely this feature.

The Act⁸ defines public space as an area which is of special significance from the point of view of satisfying the needs of the local inhabitants; it defines its function as a meeting place which improves the quality of the residents' life. At the same time, there is no shortage of studies which present it as an arena of local conflicts and confrontational social practices whose aim is to adjust it to the various conflicting needs (among others, Karwińska, 2009). It is worth remembering that the creation of new attractive public spaces, underscoring the local attractions, is associated with an influx of users from outside who may both satisfy the need for mutual contacts, but may equally well disturb the peace and even pose a threat to the identity of the local community. This conflicting character of public space has been observed by all the concerned parties in the case under investigation: the representatives of the local inhabitants emphasized the threats, while persons from outside the local community – its chances and advantages, tending to ignore its negative impact on everyday life. While the latter group tended to focus on the need to expose the wealth of the tourist attractions in the place, the former one saw a need for limiting the negative consequences of the increased tourist traffic to the local inhabitants, reckoning that the local problems (concerning transport, lack of technical infrastructure, unemployment) may be solved if the space becomes “public”, i.e. open and attractive to outside visitors. The peripheral situation of the venue was perceived as advantageous by both sides; nobody raised any objections as to the localization decision of the venue. But the choice of a rather remote localization which initially liquidated the objections, did not ensure a permanent solution, due to a potential increase of interest in the neighboring areas.

As early as during the first presentations of the design conception, one could observe a variety of different expectations with regards to public space: the local residents emphasized their lack of faith in the possibility of an improvement in their economic situation in the effect of a construction of a non-commercial structure, such as the proposed viewing platform, whereas the representatives of the authorities underscored the significance of the promotion of local attractions and their faith that the investment will exert (an indirect) impact on the increase of entrepreneurship in the area (Zielińska, 2013). In interviews, both groups expressed a conviction that the venue would not be directly beneficial economically⁹.

The object of cultural expression – consensus to form

The scenically attractive localization of the village constituted one of the major factors which influenced the decision concerning the construction of a viewing platform there. Initially there arose a plan to construct a viewing tower on the selected plot; a Zoning Approval (so called ULICP) had been issued, whereby a 20 m high wooden construction, covered with a hip roof, was to be erected in the place. Yet, after a site inspection and a careful analysis of the local conditionings, the above plan was abandoned, due to the fact that the selected building plot was

⁸ *The Spatial Planning and Land Development Act* (Legal Journal of 2003, no 80, point 717 with subsequent amendments).

⁹ In the effect of the above-mentioned lack of conviction that the venue would prove to be economically productive, the representatives of the local authorities at the beginning decided a of its non-commercial use and accessibility.

unwooded, offering an all-round view and the erection of a tower construction there would in no way have increased the already immense attractiveness of the site. It was suggested that instead of a tower, a spiral platform whose form would underscore the localization of its situation on a tourist trail (Fig. 4), should be built there. The configuration of the plot lying on a natural slope which constitutes a sort of gorge, was also taken advantage of. The suggested structure emphasizes the continuum of the walking trail; it does not interrupt its course but creates a sort of culmination point. In this way, the need for movement and completion of a full circle, thanks to which one's attention is not focused on a single point, but on a sequence of points, is also formally emphasized. Thus, focusing one's attention of the *entire* surroundings, proves to be one of the most important features of this form. Directing the viewer's eyesight to the surrounding terrain also plays an important role in shaping his awareness of the condition of the local environment and allows one to bring to attention all the manifestations of cultural activity in the area; it also marks out the course of the *inner edge of landscape* which frames the space associated with the structure and allows it to fulfill its imposed function of a viewing point. The above presented conception proved convincing enough to the authorities to make them change the original ULICP zoning approval and pass a resolution concerning an increase of the construction funds.

**Figure 4. Spiral viewing platform on the tourist trail exposing the landscape around
(chief designer W. Świątek)**



Source: Photo by M. Rola (2014)

The Inner edge of landscape in Wola Krogulecka

In spite of the varying initial expectations, after nearly two years since the realization of the project, one may conclude that it fulfills the hopes that had initially been associated with it. The platform operates as a public space and continues to enjoy unabated popularity constituting a tourist attraction which promotes the chief benefits and attractions of the local community (Fig.

5). The commercial potential of the structure had been observed by external investors who expressed a wish to erect a commercial structure in its vicinity, as the visitors to the venue often draw attention to a lack of such commercial, gastronomical and collective accommodation establishments in the area, which would allow them to spend more time in the neighborhood. Yet, it is worth emphasizing that the responsibility for the nurture and maintenance of the *inner edge of landscape* and its protective zone falls on the inhabitants and the local authorities. It is them who ultimately make the decisions concerning the sale of plots, for the issuing of building permits etc. The decisions that have been made so far, allow one to remain optimistic; the interested parties do not wish to weaken the impact of the new identity symbol and tend to select sites for successive investments (functionally associated with the viewing platform, such as e.g. a car park) next to the district road, nearer to the village center and outside the impact range of the platform – beyond the *inner edge of landscape*.

Figure 5 New object of cultural expression in Wola Krogulecka (chief designer W. Świątek)



Source: Photo by M. Rola (2014)

Conclusions

Public space in an open landscape, which is attractive to external visitors, should make the cultural features of the place visible. Despite its non-commercial use, it possesses a tangible economic value which increases investment pressure on peripheral regions. The selection of an out-of-the-way and secluded localization allows to build the local identity and, at the same time, limits the negative impact of tourist traffic on the everyday life of the local residents, but

simultaneously, increases the threat of commercialization in places which up until now were less accessible, although regarded as public. Designing an object which, thanks to its geometry, focuses one's attention on the surroundings (Fig. 5), helps minimize investment projects in its immediate vicinity.

There is no social approval – both on the part of the local residents and the authorities – of activities which could diminish the significance of the new symbol of local identity which emphasizes it in an expressive way (through its form). The object facilitating access to landscape (also to persons with restricted mobility) and perceived by many as superfluous, turned out to be immensely popular, particularly among groups which precisely thanks to such people had so far had little opportunity to stay out in the open landscape. While looking for the sense of the *in-between city area* and planning its improvement, it is worth remembering the fact that accessible public spaces, highlighting the local culture and restricting the phenomenon of urban sprawl, also improve the quality of life of their inhabitants.

In conclusion, it should be stressed that the objects of *cultural expression* focus our attention on the manifestations of man's activity in their immediate surroundings; they create meeting places and – most importantly – they help maintain control and organize land development in particularly sensitive areas, due to their scenic qualities.

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REVITALISATION OF LARGE-PANEL HOUSING ESTATES AS A CHANCE FOR THE CREATION OF CONTINUITY AND COMPLEMENTARITY OF PUBLIC SPACE IN THE CONTEMPORARY CITY

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Keywords: large-panel housing estates, revitalisation, public space

Abstract

Large-panel housing estates have become a permanent element in the landscape of numerous European towns and cities, especially in the eastern part of the continent. Initially, they evoked delight and gave hope for a better housing environment. Then their picture changed radically, when it turned out that in numerous cases they were becoming a place of spatial and social pathology. The search of solutions to the problem, and – depending on capacities – undertaking remedial measures – this is the next stage in their existence. Nevertheless, it pertains most of all to wealthier European states, with Germany being in the lead in this respect.

In Poland, such housing estates are still referred to as crisis areas, but so far no systematic approach to the improvement of their situation has been adopted. This could be changed by works undertaken predominantly in the second decade of the 21st century at the governmental level, devoted to an efficiently functioning system allowing for systematic revitalisation activities. In the context of housing estates, they can constitute a chance not only for the crisis elimination, but also for the creation of a high-quality housing environment, corresponding to new and constantly changing needs of the 21st-century society and complementary towards other housing structures of the city.

The goal of this paper is to present a synthesis of issues connected with the revitalisation of large-panel housing estates depending on their characteristics and conditions, which constitutes a case study upon the example of two housing estates located in Cracow. These problems are also demonstrated in the context of methods of improving of the quality and building of the continuity of urban public spaces using the potential offered by the space of open housing estates.

Urban development of cities is a constant process of changes. The occurrence of large-panel housing estates had a significant effect on their functioning at a large scale. What differentiates

them from the classical urban tissue is – without limitations – a different development structure with the so-called negative spaces, frequently referred to as ‘anti-space’. Hence since the very moment when housing estates came into being they have been one of the key subjects of deliberations devoted to the city and its urbanism.

Large-panel housing estates, with a number of their ‘genetic’, but also ‘acquired’ defects, to a considerable extent do not inscribe in the urbanism understood in a classical way. Nevertheless, complete negation of their potential does not seem to be justified. Searching for complementarity and uniqueness in their spaces may constitute a chance to change their negative picture. Their future, as well as the future of cities, depends on the undertaken measures. The return of the sense of the city taking into account problems of large-panel housing estates, enriched with the experience of previous generations and taking the current and future needs into account, may provide new interesting solutions.

The past

The concepts of modernism together with the lurking hope for a healthy housing environment with access to light, air, greenery, and improvement of sanitary conditions, confronted with cramped dark tenements, constituted essential primary factors that influenced the occurrence of large-panel housing estates. Further ideological context of the process of their shaping was predominantly connected with a number of social and political conditions, especially referring to Eastern Europe¹.

Large-panel housing estate projects constitute the attempts at the embodiment of the concepts and creative ideas, confronting them with the reality at the same time. In this case they are connected with e.g. the need to satisfy the post-war demand for housing opportunities, by providing a large number of flats in a relatively short period of time², making use of the then technological possibilities. Nevertheless, frequently technological reasons dictated architectural and urban solutions, which had a negative effect on the shape of housing estates³. What deserves appreciation is a number of well-thought-out designs, expressing the pursuits to create a complete valuable housing environment, inspired by e.g. the concept of ‘the neighbourhood unit’, and with a full functional programme⁴. Unfortunately, these concepts in their full form most often remained only on paper.

The stage of implementation, during which the final form of housing estates would emerge, in their case was especially significant due to numerous factors that had a negative effect on them. Hence, housing estates after their construction differed a lot from their design, much to

¹ This pertains most of all to the countries of the Eastern Bloc, where the construction of ‘housing estates for masses’ was an important element of the socialist authorities’ propaganda.

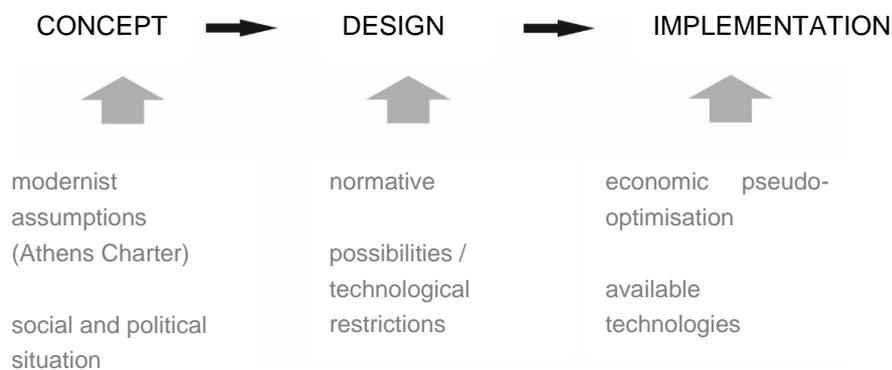
² It resulted from e.g. the need to supplement the housing resources depleted due to war demolitions and to secure new flats to meet the needs connected with the intense rise of populations in cities caused by migration of inhabitants of villages during the industrialisation of the country and by the population boom.

³ E.g. distances between blocks of flats were adjusted most of all to the spacing of the crane rails.

⁴ Special attention should be paid to experimental projects, developed within the scheme of the governmental programme PR-5, aiming at testing of innovative solutions for housing estates. The following designs were developed at the time: Białoleka Dworska housing estate in Warsaw (designed by Halina Skibniewska), Stella in Tychy (designed by Hanna Adamczewska-Wejchert and Kazimierz Wejchert), Chelmońskiego housing estate in Cracow (designed by Witold Cęckiewicz), and Nowe Miasto II in Zamość (designed by Jan Bohdan Jezierski). Only the last one was implemented.

their detriment⁵. Many times it was caused by the incomplete implementation of the programme, which would boil down merely to providing residences, neglecting services to a considerable extent. Furthermore, the increase of the number of flats was often at the expense of open areas, and for this reason it deepened the spatial and functional pathology⁶. The situation was additionally aggravated when construction companies became the only units that decided about the final form of a building, and designers' possibility of enforcing the author's supervision were limited⁷. As a result, such factors as normatives, technological requirements and economic pseudo-optimisation, contributed to the final shape of most large-panel housing estates.

Figure 1. The main stages of implementation of large-panel housing estates and factors that had a special effect on their final shape



In consequence, in numerous cases it is difficult to treat large-panel housing estates as fully valuable parts of the city, despite the fact that under the provisions of the act that defines a housing estate as 'a housing complex which constitutes an integral part of the city, town or village'⁸, it should be expected from it.

The present

Functioning of large-panel housing estates in the 21st century in Poland is burdened with a number of their 'genetic' defects, as well as the ongoing changes, which often exhibit unfavourable tendencies. In the context of the former, such defects comprise monofunctionality, monotony of development, undefined spaces, often referred to as 'nobody's land' and the land

⁵ This problem was tackled during the implementation of the Governmental Programme PR-5 in the period 1976-1979 and described in the following publication: Cęckiewicz W., Franta A., Palej A. *Przemiany w strukturze programowej i przestrzennej osiedli mieszkaniowych w Polsce. Wnioski z analizy zespołów powstałych w latach 1960-1978*, Monograph 49, Publishing House of the Cracow University of Technology, Cracow 1986

⁶ This situation is well reflected in the following quotation: 'you build wastefully; insert blocks of flat between the ones that are already there', cited as memories of J. Ingarden, delivered in 1979 to the author [in:] Kosiński W., *Piękno i brak piękna zielonej szaty w osiedlach II RP, PRL, oraz III RP w stronę urbanistyki krajobrazu*, in: *Przestrzeń i Forma* '16 2011, p.38

⁷ B. Ciarkowski, *Postmodernizm a prefabrykacja – wielka płyta w zabytkowym centrum Łodzi*, in: L. Klein (ed.), *P1. Postmodernizm polski. Architektura i urbanistyka. Antologia tekstów*, Warsaw, 2013, p.377.

⁸ Act dated 29 August 2003 on Official Names of Towns and Physiographic Objects. The Author is aware of the fact that this definition does not render the full essence of housing estates; nevertheless, it touches upon an important problem that housing estates struggle with – their integration with spaces of cities.

with which nobody identifies, the lack of integration of the housing estates with the remaining part of the city, which is responsible for the fact that they are dormitories rather than standard city quarters.

The problems referred to above are often accompanied by negative spatial changes in housing estates. They get chaotically densified by the introduction of new buildings in quite haphazard locations, without any prior development plan for the housing estate. This situation is already common and it leads to irreversible spatial changes which disturb their urban layout. At the same time, the greatest potential of housing estates, which is the resource of green areas, is annihilated. Structures of different functions are introduced – including residential buildings - which additionally strengthen the feeling of monofunctionality of the estate. New residential buildings are connected with increased demand for additional parking spaces. Considering the fact that over the last two decades the number of cars have increased considerably and consequently the number of parking spaces available is no longer sufficient even for residents of blocks of flats, it is becoming a serious spatial issue. It all results in the occurrence of squatter parking lots, illegally annexing green areas.

Furthermore, residential structures are often separated from the rest of the housing estate. Not only does it disturb the layout of the housing estate causing its defragmentation, but it additionally introduces an unhealthy tendency of polarising its community, dividing residents into the more and less wealthy ones. It is not a desirable situation, especially considering the fact that another negative tendency is the disappearance of social diversity. Since 1990s a gradual change of the social structure has been observed, consisting in leaving of housing estates by the more well-off part of society and replacing it with the poorer one.

Technical degradation of large-panel buildings constitutes another serious problem for the functioning of housing estates. Defectively manufactured prefabricates, poor quality of materials, inappropriate transport of large elements causing their damage, or, finally, assembly errors – these are the main reasons why the technical condition of large-panel blocks of flats deteriorates. This in turn has its effect on lowering of the standards of use of flats built in this technology, and consequently it lowers the quality of the housing environment.

An example of housing estates which have been struggling with the issues referred to above to varying degrees are housing estates located in Cracow, most of which have been recognised as problematic areas, as defined in the 'Study of Development Conditions and Directions of the City of Cracow': 'Complexes of multi-family housing estates are a component of the housing tissue which dominates the space in terms of its territory and sizes. Within this group there are complexes which concentrate the largest number of people, with a clearly monofunctional character [...]. They do not satisfy the currently valid standards in the field of basic services, technical support facilities (parking lots), and the quality of public spaces. Additionally, in this areas there occurs the phenomenon of densification of development complexes with new residential buildings, often different in terms of scale and style from the existing substance, which intensifies the spatial and functional dissonance'⁹. In compliance with the document

⁹ Amendment to the 'Study of Spatial Development Conditions and Directions for the City of Cracow'. Appendix to the Resolution No. CXII/1700/14 of the Municipal Council of Cracow dated 9 July 2014, Introduction, Cracow 2014, p. 31.

referred to above, most housing estates in Cracow have been recognised as areas requiring remedial measures, defined as rehabilitation¹⁰.

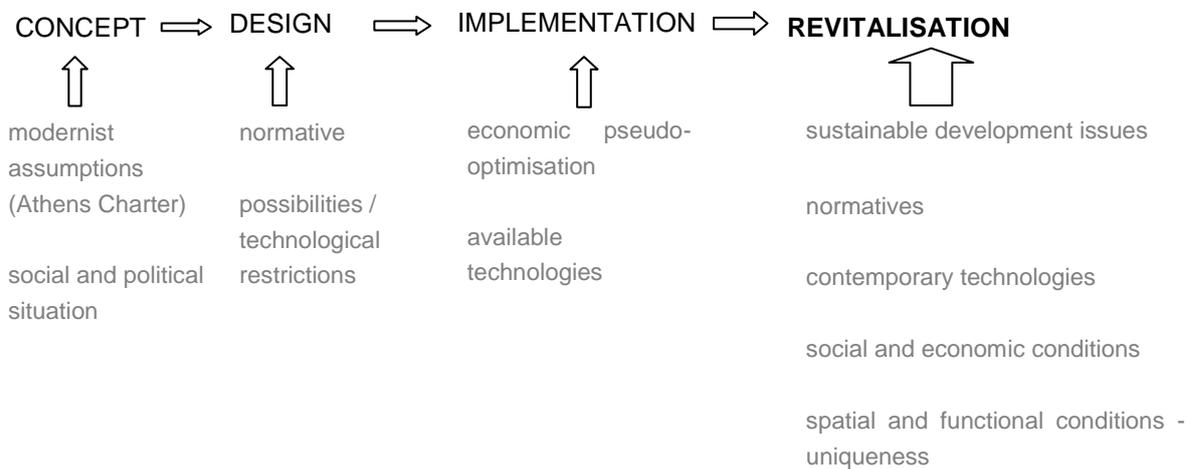
The future - the chance

In Poland large-panel housing estates are recognised as crisis areas more and more frequently¹¹. Therefore, it seems that their lifecycle should be completed with the next stage, that is their planned systematic revitalisation, providing them with a chance for a new quality and better future.

The current manner in which housing estates function today and the unfavourable tendencies referred to above constitute – as it has been demonstrated – a great threat of further degradation, and they are contrary to their further development. The lack of any remedial measures and of a definition of the appropriate directions for their development may be incredibly important in the scale of the entire city. Its defective parts in the form of housing estates will not constitute valuable spaces as a specific completion and an alternative urban structure.

Revitalisation of housing estates, which on one hand refers to the modernist principle of creating a healthy housing environment, with appropriate insolation, large quantities of fresh air and greenery, and on the other is based on a sensitive approach, taking into account diversified needs of residents, provides a chance for the creation of a valuable housing environment. The process of shaping of housing estates could be then demonstrated by means of the following diagram:

Figure 2. Stages of shaping of large-panel housing estates taking revitalisation into account



¹⁰ In Cracow the phrase 'rehabilitation' is used with reference to housing estates, stressing that rehabilitation of areas of block development of housing estates constitutes a crucial element of city rehabilitation processes [in:] collective work, Adamski, J. team leader, *Założenia programu rehabilitacji zabudowy blokowej na terenie Gminy Miejskiej Kraków*, Institute of Urban Development, Cracow 2010, Appendix to the Resolution No. CXV/1587/10, p. 4

¹¹ Collective work, ed. Ziobrowski Z., Jarczewski W, *Rewitalizacja miast polskich – diagnoza*, Volume 8, Institute of Urban Development, Cracow 2010. p. 18 (author of the chapter: W. Jarczewski)

The characteristic feature of large-panel structures, which is their urban layout abundant in many open spaces, may become a starting point for deliberations devoted to the complementarity of such forms as the traditional urban tissue and housing estate structure¹². Broad possibilities of arranging open spaces as spaces connected with nature, sports and recreation, etc., may provide them with a new quality, which is impossible to reach in the traditional urban tissue. Finding the potential of the housing estate and extracting its characteristic features, spatial values, etc. are measures which offer the chance for the creation of a unique housing environment.

As far as housing estates in Cracow are concerned, many of them exhibit unique spatial values, such as vicinity of watercourses, green areas, or areas with historic and cultural values. This offers an extraordinary chance for strengthening of the identification of space. An example in this respect could be the housing estates located in Czyżyny – Dywizjonu 303 and II Pułku Lotniczego housing estates¹³. They are located on both sides of the former runway of the airport in Czyżyny, whose spatial, historical, and cultural values may allow it to become a unique symbol in the scale of the entire city.

The housing estates referred to above are located in the 14th Quarter of Czyżyny, ca. 7 km from the city centre. They belong to the northern belt of the development of Cracow, occupying its eastern part. Their genesis, similarly to the genesis of numerous other housing estates situated in this part of the city, is connected with the extension of a new city – Nowa Huta.

The airport in Czyżyny was built in 1912 and, successively extended, it became the second largest airport in Poland before the World War II. Along with the construction of a metallurgical plant and the erection of housing estates its operation was gradually limited, and finally in 1963 a decision was taken to close it completely¹⁴. The airport was transferred to Balice, and in 1978 the development of these areas was launched, creating the Dywizjonu 303 housing estate to the north from the runway, and the II Pułku Lotniczego housing estate to the south from it. In this part there are still remains of the former hangar belonging to the airport.

The fact that both housing estates are located on both sides of the runway makes it the main and characteristic element of the entire housing estate project in this area. Its linear shape is centrally emphasised by the St. Brother Albert church sitting next to it, which is an important compositional feature.

The runway still constitutes a characteristic and unique element in the scale of not just the housing estates, but the entire city. Due to its spatial, historical, and cultural values¹⁵ it has a potential for the creation of a public space of a supralocal character¹⁶.

¹² Due to their different character they are usually referred to as the so-called positive and negative spaces. The positive ones are those which are clearly defined by walls of buildings. Their opposition are negative spaces, in which buildings are perceived as three-dimensional shapes against the background of a two-dimensional plane.

¹³ The II Pułku Lotniczego housing estate, located at the southern side of the former runway, under a relevant provision of the 'Study on Spatial Development Conditions and Directions of the City of Cracow' is an area eligible to the block development rehabilitation.

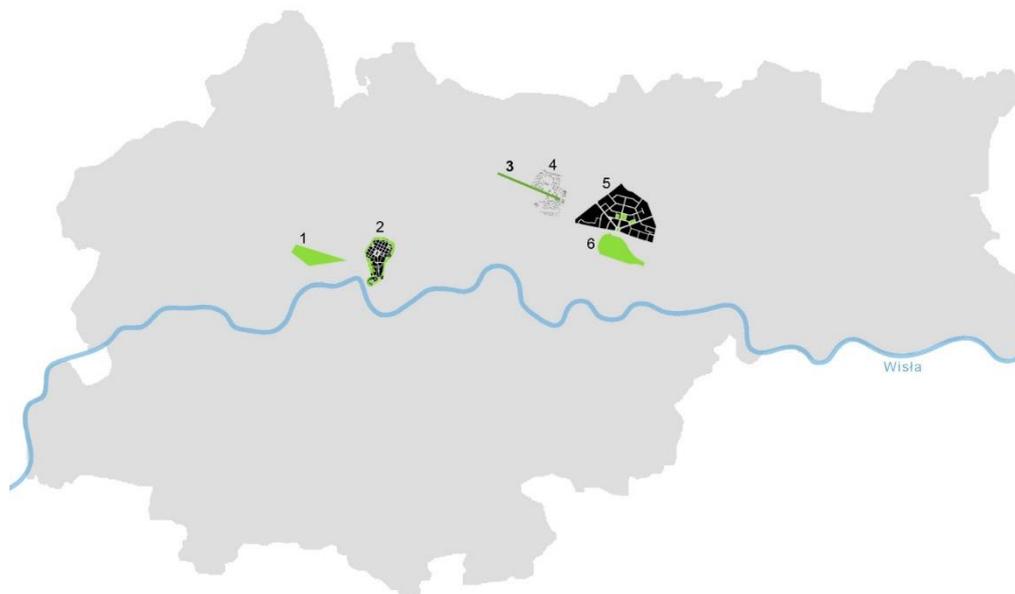
¹⁴ <http://www.muzeumlotnictwa.pl/index.php/muzeum/historia> (as of January 2016)

¹⁵ 'Study of Spatial Development Conditions and Directions' recommends the creation of 'Lotnisko' Cultural Park, which would be a form of protection of landscape (landscape of the Cracow Fortress) and cultural heritage [in:] Amendment to the 'Study on Spatial Development Conditions and Directions for the City of Cracow', passed in the Resolution No. XII/87/03 of the Municipal Council of Cracow dated 16 April 2003. Volume II – Principles and Directions of Spatial Management, Cracow 2014, p. 64. Furthermore, a part of the airport has been entered in the inventory of monuments.

As an open space with the leading recreational function, unique in its form and function, it would stand the chance to become a complementary space. Like a backbone for the housing estates located on its sides, it would constitute an important completion and enrichment of the residential function, contributing to the improvement of the housing environment. In the context of the city it would also have a chance to considerably enrich the system of open spaces, especially in the eastern part of Cracow.

The size and the characteristic oblong shape provide a possibility of a strong presence of the runway in the residents' awareness as a recognisable and identifiable element in the scale of the city. It would constitute a clear unambiguous element among the most characteristic spaces in Cracow, like the Old Town with Planty Park, the Wawel Hill, and Błonia Park, and the urban project of Nowa Huta with Nowohuckie Meadows.

Figure 3. 'Identifiers of Cracow'



Legend: 1. Cracow Błonia Park, 2. Old Town with Planty Park, 3. Former runway of the airport in Czyżyny, 4. The Dywizjonu 303 and II Pułku Lotniczego housing estates, 5. Territory of the new town of Nowa Huta, 6. Nowohuckie Meadows.

Source: Prepared by the Author

Using a sign – an identifier in order to illustrate and characterise a given space is particularly important in the process of building of the identity of the place. In the context of housing estates,

Under the spatial development plan currently in force the very runway is described as a protected area, with special attention paid to selected parts of its surface [in:] http://www.bip.krakow.pl/?dok_id=57145

¹⁶ The problem of arrangement of the runway together with the revitalisation of the housing estates became also the subject matter of international student workshops Eco Rehab, which were held in 2012, and in which the Author took part as a team leader.

this issue is especially sensitive. Due to their frequently negative image and connotations leading to dubbing them *'błokowisko'*, which in Polish means a drab or bleak housing project, pejorative in meaning, building of a new image of a housing estate is extremely important.

Public spaces are crucial in the process of building of the identity of housing estates; hence in case of the housing estates in Czyżyny the runway used as an available public space would strengthen their attractiveness considerably. On one hand, thanks to their recognisability in the scale of the entire city, and on the other – by references made to the history of this place. Referring to the cultural legacy constitutes an important aspect of revitalisation. In case of large-panel housing estates, which numerous times were erected in empty spaces, without any specific urban context, the value of this place is worth exposing.

The location of Lotników Park and the edifice of the Polish Aviation Museum in the close vicinity of the runway additionally strengthens the significance of this place and of its cultural values. Each of these elements constitutes a separate value, but when they function together their significance and attractiveness grow. Their close spatial and functional relations may also contribute considerably to the process of building of the continuity of the system of public spaces. It is also fostered by the linear character of the space of the runway. On one hand it joins two housing estates like a seam; on the other it leads their user outside their territory. Appropriate arrangement of space, especially in places of overcoming of urban barriers, offers a chance to include the space of the housing estates in the network of public spaces of the city. A sensitive point here is overcoming the barrier of Izydora Stella-Sawickiego street, giving the beginning to the continuity of this space towards the city centre. It is also of key importance to search for continuation of the linear public space towards the east, that is the old part of Nowa Huta.

The former runway would stand a chance to contribute to considerable strengthening and building of the continuity of the system of public spaces, especially in the north-eastern part of the city, which is largely dominated by residential development with the structure of housing estates. Special attention should be paid to the search of functional and spatial relations with the green areas located nearby and a bit further, e.g. the Garden of Experiences, Tysiąclecia Park, Lotników Park, Nowohuckie Meadows, Bieńczyckie Planty Park, and a bit further to the east the planned Dłubnia River Park, as well as such important spaces as Centralny Square, Technology Park, Cracow Arena, and university campuses¹⁷.

In the context of the nearest surroundings, that is the housing estates in Czyżyny, the arrangement of the former runway provides an opportunity to strengthen the hierarchy of public spaces arranged according to its character, use and accessibility. It is also a chance to add legibility to the composition and to arrange the development structure of these housing estates in order by using the former runway as a backbone – a linear space, enriched with the main local relations in the territory of the housing estates which should be strengthened. This pertains to e.g. the link with Gen. Stanisław Skalski Park, and from the south – to the connection with the compositional axes of the housing estate in the form of a promenade and streets. In case of the

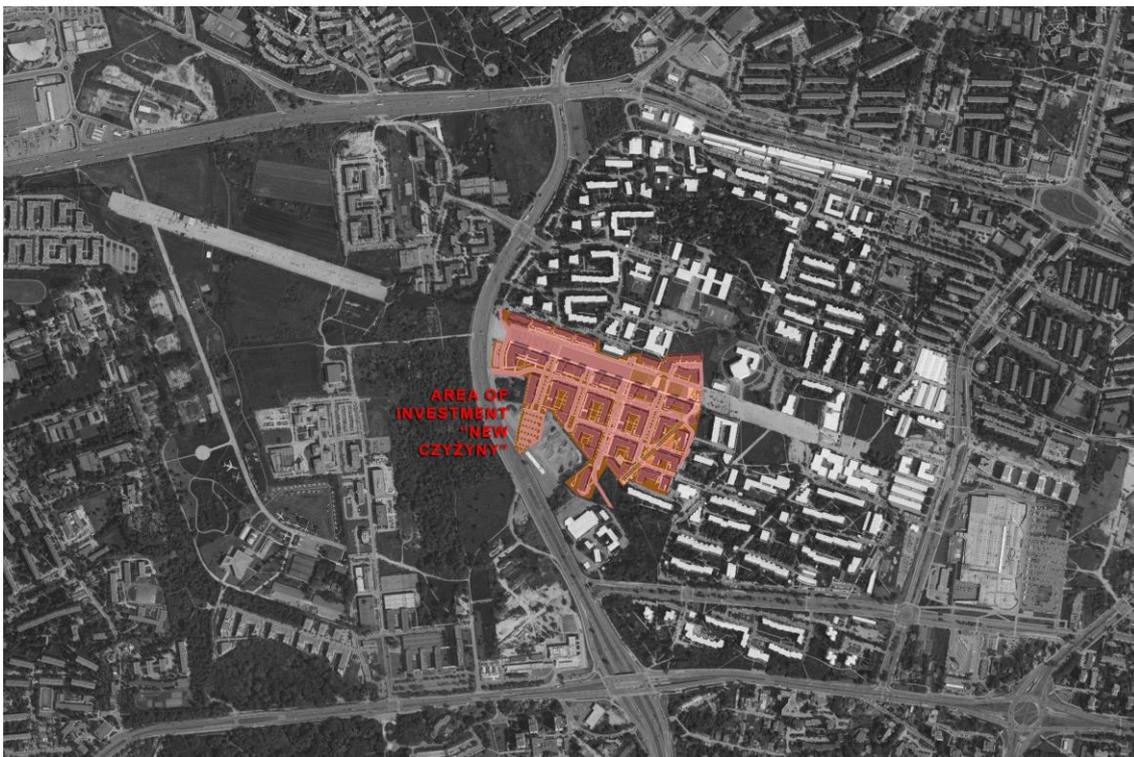
¹⁷ I.e. campuses of the Academy of Physical Education and the Cracow University of Technology.

housing estates, taking into account their 'inherent' defects relating to nobody's space, to evoking of the feeling of loss, these issues acquire special significance.

The future - the current reality

Regrettably, not only is the potential connected with the spaces of the housing estates in Czyżyny with the former runway not used in any way, but it is actually wasted. Additions of buildings in empty areas of the housing estates in quite a chaotic manner, also in the direct vicinity of the runway, usually have the form of residential buildings, characterised by a rather random arrangement and form, far from being a compositional completion of the housing estates. Moreover, spatial chaos is aggravated by minor service outlets that mushroom all around. Nevertheless, the period of the most significant and largest investments in Czyżyny is the second quarter of the 21st century. They are implemented predominantly at the southern side of the runway, to the east from the II Pułku Lotniczego housing estate. Fenced buildings with the predominantly residential function are erected under the slogan of 'New Czyżyny'. The plans also provide for the demarcation of a part of the former runway, which is to constitute a recreational space, accessible exclusively for residents of the newly erected buildings.

Figure 4. 'Structure of the existing housing estates with the new investment (New Czyżyny)'



Source: Prepared by the Author on the basis of materials available on the websites: <http://www.budimex-nieruchomosci.pl/nowe-mieszkania-krakow.html> and <http://www.maps.google.com>

The investment-related activities undertaken seem to defy numerous principles, not just those which govern the creation of a valuable housing environment, contributing to the appearance and development of spaces of the city with all its flaws. These are also measures which are unfavourable in the context of a sensitive relation with large-panel housing estates. They are characterised by the total separation from what already exists, both in conceptual terms – giving the new investment a name ‘New Czyżyny’, they do not take into account what is already there, as well as in physical terms – by the lack of any spatial connection. Therefore, instead of supporting and complementing what is of key importance in case of housing estates, they are in fact isolated due to the construction of a ghetto for the rich. Such activities constitute a solid contribution to strengthening of the social polarisation and the exclusion it entails.

The predominantly residential structures that are added to this space strengthen the monofunctionality of the housing estates, which is broadly recognised as one of the most important problems. This investment does not contribute to the improvement of the legibility of composition of the housing estate nor to the strengthening of the space gradation, either. The area of the former runway, with a potential to become a public space in the supralocal scale, is becoming a space accessible only for the ‘chosen ones’. Fenced areas intensify the lack of connections and continuity of public spaces. The new investment devaluates one of the most significant spaces in the city, that is the runway of the former airport.

Considering such a characteristic position of the former runway in the history and spatial development of Cracow, the currently undertaken measures in Czyżyny are not beneficial for the development of the city, and most of all for the inhabitants of the housing estates located nearby. The very territory of the runway, still free from any development, constitutes immense potential, which may contribute to the improvement of the quality of the housing environment of the large-panel housing estates, as well as to the process of building of continuity and complementarity of public spaces in the scale of the entire city. Not only does it require awareness of the rank of the problem, but most of all it calls for appropriate actions to be taken by decision-makers.

Revitalisation of large-panel housing estates responding to their problems and set to extract their potential constitutes a chance to create a valuable housing environment, constituting an integral part of the city. Making use of the main resource of housing estates, that is open spaces, seems to be of key importance in this context. Exposing their unique features and spatial values may play an important role in the context of the housing estate itself, as well as in the scale of the city. What is crucial here is the creation, or extraction, of functional and spatial relations within the housing estate structure and its surrounding areas. Measures taking the aforementioned aspects into account offer a chance to create attractive complementary spaces, contributing to the process of building of housing estate areas, as well as a chance to return to the broadly understood sense of the city.

“The best way to predict the future is to invent it”

Immanuel Kant

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CITIES OF LOS ANGELES

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Key words: Los Angeles, city centre, polycentrism, housing, public spaces

Abstract

The world capital of the movie industry does not keep up with the world capital of business when it comes to the application of urban planning solutions. Los Angeles and New York are poles apart, to say the least, as far as their cityscapes are concerned. New York is the essence of a high-density city, whereas the metropolitan area of Los Angeles is a group of several cities scattered over a vast territory, each with its own small centre. The climate is different, the lifestyles are different and so are the paradigms of the two urban schools. If there are any similarities, they may be found in the environmental approach gaining popularity in both cities, as people have realised they do not really want to spend more than one-third of the day in their cars commuting. The article discusses the phenomenon of the L.A. metropolitan area – a polycentric city covering the area of 12,500 square kilometres, and the Los Angeles County – a nearly mythical city composed of small mythical units.

Introduction

The city is one of the oldest and probably the most perfect civilizational achievements, judging from the fact that it is continuously perfected and still irreplaceable. It is disputable whether Robert Park is right in his belief that it is the most successful endeavour humanity has ever undertaken in transforming the world.¹ It is, undoubtedly, the most effective endeavour and at the same time – practically irreversible: “*creating the city, humans have transformed themselves.*”²

Contemporary urban study considers the phenomenon of the city to be more of a process than a closed and defined form, yet urban designers do not cease to seek model solutions or define new paradigms. Los Angeles was supposed to be one of such models: the urban embodiment of post-Fordism, a model of an American post-modern city of the late 20th and early 21st century,

¹ Robert Park, *On Social Control and Collective Behavior*, Chicago 1976, p. 3, cited after: Harvey (2012), p. 21.

² *Ibidem*

an alternative to the metropolitan hustle and bustle of the hyper-dense Manhattan³ or to gentrified centres surrounded by slums and/or monofunctional areas of low-density housing development, a city built as much for people as for cars, a city growing on the greatest riches of the contemporary world: oil, show business and new technologies.

Metropolitan Los Angeles / the Greater Los Angeles Area⁴

Metropolitan Los Angeles comprises 88 cities of very different development densities and demographic characteristics. The total area of this cluster of cities amounts to 12.5 thousand square kilometres, which is roughly equivalent to the area of Silesian Voivodeship. However, Silesia is inhabited by 4.6 million people, whereas the population of Metropolitan Los Angeles was estimated by the census of 2014 to be 15.5 million.

Figure 1. A bird's view of Los Angeles: we can see the road network and the area densely parcelled-out into small lots, with the dominant single-family development. Total absence of vacant lots and generally accessible recreational areas is visibly striking



Source of photo: author

Los Angeles with its appendages is the second largest city in the United States and the fifteenth agglomeration of the globe.⁵ The Greater Los Angeles Area, i.e. the actual, administratively

³ See *inter alia*: David Halle, Andrew A. Beveridge, *Changing Cities and Directions: New York and Los Angeles*, University of California On-Line Working Paper Series, p. 2, <http://escholarship.org/uc/item/6pk1047j#page-2>, as of the 28th April 2016

⁴ Metropolitan Los Angeles: approx. 13 million inhabitants, area: approx. 12,500 km², density: approx. 1,000 persons/km²; The Greater Los Angeles Area: approx. 18.5 million inhabitants, area: approx. 87,500 km², density: approx. 200 persons/km², <http://www.census.gov/quickfacts/table/SEX255214/0644000,06037>, as of the 6th March 2016

⁵ After: *Major Agglomerations Of The World* [in:] Thomas Brinkhoff, *City Population*, www.citypopulation.de/world/Agglomerations.html, as of the 6th March 2016

marked out area affected by the agglomeration, stretches over 88,409 square kilometres⁶ (an area only slightly smaller than Portugal) and encompasses urbanised as well as non-urbanised regions, which explains the drastic difference between the population densities of both organisms.

The special character of this polycentric agglomeration results precisely from the heterogeneity of the small towns and big cities of which it is comprised – from the flat, vast 4-million Los Angeles with its wide roads, orthogonal layout and a dense cluster of skyscrapers, to numerous medium-size cities, to small recreational towns (Malibu, 13 thousand inhabitants) or the least populated of all – industrial Vernon (114 inhabitants).⁷ Connected with one another with a dense road network (including motorways), the cities within the Los Angeles agglomeration create a grid of so-called *edge cities*.⁸

The edge city – a term popularised in the 90s of the previous century as it was used in the also popular book by Joel Garreau of the same title – is a city built from scratch (*in cruda radice*) on previously undeveloped land as a result of rapid urbanizing processes, similar to classic suburbs, yet offering more jobs than beds as well as large office and commercial spaces (a structure typical of a post-Fordian city); it is – which is extremely important – perceived as a separate entity, although still co-dependent on the central city, in this case – the City of Angels, people and cars.

Los Angeles⁹

Figure 2. The skyline of Los Angeles



Source of photo: author

The history of Los Angeles started with the arrival of Spanish Conquistadors in this area. A Franciscan Mission was established here in 1781, which became the centre of an urban

⁶ In 2015, after: *Discover Los Angeles*, <http://www.discoverlosangeles.com/press-releases/facts-about-los-angeles>, as of the 6th March 2016

⁷ All the statistics come from *American Fact Finder*, United States Census Bureau, Washington, 2015

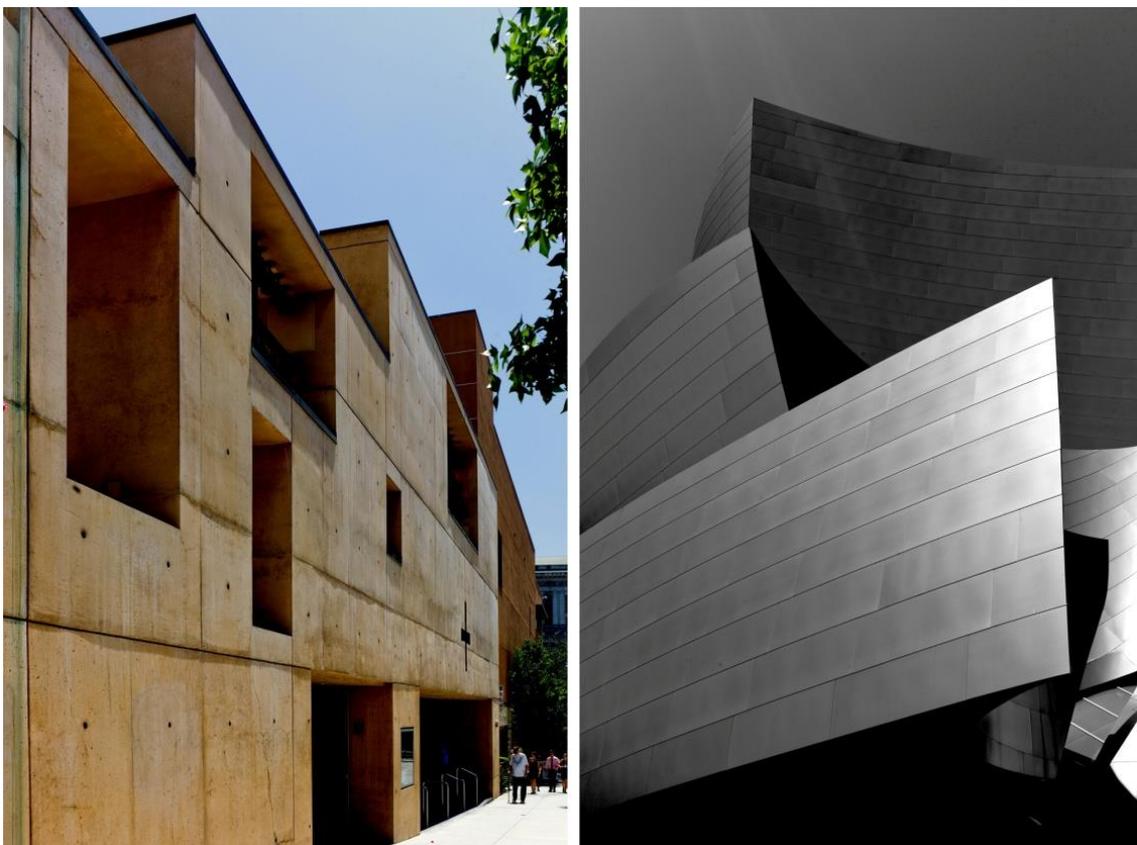
⁸ Joel Garreau, *Edge city: Life on the New Frontier*, New York: Anchor Books, 1991

⁹ Los Angeles: approx. 4 million inhabitants, area: approx. 1,300 km², density: approx. 3,200 persons/km², <http://www.census.gov/quickfacts/table/SEX255214/0644000>, as of the 6th March 2016

settlement. In 1821, the city went under the Mexican control, and following the Civil War, together with the whole California, it was annexed by the USA.

Oil deposits were discovered in California towards the end of the 19th century, yet the growth of the city really kick-started when the transcontinental railway was launched into operation and an aqueduct was built to supply mountain spring water to it. From that moment on, the growth practically only accelerated, propelled by the mining industry, transportation (two sea ports, three airports), the entertainment industry and their accompanying construction boom and the post-Fordian consumption.

Figure 3. The Cathedral of Our Lady of the Angels, designed by Rafael Moneo, 2002; and the W. Disney Concert Hall, designed by Frank Gehry, 2003



Source of photo: author

The growth of the city was observed by humanists and public life commentators, who – at the turn of the 19th and 20th century – highlighted the extraordinary character of the city. The city was called “a great exception” since it was different from all the other cities in the United States in that it had a great variety of immigrant communities. However, besides the above opinions, there were also other, claiming that Los Angeles was built on aberration and deviation from what is normal.¹⁰ The processes transforming the social and spatial structure were discussed in

¹⁰ Robert M. Fogelson, *The Fragmented Metropolis: Los Angeles, 1850-1930 (Classics in Urban History)*, University of California Press; Revised Edition, Los Angeles 1993, p.12

“*Society and Space*,” which was devoted to the phenomenon of the city.¹¹ Edward Soja described the city as “a sprawling urban region” and “*prototopos*.”¹²

Figure 4. Central Los Angeles High School 9 for the Visual and Performing Arts, designed by CoopHimmelb[au], 2008; Caltrans District 7 designed by Thom Mayne, 2005



Source of photo: author

Los Angeles is the city of eternal *now* or eternal *never*, flat and open, to be traversed in one’s car rather than with the use of public transport, never on foot. Downtown – the only part of the city with dense development – stirs to life in the morning, at lunchtime and when people leave work. After dark, empty streets between skyscrapers make a rather depressing impression and they are not a very safe place.

The district, which acquired a typically office character in the 70s of the 20th century is now, as far as possible, being complemented with facilities related to culture and entertainment – museums, concert halls etc., which are to attract people into the centre. These projects are not infrequently icons of architecture: Museum of Contemporary Art designed by Arata Izosaki (1986), Walt Disney Concert Hall designed by Frank Gehry (2003) or the Broad – a new contemporary art museum – designed by Diller Scofidio + Renfro (2015). Some other structures that stand out against the background of the prevailing office development are the Cathedral of Our Lady of the Angels, erected in 2002 to the designs by Rafael Moneo, following the earthquake which had destroyed the previous building, the new seat of the L.A.P.D. (design by: Roth Sheppard Architects, AECOM, 2009) and the headquarters of the California Department of Transportation (Caltrans District 7, design by: Thom Mayne of Morphosis, 2005). This last building presents a different approach to the category of iconicity in the context of the city. As declares its designer, “*The outer layer of the double façade delaminates from the body of the building-functioning like the car body to protect and shield its inhabitants via a constantly shifting*

¹¹ *Environment and Planning D: Society and Space*, 1986, Vol. 4, no 3

¹² M. Dear, S. Flusty, *The resistible rise of the LA School*, [in:] M. J. Dear (ed.), *From Chicago to L.A. Making Sense of Urban Theory*, Sage Publications, Thousand Oaks 2002, p. 9

*mechanical skin of perforated aluminium panels that alternately open or close depending on the sun's angle and intensity. Appearing to be windowless and opaque at midday, the building transforms in appearance over time until it reaches near complete transparency at dusk.*¹³

Figure 5. The high-rise designed by Gensler, 2010; New Carver Apartments designed by Michael Maltzan Architecture, 2009



Source of photo: author

The cityscape described above is composed not only of single-family houses or low, arcade-like apartment buildings, with the only contrasting element being the skyline of the strict centre (downtown). The prices of building lots in the best locations in L.A. may not be as exorbitant as the ones in New York, Tokyo or Hong-Kong, but they still induce developers to choose ever more vertical forms. One of the examples of a high-rise residential building is the apartment tower delimiting the city skyline from the south designed by the Gensler office, specialising in commercial building projects. This is the first high-rise residential building completed after 1992, when the Erickson California Plaza was built.

At the turn of the 20th and 21st century, the Los Angeles School¹⁴ declared Los Angeles to be a prototypical post-modernist city. It has become an archetype of a multilingual, polycentric and multicultural place.¹⁵ The researchers have concluded that the urban design of the city with its ever more distinct polycentricity constitutes a ground-breaking change in the hitherto prevailing understanding of city spatial structures. However, Los Angeles has also become a city stripped of any spatial symbolism.¹⁶ New neologisms and terms¹⁷ are being sought now to try and describe what Los Angeles is (and how different it is from other cities in the world).

¹³ Thom Mayne, *Caltrans District 7 Headquarters*, [in:] www.morphopedia.com, as of the 5th March 2016

¹⁴ At a conference in Lake Arrowhead in 1987, representatives of the University of South California (USC) and the California State University in Los Angeles established a group of scholars called *the Los Angeles School*, whose main fields of study are deindustrialisation and reindustrialisation, crisis of the national state and the emergence of e-economy.

¹⁵ M. J. Dear, *The Postmodern Urban Condition*, Blackwell Publisher 2000, pp. 17-21

¹⁶ Comparable to the towers of New York and the Boulevards of Paris.

Culver City¹⁸

The oldest traces of human presence in the area of Culver City come from 10 thousand years ago. However, the town was established in 1913 at the site of a former Civil War military camp. It was here that the first movie studio (Metro-Goldwyn-Mayer) was founded in 1924 as well as the first Californian *shopping mall* – soon after the Second World War.

Figure 6. 3535 Hayden; the Beehive, designed by Eric Owen Moss, 2001



Source of photo: author

Culver City, although the name does not ring so many bells as Beverly Hills, is famous for its artistic district (Culver City Art District), and to architecture lovers it is known for its numerous structures designed by Eric Owen Moss. Tens of the structures, from office buildings to assembly shops, designed by this “master jeweller of junk,” as he was referred to by Peter Johnson,¹⁹ demonstrate how usability may harmoniously coexist with a unique, sculpture-like architectural form.

Culver City is a town without a single high-rise tower. All the public utility buildings – offices, shopping centres or movie studios – have horizontal proportions, and the few solitary residential structures which are several storeys high (e.g. the six-storey MODAA apartment building of 2005, designed by SPF) are grossly outnumbered by single-family development.

Pasadena²⁰

Although Los Angeles is associated primarily with the entertainment industry, it is also an important centre of science. California Institute of Technology (Caltech) is one of the most important centres of research into seismic phenomena. The academic standards here are so high that, if the popular opinion is to be trusted, a half of the American Nobel prize winners is or

¹⁷ E.g. *flexism* referring to the flexibility and changeability of the city

¹⁸ Culver City: approx. 40 thousand inhabitants, area: approx. 13 km², density: approx. 3,000 persons/km², <http://www.census.gov/quickfacts/table/SEX255214/0617568,0644000>, as of the 5th March 2016

¹⁹ *Architectural Monographs* No 29: *Eric Owen Moss*, Academy Press, 1993, p. 12

²⁰ Pasadena: approx. 140 thousand inhabitants, area: approx. 60 km², density: approx. 2,400 persons/km², <http://www.census.gov/quickfacts/table/SEX255214/0656000>, as of the 1st Feb. 2016

have been affiliated with the Institute. The same could be said about the city – Pasadena is all about university campuses and research centres. The one that stands out from among them is the Cahill Centre for Astronomy and Astrophysics. This extremely plastic building has been designed by Thom Mayne. The shape of the building is the architectural interpretation of a cycle of forces which – bumping into one another – create unique spaces. *“As one moves through the space, formal fragments coalesce to reconstruct the interactions among light, architectural elements, and bodies as physical traces of the institution’s new ideas.”*²¹

Figure 7. The Cahill Centre for Astronomy and Astrophysics, Caltech, designed by Morphosis, 2008



Source of photo: author

Pasadena, established in 1886, stands out from among the other cities of the agglomeration because of its old – given the local conditions – historic centre spared from destruction in the earthquake of 1992 (7.3 in the Richter’s scale). The centre features buildings remembering the 20s of the 20th century, when Pasadena was a popular tourist resort both of the recreational and cultural character. Although the Great Depression had left a strong mark on Pasadena, after the 2nd World War, the city – with the population of 90 thousand – was considered one of the best and friendliest cities to live in.

²¹ Thom Mayne, *Cahill Center for Astronomy and Astrophysics at Caltech*, w www.morphopedia.com, as of the 1st Feb. 2016

Beverly Hills²²

The first houses on the hills of Beverly were built along the main trails (the present Wilshire Boulevard) as early as in the 60s of the 18th century. The first hotel was founded here in 1912, and in the next decade Beverly Hills became a fashionable place among film stars, who started building their residences here. No information about social or economic problems is ever to be found in the local papers – Beverly Hills lives in its own world, following its own rules. For the first time in the century-old history of the town its inhabitants had to act as a community when the permanent transportation paralysis had made it clear that the plan to connect Beverly Hills with the centre of LA with an underground line had to be given serious consideration (it was accepted after tempestuous discussions and public consultations).

Figure 8. Boutiques in Beverly Hills; Kate Mantilini restaurant designed by Morphosis, 1986



Source of photo: author

The inflow of rich people interested in owning a house next to show business stars has slightly changed the look of the neighbourhood. Nowadays, the greatest stars tend to move to Santa Monica or Malibu (the more avant-garde go for Venice) and the development in Beverly Hills is getting denser than ever before. However, the most prestigious commercial address is still Rodeo Drive, where shoppers can visit a boutique designed by Rem Koolhaas (Prada) or Antonio Citterio (De Beers), and then have lunch in a restaurant designed by Morphosis (Kate Mantilini). The few office towers look as if they are here by mistake and the regular daily work that gets done each day in their interiors is somehow out of character of Beverly Hills. The Los Angeles County Museum of Art (LACMA) designed by Renzo Piano gives the equally out-of-place impression.

²² Beverly Hills: approx. 35 thousand inhabitants, area: approx. 15 km², density: approx. 2,300 persons/km², www.census.gov/quickfacts/table/SEX255214/0606308, as of the 6th March 2016

Figure 9. LACMA designed by Renzo Piano Building Workshop, 2008 - 2012



Source of photo: author

Venice²³

Officially, Venice was established in 1905 as a seaside resort situated slightly over 20 km away from Los Angeles. At about that time, the land and hotels owners started building canals and a pleasure pier, with an auditorium, a restaurant, a dancehall and a scenic railway line. The population, which in 1910 amounted to little over 3,000 inhabitants, soon grew to exceed 10,000, with 50,000 to 150,000 tourists coming to the town at weekends.

Figure 10. Bay Cities designed by Mark Mack, 2001; the Boardwalk in Venice,



Source of photo: author

In 1926, Venice was formally annexed by the Los Angeles County and continued to expand its tourist infrastructure, streets and canals. The Great Depression took its toll on the city, marking a period of decline and although oil was discovered in the area still before the 2nd World War, land prices were dropping and a growing number of houses stood vacant. Low property prices soon attracted immigrants and young artists. Crime rates were rising, but at the same time the

²³ Venice: approx. 41 thousand inhabitants, area: approx. 8 km², density: approx. 5,100 persons/km², <http://maps.latimes.com/neighborhoods/neighborhood/venice/>, as of the 6th March 2016

city was stirring back to life. The Beat Generation era became the *founding myth* of contemporary Venice, which, having undergone gradual gentrification, is now an LA district of a cult status, inhabited by the artistic elite, who prefer a loft apartment over a residence with a pool. Hence, the city is characterised by unusually dense development – as for Los Angeles – and it features structures such as Ecochic Venice Loft Homes designed by R&D Architects (2007) or Bay Cities Lofts (2001) and AB/BRO (2007) by Mark Mack.

Figure 11. The Chiat Day Office Building by Frank Gehry, 1991,



Source of photo: author

The image of Venice would be incomplete without the throbbing with life seafront boardwalk or – of equally cult status as the district itself – the Chiat Day Office designed by Frank Gehry (1991). This was the first design project in which Gehry applied his future trademark, i.e. folding metal façade surfaces, and it secured him a place in history of architecture textbooks.

Santa Monica²⁴

The settlement of Kecheek, which has been replaced by current Santa Monica, had existed long before the arrival of Spanish Conquistadores. In the second half of the 19th century, i.e. only a century after the events of the Spanish Conquest, the city already had a masonry town hall and an operating railway line. Santa Monica, similarly to Venice, soon became a tourist resort and felt acutely the pinch of the Depression in the 30s. Hotels went bankrupt and corruption was spreading into all aspects of public life as only a thousand people in the city actually did have jobs. The economy boost came with the opening of the aircraft manufacturing plant. During the 2nd World War, Douglas Aircraft Company provided employment to 44 thousand people.

²⁴ Santa Monica: approx. 93 thousand inhabitants, area: approx. 22 km², density: approx. 4,300 persons/km², www.census.gov/quickfacts/table/SEX255214/0670000, as of the 6th March 2016

Today, Santa Monica, with good road connection to the other parts of the metropolis, provided by the cult Route 66 and the ring-road built in the 60s, is more of a tourist resort than an industrial centre. More “urban” than other cities of the agglomeration, it is also one of the most expensive. The basic development type are small single-family buildings and low office and commercial buildings located on smaller lots than is customary in the neighbouring towns. For example, the Ocean Breeze designed by Atelier V (2009) is an apartment building with 20 apartments of approx. 60 m².

Figure 12. Step Up Fifth, 2009; Lofts at Cherokee Studios, designed by Pugh+Scarpa, 2001



Source of photo: author

Santa Monica features several interesting examples of more environmentally aware architectural designs. The roof and the southern façade of Colorado Court by Brooks + Scarpa Architects (2002) are clad with photovoltaic panels (the excess energy is sold to the municipal electricity supply grid), and the façades of the Lofts at Cherokee Studios by Pugh + Scarpa (2001) have been designed to actively limit the amount of light and heat entering the interior of the building. The same office realised the experimental design project Step Up on Fifth – 46 flats for elderly, homeless and intellectually disabled people. The residents of the building remain under 24/7 care, they have access to medical care and physiotherapy. Semi-transparent panels on the façade allow the residents of the building situated along the street frontage to have the minimum privacy, while they do not separate them entirely from the street outside.

Figure 13. Civic Center Parking designed by C. Moore, Ruble, Yudell (2011); the wide beach in Santa Monica,



Source of photo: author

Santa Monica has no shortage of public utility buildings, there are the Sony Music Entertainment Center designed by Steven Ehrlich (1992) or the municipal library by Charles Moore (2006), just to name a few. It is significant, though, that the landmark of the city is a multi-storey car park. The structure, designed with equal assiduity as office or residential buildings, is, nevertheless, much larger. The car park is a popular meeting spot and a viewing point – the terrace of the roof café offers splendid views over the Pacific and the city panorama. One cannot fail to see the structure, especially after dark, when – powered by photovoltaic cells – it glows with all the colours of the rainbow.

Malibu²⁵

Malibu is one of the youngest and the smallest of the “prestigious” cities comprising the Los Angeles County (it was incorporated in 1991). The turning point in the rather turbulent history of the town, which started as an Indian settlement named Chumash, went on to become Spanish ranch land and later on an industrial town (famous for the manufacture of ceramic tiles), happened in the 70s of the previous century. The local community succeeded in blocking construction of an atomic plant, a motorway which was to run along the coast and a sewer network collective main pipe, and thus they managed to preserve the picturesque landscape with low density of development. It is here, in Malibu, where Pritzker prize laureates design residences for the world’s richest people.

Hollywood²⁶

The beginnings of Hollywood go back to the mid-19th century. Half a century later, the small farming settlement had the population of no more than 500. Soon, linked with a single-track tramline to the neighbouring Los Angeles, already boasting the population of 100,000 inhabitants, it became the capital of the movie industry for purely financial reasons: everybody

²⁵ Malibu: approx. 13 thousand inhabitants, area: approx. 51 km², density: approx. 250 persons/km², <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>, as of the 6th March 2016

²⁶ Hollywood: approx. 85.5 thousand inhabitants, area: approx. 9 km², density: approx. 9,500 persons/km², <http://www.census.gov/quickfacts/table/PST045215/0684410>, as of the 6th March 2016

who was interested in movie making was running away to the West Coast to avoid paying high royalties for using Thomas Edison's patented inventions. Hollywood, which was cheap and with good transportation links and from which it was easy to flee to Mexico, should the Patent Office drop in for inspection, was simply a perfect place.

Figure 14. Lord Vader among tourists outside the Dolby Theater; development in Hollywood Boulevard,



Source of photo: author

The first stationary movie studio was founded in 1911 and others soon followed. The famous white slogan was put up on the slope of Mount Lee in 1923. Although, over time, movie studios were built outside Hollywood as well, it seems that still the only things allowed into Hollywood are the ones which are somehow connected with show business. Obviously, apart from the tourist industry which has been spun off by the Dream Factory.

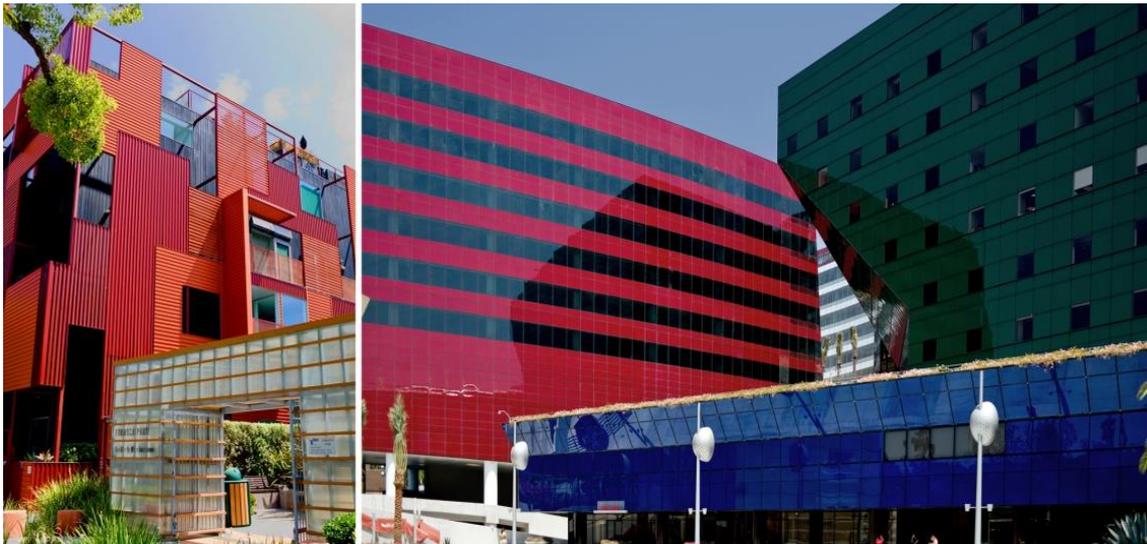
**Figure 15. The Disney Feature Animation Building designed by Robert A. M. Stern, 1995;
Michael D. Eisner Building designed by Michael Graves, 1990,**



Source of photo: author

Hollywood is not only the Walk of Fame or the Dolby Theater hosting the annual American Academy Awards ceremonies. Although one may find it hard to believe, given the large number of film characters strolling leisurely in the streets or the Disney's studio of 1990, designed by Michael Graves, with its tympanum supported by 6-metre-tall dwarfs, this fairy-tale façade hides an "ordinary" city, with the metropolitan population density index, with traffic jams, rubbish, air pollution and loads of common, daily-life problems.

Figure 16. Formosa 1140, designed by Lorcan O'Herlihy Architects, 2008; Pacific Design Center by Cesar Pelli, 1975, 1988, 2011,



Source of photo: author

Conclusions

The areas of the city are arranged in a way resembling a chessboard. Although the cities described above are neighbours, they grow individually, without any significant functional links. This model of a city spatial structure has been defined by Michael J. Dear as mosaic capitalism (keno capitalism).²⁷ The growth of a metropolis in its contemporary urban form is tremendously affected by globalisation, accumulation regime, transformation of the economy from Fordian into post-Fordian and pro-environment policies undertaken by its municipal authorities. Such model of city growth, although praised by members of the Los Angeles School, has its opponents, who claim that the city centre is no longer attractive in the sense of focusing all the vital aspects of public life, but instead it has turned into a centre of business, financial or information services. The metropolis has spun off multi-centre metropolitan regions. Areas of low population density have been interspersed with those of high density, and centres of local politics are still competing with one another.²⁸

Los Angeles is not composed only of office towers and culture centres frequented by people living in remote, luxurious suburbs, who come here in their cars driving wide roads. Among the

²⁷ M. J. Dear, *Imagining Postmodern Urbanism*, Blackwell Publisher 2000, pp. 88-91.

²⁸ M. Gottdiener, *Urban Analysis as Merchandising: The "LA School" and the Understanding of Metropolitan Development*, [in:] V. Sarapik, K. Tüür (eds), *Koht ja Paik/ Place and Location*, Tallinn 2003, pp. 157-168.

88 cities comprising the agglomeration, there are also ones whose hallmark will be the serious crime rate rather than contemporary architecture. In spite of such deep social divisions, infrastructure inefficiency, enormous administrative area and the serious threat of numerous possible natural disasters (droughts, wild fires and earthquakes),²⁹ Los Angeles seems to be surprisingly resilient.³⁰ Diversification of the local economy grants the city greater stability – six years after the great crisis of 2007/2008, which was also felt in California with its enormous real estate market, the labour market in LA flourishes again and the GNP is 1% higher than the national average. If we add to it the close presence of the best schools in the world (Pasadena), the advanced technologies industry (Culver City), beautiful views (Malibu), wide beaches (Santa Monica), cult artistic districts (Venice), a little vanity (Beverly Hills) and the movie industry, the inconveniences of a 2-hour drive to work or having to drive to a place where you may jog will seem irrelevant to many. Especially so since the ban on watering house gardens and filling private swimming pools has slightly narrowed the gap between the richest and the poorest inhabitants of the largest “polycity” in the West Coast.

Los Angeles also attracts architects. American cities are fairly young, apart from regulations related to height or size of buildings, there are practically no limitations imposed on designers. At the same time, it becomes discernible that more attention is being paid to ecology and pro-environmental issues. Living in an apartment in a multi-family building is no longer a sign of an insufficient financial status. Both the cities comprising the County of Los Angeles and the ones making up the agglomeration itself are of an ever more polycentric character and they do not gravitate towards one centre. Their diverse characters, which may become focal points for the growing identities of edge cities, as well as the absence of the traditional magnet, which are, in other equally big cities, e.g. seats of State administration, are undoubtedly important factors affecting the functioning of this agglomeration. Agglomeration in which “city within a city” does not necessarily mean a huge hybrid complex.

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²⁹ See *inter alia*: Mike Davis, *Ecology of Fear: Los Angeles and the Imagination of Disaster*, Metropolitan Books, New York 1998.

³⁰ Resilience, including resilience of a city, means the ability of a system to preserve its basic functions in spite of the factors causing disturbances in its operation. The term, originating in the field of physics, is used in psychology, psychiatry and in the study of social systems. After: A. Porebska, P. Rizzi, *Resilient City* [in:] *Future of the Cities – Cities of the Future*, J. Gyurkovich et al. (eds), CUT Press, Kraków 2016, p. 126.

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Figures

Fig. 17. A bird's view of Los Angeles: we can see the road network and the area densely parcelled-out into small lots, with the dominant single-family development. Total absence of vacant lots and generally accessible recreational areas is visibly striking. photo: author

Fig. 18. The skyline of Los Angeles, photo: author

Fig. 19. The Cathedral of Our Lady of the Angels, designed by Rafael Moneo, 2002; and the W. Disney Concert Hall, designed by Frank Gehry, 2003, photo: author

Fig. 20. Central Los Angeles High School 9 for the Visual and Performing Arts, designed by CoopHimmelb[au], 2008; Caltrans District 7 designed by Thom Mayne, 2005, photo: author

Fig. 21. The high-rise designed by Gensler, 2010; New Carver Apartments designed by Michael Maltzan Architecture, 2009, photo: author

Fig. 22. 3535 Hayden; the Beehive, designed by Eric Owen Moss, 2001, photo: author

Fig. 23. The Cahill Centre for Astronomy and Astrophysics, Caltech, designed by Morphosis, 2008, photo: author

Fig. 24. Boutiques in Beverly Hills; Kate Mantilini restaurant designed by Morphosis, 1986, photo: author

Fig. 25. LACMA designed by Renzo Piano Building Workshop, 2008 – 2012, photo: author

Fig. 26. Bay Cities designed by Mark Mack, 2001; the Boardwalk in Venice, photo: author

Fig. 27. The Chiat Day Office Building by Frank Gehry, 1991, photo: author

Fig. 28. Step Up Fifth, 2009; Lofts at Cherokee Studios, designed by Pugh + Scarpa, 2001, photo: author

Fig. 29. Civic Center Parking designed by C. Moore, Ruble, Yudell (2011); the wide beach in Santa Monica, photo: author

Fig. 30. Lord Vader among tourists outside the Dolby Theater; development in Hollywood Boulevard, photo: author

Fig. 31. The Disney Feature Animation Building designed by Robert A. M. Stern, 1995; Michael D. Eisner Building designed by Michael Graves, 1990, photo: author

Fig. 32. Formosa 1140, designed by Lorcan O'Herlihy Architects, 2008; Pacific Design Center by Cesar Pelli, 1975, 1988, 2011, photo: author

HUMAN DIMENSION OF URBAN SPACES: INTERNATIONAL BIENNALE OF ARCHITECTURE KRAKÓW 2015 AND THE POLISH AWARDED COMPETITION ENTRIES

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Key words: International, Biennale, of Architecture, Krakow

Abstract

“Jan Gehl, an expert in humanisation of cities, is convinced that the enhancing of quality of our life in the cities is a derivative of the image of public spaces [...] where people meet “in order to exchange ideas, to trade or simply to rest” (Jan Gehl, *Life between buildings*). These words hail from the *Regulations of the International Biennale of Architecture 2015* whose motto was “Human dimension of urban spaces”. Its idea was to inspire the debate, both at the civic and self-governmental level, on Polish public spaces and their accessibility, through the presentation of architectural and urban designs. It was considered vital because of the colossal means from the EU cohesion funds which are being spent in Poland on urban revitalisations. Due to her involvement in the Biennale’s organisation (commissioner, juror, moderator), the authoress raises the issue of the mentioned and awarded Polish designs. All the entries (over 200) were competing in one of the three categories: of the realised designs, hypothetical ones and interventions-manifestos. They provide the perfect comparative material. As it was stated in the Protocol of the Jury, ‘In the competitions A i B , the Jury has mentioned and awarded completed projects in various scales, from small architectural scale through an urbanistic one to landscape, both mobile, temporary and permanent, yet always fulfilling the criterion of shaping urban spaces in human dimension’.

The article, analysing the recent solutions and observations proposed by Polish architects, mostly for Polish public spaces, shall discuss whether one may observe positive tendencies towards the return to urbanity and to human, communal character of city’s public spaces.

Introduction: International Biennale of Architecture in Krakow

The issues and results of the last year’s International Biennale of Architecture in Krakow, whose motto was *the Human Dimension of Urban Spaces*, seem to be in perfect concord with the

overall topic of the present CTV Congress, discussing the most welcome return to urbanity, as the title “Back to Sense of the City” is showing. However, for the better understanding of the statement, it is rather necessary to outline the history and aims of the Biennale.

The aims and history of the Biennale

“The MBA Kraków [International Biennale of Architecture] has been held in Krakow for the past 30 years as a regular event. Each subsequent edition offers an unique forum for exchanging ideas and individual experience among the architects from around the world. A diversity of accompanying events like thematic competitions, exhibitions, presentations and lectures makes it a totally unique event for everyone involved in any way with the domain of architecture in this part of Europe [...] The uniqueness of this cultural event consists also in its very location. Krakow is a city well recognized throughout Europe. This is owed primarily to its rich historical heritage; its landmark architecture playing a pivotal role. It is in this city that a continuous rivalry between the old and the new, the historic and the modern, the conservative and the avant-garde has gained much prominence. The ever on-going architectural debate seems to be embedded in the very soul of this vibrant city.”¹

The above quote describes the very essence of the Biennale, an open architectural competition not only held in Krakow, but also devoted to the city itself. The Biennale is organised by the SARP, Association of Polish Architects (the oldest Polish artistic association, founded in the year 1877 in Krakow), in cooperation with the Municipality of Krakow. Its idea was coined by Romuald Loegler, one of the most recognised Polish architects, already in the year 1985, in the totally different times – i.e. in the Communist era. Krakow, the former capital of Poland, and the seat of one of the oldest universities in this part of the world (1364) was already then inscribed on the UNESCO World Heritage List (1976). Yet the city was totally neglected, its architectural treasures in desolate condition, suppressed by the perilous vicinity of the then largest steel works in Poland, the Lenin Steel Works of Nowa Huta. Implanted directly to the East of Krakow, these huge factory combine created horrible air pollution including acidic rains, caused by its steel production, at peak times reaching 8 million tons of steel per annum.² (Interestingly, the Nowa Huta district, built by the regime as an ideal industrial town, yet very well laid out by Polish architects, itself became the subject-matter of the Biennale in the year 2002, under the motto “less ideology – more geometry”³). Krakow, then largely underinvested, needed a new impulse, like all Poland. With the political upheaval of the year 1989 and the advent of freedom, for which the Poles fought for so long after 1945, came the great success of Krakow, which has reinvented itself as one of the foremost tourist destinations of Europe. All of those tremendous changes were reflected in the issues raised by the Biennale, whereby each of its 12 editions was devoted to a then current aspect of Cracovian architecture and urbanism, hoping to spark –

¹ The quote from the Biennale public announcement, written by the Biennale Curator, Romuald Loegler and the Organisational Committee, as [in:] : <http://www.mba2015.sarp.krakow.pl/>

² Cf. Miezian Maciej, *Nowa Huta, socjalistyczna w formie, fascynująca w treści*, Kraków: Wydawnictwo Bezdroża, 2004,

³ Cf. Lisowski, Bohdan; Urbańska, Marta A., Jazwiecka Dominika (eds.) *International Biennale of Architecture, Catalogue*, Kraków: SARP, 2015, p. 19

and doing so – a vivid architectural public debate regarding the city, by means of widely publicised competition entries and popular accompanying events.

MBA 2015 and its specific character in respect of urbanity

Novel approach

As it was mentioned earlier, the Biennale had 12 editions in 30 years, as due to financial constraints it could not always be held biannually. The year 2015, actually the year of the Biennale's 30th anniversary, marked quite a difference in its overall concept. According to the Curator's idea, it ceased to be a competition announced with a special actual design assignment in Krakow, as it was before - be it for instance the aforementioned Nowa Huta, the Cracovian Commons (2000), The Main Market Square (1996), or the environs of the convent of the Norbertine Nuns (1987)⁴. Instead Mr Loegler envisioned a more general approach. The Biennale was to be held in three categories – competitions: exhibition of realised designs, exhibition of theoretical and academic designs or of uncompleted competition entries, and the competition of architectural speeches-manifestos. All of them had, however, to pertain to a general motto: Human Dimension of Urban Spaces. It allowed for presenting the designs and thoughts devoted to such aspects of the main topic as:

“A new dimension of design of a city

A city full of life and bustle

A safe city

A sustainable city

A healthy city

A pedestrian-friendly city

A city of better-designed urban spaces

A city of better architecture.”⁵

Procedure

The first two competitions, A and B, required preparing the maximum of two boards presenting the designs, while the third one, C, required public delivering of a manifesto of maximum 10 minutes. All the competitions were adjudicated according to the SARP rules of architectural competitions, by the international Jury consisting of architects: Jan Butenschøen (Norway), Giovanni Multari (Italy), Claudio Nardi (Italy), Piotr Lewicki (Poland) and Marta A. Urbańska (Poland, who also was the organisational commissioner of the competition C). All of the entries – in case of the interventions, their abstracts – were published in the Biennale Catalogue. Following the preliminary selection of entries by the Referring Judges, the ones conforming to

⁴ Ibidem

⁵ Op.cit., p. 21

the Biennale Regulations⁶ were exhibited and chosen for the public presentation of the interventions respectively.

As the events have shown, both the exhibited entries (over 60 out of over 200) and the delivered manifestos (27 out of over 50) – the great majority of them hailing from Poland – have provided the perfect review of the recent development in Polish architecture regarding the return to the sense of the city.

Polish architecture after 1989: finally time for urban spaces indeed

From rudiments to spectacular public buildings

As it was stated, one may deem the entries from Poland, designed mainly by the local architects, representative for the current state of architecture and public spaces here. It is perhaps useful to remind that after 1989 one firstly had to satisfy the rather rudimentary, even pedestrian needs in terms of infrastructure, to start building more sophisticated architectural structures only circa a decade later. It was already observed and described by many architectural writers⁷. Indeed after the year 2004 and the accession to the EU, resulting in huge cohesion funds, several impressive buildings started to emerge, including public ones. Especially the means allocated to cultural functions, which were long and purposefully neglected in the years 1945 – 1989, resulted in many spectacular buildings. There emerged for instance numerous philharmonic and concert halls, all completed in 2014 and 2015 (National Forum of Music in Wrocław, by APA Kuryłowicz & Associates; seat of the NOSPR in Katowice – National Symphonic Orchestra of Polish Radio and Television in Katowice, by Tomasz Konior, CKK Jordanki in Toruń by Fernando Menis and last but not least, the Philharmonic Hall in Szczecin, by Barozzi Veiga under cooperation of Jacek Lenart, in Szczecin – which received the much-coveted Mies van der Rohe Award in the year 2015).⁸ Among many other buildings one should name several multipurpose halls and edifices, such as the imposing ICE International Congress Centre in Krakow by Ingarden & Ewy Architects (2014), featuring the grand auditorium of nearly 2000 seats or a smaller (yet beloved by the Cracovians) multipurpose cultural centre MOS – The Małopolska Garden of the Arts (recipient of 19 national and international architectural awards!) by the same architects (2012).

From buildings to “life between buildings” – the nascent contemporary urban spaces

However, amidst the truly impressive wave of construction of cultural public edifices, not to mention dynamic housing developments, largely financed and built by private, commercial developers, the public spaces seem to have been utterly lost in Poland after 1989. The reasons

⁶ Cf. Op.cit., pp. 22-26 for the abridged version and <http://www.mba2015.sarp.krakow.pl/dist/2dwnl/The%20Biennale%20Regulations.pdf>

⁷ Cf. Ingarden, Krzysztof, Urbańska, Marta A., *Polish architecture today: what languages do we speak?*, lecture delivered at the UIA Congress in Tokyo, 2011; publication in preparation

⁸ Cf. Janusz Sepioł (ed.) et al., *Form Follows Freedom. Architektura dla kultury w Polsce 2000+*, Krakow: MCK 2015

of this deplorable development, or rather lack of development, are multiple indeed – among others are the downfall of spatial planning caused by the decidedly complicated law (Act on Spatial Planning, 2003) and the forced loss of validity of all the former spatial development plans. Thus the publication of Jan Gehl's classic *Life between buildings* in Polish by RAM, the publishing house founded and owned by Romuald Loegler, the Biennale Curator (and translated by the authoress of this article), in the year 2010, became a true eye-opener to many. In keeping with the message of the book, the Biennale Curator aimed at pinpointing the good examples of public urban spaces, also for their didactic value to the self-governmental authorities as the key stakeholders in creation of such places. Indeed the Municipality of Krakow, following a painstaking process of public protests against a planned housing development, has recently finally announced the long-awaited study competition for the spatial and programmatic development of the scenic former quarry "Zakrzówek" area – aiming at creating the first public park laid out since the 1950s.⁹

Awarded and mentioned Polish entries

*Excerpt from the protocol of the Jury of the Biennale regarding Polish entries*¹⁰

The aforementioned Jury, convening on the 15-16th October 2015 in the ICE Cracow Congress Centre, acting on the basis of the MBA Regulations and evaluating all the entries in the competitions A,B,C in respect of their complying with the motto of the Biennale – 'Human Dimension of urban Spaces', decided to award the following mentions and prizes:

Competition A – An Exhibition of Realised Designs - Honourable Mentions (ex aequo) and Prizes:

BudCud – Mateusz Adamczyk, Agata Woźniczka – "Kwartal FKŻ", information / multipurpose pavillion of the Festival of Jewish Culture in Krakow's Kazimierz District, for a temporary yet inspiring insertion in a strictly historic, medieval context

eM4. Pracownia Architektury Brataniec – Marcin Brataniec, Urszula Forczek-Brataniec, Damian Mierzwa – "Revitalisation of the Old Town in Gorlice",

⁹ Cf. the competition announcement

http://www.sarp.krakow.pl/konkursy,736,Competition_for_the_elaboration_of_the_spatial_and_programmatic_concept_of_the_Z.html

¹⁰ Written by the authoress of the essay as the Jury member, in the SARP archives; the excerpt covers the entries regarding Polish sites and examples

Renato Rizzi + Grupa Projektowa A.T.I. + Q-ARCH Sp. z o.o. – "Building of the Shakespeare Theatre in Gdańsk",

Sofft – Mikołaj Smoleński – "The Loungeabout" in Wrocław

Figure 2 Sofft Mikołaj Smoleński, The Loungeabout



autor: **Leather**,
Mikołaj Smoleński SOFFT, Wrocław PL
 kurator cyklu ARCHI-BOX / ARCHI-BOX kurator:
 Michał Duda, Muzeum Architektury, Wrocław PL

Trudno przecenić znaczenie czynności jaką jest leżenie. Leżymy przez jedną trzecią życia śpiąc lub odpoczywając, choć niekiedy czynnie wyrażając sprzeciw i poglądy polityczne. Leżenie to pozycja najbardziej sprzyjająca rozmyślanom i pomimo intymnego charakteru, może też sprzyjać integracji. Nie mniej jednak leżenie w mieście należy do czynności najbardziej krępujących i niepokojących. Powstrzymują nas przede wszystkim skąpanie z bezdomnością, alkoholizmem oraz kłopotliwym klimat znaczącego do zalegania na miedzy parkowych murawach. W miastach brakuje też infrastruktury nadającej się do leżenia – ławki jako meble przeznaczone do siedzenia zupełnie nie są dostosowane do pozycji horyzontalnej. Coraz częściej stanowi to nieprzypadkowy element szerszej polityki urbanistycznej materializującej się pod postacią tzw. „architektury defensywnej”. Im bogatsze i bardziej znaczące stają się miasta, oraz im większe w nich kontrasty społeczne, tym większą pokusą aby rugować z widoku wyjątkowo co nie pasuje do ich stymulacyjnego i dynamicznego „autogeneratu”.

„Połegawacz” to instalacja, której założeniem było odsztygmatyzowanie czynności leżenia w kontekście miejskim. Forma obiektu pozwala realizować to na kilka sposobów. Najdawniej, często dzieci, mogą się bawić na siatce-hamaku w górnym rogu konstrukcji (wersja z 2014r.), młodzież i ludzie w średnim wieku mogą się swobodnie rozkładać lub pokładać na sprężonych półgosedach. Serwisom defekacyjnym są tradycyjne toalety. Układ podestów i ogarnięcie powierzchni łóż-podestów się z nogami do góry co przynosi siadanie w okresie letnim. Głęboko łóż-podest stawy spontanicznie jako wędrowni, parkiet taneczny, plac zabaw, otul czy nawet scenariusz do fotosesji ślubnych. Swoją popularność zawiadza w dużej mierze połączeniem z funkcją mini-kawiarni oraz cyklem imprez. Po inauguracyjnym sezonie 2014, kiedy funkcjonował w ramach cyklu wystawowego Archi-Box organizowanego przez Muzeum Architektury, znalazł chętnych na sezon letni 2015. Połegawacz został odbudowany z niewielkimi przebudowaniami i sprężadził się w komercyjny warunkach jako element Cafe Piława przy placu Zwernywieckiej koto 200.

POŁEGAWACZ / THE LOUNGEABOUT lato /summer 2014 Wrocław /Park Stowackiego /Muzeum Architektury /Cafe Sztuczki



Source: Competition Catalogue MBA 2015, courtesy of the SARP and the architect

WIZJA Biuro Architektoniczne – Stanisław Deńko, (nsMoonStudio Piotr Nawara, Agnieszka Szultk, Sławomir Zieliński) – „Seat of Cricoteka - Tadeusz Kantor Art Documentation Centre”, for creation of a new quality of a fragment of an urban space at the Vistula River in Krakow and its presentation in the striking context of bold architecture

3rd Prize:

Michał Dąbek, Jan Kuka – "Monument to Henryk Sławik and Jozsef Antall Senior in Katowice", for creation of a place of reflection and memory in urban space, shaped by means of architectural elements in human, adequate dimension

2nd Prize:

RS+ Robert Skitek – Robert Skitek – "Development of the eastern shore of Lake Paprocańskie in Tychy" , for comfortable and aesthetic shaping of the place of rest in contact with nature in the generally highly urbanised context of a Silesian town

It is worth mentioning that in this section all the mentions and awards went to the designs built in Poland, save for the first one. The 1st Prize was given to the truly epic project by Közti Zrt – Tima Studio – "Kossuth tér reconstruction Budapest", for an intervention of great scale and significance - multi-storey rebuilding of the square surrounding the Hungarian Parliament building, place of celebration of civic values.

Competition B – An Exhibition of Conceptual Designs - Honourable Mentions (ex aequo) and Prizes:

Autorska Pracownia Projektowa Jerzy Wowczak – Jerzy Wowczak, Agnieszka Sanecka – „Way to freedom” in Gdańsk, for a poetic proposal of the representational promenade – public space connecting places of memory of the “Solidarity” movement in Gdańsk

3rd Prize:

Zvi Hecker – "Memorial Park of the former German Nazi Concentration Camp Płaszów", Kraków

2nd Prize:

Kacper Ludwiczak – "Concept of development of Warsaw Architecture Pavilion Zodiak",

Competition C – A Seminar of Manifestos-Honourable Mentions (ex aequo) and Prizes:

Zuzanna Bogucka, Katarzyna Sentycz – "Designing the invisible dimension of urban spaces" / for an interestingly illustrated intervention regarding aspects of human impressions and reactions in designing of urban spaces

Andrzej Kaczmarczyk – "Miasto Europa / Europe City",

for an interesting comparison of values of places and spaces in human scale in culturally diverse, variously shaped cities of Europe

Elżbieta Szymańska – "Sojalizator Miejskowy / Local Socialiser", for an original proposal of space integrating atomised communities in Warsaw

3rd Prize:

Małgorzata Burkot – „Noble reviving – revitalisation vs gentrification", for a methodical and convincing analysis of significant problems of transformation of contemporary cities

2nd Prize:

Arkadiusz Pacholski – "Senses as the best designers of a modern pavement", for a captivating analysis of contemporary practices of 'revitalisation' of Polish urban spaces in respect of realisation of surfaces of pavements on the example of author's own research in Kalisz

1st Prize:

Przemysław Chimczak, Tomasz Bojęcz (BLOKBLOG) – "Ageing-friendly cities. Connections of spatial analyses and participatory methods while creating Masterplans 60+"

Discussion of the select entries

The following passages are discussing a few chosen Polish entries which appear to be the most interesting for the value of their urbanity and generating city-like character of life, and doing so in spite of the position in the Jury's evaluation, very different scales and varying locations of their design interventions.

Realised designs

In the Competition A, all the mentioned and awarded entries would merit closer attention, as their brief descriptions by the Jury are showing; however, due to the limited space of this article, only two are illustrated and discussed here. Firstly, the completed design by the team of eM4. Pracownia Architektury Brataniec, was mentioned for the successful revitalisation of the historic centre of Gorlice and retrieving its space for the inhabitants. The design itself won numerous prizes before, and was widely publicised. The historic Market Square of Gorlice is quite large in scale, as Gorlice, founded as a late medieval private town in south-eastern Poland, was laid out generously. Moreover, as the town of Gorlice is situated at the foot of the Beskidy mountains, it has quite a steep slope. The Market Square, once pestered by the traffic, having lost its traditional market / trade function, was until recently quite a morose space. Following the aforementioned influx of the cohesion funds in the years 2004 – 2013, the self-governmental authorities decided about the renewal of the physical qualities of space in order to render it more urban in terms of its more civic character. Thus the geometry (slope) was slightly changed, including the positioning of a service pavilion in the upper part of the Market and the steps conducive to sitting and resting along the longer side of the Square; the extant trees were left and surrounded by large benches; a fountain was installed, as were other urban furniture. The urban floor was paved with large slabs of stone, conducive to comfortable walking. The space, completed in 2013, may be – and is often – used as a place of various events, such as stage and cinema shows, fairs, demonstrations, masses etc., due to the reorganisation of traffic.

Another mentioned proposal in this section was "The Loungeabout", designed by Sofft – Mikołaj Smoleński. It was cited and is discussed here for its wit, simplicity and low budget. That purposefully shaped structure was serving rest and relaxation, and was temporarily located in various urban corners of the city of Wrocław in summer of the year 2014. Thus its demountable character is decidedly different to that of the solid space of the medieval Market Square in Gorlice. Nevertheless, its urban quality is no lesser, allowing for leisure and enjoying the

company in a pleasant, green environs, close to the water (as the diagram on the board is showing). Wrocław is blessed with the presence of the River Oder, which is spanned by many bridges there. The pictures are showing “the Loungeabout” located in the park adjacent to the now Museum of Architecture in the former Bernardine Monks’ convent and later at the banks of Oder. Its geometrical, angular, sloping shape is comfortable for sitting, reminiscent of an amphitheatre (but with a safe, higher rear wall) and amusing. Built of coarse plywood, the urban furniture is easy to transfer and mount.

Theoretical and unbuilt designs

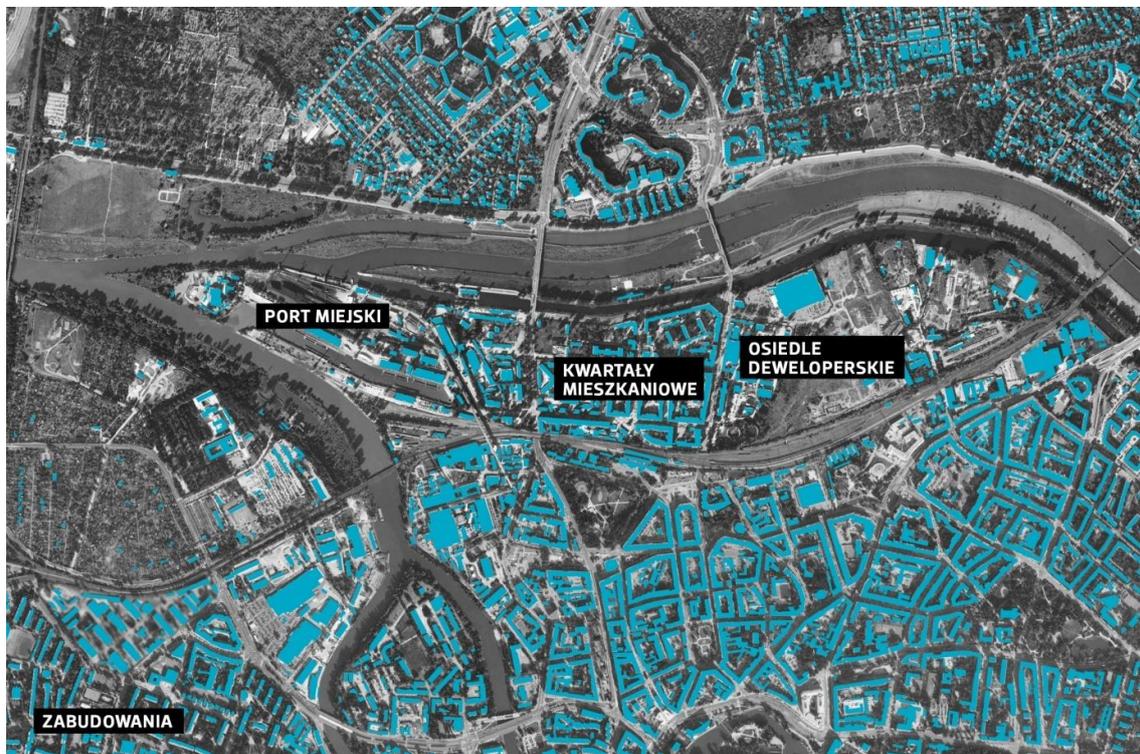
This section of the Biennale competitions was replete with interesting proposals, also foreign ones. However, one Polish entry was chosen here for discussion, because of its location and strictly geometrical language. It is the proposal by Kacper Ludwiczak – “Concept of development of Warsaw Architecture Pavilion Zodiak”, awarded for its lapidary, archetypal and yet versatile form of public space in the strict centre of the capital of Poland. The proposal consists in adding a square form of an atrial, low building in front of the Modernist pavilion, itself recessed from the narrow public passage. The currently rather unused, non-entity little piazza preceding the pavilion is complemented with a minimal, Miesian structure. Its modular sections may be opened or closed at will, extending the exhibition space. The design, drawn in black and white, is both simple and timeless thus evoking the city patterns of the Classical Antiquity.

Figure 4. Kasper Ludwiczak, Warsaw Architecture Pavilion Zodiak

Architectural manifestos

This competition proved to be very successful and interesting indeed. The Jury, confronted with vivid, richly illustrated interventions, awarded the team of BLOKBLOG, young architects and participatory activists. Their intervention, held *a deux*, received the prize for the original work analysing both urban space and social needs of the mainly elderly (60+) inhabitants of a residential district. They are suddenly confronted with the vicinity of a commercial, developers' housing estate in Wrocław. The work showed both exemplary urban analyses of the now rather neglected Kleczkow and Ołbin districts and told of participatory activities as the model of a pragmatic planning practice. Moreover, the work was clearly and well illustrated, convincing in the narration of methods of social activation and participation of the inhabitants, and it also resulted in a proper publication.

Figure 5 Przemysław Chimczak, Tomasz Bojć (BLOKBLOG), Masterplan 60+



Source: Competition Catalogue MBA 2015, courtesy of the SARP and the architects

Short summary

Circa half of the sent entries did not comply with the MBA 2015 brief and keynote, presenting new buildings rather than any urban public spaces. This also evidences the current state of affairs, whereby the public sector in Poland simply hardly invests in such new projects, leaving its duties unfulfilled. The only exceptions are probably the so called revitalisations of the extant spaces hailing from another time (as in the case of the historic centre of Gorlice). Such actions,

commendable from the aesthetic point of view as largely consisting indeed in the aesthetic amendment of public spaces, were once (in the 19th century) aptly named 'beautification'. Moreover, in many cases 'revitalisation' means felling more or less accidental verdure and excessively elaborately paving squares and streets. Such a common practice was brilliantly described by Mr Arkadiusz Pacholski in his witty (and vitriolic) analysis of the modern 'revitalisation' of his hometown of Kalisz. Whether that may be indeed deemed bringing urban spaces back to life, remains to be seen.

However, there were also entries which show increasingly good public, urban solutions of spaces – often generated by large public buildings as their surroundings (NOSPR in Katowice) or civilising the extant, intensely used space (Paprocańskie Lake in Nowe Tychy, Monument to Jozsef Antall in Katowice), or inserting a vitalising addition in the historic city space (multipurpose pavillion of the Festival of Jewish Culture in Krakow's Kazimierz District). The above of course refers to all the designs described in the section 4.

Thus, looking at the development of Polish architecture of 1989, from the rudiments and infrastructure to sophistication of splendid new public buildings, one may hope that the time of contemporary public, urban spaces – back to the sense of the city – is finally coming. Lost in the rapid political and economic transformation, they would be most welcome again, at long last. Our country has a tradition of excellent public spaces in human dimension – not only of the unsurpassed medieval, Renaissance and Baroque market squares of classic towns and cities... but also of the elegant boulevard layouts of the 19th century and of the prewar Modern cities designed and built in the free Republic of Poland.

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MICRO-SPATIAL AND URBAN EPHEMERA: BOTTOM-UP AND TEMPORARY INITIATIVES IN PUBLIC SPACE

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Key words: public space, participation, bottom-up initiatives, urban ephemera

Abstract

The concept of adaptation currently seems to best embody the specific nature of contemporary transformations of urban structures within the context of concurrent changes generally taking place in civilization, economics, and society. Cities since their very beginnings have adapted and transformed their structures to the current needs and conditions of every era. Today however it is difficult to conceive of broad, all-inclusive improvement projects: the focus has shifted in the direction of creating strategies, laying out goals and their means of achievement, and then the flexible adaptation of said means to the dynamically changing conditions of cities. In the transformations of today's Western cities the voice of urban residents has become louder and louder over the years, and the practice of participation has been known for decades. This issue has only recently become publicized in Poland. The author of this article would like also to bring attention however to other types of citizen participation in the transformation of public spaces, a kind of micro-adaptation, actions by which people spontaneously on their own initiative have always adapted to and adapt to the space that surrounds them. The following article discusses selected Polish and foreign examples of grassroots movements in the process of the "production" and adaptation of urban space¹, in addition to diverse ephemera: spatial events initiated by bottom-up community users of public urban space. The author's contention is that in today's intensely expanding urban structures, which often tend to lose their human scale, an important aspect of the development of public space will not only be the voice of users, but also bottom-up micro adaptations and often temporary social-space interventions whose growth are a sign of our times.

¹ Notion of the „production of space” derived from Henry Lefebvre's thought, see: Lefebvre H., Publisher: Blackwell Publishing: Victoria, Australia 2009.

Modern cities have become such complicated structures, and not only in spatial terms, that complete control and planning their evolution is from a practical point of view unrealistic. 16th century thought about cities as ideal plans, modernist ideas in the reorganization of urban structures, and also 20th century and contemporary projects and realizations of cities built from scratch in diverse parts of the world represent attempts at creating utopias. Critiques of these types of plans usually focus on the fact that they conceive cities as eternally perfect, non-evolving systems existing beyond the realm of space and time.² But we should not forget the fact that certain types of utopian thinking represent a spiritual condition, the faith in the possibility of planning improvements in the living conditions of humanity,³ and are the essential elements of every planning thought, every project. Without this faith or a certain naive urge to change humanity we would be unable to achieve progress. This is why it is not possible to completely discredit such endeavors. However, in the case of confronting utopia with reality or attempts at implementing utopian concepts contrary to reality and its participants, utopian plans acutely reveal their weaknesses, impracticality and radicalism⁴. This is especially apparent in the case of architectural and urban realizations as well as in interventions in public space.

In modernist projects the role of the enlightened architect was to reorganize space, implement changes and a new order, which were intended to bring an end to all previous spatial and even social urban ills. However, in those days they certainly did not ask city dwellers about their opinions on the subject of shaping a new, better reality. Plans instead were the result of the imagination of professional architects and visionaries. As Le Corbusier was want to say „city planning is an activity too important to leave to city inhabitants”⁵. Although this totalitarian approach to planning was already severely criticized in the 20th century, and despite the fact that today decidedly more democratic methods are in place for the reshaping of city space, it is not rare that today one may glean certain radical aspects in various architectural and city planning projects. Obviously it is much simpler to consolidate the entire conceptual process and the carrying out of projects in the hands of the architect, city, or municipality, while it is much more difficult to harness the voice of city inhabitants, the users of public space. And once again, in many Western European countries and in other parts of the world certain logistics have been created in conjunction with well functioning means of communicating with inhabitants and public participation. They are extremely valuable and are constantly evolving processes, although not at all easy to enact.

Despite all kinds of attempts at democratizing planning processes, they do not always produce the desired effect. Consultation and close cooperation with city inhabitants on the plans of, for example, the usage of a local square, is much more likely to result in the place truly serving the local social needs and possessing a spatial functionality, but it is unrealistic to expect that the

² Jędruch D., Utopia jako kłopot [in:] Autoportret. Pismo o dobrej przestrzeni 2(34) 2011, Publisher: MIK, Kraków 2011, p.15-16.

³ Ibidem.

⁴ Ibidem.

⁵ Fishman R., Urban Utopias in the Twentieth Century: Ebenezer Howar, Frank Lloyd Wright and Le Corbusier, Publisher: Basic Books, Nowy Jork 1977, s.239; after: Rewers E., Post-polis. Wstęp do filozofii ponowoczesnego miasta, Publisher: Universitas, Kraków 2005, p. 263.

space will always be ideal. It is safer to say that as a kind of compromise and result of the discussion of many sides the plans will be the best possible option, which does not have to mean mediocrity.

Participation, understood as being the direct and indirect, formal and informal, individual and collective participation of citizens in the undertaking and realization of decisions concerning the common good⁶, is not however the only display of bottom-up intervention in urban landscapes. For centuries, by making small changes in their nearest surroundings people have adapted the built environment. Such phenomena could be called mirco-adaptation. It seems that exactly this concept of such ordinary adaptations is closest to today's perception of city formation processes on the macro scale, and their motivations. Ordinary evolution, what ever it applies to, is of course a process of adapting to changes over time to conditions in the surrounding environment. However, because we have arrived at this point in our considerations, we must ask if the durability of many architectural and town planning solutions that are planned for years ahead is not in conflict with the fact that contemporary cultural, social, economic, and civilization changes progress at a much quicker pace than in preindustrial times? So is it possible to adapt cities to conditions which one is able to perceive and comprehend often after an elapsed period of time? Of course this is a rhetorical question and it would be difficult to find a clear answer, which is why the paradoxical necessity of coming to terms with a certain amount of uncertainty with respect to the predictability of the consequences of all sorts of interventions in urban space seems to be an altogether wise solution. Leaving behind however the city scale and coming to the human scale, it is perceivable that regardless of various studies and scientific evaluations, adaptation also takes place, or perhaps most of all, on the micro-scale level of urban small spaces. These kinds of minor appearances of reshaping surroundings by the people who live in them, may also be considered an important kind of participation in the formation of the urban environment.

Durability and adaptation

Urban space is a record of events and the evolution of a city and the lives of its inhabitants. Many scholars also see it as a space where happenings occur, a Kinetic City, where a special role is played by building corners, intersections, nodal points, places that collide with others, with the unexpected, with the foreign.⁷ The history of cities, as the cultural theorist Ewa Rewers writes, creates a web of occurrences that take place over time and space, onto which overlap other webs connecting minor episodes, simple narrations into the dense fabric of an epic story⁸. One of the reasons for which such an interpretation of the problem of urban space is especially

⁶ Laurusz N., Wprowadzenie do partycypacji społecznej w Polsce [in:] Ćwiklicki M., Frączek M., Partycypacja społeczne w Polsce. Atlas dobrych praktyk, Publisher: Fundacja Gospodarki i Administracji Publicznej, Kraków 2013, p.24; after: Olech A., Kaźmierczak T., Modele partycypacji publicznej [in:] Partycypacja publiczna – o uczestnictwie obywateli w życiu lokalnej wspólnoty, Publisher: Fundacja Instytut Spraw Publicznych, Warszawa 2011.

⁷ Rewers E., Post-polis. Wstęp do filozofii ponowoczesnego miasta, Publisher: Universitas, Kraków 2005, p. 6.

⁸ Rewers E., op.cit., p. 80.

interesting, is the examination of the role of time and the significance of those „minor episodes” and „simple narrations” from which the Kinetic City is woven. Architecture's durability is mentioned by Vitruvius as one of its main traits, and this means that we know its roots, and we can admire historic works of architecture and town planning. Architecture often outlasts its builders and original inhabitants. City space is a backdrop for the lives of later generations.

Seeing that along with the development of civilization human needs and life styles gradually undergo changes, people strive to adapt their surroundings to their current needs. It's not always possible to make radical or structural changes, which is why it often possible to observe in the nooks and crannies of urban space temporary, makeshift changes intended to adapt the nearest surroundings. It would be possible to cite many examples of spatial adaptations in Poland that took place in large housing projects consisting of pre-fabricated panel apartment blocks. These vast housing estates from the era of the People's Republic of Poland that were created as a symbol of economic and technological prosperity where built rather quickly without much attention to quality, but based on the assumption that they would last for 50 to 70 years. And in truth they are still standing after 30 or 40 years, and in many places, despite their poor reputation, a new generation of inhabitants is living in these buildings. Adaptations of public space in housing estates occurred in the area between buildings as well as within their interiors, i.e. hallways, stairwells, basements, and attics, which in the past were public areas due to the lack of intercoms and became an extension of apartments' private space. Sofa beds, couches, easy chairs, cabinets and shelves began to appear here and there in hallways and landings. Flower pots, embroideries, pictures were hung on walls and balustrades. Patterned vinyl floor coverings were placed atop the cold concrete floors, which meant that upon exiting the elevator one immediately felt at home. It was a kind of shared space which in later years for the most part began to disappear for a variety of reasons: the growing gap in people's level of material wealth and increasing instances of theft of decorative elements within apartment block hallways, in addition to the stronger and stronger urge to close up and to prevent break-ins. Stricter fire code restrictions also played a part in this reduction. In spite of the fact that housing estate inhabitants have become older or died or moved away and new residents have moved in, the old bonds of these micro-societies are still visible. Today's public spaces of Polish housing estates are an excellent reflection not only of the societal, civilizational, and political changes which have occurred in Poland over the last quarter century, but also the metamorphoses which take place here and now, both positive and negative. It is much rarer to see in apartment block corridors these days the furniture arrangements mentioned previously, while stairwells, basements, and drying rooms on the upper floors are no longer the domain of children's games as they were in the past. Access to stairwells is limited by intercoms, and many inhabitants have equipped their homes with double doors and anti-theft locks.



Source: Small gardens in front of Polish high-rise apartment blocks (photo: Jarosław Matla).

The space surrounding apartment blocks also no longer belongs to children, or at least not to the extent as it did in the past. The process of adaptation has expanded to balconies, which have become enclosed, and what is interesting, to small gardens. What in the past was a neglected small piece of lawn with a few bushes located at a building's entrance that was notoriously trampled by everyone, today has become a well-cared reason for pride, an object of rivalry between apartment blocks in housing complex competitions for the prettiest and best looked after garden. And they have also become a meeting place for older residents. Benches located in front of apartment blocks are still used as meeting places and as locations for exchanging local gossip, although less and less often. Housing cooperatives (not everywhere) that have been active for a couple of decades have led to the thermal modernization of apartment high-rises, and to the creation of parking lots for the constantly increasing number of cars. New commercial spaces and shops have arisen, and the area between blocks has been filled by a web of sidewalks, steps, ramps, often built directly over dirt paths that had been trampled in the lawns by local residents.

The reshaping, furnishing, and the decoration of one's nearest surroundings are not the only indications of bottom-up micro-adaptations. Guerilla gardening, which has gained enormous popularity in many countries, could be included into this type of intervention; in other words, the act of sowing plants (not necessarily legally) by residents and activists in various parts of cities. If when we talk about green spaces, even the smallest of completely legal acts, for example the creation of gardens on balconies or apartment building roofs, or the beautifying of building courtyards (neighborhood contests for the most beautiful balcony flower garden or movements to revitalize courtyards are becoming widespread) by local residents influence not only their own residential environment, but the esthetics of surrounding areas, streets, etc.

Spatial ephemera

Urban space with the weight of its record of strata accumulated over time, is full of contradictions, can be capricious, and is never perfect, but the discordant changes that take place slowly during the lifespan of an average human being, stimulate the start of changes. However, because cities, with their buildings and structures, are a lasting record of history and events, is there any point in implementing in them temporary, fleeting interventions which will often be imperceptible? Do such interventions have any meaning and is there any way that they can be studied? If we look at them through the prism of the Kinetic City, that is, the city of events, perhaps it would be possible to classify them as spatial events, social-spatial, architectural events or events bordering on the realm of art and architecture. Many architectural installations erected in urban space are frequently surprising, provocative, stirring. They stimulate the senses and require us to look at the space in which they appear in a new light or they completely change our perceptions of their setting. They make us aware of a particular place and its problems, or conversely they divert us from the magnitude of a place and bring us back down to the human scale. Initiatives whose goal is this kind of temporary intervention in urban space are often organized by various associations, non-governmental organizations, collectives, thus one could say that although many of these groups benefit from various grants, subsidies, or private sponsors, they are happenings that for the most part are of a grassroots, public service nature. Even when they are coordinated by architects, artists, students or cultural impresarios and city activists and not by local inhabitants themselves, they are often a collaborative work thanks to the participation of the local community or volunteers. When temporary objects appear in the space between buildings they always contain some sort of message, and by way of their short-lived existence always embody some kind of contrast, polarity with the surrounding urban environment. Later they disappear, leaving behind only memories, publications, articles, photographs, or short videos. Regardless, their role in enlivening not only public space, but in the awakening and strengthening of people's relation to public space cannot be underestimated. One of the key factors in the attractiveness of public spaces is their abundance of urban activities, and essentially the more there are within the area of a particular place, the greater the chances that the space will be dearer to users, and also recognizable even on the scale of the entire city.



Source: Folly for a Flyover by collective Assemble Studio (photo: Matthew Black © CC BY-SA 2.0).

Stimulating unconventional events and situations in public spaces is one of the concerns of, among others, the London collective Assemble Studio, who have been responsible for such singular endeavors as the Folly For a Flyover (2011) project, a temporary structure located in Hackney, one of London's neighborhoods, under an overpass, which brought together in this previously oppressive and unpleasant place throngs of people as part of workshops, film screenings, and other organized events. One of the results of this intervention, organized as part of the Create Festival, was the involvement of the city government in this part of the city and the speeding up of improvements on the neighborhood's infrastructure. You could say that, beyond the momentary creation of a sort of genius loci, ephemeral actions also brought about in this case a permanent change.

We could also include the initiatives of the very active French collective, „Collectif Etc” in the category of urban architectural-social events. They install seats, temporary urban furniture, arrange meeting place, look-out points, city gardens in diverse places that attract local residents and public space users in general, to their endeavors. All of „Etc”'s works display a drive to stimulate interpersonal interaction, to create or increase circumstances that encourage one to stop and to meet. As was previously mentioned, nearly all of the collective's actions could be qualified as architectural events, however, amongst the broad spectrum of their most recent works, it is worth mentioning two which especially feature a civic aspect. The first, La Halle Puget (2015) in Marseille, on one of local town squares „Etc”, along with the Les Têtes de l'Art association and the artist Jihanne El Meddeb, created a kind of temporary installation. For almost a half a year they enlivened the square through the use of various events and by altering the "furnishings" of the space. The entire event was connected with a larger effort led by local activists that had been going on for a couple of years intended at reactivating the potential of this empty, underutilized square located in a busy and crowded part of town. The second project, carried out in 2015, was a mobile discussion platform "Le PaPoMo- Parlement Populaire Mobile". The modular structure could be moved from place to place depending on needs and easily reinstalled. The entire structure was a kind of semicircular miniature amphitheater, on whose benches debaters could sit. While mentioning "Collectif Etc" in this context, it seems natural to mention other, earlier initiatives, namely the arrangement of abandoned, unused city plots in Saint Etienne, at the junction of Cugnot and Rue Ferdinand streets (2011). The so-called Place au changement (later known also as the Giant Square after a piece of wall graffiti), which could be translated as "Square of Change", originated as a mirage, as the imaginary space of improvised apartments and courtyard in a non-existent corner building. With the slogan "Make yourself some room" (Fr. Faites-vous une place!), neighboring residents were invited to participate in the creation of this fragment of neighborhood that in recent years had been developing rapidly. The initiative was intended to give residents a chance at active participation in this development instead of just being passive observers. During the six-week duration of the event, participants along with members of the collective and also artists who were invited to take part, first and foremost created a place, because it was a kind of construction site. Simultaneously there were concerts, exhibits, food markets, tango sessions and other activities at the site, which attracted hundreds of guests and integrated the local community. After two years, in 2013 "Collectif Etc" returned to the place one again organizing similar events.

Among the plethora of examples of various architectural, artistic, and social-spatial "events" in Polish cities it is certainly worth acknowledging the works of the Polish artist Iza Rutkowska. Her humorous, colorful, buoyant installations sewed from colorful fabrics divert us from our daily routine. Example like "Jeż" (Hedgehog) 2016 or "Przytulanka" (Cuddly) 2013 strive to

domesticate public space, make it warmer and in a certain sense more intimate. "Hedgehog" was created as part of this year's "Wrocław – backyard door" project and was intended to enliven the grey tenement courtyards of one of the most neglected neighborhoods in Wrocław, while also encouraging residents to leave their homes and integrate with other local residents. The great cuddly bear – "Cuddly", on the other hand, at first appeared in various parts of Warsaw, and then in other cities, and even outside of Poland. It was proof that in a certain sense urban space can become a "home" for users.



Source: "Jeż" (Hedgehog) by artist Iza Rutkowska – temporary, movable installation that appeared at the tenement courtyards of Wrocław (photo: Maciej Landsberg © Biuro Festiwalowe IMPART 2016).

During various festival initiatives connected with cities (i.e. Street Art Festival in Katowice, Narration in Gdańsk) many interesting temporary installations and structures appear. And at the same time this is becoming an increasingly common phenomenon, often as part of regularly scheduled annual city events. During such events surprising and clever murals appear on building and tunnel walls, while on squares and streets diverse structures divert us from the everyday monotony of city landscapes. In Poland, these types of situational actions that take advantage of urban backdrops in order to inspire spontaneous events and which operate on the fringe of disciplines such as architecture, urban planning, urban studies, and art are becoming more common. The Krakow Collective Palce Lizać (Finger Licking) has for years focused its actions around urban space and their efforts combine various genres: artistic performance, social endeavors, cultural events, or minor, temporary interventions in city space, all with the aim of involving local residents and space users. CPL conducts their initiatives not only in Krakow, but in other Polish cities and abroad. Another Polish artist, Izabela Bołoz is also active outside of Poland. She currently reside and works in Eindhoven, Holland. Her works are mostly types of urban installations: modular chairs, temporary taxi stands. These are places for waiting or stopping, located for a certain amount of time in a spot where normally there is no place to sit.

Forms of participation

The opportunity for citizens to actively influence the decisions made on higher levels of authority is also a form of active participation in the transformation of urban space. While many western practices of participation are today being revised or criticized as being empty modes of placating and not actual forms of initiating change⁹, in Poland the issue is only just in its infancy. The inclusion of city residents in the process of planning urban development, understood as their participation in the management of community issues to whom they belong¹⁰, is a subject that is receiving greater attention. It is a kind of goal that many city leaders willing profess, although in reality this is merely a facade, and participation is marginalized and unappreciated. Only recently have the mechanisms for the creation of a participation platform for cooperation between the public administration and urban community begun to form. Society as well is gradually opening up to such collaboration and in sense is learning how to take advantage of this tool in a constructive way and how to recognize situations in which participation is proposed in a disingenuous manner¹¹. It is assumed that a democratic government is a strong force of civic society.¹² The issue of strengthening the involvement of urban residents in the decision making processes that effects their city is not a simple matter in a country where due to the political situation for decades a feeling of distrust towards authority and a conviction that people had no real influence on government decisions became deeply ingrained. Regardless of this however, after the passing of twenty five years since the overthrow of the communist system a very clear change is apparent in peoples' attitudes towards this matter, and it's more than just a generational change, it's a change in mentality. More and more associations are forming in many Polish cities, along with civic projects, social action objectives, and their ability to effect the decisions of city governments is gradually increasing. These type of endeavors are at the same time aimed at various „players” in city life: residents, private companies and non-governmental organizations. As part of the program of social action that operate on the basis of crowdfunding it is possible to present various ideas related to urban public space projects. Projects may be of a manifold nature: temporary or permanent, and also of varying type. Residents stimulate and organize also in the realm of internet social networking services where they prepare protests, inform about important meetings with local authorities, and exchange comments on parts of the city that interest them.

Recently an area that has become a proving ground for interesting processes is the Polish city, Łódź, which it is worth noting, that due to the collapse of local industry has been in a state of crisis. Łódź has earned the unenviable epithet of the Polish Detroit, the - *shrinking city*¹³. Over the last decade local city authorities have desperately grasped at various attempts at stimulating local development by large, or even spectacular in terms of the scale of the city, investments, such as the revitalization of the former Israel Poznański factory which was transformed into the so-called Manufaktura Łódź, a commercial-service district featuring some cultural and entertainment elements. The refurbishment of the former EC1 power plant into a sort of city cultural center, and the ongoing construction of a new neighborhood called the New Center

⁹ Miessen M., Koszmar partycypacji, Publisher: Bęc Zmiana, Warszawa 2013, p.65.

¹⁰ Hausner J. (ed.), Górniak J., Kołdras S., Mazur S., Paszkowska R., Komunikacja i partycypacja społeczna. Poradnik, Publisher: Małopolska Szkoła Administracji Publicznej, Kraków 1999, p.41.

¹¹ Kalisiak-Mędelska M., Partycypacja społeczna na poziomie lokalnym jako wymiar decentralizacji administracji publicznej w Polsce, Publisher: Uniwersytetu Łódzkiego 2015, p.149.

¹² Ibidem, p.141.

¹³ Hanzl M., Przestrzenie miasta – o urbanistyce Łodzi [in:] Architektura i Biznes 03/2014, Publisher: RAM, Kraków 2014, p.54.

Łódź on old railway land. However, these large-scale investments did not have much to do with the real state of affairs in Łódź, and most of all, with the quality of life of local residents. Community consultation was almost entirely overlooked during their planning. Supposedly consultation took place, however the methodology of the social surveys were not appropriate in terms of the size and scale of these investments¹⁴. In every study they declared a desire to improve the quality of life in the city, the living standard of residents and attracting to the deteriorating city an injection of capital, while only recently has public participation taken on greater significance as one of the most crucial elements in changes that are to come. Perhaps the turning point were the results of consultations held regarding the revitalization of a group of workers' houses that belong to a former factory complex known as Księży Młyn, which resulted in a broad and multifaceted plan to improve the functioning of this district¹⁵. The means of revitalizing the city that had previously been taken were seemingly inspired by the known myth of the Bilbao Effect, and only now have they begun to understand in broader terms, the slogan: no revitalization without participation. The revitalization project of the Łódź New Center has begun, as a result of which the city has been divided into zones. This part of Łódź is an area that for decades has been besieged by an array of problems: social problems such as unemployment, crime, dilapidation of buildings and public space, a lack of green space, and in addition the exodus of residents to other cities which is also one of the causes of all these problems. The city center was divided into 20 revitalization zones, and then they began to carry out pilot programs with the aim at creating a model for accomplishing the revitalization of a given section of the project. The pilot programs not only took into consideration the collection of information on the matter of a particular area, but most of all the involvement of local residents in the process of change that was about to take place. Education and the instruction of teachers and schools throughout the city on how to educate about the transformation of the city was an additional feature of the program. At the same time consultations were held in the first 8 priority zones, and now they are being continued in the remaining zones. If the plan is successful there exists the chance that gradually, thanks in part to the participation of the residents and the acknowledgement of their needs, and not the misaimed aspirations of being a great metropolis, Łódź in a few years will become a positive example of well thought-out revitalization.

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Urban space needs to be managed, however in this complicated process the voice of urban residents is becoming louder. For obvious reasons the present article does not exhaust all of the possible examples of temporary and bottom-up initiatives in western countries, nor in Poland, but in accordance with the author's intent, indicates a certain interesting scenario and its difficult to pin down nature. Namely, the scenario of the voice of the users of architecture, of cities and their urban space, along with the scenario of various types of short-lived ephemera in public space, which cannot be planned out by way of executive top-down city planning, architectural design or urban planning. The scenario of a certain kind of self-organization, spontaneous independence in the adaptation of one's surroundings to one's needs, which escapes the traditional way of thought on both management of urban space and its shaping. Thinking about the future of cities and observing how amongst their inhabitants the awareness of people's right to influence the decisions in the co-creation of their space is gradually increasing, it is possible to imagine that in contrast to today's understanding of the mechanism

¹⁴ Madejska M., Wokół EC1. Rewitalizacja NCL w teorii i praktyce [in:] Architektura i Biznes 03/2014, Publisher: RAM, Kraków 2014, p.40.

¹⁵ Hanzl M., op.cit., p.55.

of partnership, participation as such could become someday something greater than just an invitation to share in the space design process. Instead of being just a part of professional planning, professional planning could become one of the elements of participation,¹⁶ broadly understood, and also as bottom-up transformation of one's nearest surroundings, in other words, micro-space.

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¹⁶ Jędruch, D., *Ludzie jako ludziki. Obraz użytkownika w teorii architektury* [in:] *Autoportret. Pismo o dobrej przestrzeni. Partycypacja i partycypacja*, vol. 51, no.4, Publisher: Małopolski Instytut Kultury, Kraków 2012, p.41.

IMAGE OF A HANSEATIC CITY IN THE LATEST POLISH ARCHITECTURAL SOLUTIONS

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Key words: *modern elements of historical cities, Hanzeatic Cities, contemporary architecture*

Abstract

The problem of the reconstruction of centres of Polish towns and cities after the destructions of the World War II evoke discussions even today. Over the first years after the war, in numerous cases the centres of historical cities and towns were lost; in the place of former market squares and networks of streets with tenements crowned with endwall trims, randomly dispersed concrete blocks of flats were erected, in order to satisfy urgent housing demands. The situation changed after 1980, when in Elbląg, Gdańsk, Szczecin, Kołobrzeg, a rule was adopted according to which the peripheral development of city quarters was to be recreated, restoring tenements located in historical plots of land, but contemporary in style, maintaining the silhouettes and sizes from years before. It is also possible to observe other activities in the solutions of the latest public utility buildings, which - often by using a sophisticated intellectual play - restore the climate and character of cities remembered and known from the past centuries.

In the west and north of Europe there are many towns and cities, predominantly ports, which used to be members of Hansa. The organisation of Hansa, the origins of which reach back to the Middle Ages, associated a number of cities which could decide about the provision of goods to cities within a specific territory, and secure markets for products manufactured in them. Thanks to that, cities that belonged to Hansa were developing more rapidly and effectively, and the beginnings of their development within the territory of Germany and in the Baltic states date back to the 13th and 14th centuries. The peak period of the development of Hanseatic cities, where merchants were engaged in free trade with people from European countries, fell in the 14th and 15th centuries, but already in the 17th century there was a complete decline of Hansa, resulting from the occurrence of competition in the form of associations of Dutch and English cities, as well as the Scandinavian ones. From amongst Polish towns and cities, members of Hansa were e.g. Szczecin, Gdańsk, Kołobrzeg, Elbląg, as well as Cracow. In 1980 an association of partner cities of North Europe, dubbed a New Hansa, was established, the objective of

which is to attract attention to the common development of tourism and trade. Nowadays, this New Hansa associates over a hundred cities, similarly to what once was in the medieval Hansa. Numerous Polish cities faced the problem of reconstruction after the destruction of the World War II. The effects varied. By adopting the programme of satisfying predominantly housing demands in the 1960s and 1970s, historical old towns in dozens of cities from amongst nearly 2 hundred destroyed by warfare of the World War II in the north and west of Poland were lost forever. Today we can still encounter ruins of Gothic churches in Głogów or Gubin, where in the place of a market square and tenements of townsmen, randomly located rows of typical four- or five-storey blocks of flats have been erected.

Elbląg

The reconstruction of the Old Town in Elbląg, which has been in progress for more than thirty years now, is still not completed. At the end of the World War II, in February and March 1945, the Old Town was destroyed in more than 90%. The first to be reconstructed were partly destroyed historical religious buildings – St. Nicolas Church, Holy Spirit Church, and the Market Gate. The ruined tenements of townsmen were liquidated, because the authentic bricks were transported to the reconstruction of the destroyed Warsaw. In the centre of Elbląg, in the place of the Old Town, once teeming with life, for decades there was only an empty flat space with individual silhouettes of historic buildings protruding in this surrealistic landscape, and several preserved tenements at Wigilijna and Garbary streets. For decades the city existed without its historical centre, and instead an extensive green area was organised. Perhaps it was only for the best, because the space was not covered with blocks of flats, typical for a housing estate. This must have been caused by economic reasons.

The urban planning design, deriving from the medieval layout of the Old Town reaching back to the 13th century, was developed as late as in the years 1980-1983, after the completion of years' long extensive archaeological works, which uncovered the foundations and basements of ca. 600 townsmen's tenements, tightly arranged along the frontages of streets. In the mid-1980s it was relatively easy to commence the implementation of the project on the empty area.¹ The author of the preservation guidelines was a long-term monument conservation officer in Elbląg, Prof. Maria Lubocka-Hoffmann, who dubbed the proposed principle of the reconstruction of the Old Town 'retroversion'.² And this is how she explains this phenomenon in her own publications: '..... Retroversion is a peculiar replica of what used to be, 'evoking' the spirit of the old town...'³ Thus, new tenements with the predominantly residential function with service outlets on ground floors mushroomed on the medieval layout of the city, sometimes even on the existing foundations. These are mainly houses of craftsmen. It was decided that most buildings were to maintain the proportions of most often Gothic Hanseatic tenements, very narrow and 3 to 6-storey tall, with the endwall trims, to evoke associations with the architecture from ages before. The details, though, are new, contemporary, completely different from the historical ones,

¹ The construction works were commenced in 1985, comprising 1/3 of the historical area of the city on the basis of the conservation guidelines drawn up in 1983; the Local Spatial Development Plan of the city was developed in 1997. www.SkyscraperCity.com/showthread.php?t=272006

² Lubocka-Hoffmann, Maria. 2004.

³ www.cyfrowewm.pl/artykuly/58/retrowersja-na-elblaskim-starym-miescie/

in order to mark the date when they were built. In several locations it was decided to reconstruct the buildings so as to demonstrate the richness of details and wealth of townsmen in Elbląg, as houses in Elbląg were sometimes equally beautiful as the ones in Gdańsk. All of the new architecture of the Old Town are typical postmodernist compositions, where the forms, with their climate and silhouettes, are only to evoke the character of the broadly understood old architecture. Next to Gothic houses, in Elbląg there were also Baroque, Mannerist, and Art Nouveau ones. This stylistic diversity enabled the designers, Szczepan Baum, Ryszard Semka, Wiesław Anders – to apply all sorts of shapes: sometimes geometrically simplified, sometimes with soft oval forms. Sometimes, the elevations are divided into fragments distinguished with different colours, or using spatial measures. Nevertheless, the front elevations always have distinct cornices, frames of windows, and emphasised portals, sometimes even with too sophisticated details. The material applied on the outside are plasters in different colours or clinker bricks. Some parts of the elevation form reliefs and overhangs, bays or smaller protrusions in various shapes, standing out thanks to their bright colours. Sometimes the elevations are not symmetrical, and such elevations may be quite surprising and evoke discussions. Nevertheless, this was the concept of postmodernism, which reached our country with a considerable delay – as late as in the 1980s, after the social, political and economic breakthrough, whereas the archetypes of this trend could be observed in Western Europe and North America as early as in the late 1960s. The first stage of the reconstruction brought about 180 tenement houses, which were to evoke the character of a Hanseatic port town. All the time it was important to maintain not only historic dimensions of the buildings, known from photographs and iconography, but also to use traditional materials, to introduce stoops, to reconstruct stone surfaces of streets and the market square. An important factor was to restore the role of the Old Town as a representational quarter; therefore, after some time a multifunctional town hall was erected in a Neo-Modernist style, which does not fulfil any administrative functions, but functions connected with culture.⁴ Elbląg was an example of a city that was the first to implement the reconstruction of the city centre with reference to the historical urban layout and to fill up the city quarters with tenement houses, and not typical concrete blocks of flats, as it used to be done in the post-war reconstruction of our country. In subsequent implementations of similar projects, the experiences verified in Elbląg were also applied, for example in the solutions on the Granary Island in Gdańsk, in Podzamcze in Szczecin, in Kołobrzeg, in Głogów.

Gdańsk

The Main Town in Gdańsk was destroyed in 90% over several days in March 1945 by air raids and shell fire of Soviet soldiers. After several years of cleaning of the debris, first of all historic buildings started to be secured, and relatively soon, albeit after numerous discussions and disputes, a method of reconstructing the houses was selected. The first completed tenements were former Hanseatic houses, lining the streets of Długa, Długi Targ. Similarly to Warsaw, already in 1949 the first reconstructed tenements were put into use, and the entire reconstruction

⁴ The edifice of the Town Hall, erected in 2009-2010, is located in the western part of the quarter, between Stary Rynek, Kowalska, Przymurze, and Rzeźnicka streets.

of the Main Town in Gdańsk was completed in 1960.⁵ According to the adopted rule, predominantly the front elevations located along the longitudinal streets were subjected to reconstruction, whereas the solutions of the elevations along the transverse streets were implemented as more modest and schematic. In nearly each case the proportions of forms with gable roofs were intended to remind of Hanseatic houses. It was decided not to erect houses with outbuildings in order to let more sunshine inside the quarters, designing green areas, playgrounds for children, day cares, and nursery schools there. Contemporary staircases, contemporary layouts of flats were introduced to the layout of the interiors of the tenement houses, and the ground floor was designed to house shops and catering facilities. Along the more representational longitudinal streets, historical stoops were preserved, and the elevations were equipped with rich sculpted details. This way a salon of the city, which had always been formed by Długa and Długi Targ streets, the Royal Route of the Main Town in Gdańsk, with the Town Hall, Artus Hall, the Golden Tenement, Uphagen's House, was re-created.

Actually, there is still a dispute among monument conservator officers whether the buildings of the Main Town reconstructed in the 1950-70s should be subjected to reconstruction basing on the preserved fragments of ruins and only partially preserved iconographies and photographs, as well as inventories, or whether – as the advocates of the Venice Charter claim, stating that – they should be simplified, solved using contemporary measures.

Figure 1. Gdansk Hotel Hilton



Source: photo: the Author, 2015

uch disputes refer to the latest architectural solutions, as well.⁶ A Warsaw-based architect, Stefan Kuryłowicz, in the years 2007-2010 erected a spacious Hilton hotel in a place important for

⁶ At the Polish Architecture Congress on 7 May 2005 in Białystok Stefan Kuryłowicz claimed that each of us receives the identity of space in a different manner, [in:] Kuryłowicz, Stefan. Kuryłowicz, Ewa. 2010, p.51-56.

the Main Town, near the bend of the Motława river at the Fish Market.⁷ Such a location of the hotel, where the building closes the perspective of the river, makes it well exposed from both banks of the river at the same time. The form of the building is expressed in a contemporary language, closer to the so-called new modernism rather than post-modernism.; it makes use of advanced technologies and materials. The architecture, exhibiting more trembling and open-work elevations from the south and monochromatic rather closed ones from all other sides, is an attempt at the recreation of the former urban character of this place. The hotel occupies an entire quarter and it has a floor plan of an irregular pentagon. The facility exhibits the former land division by the clear application of vertical lines, implying individual tenements, which from the side of the Motława river are crowned with partly flat or oblique gambrel roofs. On the external elevations we can find two types of manually manufactured traditional red brick maintaining the proportions of a gothic brick, or slabs of grey basalt. On the ground floor, in front of the building, with an open broad view of a representational pedestrian route of Rybackie Pobrzeże street along the Motława river, a terrace of a restaurant has been designed. The place abounds in elements made of transparent glass, tall vertical windows, and when we take a closer look, we can see rectangular shapes of glass cornices or glass balustrades of the balconies, which paint chiaroscuro on the southern elevation. From the other side, from Grodzka street, in a corner tenement a several storeys' tall undercut simple transparent glass superstructure has been built, which constitutes a keepsake of a turret that used to be here. Further on six tenements with peak crowning are visible from this side. This architecture has nothing to do with reconstruction; it is modern, elegant, fresh, and most probably easy to accept even by traditionalists. The forms are schematic, simplified, narrow, six-storey tall, with a clear reference to a Gdańsk Hanseatic house. This structure acts as a sort of scenography for a detached gothic Swan Tower, exposed from the front from the side of the Fish Market.⁸

In the same period of time, i.e. in the years 2008-2010, right at the Motława Embankment near the Fish Market, but a bit closer to the centre, Stefan Kuryłowicz implemented the project of a Symfonia Residence Apartment Building. The complex consists of 12 apartments and two penthouses, located opposite the Ołowianka Island and the Baltic Philharmonic. And here yet again the illusion of six five-storey tenement houses has been conjured. The elevations from the side of the Motława river are a sophisticated composition of full patches made of clinker and light plaster, with geometrical straight openings of glazed windows.

Several hundred metres further, at the Crane,⁹ towards the Fish Market, a row of new tenements was constructed over the recent years. Some of them are the Maritime Culture Centre, which is a Department of the Central Maritime Museum, located at 21-25 Tokarska street, and therefore accessible from two sides, i.e. from Tokarska street and from Rybackie Pobrzeże street. The design by Mirosław Frąszczak came into being in connection with an architectural competition from 2005, and its construction was completed in 2012. The conservation officer proposed the division of plots, frontages, as well as shapes of triangular gable roofs. The finish-

⁷ Piątek, Grzegorz. Kuryłowicz, Stefan. 2010, p.52-59.

⁸ The oval five-storey Swan Tower, dating back to the 16th century, is the northernmost part of the fortifications of the Main Town.

⁹ In the 15th century it was the largest crane in medieval Europe, used for reloading and erecting tall masts on ships. Destroyed during the World War II, it was renovated in 1957-59, resembling the condition from 1442-1444.

ing material of the external elevations is a manually manufactured brick, exhibiting the proportions of a Gothic brick, but two of the tenements are complete glass forms made of transparent glass, inserted into a metal structure. The asymmetry of the brick peaks from the side of the Motława river and the double wall with empty window openings do not disturb the composition at all; on the contrary, they only emphasise the plastic effects of the elevation. The frames of the window openings and the blinds are made of dark wood, and the roofs have been covered with ceramic monk and nun roof tiles. Inside the museum, a multimedia interactive technology has been used, illustrating the knowledge in the scope of maritime technology. In a 3-storey tall open hall, with draw bridges and footbridges, attractive models of boats have been suspended.¹⁰

Figure 2. Gdansk Maritime Culture Centre



Source: photo: the Author, 2015

Historical towns and cities attract us with their atmosphere, climate, often with the scale of their architecture, and the thicket of narrow streets, as well as traditional materials used on walls and surfaces of streets. In contemporary attempts at solving urban spatial systems, as well as new buildings in towns and cities, we have been observing attempts of intellectual references to the past.¹¹ Sometimes the recipient is unable to guess the intention of the designer right away.

¹⁰ Załuski, Daniel. Frąszczak, Mirosław. 2012 p. 54 – 61.

¹¹ Węclawowicz- Gyurkovich, Ewa. 2013.

He needs to get accustomed to them first. Nevertheless, there are some historical schemes, which are to facilitate this process of understanding and feeling. For town houses, they are most of all oblique roofs, narrow and tall elevations, vertical window openings. For public utility buildings, on the other hand, these are protruding buttresses, which used to transfer the loads from ceilings and enabled to cover larger and broader surfaces.

In Gdańsk, in the direct vicinity of the remains of the preserved medieval municipal walls in the place of a former moat, in September 2014 a new Gdańsk Shakespeare Theatre opened. This location, inscribed in the urban order, became an attempt to put this part of the city in order. The exposition of the skyline of the Main Town is still carefully protected. A discussion was evoked by the location of the Elizabethan Theatre, whose low body spreads along the walls from the side of Ogarna street, exposing the silhouette of the Main Town.¹² The author of the design is an Italian architect working in Venice, Renato Rizzi. We observe numerous references to tradition in this project. Most of all, the finishing material of the building – it is a manually manufactured dark anthracite brick, imported from Belgium. It covers all the walls, floors of internal yards, stairs, and passages, as well as the terrace, which is located on the roof. The building is a prolonged body, which actually bears minimalistic features, but it has buttresses and is surrounded by a 6-metre tall wall. Those buttresses, which display the play of light and shade on the elevations, are a characteristic element of the Gothic architecture, which appears in churches in Gdańsk, many of which – according to Renato Rizzi – used to be built using such dark bricks. A broad entrance from the north leads to an internal courtyard, whence we can reach the stairs and narrow internal passages, resembling piazzas and backstreets of a medieval town. We can take this route to reach the terrace on the roof of the theatre and see the greatest secret of this facility – an opening roof over the main auditorium. ...*'The problem that had to be solved did not actually refer to building of the opening roof in practical terms, but rather to the spirit of rituality which was to reside in the very movement of the roof opening...'*¹³ In these spaces, in narrow open corridors, plays can be staged as well; they can be stages for mystery plays, processions, parades, passion plays. The architect has designed 'an art town' for us, where the real world intermingles with the world of illusion and mystery. The interiors, with their floor plan referring to English Shakespearean theatres, surprises with different colours, dominated by the whites and beiges of light wood and marble. Our epoch often blurs the limits of traditional spaces; nevertheless, as the examples cited above imply, our longing for the past forces designers to undertake an intellectual play, from which the recipient can read the dreams remembered from the old times.

¹² P.W. Kowalski in: <http://www.dziennikbałtycki.pl/artykul/747757,nowa-walowa-w-genius-loci-Gdanska> dated 27 January 2013.

¹³ Rizzi, Renato. 2014 p.45.

Figure 3 - Gdańsk Shakespeare Theatre



Source: photo: the Author, 2015

The body of the theatre, which attempts to illustrate the development of the European theatre in the city over the span of a thousand years, as Jerzy Limon writes,¹⁴ can astonish and surprise recipients. So as to prepare the inhabitants of the seaside areas and tourists to the reception of the Gdańsk Shakespeare Theatre, upon the initiative of Andrzej Wajda and Jerzy Limon two happenings were held in the city, bringing the art of William Shakespeare closer to recipients. Upon an invitation of Andrzej Wajda, two conventions of Polish actors who played the role of Hamlet in different theatres all over Poland were held in Gdańsk. On 23 April 2012, two unique shows were held in the city centre.

The first one took place at noon, where in ten spots along Długa streets on balconies and stoops actors were reciting parts of Hamlet's monologues for one hour. In the evening on the construction site of the theatre, right at the entrance to the Main Town, among newly erected concrete walls, a multimedia Shakespearean play was staged on four specially prepared platforms, with the accompaniment of modern music and lights. The cranes and scaffoldings present in the site were to act as medieval siege engines, and on smooth surfaces of concrete walls, using the most advanced technologies of digital imaging, an illusion of a ready production was created.

The borders between fiction and reality were successfully blurred, as the real figures of actors were constantly intermingling with the images of statues and persons absent from the scenes, displayed on the screens. *'...This illustrates great flexibility of theatre as the art and the medium, where everything is based on conventionality, and new technologies not only undermine the rules, but also create new conventions and lead us to uncommon modes of perception that nobody has ever even dreamed of. Or perhaps they were only dreams. ...'*¹⁵ These events demonstrated a traditional historical show and the contemporary theatre of the 21st century to which the Italian architect had been preparing us.

¹⁴ Gostyńska, Maria. Ratkiewicz-Syrek Anna. (ed.), 2012 p.122

¹⁵ J. Limon, ibidem . p.71.

Figures 4-5. Gdańsk Shakespeare Theatre



Source: photo: the Author, 2015

In the latest architecture of buildings of culture, erected in recent times in quite a large number, also in Poland, we frequently observe a creative approach towards the past. The context and tradition of the place become a superior thing.

Szczecin

As a result of an architectural competition from 2007, a design of the new Mieczysław Karłowicz Philharmonic in Szczecin by architects from Barcelona, Fabrizio Barozzi and Alberto Veiga was selected for implementation. The year 2015 brought a great success of the project; it received the first award in the most prestigious Mies van der Rohe competition for the best building erected in Europe over the last two years. Thus the Philharmonic became a new icon of Szczecin. And here again, the body of the edifice is inspired by forms of several-storey tall Hanseatic tenement houses. The plot is located at Małopolska street, in the vicinity of the Oder river and the Old Town with the Castle Hill. The new edifice of the Philharmonic fills the entire quarter, where from the side of the today Solidarności square since 1884 there was *Konzert und Vereinhaus*, designed by a Berlin-based architect, Franz Schwechten. After the World War II only Neo-Renaissance elevations remained, which for many years waited for a decision about their reconstruction for the purposes of a philharmonic or a theatre. As late as in 1962 it was decided to disassemble the ruins completely.¹⁶ And in this place a car park was organised, which operated until the new edifice was erected. The neighbouring plot towards the Oder river houses the edifice of Police Headquarters, erected in 1905 in a Neo-Gothic style, inspired by medieval architecture of Szczecin, which in the communist period became infamous due to the fact that it was the seat of the Militia, the Security Service, and the Security Office. From this building shots were fired towards demonstrating workers in 1970, 16 of whom died and 100 were injured.¹⁷

Figure 6. Szczecin Philharmonic House



Source: photo: the Author, 2015

¹⁶ Żylski, Tomasz. 2014, p.34.

¹⁷ Today, under Solidarności square, which is located opposite the Philharmonic, where this tragedy took place, there is an underground museum *Dialogue Centre 'Upheavals'* according to the design by Robert Konieczny, and in 2005 the statue of the *Angel of Freedom* by Andrzej Dźwigaj was placed on the square. At the foot of the statue there is a plaque with names of the 16 workers who died here.

The brick and stone edifice of the police headquarters, adjacent to the building of the new philharmonic, had to have a direct effect on the scale and composition of the new project. The entire quarter of the philharmonic is filled with dozens of forms resembling narrow soaring tenements of a Hanseatic city. There are no unnecessary details besides vertical divisions and triangular peaks, and multi-layer walls made of milk glass are covered from the outside with densely arranged aluminium slats painted white. The composition of triangular roofs covered with aluminium sheets constitutes the fifth elevation, equipped with several skylights which add light to the interiors. The search of the climate of the place, carried out by the Barcelona-based architects, is presented in the solution. *'...Considering the nearly unlimited opportunities offered by the contemporary reality, where no shape has any meaning any more, we believe that what is essential is not so much the purity of the design as the purity of thoughts, the purity of concepts...'*¹⁸ The entire body astonishes with its white colour, which creates a somewhat abstract form, clearly separated from the surrounding area, which is responsible for the fact that the city residents have dubbed it 'an iceberg'. This quality of white colour is continued inside in the main hall and in all of the side corridors. Here, we encounter a completely different atmosphere than that of the external elevations. Archetypal forms clash, are drilled through, building subsequent sequences close to modernism. The omnipresent white evokes associations with shapes created by Louis Kahn or Le Corbusier. The concert halls, on the other hand, have been equipped with completely different colours. It seems that the decisive element was the clear and obvious declaration of the colours and symbols, adopted in advance. The large concert hall, dubbed the Sun Hall, is gold-coloured, whereas the chamber hall, called the Moon Hall, is all black in colour.

Figure 7. Szczecin Philharmonic House



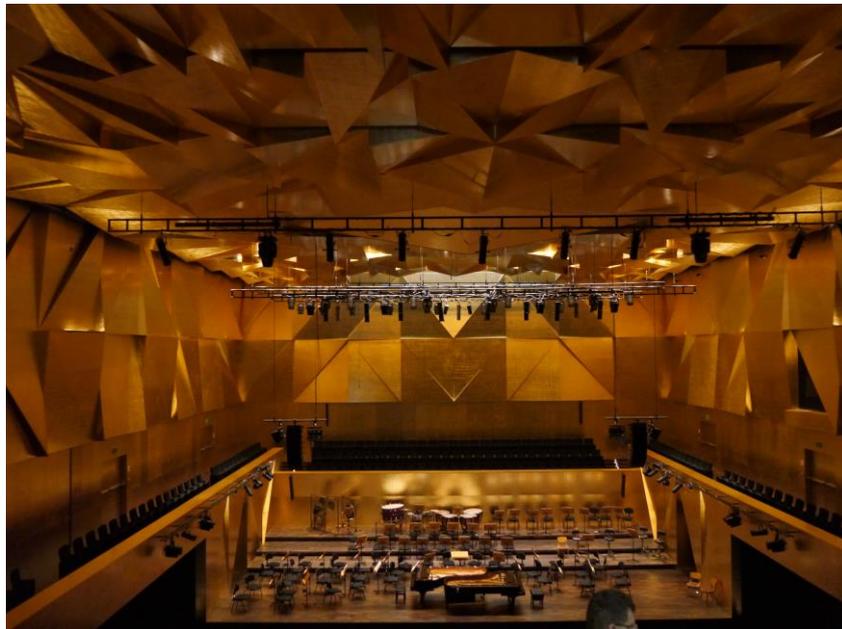
Source: photo: the Author, 2015

¹⁸ Veiga, Alberto. 2014, p.39.

Summary

In the process of historical development, European cities created forms which were accumulating over centuries. Rich shapes and details, deriving from sometimes very distant epochs, add to the beauty of willingly visited urban complexes. Their characteristic diversity, resulting from their location, land relief, culture of the communities inhabiting the cities, account for the different atmosphere and identity of cities, which should definitely be secured and protected. Hans Georg Gadamer, a contemporary German philosopher, claims that the greatest gift that Europe can offer to the entire world is the cultural diversity of its inhabitants.¹⁹ The depletion of the tissue of urban architecture results from various factors. The most tragic and the greatest are losses resulting from the warfare. All losses in the structures of cities, therefore, call for diversified contemporary interventions, connected not only with the observance of conservation principles and rules, but also due to the constantly changing demands of city inhabitants. The love of recollections, of things well known, remembered from the past, has been becoming the foundation of proposals of considerations devoted to visions of the future world for many years now. The multitude of the directions of creative approaches of avant-garde architects, observed over last years, allows for the adoption of diversified solutions. Fascination with history and the past, drawing from them, and the contemporary creative interpretation thereof, as well as attempts at establishing a dialogue with the context of the surrounding spaces, result in diversified original designs. The examples presented herein, implemented in Poland recently, demonstrate that they are more valuable solutions than a complete rejection of tradition, observed in the 1960s and 1970s in our country. The return of a historical city, regarded more intellectually and irrationally than realistically, is a dream of contemporary mature societies.

Figure 8. Szczecin Philharmonic House The large concert hall “Sun Hall”



Source: photo: the Author, 2015

¹⁹ Bauman, Zygmunt. 2011, p.102-103.

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TIMES OF NO SPATIAL RELATIONSHIPS - RETROSPECTION IN SPACE ON THE EXAMPLE OF MODERN AND HISTORIC SETTLEMENTS IN THE KARKONOSZE

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Key words: touristic villages, public areas, services,

Abstract

The aim of the work is:

- Presentation of the critical points in management of cities and villages in the system of services institutions, which is essential to the proper functioning of society and the shaping of space. This subject was raised to answer the question whether the new social behavior can affect the classical principles of organization of space? In particular, can one affect the management of settlement units in the facilities of social services? Currently, in fact a man meets some of his needs in an unreal way (e.g., via electronic techniques), without any limits of distance, space (e.g., by means of transport), because of the development of social and economic life.

- Propose planning solutions for mountain villages located in the Karkonosze, presenting opportunities for development or a stable existence. They have been prospering through its history blending with its architecture and arrangement of buildings in the mountain nature exemplary. Currently, some of which are experiencing difficulties caused by, among others, changes in the modern world, so-called fusion of real and virtual space. There are monofunctional or deprived of basic functions settlements not meeting the residents' needs.

The issues were analyzed by the use of case studies method. This led to a selection of specific examples of the phenomenon of the social centers disappearance, shut down of service infrastructure, and on the contrary strengthen their local position. It was assumed that the combination of the contemporary image with their historical forms of settlement can help to find the synthesis of virtual and the real world.

As a result of the analyze, it was found:

- Elimination of the complementary network of services contributes to minimizing the village in the settlement system. New social customs may even intensify this state;
- Gradual modernization of services leads to prosperity of settlement, using new media opportunities;

- Reasonable use of potential space of information technology space can contribute to improved well-being and changes in the mountain village.

The City - creation planned for man - efficient network of social institutions

Theories, postulates, urban legislation emerged since principles of rational planning has become an important milestone in the history of urban planning. Their goal was establishment of order in the built-up space. The first settlement scheme was spatial structures with central grouped services for the population¹. Centre formed as a center of social with outstanding architecture was the dominant feature of the city in terms of visual, functional and symbolic. Cities in their development have achieved different forms. However, the location of service centers remained unchanged, giving the impression of uniformity and compactness.

In the 20th century, the famous bio urban demands, formulated in The Athens Charter, justified the need to equip residential areas in public buildings, small factories, integrally connected with the life of the city. They were to allow the proper formation of housing environment, providing conditions the proper biological development of population and social life of the community. At the time, the service centers took great importance in the planning, reflecting the position of the city, the village in the settlement network hierarchy. A practice of planning service devices according to the normative indications, allowing for optimal equipment of towns and villages became common in those times.

Until today attractive planning solution uses the integrative properties of services areas. These areas initiate interaction, interpersonal communication, attracting customers. A living, flexible, dynamic urban space is created in the way. One produces a vigorous meeting place, combined together with visionary architecture. Hosts of all cities and villages strive for the quality of this space.

New social behavior

The future of fundamental, so obvious rules of urban planning may be uncertain in the context of new habits and human behavior. The development of social and economic life made man realizes some of their needs in unreal way. The use of elementary services such as trade, catering, crafts, health care, education, culture, administration, leisure, can be done remotely – using electronic techniques. Customer support is often done from the periphery of the city or from another continent. Convenient solution, which is a threat to the existence of local services. On the one hand, it contributes to creating a new social type of meeting space for Internet users, on the other hand, it contributes to the fragmentation of local ties. Consequently, it may lead to the disappearance or shrinkage of the housing estates. Paradoxically, the situation is exacerbated by the development of motorization. By no means one solves the problems of the residents of the community, resulting from the lack of transport services. Efficient transport is

¹ There was a market square, a square with the temple, an agora where a political, religious, commercial life has gone on in the Greek cities of the Classical Period.

organized for the needs of individual providers of specific services with the revised formula, and not used to improve the mobility of residents.

This problem is a result of the economic, social processes and years of neglect in the area of program planning in Poland, which are now easily justified by the development of technology. No ordering center – contractual “traditional square” with the architecture of public buildings with the potential of strengthening social bonds, is reflected in the composition of space. The boredom of mono function, the disorder of heterogeneity are characteristic for unrelated other, emerging settlements.

Examples of the village – a fusion of real and virtual space²

Szklarska Poręba

The village, which origins was recorded in 1366. It obtained the statue of a city 12.31.1959. In interwar period the village was a European power in winter sports. After Second World War, it became the largest holiday resort and winter sports center in Polish part of the Sudety. Currently, it competes with Karpacz for the position of the most important high mountain resort in the Polish Karkonosze.

But not only tourism, sport, but other areas of the economy decided about the current statute. Glassworks existed here since the dawn of the settlement. The last one was closed in 1992. Tradition of quartz mining in the Izerskie Garby (near Jakuszyce) dates back to the 13th century. Since the mid 16th century to the early 19th century pyrites has been mined in Lower Szklarska. Until the mid-nineteen, pyrite has been processed to sulfuric acid. Paradoxically, objects associated with industrial activity become the tourist attraction, during the development of tourism. The population was engaged in agriculture, herding, collecting wood, making charcoal, then weaving. 4 schools, churches, 3 mills, a sawmill, 3 glassworks, 14-16 grindings, 12 paint of glass studios, all branches of trade and basic crafts, a station of hiring guides and porters, an orphanage, taverns, restaurants, hotels, pensions, a park with a concert hall, a cinema, sanatoriums – all they thrived here since the 19th century, at the height moment. Szklarska Poręba prided itself infrastructure of recreation and sports at the highest level:

² Date before 1985 has been drawn among others from the following sources:

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- Current date (26.02.2016) has been get among others from :
- in Commune Offices in Karpacz, in Szklarska Poręba, in Podgórzyn, in Piechowice,
- from mayors of the village,
- in Statistics Office date from 2014:
Raport_SVS_2014_gm_s1.rdl [online]. [March 8, 2016]. Available from: http://stat.gov.pl/vademecum/vademecum_dolnoslaskie/portrety_gmin/powiat_jeleniogorski/gmina_m_karpacz.pdf
- Raport_SVS_2014_gm_s1.rdl [online]. [March 8, 2016]. Available from: http://stat.gov.pl/vademecum/vademecum_dolnoslaskie/portrety_gmin/powiat_jeleniogorski/gmina_m_szklarska_por_eba.pdf,
- by the vision of the local area.

toboggan runs³, bobsleigh tracks⁴, ski jumps, ski lifts, ski slopes, tennis courts, swimming pools, a skating rink. The development of the village coincided with the beginning of the 20th century. From this period come most of the buildings forming urban character of resort.

Now, Szklarska Poręba is the varied, extensive city, concentrated in the valley of the Kamienna River. It has a compact development of centrum equipped with the elementary services. It contains distant settlements within its borders such as: Orle, Jakuszyce and deserted areas of forests, meadows, mountain peaks of the Góry Izerskie and the Karkonosze, part of the Karkonoski National Park with the Wodospad Kamieńczyka and Mountain Szrenica, at the same time. Residents make their livings on tourism services, in particular hospitality industry and other closely related to tourism: catering, trad. Complexes of hotel offer occasionally wellness and relaxation service. Services of culture (churches, museums) are complemented by administration (a post office, a municipal office, a point the police – active ad hoc), health and education (1 nursery, 2 elementary schools, 4 middle schools, 2 kindergartens, a children's home, a library, a care and treatment facility

and health center (however it's hours are incompatible with the needs of activ tourists and athletes) .

The glasswork Leśna Huta is the only one noticeable craft center producing limited handmade art glass. There are many registered economic activities in the municipal office but there are no information which of them exist in real. The whole of it is complemented by urban transport services, which, despite the potential (the railway line founded in 1902), by no means is able to serve the residents at a satisfactory level and forces the use of individual means of transport.

The city, famous for its sports and tourist grounds, have the infrastructure such as: a stadium, a sports hall, slopes and ski lifts, a skating rink, routs for cross-country skiing, biathlon and cycling, small indoor recreational pools (a larger one with a lenght of 25 m), a summer toboggan run, sports fields and other small sports equipment in hotels. A number, size, quality of sports facilities seem insufficient and unattractive considering the predisposition of the region and historical traditions. The face of the city gives the impression as it the time stopped in the frame, in some places. The city has about 6829 inhabitants extending over an area 7500 ha. While one had 7368 of population, being a village and embracing smaller area 1468 ha.

Karpacz

Płóczki was the first settlement which gave rise to Karpacz. It was founded in the 15th century. It has established the village merging with numerous surrounding hamlets and seperate, scattered villages. It became a town in 31.12.1959. In interwar period the village was the most popular tourist center of the Karkonosze. After Second World War, it became the largest holiday resort and ski station in the Eastern Karkonosze. Currently it is competing, as already

³ Werth, Paul. *Wintersport und Winterreisen im Riesengebirge Praktischer Reiseführer*, Berlin: Albert Goldschmidt, 1914; Łaborewicz, Iwo , Wiater, Przemysław. *Szklarska Poręba: Monografia historyczna*, Jelenia Góra: Związek Gmin Karkonoskich, 2010, p. 427

⁴ Schneigert, Zbigniew. Wyciągi turystyczne w Karkonoszach. *Rocznik Jeleniogórski* ,1964, vol.2, no. 2/44, p.78-91; Wiater, Przemysław. Zimowe zagospodarwoanie sportowo turystyczne terenów wokół Wodospadu Kamieńczyka do 1945. *Śląski Kwartalnik Historyczny Sobótka*. 2003, vol.4, n.58, p. 415-422

mentioned, with Szklarska Poręba for a position as the leading high mountain and ski resort in the Karkonosze.

Initially, the population made their living on: farming, herbal medicine, precious stones gathering, herding, collecting wood, making charcoal for steel mills of Kowary, mining (extraction of lead and silver). There were: a school, a mill, a mine, a paper mill, 2 brickyards, 7 blacksmiths, 4 looms, 35 craftsmen, a post office, a telegraph, a sawmill, an inn of court, a herbalist, a bathing facility, inns, pensions, rent guides and porters of litters, a tourist company, in the period of intensive development, and so from the first half of the 19th century. At the turn of the century, a number of services with a focus on the growing tourist and sports traffic were created: a municipal doctor, a pharmacy, spa, a church, a city park with a pavilion for concert, as well as many sports facilities: bobsleigh and sledge⁵ tracks, ski jumps, a ice rink, a skating rink on the dam⁶, an outdoor swimming pool, tennis courts, playgrounds, areas for cross-country skiing and for rowing, and fishing. At the time, character of the resort was developed, mainly thanks to the new, magnificent, touristic buildings.

After the war, the sports station was supplemented with lifts and ski pistes. The hotel base was expended yet.

Now Karpacz is a functioning resort located in valley of the Łomnica River and its tributaries. In the city limits, there are: vast areas of forests, mountains tops of the Karkonoski National Park (including Mountain Śnieżka), in addition to fairly compact city center and residential areas. Residents are engaged in tourism services and complementary ones: catering, retail, banking, crafts. Craft services are often no longer part of consolidating the community, among other things, due to the location. They are primarily made out of cottage industry system. There are cultural institutions (churches, museums) and the administration one (a post office, a tourist office, a council), health and education services (3 schools, 2 middle schools, 3 kindergartens, a health center open only in weekdays, a pharmacies no round-the-clock). The city cultivates the historical traditions, without giving up the infrastructure and sports facilities and expanding that places (ski pistes and ski lifts, a skating rink, a short cross-country for skiing and cycling, small indoor pools in the hotel complexes (about 5, including 2 ones lengths 25 m), a summer toboggan run, a city stadium, sports fields and other small sports facilities in sports hotel complexes. An urban transport to a certain extent provides support for residents and tourists. Annually 80 000 persons use tourist accommodation. Currently, Karpacz has 5007 inhabitants, with an area of 3900 ha. Around 1942 the population accounted 2209 persons, when its surface was 468 ha.

Przesieka

The village was established from the settlement of charcoal makers in the 17th century. Currently, it is located within the community of Podgórzyn. Initially, farmers, landless peasants breeding cattle including goats, cultivating vegetables, fruits, including apples (bred local

⁵ *Wintersport in Krummhübel*. Ed. Auskunftserteilt der Gemeinde – Vorstand Krummhübel i. Rsgb, 1909; Przerwa, Tomasz. *Między łąkiem a zachwytem. Sporty zimowe w Śląskich Sudetach i ich znaczenie dla regionu (do 1945)*. Wrocław: Oficyna Wydawnicza ATUT, 2012, p.9, 246

⁶ Przerwa, p.273

species), flax (which was used for making clothes by the end of the 19th century). The boom of the village as the resort is assumed since the second half of the 19th century, when the painter Adolf Dressler popularized this place. There were a smithy, a bakery and a mill, a school of Protestant and Catholic, an inn of court, shops, a photographic studio and other craftsmen (hairdressers, butcher, shoemaker), a chapel, a tourist outpost. Hotels, inns, pensions and following sports facilities arose: several small ski jumps⁷, one of the most important toboggan routes, an outdoor swimming pool, a ski lift, ski slopes, routes for cross – country skiing, a natural ice rink.

In the years 1884 – 1903, Przesieka even competed with Karpacz⁸. The climate allowed practicing all winter sports i.e. : snowshoe hiking, skiing, ice skating, sledding, skijoring⁹, ski jumping, which brought fame to Przesieka. Ski instructors, the guides of trips by horned sleighs were available in the village. Resort was also recommended by doctors due to the purity of air. After 1945 Przesieka became the largest holiday resort of the Center Karkonosze. A lot of holiday houses were active here. People were skiing using the pre-war sports infrastructure. The crisis, political changes of the late eighties, nineties years suppressed the dynamic center. Investments (taverns, the modernization of historic buildings) revived somewhat the mountain village in the early 21st century. The chapel is under construction. There are no sports facilities yet. Currently, the surrounding, wild nature is the main attraction of the village, situated in the valley of the rivers: the Czerwień, the Podgórna, the Myja, on the northern slopes of the hill of the Golden View. Once mountain meadows dominated in the landscape of the village – now forests. Layout of the village resembles sockets grouped along the serpentine of streets. There are no researches on employment, activities of inhabitants. From the relations of mayor of Przesieka, the most of residents are employed in tourism. There are about 495 permanent residents. This number has decreased compared to 1942, when the village was inhabited by 785 persons.

Sosnówka

The village in the commune of Podgórzyn was founded at the end of 13th century. There were 3 churches, 2 schools, 2 mills in the 18th century. The village expanded yet by 29 cotton weaving workshops and 67 linen ones (30 years later there were 250 looms for the manufacture of damask), 53 craftsmen, 7 inns, a factory of vodka, a weaving mill, the station of the rent of guides and porters and riding horses, an information outpost of tourist society and hotels, pensions. At the beginning of the 20th century a small industry (bakeris, grinderis of crystals) was spawned. There were also sports facilities: a ski jump¹⁰, a natural ice skating rink, a swimming pool. It is visible the division into two parts in the fragmented catenary village. The

⁷Łaborewicz, Iwo. *Skocznie narciarskie II* [online]. [dostęp 25.10.2013]. Available from: <http://www.przesieka.pl/historia.html>; *Riesengebirge, Isergebirge, Breslau: mit 9 Karten, 12 Plänen und 2 Rundsichten.* Leipzig: Bibliographisches Institut, 1930 p.129-130; Przerwa, p.210

⁸ Przesieka [online]. [March8, 2016]. Available from: <http://www.przesieka.pl/historia.html>

⁹ *Riesengebirge*, p.129-30

¹⁰ Przerwa, p.210

upper part is situated on the slopes of the Podgórze Karkonskie. The lower part is located around the Sośnik River in the Kotlina Jeleniogórska¹¹.

After the war, the tourist nature of transforming historical buildings on a large holiday complexes of enterprises (including the swimming pool) was retained, particularly, in upper Sosnówka.

The landscape of the village was significantly changed by Sosnówka reservoir and water dam, built in the years 1986 – 2001.

Currently, the unique complex of services is prospering in Sosnówka: a school, a fire brigade, a sports center, a community room. There are shops, a sports court, the centrum of integration, churches, a social welfare home, a headquarters of the transport company. Now, the village has 1078 persons – less than in 1942, when it was inhabited by 1412 persons.

Miłków

The village in the commune of Podgórzyn, mentioned in written sources in the 13th century. The catenary village is located in the valley of the Miłkówka River. In the 18th century, 44 artisans, 2 schools, 2 churches, 4 mills, a paper mill and herbalists were recorded here. In the 19th century, 2 mills, a sawmill, 2 brick factories, a manufacture of peat, a metallurgical plant, 60 artisans, 17 merchants, 6 looms, the judicial inn, a bleaching plant, a nail factory and a lot of inns. The 20th century initiated the development of the village as a summer resort. An outpost of tourist society, small hotels, guesthouses, a tobogganing track were started their businesses. After the war, industrial activities (Karkonoskie Paper Plant, the branch of Metal Polar Plant in Wrocław), rural activities (Agricultural Cooperative of Production Consent), the commercial, service, sports, touristic infrastructure were developed (holiday camp centers, horse riding centers, a sports court, a camping and a swimming pool).

Currently, the village is famous for the former magnate residence of von Matuschka and the ruins of the Evangelical church. The economic activity has slowed down. The factories, the establishments, the cooperative, a post office, the several recreational centers and railway (which brought a revival in 1895) disappeared. Residents complain about the lack of a bank and other services, including a craft. There are several shops, a church, a health center, a primary school, a swimming pool, a camping. Despite the frustration of the population of the community, current population – 1897 persons, compared with the number of 1893 from 1942, is almost unchanged. The favorable statistics can affect the distance to the center of big city (Jelenia Góra), less than in the other analyzed villages.

Jagniątków

The catenary village was founded by Czech religious Protestants refugees in the 17th century (since 1962 was incorporated into the city Sobieszów, then Piechowice and now since 1998 is within the boundaries of Jelenia Góra). Since the beginning of the 19th century was known as a popular summer and wintering resort. Currently, it makes an impression of a lost settlement in the forests of mountain in the valley of the Wrzosówka River.

¹¹ Sosnówka [online]. [March 8, 2016]. Available from: http://www.podgorzyn.pl/index.php?option=com_content&view=article&id=50&Itemid=80

In the 19th century there were the following services in its coverage: a school, a forester, a sawmill, 5 merchants, an outpost of tourist society, about 3 swimming pools, a ski jump, toboggan runs, as well as hotels, guesthouses and inns. Tourist building, mainly from the second half of the 19th century and the beginning of the 20th century, with rural cottages created a picturesque arrangement which is characteristic for holiday resorts of the Karkonosze.

After the war sports and tourist heritage was continued. There were: swimming pools, 3 ski lifts, holiday houses, a camping, 2 sports courts. A church was built in a character of Podhale, however which neatly inscribed in the landscape of the village. Mining research was conducted in order to extract uranium. Around 1942, Jagniątków having an area of 414 ha centered 934 residents. Currently, in Jagniątków, the range of services is much more modest: city museum, pensions, a store and the aforementioned church, the guide of the Sudety, eventually small cottage industry activities. Population of Jagniątków is 641 persons. Although Jagniątków was absorbed by large urban organism, it does not change its peripheral location.

Michałowice

The village was founded by religious refugees from Czech in the 17th century (in the middle of the 18th century it was included to Piechowice). Currently, the village is part of Piechowice.

Initially, residents were engaged in agriculture, cottage industry (including manufacturing of wood), herding, weaving. In the second half of the 19th century, the village took on the vacation character. There were: an inn, pensions, an outpost of tourist society, 2 swimming pools, a ski jump, toboggan runs and ski pistes.

After the war the village has remained an intimate holiday resort, a scout base, the seat of the theater "Teatr Nasz". In 1988, the chapel was built here. To this day, there is a palpable atmosphere of the resort of the Karkonosze, thanks to the surviving in part the architecture of cottages and pensions of the Sudety, from the turn of the 19th and 20th century. Residential buildings dominated here, scattered on the slopes of a vast clearing of the valley of the Michałowicki Stream. About 1942 Michałowice was inhabited by 406 persons. Currently, the number of inhabitants decreased to 321 persons.

Borowice

The village in the commune of Podgórzyn was founded in 1644 by a Swiss carpenter (a religious refugee). In the 19th century, a school, inns, pensions were arisen here. The village from the agro-pastoral one transformed into a small summer resort.

In recent years, a small swimming pool, a church were constructed. The resort based on a historical building is loosely scattered in the Dolina Pięciu Potoków. People seeking escape from civilization can find their refuge here, but all of them must dispose of their own reliable transport. Always the small village, consisting of 230 persons in 1942, is decreasing yet. Now, 145 residents are living in Borowice.

Zachełmie

The village was founded in the 17th century as a colony of Przesieka. Then it was inhabited by refugees from Czech. Originally, it was a foothold of woodcutters, shepherds, farmers. The cultivation of cherris was the local specialty. A school, mills, a sawmill, an inn were established here in the 18th century. Little by little Zachełmie became the fashionable, intimate holiday resort and winter sports station. A swimming pool, a youth hostel, an outpost of tourist society were built. Ski runs were marked.

After the war, people were engaged in agriculture, tourism. Holiday houses and houses of enterprises were prosperous.

Currently, the small dispersed settlement, situated in the valley of Zachełmiec River, preserves a peaceful character of the resort. In winter, a small ski lift is open. Lack of the elementary services is compensated by extraordinary activity of the community of Zachełmie. Educated residents lead activities in the field: automotive, construction, medicine, as well as manufacturing (but especially in nearby cities) and tourism. They contact on Facebook. They organize rural meetings of neighborhood, fairs, concerts, bonfires, actions of cleaning, sports tournaments. The meeting place is a new playground or local pensions. The mountain village counts 354 inhabitants – slightly less than in 1942, when it was inhabited by 397 persons.

Summary

The villages of area of the Karkonosze are diverse in terms of geological and their location in the structure of the settlement. They are linked by the surrounding geographical environment, cultural heritage, economic conditions, which allow to draw conclusions on the contemporary processes of urbanism.

Originally, the region was famous for its large and diverse economic activity, based on trade, crafts, mining, manufacturing plants. The villages were equipped with the necessary service infrastructure - public buildings such as: schools, shops, churches, workshops, businesses adapting to the nature and function of settlements and typical at the time land use planning.

Since the the 19th century tourism infracture was successively expanded in connection with the development of tourism. At the end of the 19th century the sports function revived the region once again. The villages were reinforced with the network of sports facilities according to the new needs. The region developed gradually. The second half of the 20th century and the beginning of the 21th century were characterized by volatility fate:

- from the significant growth of tourism in the sixties and the subsequent decades of the eighties – to poverty and suppression work places related to sports and tourists investments of the eighties;
- from new projects and modernization of the existing infrastructure the late nineties - till the years of free market economy, a recession in the band of holiday centers¹² and shelters;
- from the increase in the number of hotels – to the decapitalisation of infrastructure.

There is a noticeable regularity, over the years. The villages tend to reduce population and loose economic resources, based only on one of the sectors of the economy (Przesieka,

¹² *Atlas Polsk . Ed. Rajmund Mydel. vol 3 . Turystyka i Rekreacja. Kraków: Fogra Oficyna Wydawnicza, 2003, p.268*

Jagniątków, Michałowice, Zachełmie, Sosnówka, Borowice). The service facilities are limited in the field of education, culture, health, commerce, trade, transport, sports, there. The buildings are ageing followed by depopulation. New social behavior exacerbated underdevelopment of services in different areas. Antisocial creations are emerging. The old historical arrangements defend aesthetic values: figure, layout in the landscape, yet. The thinnings in the building, the losses in the composition of settlements are not as severe as the loss of thmae indicative center.

By contrast, there is observed relative stabilization in the places where the historical network of services is nurtured, expanded, or modified (Karpacz). Primarily, the trend is reflected in the population, as well as the scale, the type of building (not necessarily related to the specificity of the region). The use of the news media favors the prosperity additionally. Comparative examples from the Alps confirm that the development strategy is based on at least two complementary disciplines of the economy. (e.g. sport, tourism) with the support of marketing can contribute to unprecedented success¹³.

Thus, the new reality, understood as a medium of communication, can deepen the processes of urban planning. It can also counteract the negative trends.

Currently, the residents of the villages of the Karkonosze accepte with understanding the bankruptcy of another service points. Apathy, resulting perhaps from fear of unfortunate investments, uncontrolled development, is compensated activity in the virtual worl

d – on Facebook. Valued idea initiated in Zachełmie is transferred to the real world: sports, tourist events, etc., which saves the condition of the settlement. The examples from the Alps also justify the possibility of the use of the achievements of technology to improve the life of the mountain villages. Web information supporting the functioning of the tourist centers, public buildings partially supported by advanced technology, such as tourist information points, outposts of banks, wi-fi¹⁴, telephon boxes, etc. – they are advantages. They are also pretext “to go out”. Properly designed, along with the traditional service facilities can co-create the center.

The demand for the traditional center is noticable, despite the technological revolution that is changing our lives. This confirms the international architectural competition for young professionals European – the type of survey. The authors of the awarded works between 2001 and 2015 generally promote multifunctional attractive urban space that integrate relationships.

Once we would like to get lost in a multicolored crowd and touch, smell, taste. Currently, we have the image of an artificial reality. Take advantage of the new medium to improve living conditions.

¹³ Sölden – Alpin ski resort offers a specialized type of service, primarily in for tourist and athletes. Services are the highest level. The village seeks to organize: the annual opening of the FIS World Cup ski competitions and Adrenalin Cup. The presence of sports, film, music stars. In this way it ensures the popularity of taking 2 milion visitors a year.

¹⁴ A small settlement – Huben in the Ötztal valley, is equipped with a system of essential serices available round the clock.

Figure 1. Map of of Borowice



Figure 2. Map of Michałowice



Figure 3. Map of Karpacz

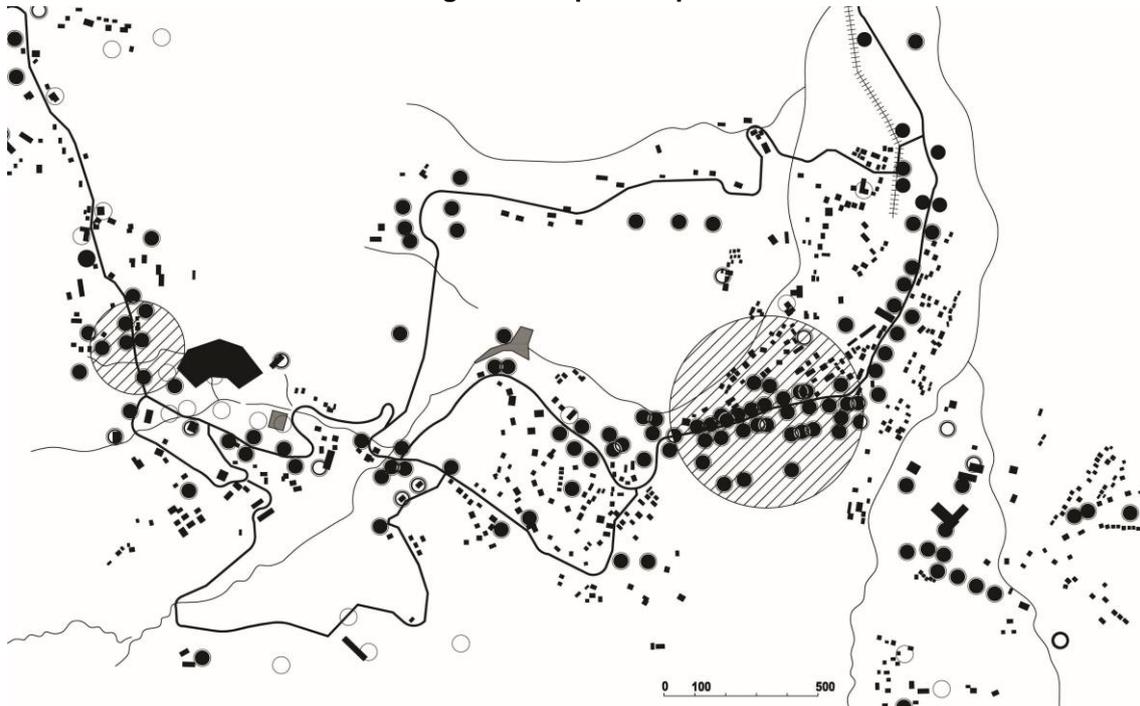


Figure 4. Map of Szklarska Poręba

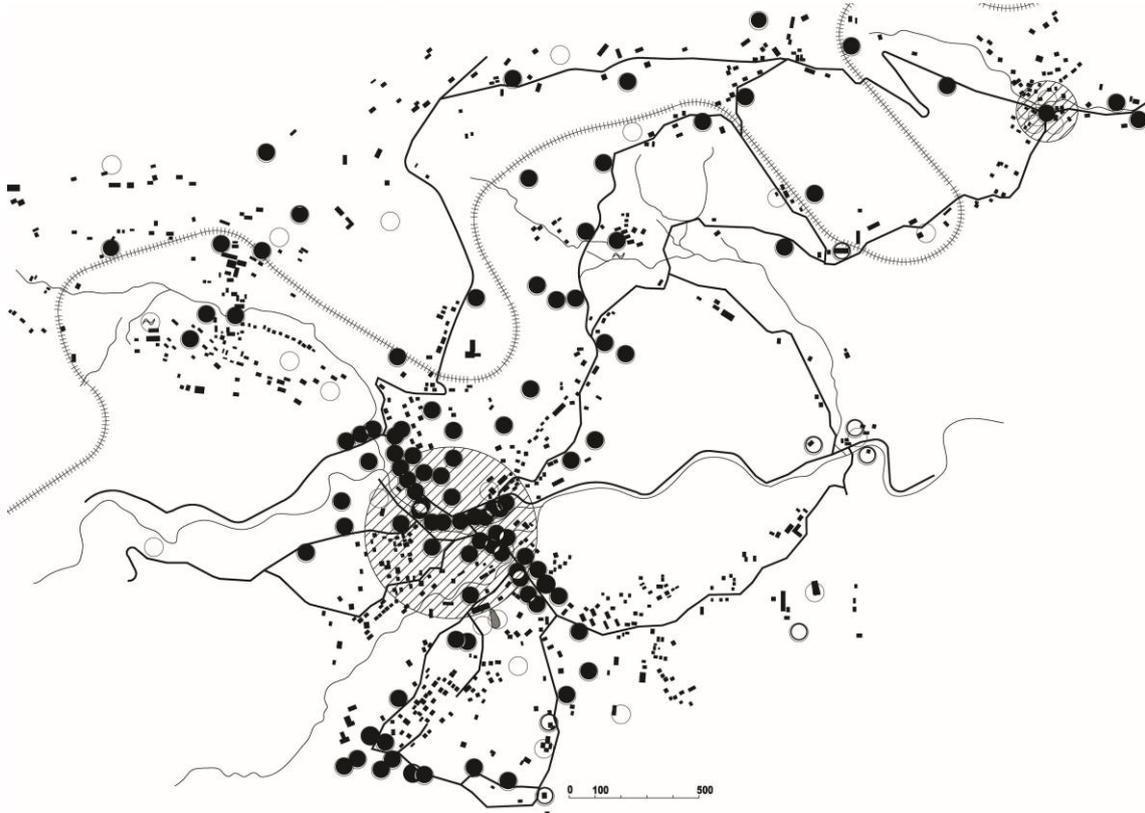


Figure 5. Map of Miłków



Figure 6. Map of Sosnówka



Figure 7. Map of Przesieka



Figure 8. Map of Jagniątków

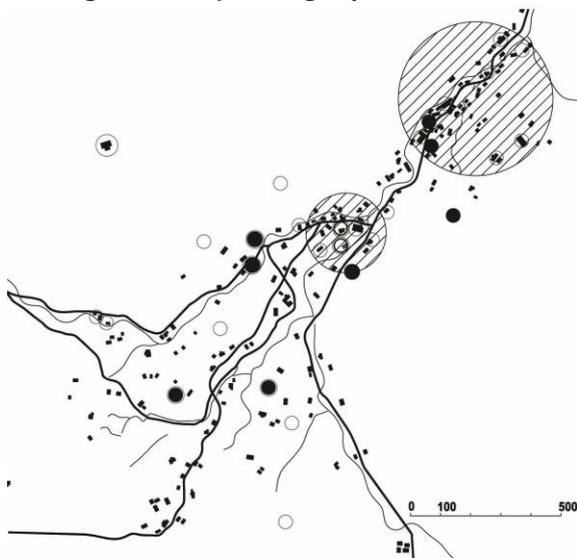


Figure 9. Map of Zachełmie

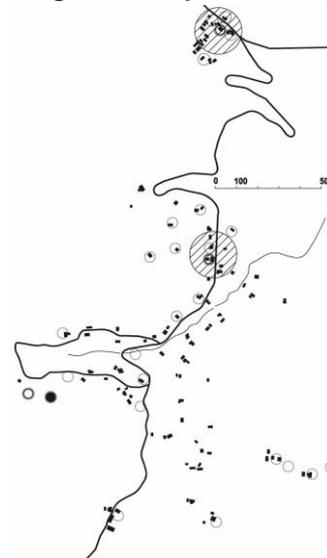
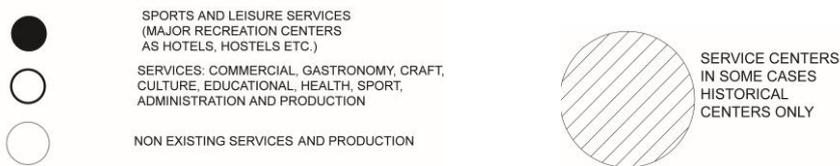


Figure 10 Signes



Notice

*The above symbols of activities don't reflect the real impact on a population in a specific village. For example some of them are active temporarily only, in a consequence are not fully satisfactory for the inhabitants. While tourism and recreational services originally destined to quests can also serve the local community and enhance social integration of a village.

** Plans do not always represent the towns and the villages in the current administrative boundaries.

*** All drawings by author.

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RETURN TO A COHERENT CITY - ON THE EXAMPLE OF LUBLIN

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Key words: City landscape, integration, lost cohesion, Lublin

Abstract

This article discusses a very important and current problem of the loss of integrity in Lublin. It also contains suggestions for the improvement of present situation and preventing the problem in the future. The paper is a continuation of research conducted by J. Wrana as part of habilitation thesis entitled "The role and importance of architecture in the process of integrating the spatial structure of the city – on the example of Lublin".

One of the methods of integrating urban spatial structure is conscious creation of architectural forms, and their increasing significance in the formation of "synergy" relations. The binder of "re-integration" city could be the "integration architecture" - buildings of high quality, socially attractive features, located in the important nodal points, which improve the consistency of the environment. Supplementing the city with such facilities greatly increases its aesthetics, also associated with consistency. Their functions are not only the classic ones (services, education, etc.) as in various ways, they also influence city landscapes. They complete street frontages, integrate campuses and housing estates, create composition axes, integrate surroundings, and enrich the services.

The authors focus on the example of Lublin – a centuries-old city with rich and fascinating history, nowadays dealing with its post-industrial heritage and facing spatial problems. The city is regaining its lost integrity through architecture: it has become a place where a number of noteworthy integrating projects have been realised. The examples of *integration architecture* in

Lublin are, among others: Centre for the Meeting of Cultures “Theatre in Construction” and Eastern Innovation Centre of Architecture (Lublin University of Technology).

Introduction

Today the city is the natural environment of a human life – offering “various places of contacts and meetings”, allowing implementation of social behaviours¹. The attractiveness of the city is also due to the anonymity giving the freedom of existence and multitude of social groups to which one can belong. Not without significance is also the role of architecture: charm of urban buildings and public spaces. The cities, however, also have their disadvantages: with anonymity decreases the sense of safety, with the number of residents increases the number of buildings, and, what follows, the distances grow between the borders of the city and its centre, the tissue grows, and also the spatial chaos appears.

Most Polish cities struggle with the problem of loss of integrity of the spatial structure. This phenomenon appeared in the second half of the 20th century, intensified in 1990s, and continues today. It affects both bigger centres and smaller towns.

Its main causes are many years of neglect and unfavourable spatial policy of the period of the Polish People's Republic. In that time extensive housing estates were built, among others, erected using the technology of the so-called “panel building”, often located on the outskirts of the cities and badly communicated with their central part. In the area of the city centres also heavy industry appeared then, having an adverse effect for the spatial structure. 1990s and 21st century, in turn, brought “building boom” and numerous new investments, which contributed to the phenomenon of loss of cohesion. Due to the insufficient number of the Local Spatial Development Plans, regulating the issue of building density and its form, new projects are created rather chaotically and without broader planning. The example here could be suburbs with the units of single-family houses.

At the end of the 20th and at the beginning of the 21st century also a phenomenon of the “hunger for diversity” can be seen, the reason for which is many years of monotony and lack of choice in the years of the Polish People's Republic. As a result, a significant number of the newly constructed houses must stand out and distinguish themselves from the neighbouring ones, instead of adjusting to them – in order to create a coherent whole.

It is necessary to undertake the actions aiming to halt this phenomenon and restore the lost integrity. One of the methods of integrating the urban spatial structure is conscious shaping of architectural forms and their growing importance in creating the relationships of “synergy”.

The phenomenon of synergy – outline

The word “synergy” is derived from the Greek word *συνεργία* – “cooperation”²; the words of Aristotle can be cited as the definition of this phenomenon: “The whole is more than just the

¹ J. Gyurkovich. *Miejskość miasta*, *Technical Transactions* of the Cracow University of Technology, issue 2-A/2007, pp. 112.

² The dictionary of foreign words and phrases by Władysław Kopalinski, www.slownik-online.pl/kopalinski [accessed: 10.01.2016]

sum of its components”³. In Poland this term was popularised by A. Böhm in a monograph *On construction and synergy of the urban interiors* (1981); he is also the creator of the concept of synergy in architecture.

Synergy is a term describing the phenomenon of over-summativity; the whole (the synergic sum) is worth more than arithmetic sum of components – this can be described by the mathematical operation $2+2=5$. This phenomenon occurs if and only if the operators, if they cooperate, achieve more than when they act individually⁴.

Synergy occurs in many areas of science – we encounter it, among others, in pharmacology – it manifests itself in that two (or more) medications, weakly affecting the patient separately, after administering them together bring strong effects – due to the synergic response of the body to the treatment or the interaction of active substances of individual medicines.

The example of synergy in architecture is *genius loci*⁵. The phenomenon of synergy can also occur when the interaction of object and its location takes place, and the final effect will be stronger and more important than in the case of locating a given building in a different place. The example of such effect can be revitalisation of the area, the revival of a district, or merging a part of the city. G. Schneider-Skalska believes that “the signs in the form of outstanding architectural works are necessary for the proper functioning of the city, (...) promote a positive stimulation” (Schneider-Skalska, 2010, p.155) – which also can be an example of the phenomenon of synergy.

Integration architecture – attempt of definition

Integration architecture is objects of public use, representing high quality of project and construction, which in addition to the basic role fulfil the unifying function: both visually and immaterially.

The object representing this trend often constitutes a missing “puzzle” in the city’s structure. They merge and complement the frontage, quarter, estate, activate the area, are the base of the revitalisation changes. They fulfil the gaps created in the city as a result of many years of neglect or poor spatial policy, emphasise the axles, unify and organise the chaotic environment. Thanks to the high quality of both the project and environment, these objects raise the quality of the area, become recognisable and distinctive. They can also become symbols of the city – such as Kunsthhaus in Graz and Eye Film Institute in Amsterdam.

Integration architecture helps regain lost consistency and once again integrate urban spatial structure through situating it in places of node significance, at the same time affecting the image and aesthetics of the city.

Integration architecture can also variously affect the spiritual and immaterial zone. It gives the users the sense of connection with the region, country, world; it is also a determinant of the progress of knowledge and communication, especially in the case of university building, as they

³ T. Gospodarek. *Aspekty złożoności i filozofii nauki w zarządzaniu*. Wałbrzych : Publishing House of Wałbrzyska Wyższa Szkoła Zarządzania i Przedsiębiorczości 2012, p. 77.

⁴ [Source:] *Small encyclopaedia of praxeology and organisation theory*. Warsaw : PWN (Polish Scientific Publishers) 1978.

⁵ J. K. Lenartowicz. *Słownik psychologii architektury*. Cracow : Cracow University of Technology Publishing House 2007, pp.100-101.

often belong to that trend. It is the place of meetings (planned and spontaneous ones), networking, overcoming barriers, and in the further stage of discussions, exchange of thoughts and views. It is the place to which one returns, because it quickly becomes familiar, and the user finds his way around the object easily. Every user feels relaxed here, "like at home". This is a social space, which encourages people to stick together, to contact each other, and to prolong that contact. People feel comfortable and safe inside it, they integrate, shorten distances between each other⁶.

It is the architecture associated with the context of a place, that fits into tradition, thanks to which for the user it is neutral, easily acceptable, taken as "something of one's own"⁷.

Locating objects of *integration architecture* in the places especially important on the map of the city – urban nodes, may contribute to forming of a phenomenon of the above-mentioned synergy, of an incredibly positive effect on the city. Such situation occurred, among others, in Oslo – thanks to the building of National Opera and Ballet the entire waterfront of the city was revived, called the Fjord City.

Integration architecture may be associated with notion of *Powerful form* by J. Gyurkovich⁸. At this point it should also be remembered about outstanding personages: Kazimierz Wejchert⁹ and Kevin Lynch¹⁰ and their ideas of urban composition and perception. They were also the promoters of the dialogue with users and understanding the urban context.

Integrating Lublin – current situation, chances and risks

Contemporary Lublin, currently the largest centre of Eastern Poland, struggles with the problem typical for many Polish cities – the loss of coherence of the spatial structure. This is the legacy of, among others, the period of the Polish People's Republic – the result of introducing extensive housing estates located further away from the centre and placing industry in the inner city areas. The problem is also the railway line – dividing the city into two parts, and also insufficient number of service facilities within the above-mentioned housing estates.

The city has a large development potential. Its advantages are, among others, an excellent location – proximity of Warsaw, international, still growing airport, increasingly better network of roads – and a significant number of universities and higher education schools, providing both academic staff and young, educated workers. Also the rich history of Lublin, numerous precious historical monuments and traditions reflect its attractiveness.

Recent years show that Lublin gradually catches up with the Western Poland and strengthens its position. Among others, the GDP increases – from 27 807 PLN/annually per resident in the years 2010-2012 to 30 400 PLN in the year 2013¹¹. The city gradually develops, attracting new inhabitants, tourists and investors, which results in new investments (both of public and private sector), including Świdnik airport, swimming pool and city stadium, as well as the renovation of

⁶ J. Wrana. *Rola i znaczenie architektury w procesie scalania struktury przestrzennej miasta – na przykładzie Lublina*, Lublin: Lublin University of Technology Publishing House 2014, p. 58.

⁷ *Ibidem*.

⁸ J. Gyurkovich. *Znaczenie form charakterystycznych w kształtowaniu i percepcji przestrzeni. Wybrane zagadnienia kompozycji w architekturze i urbanistyce*. Cracow : Cracow University of Technology Publishing House, 1999.

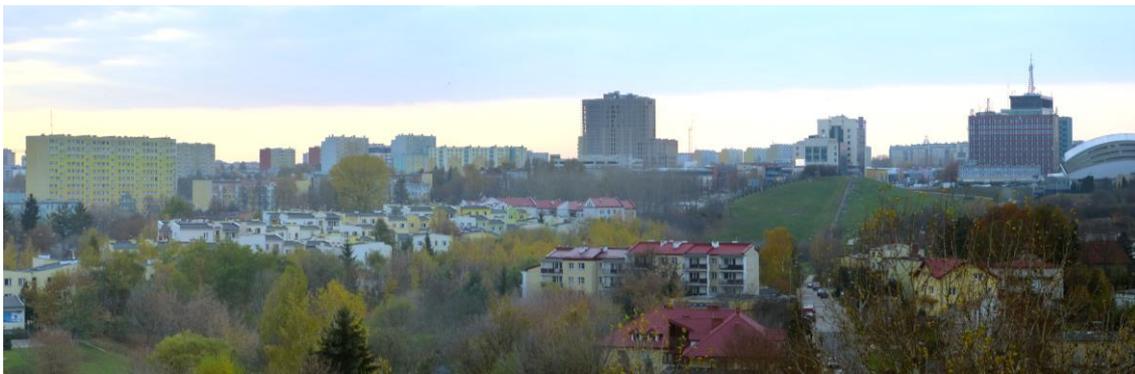
⁹ K. Wejchert. *Elementy kompozycji urbanistycznej*. Warsaw : Arkady 1974.

¹⁰ K. Lynch, *Obraz miasta*, Cracow : Archivolta Publishing House, 2011.

¹¹ Statistical Office in Lublin – lublin.stat.gov.pl, www.portalsamorzadowy.pl [accessed: 25.01.2016]

the Old Town and Lublin's theatres. These completed works will increase attractiveness and competitiveness of Lublin in relation to the neighbouring centres, becoming the basis for more serious changes of the city's image – creating European metropolis, remembering its roots. Particularly significant here is the new airport, which “brought” Lublin closer to Europe and the world, allowing easy and quick air transport. Additional advantage of the port in Świdnik is a convenient and quick communication with the Lublin city centre. The city's spatial structure also improves, slowly regaining lost integrity through the thoughtful and beneficial investments. It is necessary to continue this trend through appropriate, long-term actions, both economic and planning.

Figure 1. Contemporary panorama of Lublin



Source: photo by Jan Wrana, 2013

The historic and cultural potential of the city should be used. Multicultural and colourful past increases the attractiveness of Lublin and distinguishes it from the other centres. At the same time, it can be an inspiration for new projects and works, e.g. cultural events (festivals, exhibitions, concerts) or new, multimedia objects associated with this topic. The increase in tourist attractiveness will bring measurable, financial effects, and these will in turn translate into more investments – including those related to integration. At the further stage it would be advantageous to create a brand of the city of Lublin – the modern centre, looking into the future, but not forgetting the past. The strong brand is an excellent advert for the city – both in the touristic and investment sectors.

A great opportunity for the city is an appropriate spatial policy and interest of the authorities in the subject of restoring the consistency. The “top-down” actions – the development of the Municipal Spatial Management Policy, obtaining grants, support from the EU programmes – can bring measurable advantages and facilitate the implementations of the residents' initiatives. *The Study of conditions and directions of spatial management of the city of Lublin*, developed in 2011, may be helpful in these actions.

The risk can – but doesn't have to – be the lack of reaction from the residents. The legacy of the period of the Polish People's Republic, in addition to the issues connected to the spatial policy, is also lack of concern for the common good – “common, so no one's”. The reflection of this trend is more often encountered in the larger centres, where there are many participants and it is easier to meet with the lack of sense of responsibility for the area and environment.

Therefore, increasing social awareness and undertaking crucial activation actions, e.g. public consultations, referendums and open lectures, is necessary.

Lublin's *integration architecture*

During the last several years in Lublin we can observe positive steps in terms of architectural and urban transformations. In 2008 in the Crown Tribunal first workshops took place related to the Litewski Square, organised by the City Council of Lublin in cooperation with the Lublin University of Technology (the organisational team was managed by Jan Wrana). Soon afterwards the architectural competition was announced for modernising this important place, which arouse a lot of interests of residents. In 2012, on the other hand, a competition was held for revitalisation of Podzamcze, the former Jewish district, located in the direct neighbourhood of the Castle. Numerous new investments are being implemented: cultural, educational, sports and commercial objects. The Old Town has been included in the revitalisation program, under which many objects recovered their proper shine. Increasingly often the subject of the city's structure appears in the media – including in relation to the above-mentioned competitions; this promotes the growth of awareness and interests of the inhabitants.

Some of the newly built objects in Lublin in the last decade can be classified as part of the *integration architecture* trend. These implementations can be divided into two groups: academic buildings and other public buildings, fulfilling the cultural function and one of integrating the city with the region and country.

University buildings – CUL, MCSU, Lublin University of Technology

Lublin, as a university centre and university town, can take pride in a significant number of university buildings, including several interesting projects completed in the last 5 years. These are: Institute of Biotechnology of the Catholic University of Lublin (CUL), Institute of Informatics of the Maria Curie-Skłodowska University (MCSU) and the Eastern Innovation Centre of Architecture of the Lublin University of Technology.

The building of the Institute of Biotechnology is an original, triangular block, situated within the area of the former Konstanyńów farm, where today's satellite CUL's Campus is located. The objective is to create a whole with the Scientific Research Centre, designed as its mirror image, and organise the difficult context of the surroundings. The aggressive shape of the building is soothed by calm colours and simplicity of the façade, the texture of which is created by the window shutters – the shading of the laboratories' windows. The façade is maintained in a calm, neutral, dark-grey colours; however, the contrasting combinations of various materials, light reflections and shadows cast by the trees make the block change depending on the times of day and seasons of the year. The central point of the object is the internal lobby-atrium – it is a place of meetings and integration. Here the student life happens, encouraged by the leisure zone located on the ceiling of the conference room, excellent lighting (skylight), and the fact that all functions open to the inside, which in a natural way turns the atrium into the "heart" of the building.

The triangular building of the Institute of Informatics of the MSCU is located on the campus of the university in central Lublin, in the neighbourhood of modern objects of the Faculty of Mathematics, Physics and Informatics. It completes the urban landscape from the side of the Akademicka Street and is a specific entrance to the university's grounds. The campus itself is the concept mostly modernist; the designers respected the existing context and designed a block of peaceful expression, not dominating the surroundings. Because of the difficult plot of an unusual shape the building was designed as elongated triangle with a characteristic, sharply finished corner from the Northern side. The façade from the side of Akademicka Street is made entirely of glass – it blends into the surroundings, is light and transparent; the façade from the side facing the buildings of the Faculty of Mathematics, Physics and Informatics is neutrally grey, diversified by colourful bay windows. The division of the elevation refers to the vertical rhythms of the located in the neighbourhood library and the Rector's Office. Multi-coloured "corners" – bay windows – broaden the corridors by the classrooms, creating informal places of meetings and integration of students, and also fulfil the aesthetic function, making the communication space more attractive thanks to the colourful light.

The building of the Eastern Innovation Centre of Architecture of the Lublin University of Technology is located by the main entrance to the University's Campus on Nadbystrzycka Street. It received a clear, non-aggressive contemporary form, consciously respecting the context of the place and modernistic neighbourhood. The form of the spatial sculpture has been achieved through the introduction of an inclined wall coming outside of the line of the façade, thus linking two blocks – the old one (the existing building of the Faculty of Civil Engineering and Architecture) and the new one. This wall, along with three cubic elements, supports the overhung assembly hall for 200 spectators along with the foyer. The object is decorated in a subdued, grey-white tones, and large glazing elements on the South-Eastern and South-Western façade are enriched with the blinds – electrically controlled shutters, which in addition to the aesthetic function allow regulation of lighting and protect the object from overheating. The heart of the Centre is an internal patio – the place of exhibitions and meetings, bursting with life throughout the day. Many events also take place in the assembly hall – these include workshops, conferences and lectures on a local, supra-local and national level, and in the future – possibly also on an international scale. The objective of the makers was to create a building open and friendly not only for the Faculty's students, but also all architecture enthusiasts.

All of these buildings fulfil mainly the educational function – the lecture halls and seminar rooms, laboratories, libraries, and also facilities of faculties and sub-departments serve this purpose. Modern equipment and technologies ensure the possibility to educate in comfortable conditions. The above-mentioned constructions, in addition to fulfilling the strict university function, play an important role in the spatial structure of the city. They are an important element integrating the surroundings, complementing the frontage, forming an axis. They improve the quality of the neighbourhood and advantageously impact its attractiveness; they also have a chance to become symbols of a particular university. They also perform a social function: they activate the environment, connect generations, are the place of various events and activities, positively stimulate the users.

Figure 2-3. Eastern Innovation Centre of Architecture

Source: The gallery of photos of completed projects, www.porpw.parp.gov.pl [accessed: 8.02.2016]

These are not only places to acquire knowledge – they are meeting points, reaching far beyond the standard boundaries of the university’s building. The campuses of higher education schools – especially those renowned, of a high significance for the city – are often the urban nodes. They are places of birth of concepts and ideas, creative discussions, important research; they are key places from the spatial point of view – the campuses are often located in the city centres or near major access roads, which additionally emphasises their prestige and reputation.

Centre for the Meeting of Cultures “Theatre in Construction”

In the group of other public use objects there are both culture-related projects and sports and commercial buildings.

The newly created buildings associated to culture are the effect of image changes of the city. The leading example here is the Centre for the Meeting of Cultures “Theatre in Construction”, located in the neighbourhood of the Old Town, by the Theatre Square. The plans to locate a cultural object in this place reach back to 1970s, when it was decided to erect a new theatre. In 1974 first works were started, but not long after the construction was halted. The idea was reborn in the 21st century, when the architectural competition for a new object was announced. In 2013 the erection of the new “Theatre in Construction” was started, in accordance with the design of the Stelmach & Partners Office. The building is located in a dense urban tissue. Near the theatre there is an academic district and the Saski Park, as well as Radziszewskiego Street, one of the oldest roads in Lublin.

The resulting object is to combine cultural, educational and entertainment functions, and is described as the “hypermarket of culture”.¹² It is strongly connected to the issue of integration, starting with the name itself, containing the word “meeting”. The cultures are to meet in there, as well as events and people, and the building itself may become a lively spot on the map of Lublin, especially thanks to the closeness of the academic district. Festivals, concerts, shows and exhibitions by the artists from all over the world are planned here. This object also aims to be a place of dialogue of religions and cultures. Additionally, its goal is to promote multiculturalism of Lublin, the city located at the crossroads of East and West.

Figure 3. Centre for the Meeting of Cultures in 2016



Source: photo by J. Wrana, 2016.

The block of the object is simple and calm, similarly as its façade, its character adapted to the historic neighbourhood. Thanks to the use of multimedia façade, the building will change depending on the needs – it can be both white, inconspicuous, and colourful, drawing attention of the passers-by.

¹² Cited after: open.door.pl/lubelskie/hipermarket-kultury [accessed: 6.08.2013]

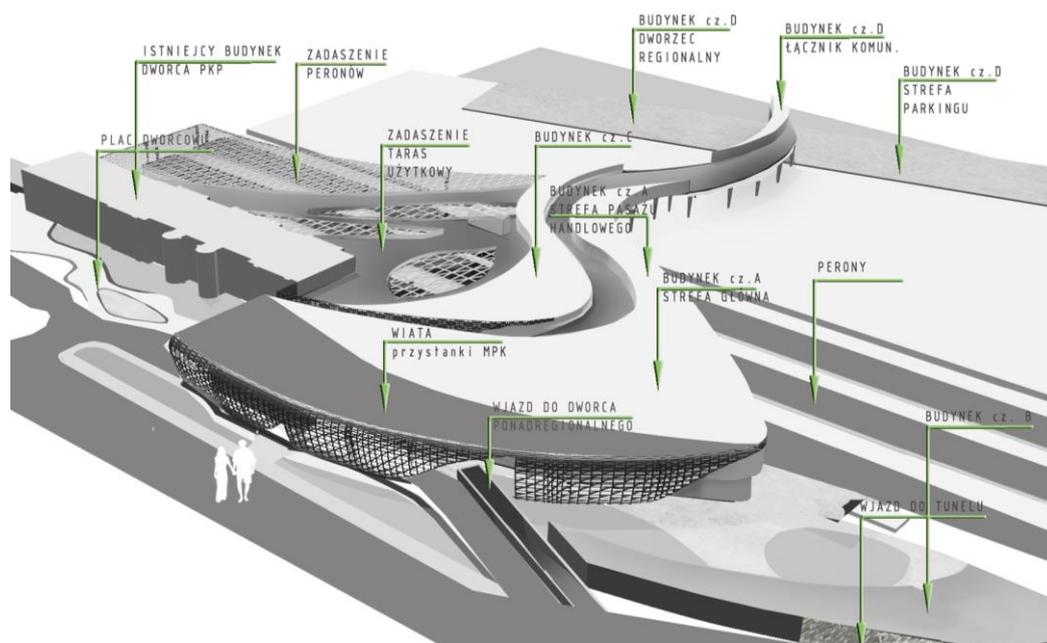
Among other Lublin's public use buildings, which can be included in the trend of *integration architecture* with the cultural function, one may mention the modernised Old Theatre and Juliusz Osterwa Theatre.

Metropolitan Communication Node

There is a chance that in the coming years Lublin will be enriched by another important integration object: modernised railway station, which can transform into a metropolitan communication centre.

Long-distance mass communication in Lublin is currently housed in two locations: railway station, located near the People' Park, between Młyńska Street and Kunickiego Street, and the bus station – in Podzamcze, in the vicinity of the Castle. This situation is disadvantageous for travellers, because it unquestionably makes the change of transport means and any transfers more difficult. Additionally, the railway line clearly divides the city into two parts – North-Eastern, bigger and more important (among other reasons because of the Old Town) and South-Eastern, smaller and less significant. This division is particularly perceptible in the direct vicinity of the train station, where numerous rail branch lines and sidings (supporting transport of passengers and goods) are both visual and communication obstacle.

Figure 4. Metropolitan Communication Node



Source: Banach M., *Metropolitan Communication Node*, diploma thesis, Faculty of Building and Architecture, Lublin University of Technology 2015.

It would be recommended to create a communication node connecting rail and long-distance coaches, as well as city's public transport; it should also merge and link two parts of the city divided by the railway tracks.

The reconstruction and modernisation of this place is assumed by the diploma project of Magdalena Banach, a graduate of architecture at the Lublin University of Technology, completed under the supervision of Dr Eng. Arch. Jan Wrana. The goal of the project was to create an interchange node, consistent with the needs and renown of Lublin. The new centre, thanks to the walkway and tunnels (both pedestrian and road), connects two parts of the city – Eastern and Western, for years separated spatially by the extensive tracks, being an obstacle both in terms of logistics and transport, and a visual one. In addition, thanks to the attractive, attention-drawing form, the object becomes a modern “gateway to the city”. The designed object also improves the quality of the area and can become a foothold for revitalisation of this fairly neglected part of the city.

Summary

Connecting space – “the Achilles’ heel of contemporary concepts and implementations” (Böhm, 1981, p. 5) – is a task just as difficult as it is necessary, especially in the era of deepening spatial chaos of the cities. One of the possible ways of accomplishing this objective is integrating through architecture – erecting new, but also adapting and modernising the existing objects with the integration functions in the nodal points, which supplement and complete their surroundings, acting as a missing “puzzle” in the city’s tissue. These objects belong to the trend of *integration architecture*, which connects and merges not only spatially, but also socially – generationally, environmentally, multi-culturally. Such constructions are often socially needed and accepted, becoming important points not only on strict urban, but also on the “social” maps of the cities.

Integration architecture can be an important “binder” in the process of integrating the spatial structure of Lublin. The implemented to date projects activate the area and restore its coherence. They are also buildings with an interesting architecture, which significantly improve the quality and attractiveness of their surroundings. It is essential to continue this process and extend its reach into the entire city. This could be helped by the next objects from this trend, located in important nodal points. The example here can be considered the project of the integrated communication centre in the area of the current rail station.

For the efficient integration of the city also the appropriate policy of the city’s authorities is necessary, as they should notice the problem of spatial chaos and the necessity to counteract the deepening of this phenomenon. The support for the integration processes can be carried out through, among others, adopting the Local Spatial Development Plans, as well as organising public consultations, workshops and architectural competitions.

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THE ROLE OF VALUES IN THE DEVELOPMENT OF A CITY

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Key words: hierarchy of values, cityscape

Abstract

The paper provides two examples which illustrate how different values can materialise themselves throughout the cityscape. These images allow us to formulate a conclusion - a postulate regarding the need to revise our hierarchy of values. It is the opinion of the author that returning to traditional values can provide the physical space of cities with a chance to develop while taking into account the wealth of cultural heritage. The opposite can result in the worrying tendency to construct public spaces in a manner that is dominated by economic principles.

Introduction

If this paper were to have a subtitle, it would read: *one step back, two steps forward – back to the values seen as a chance for a true development of the city.*

It would not be meant to be understood literally. It should not be understood as a call to return to the styles or concepts typical of past periods. Rather, it would mean the exact opposite - the intent is to look back in the direction of the traditional concept of values that formed the basis on which cities were built - cities which are today considered beautiful and precious. In this manner, the author attempts to redefine the modern paradigm of shaping cities, which is currently mostly focused on providing economic value.

This proverbial step back is thus an encouragement to search the material world for values that are deeper than those that are strictly related to the economy. The author sees in them the possibility of the emergence of urban creations that would have the chance to initiate a form of the development of urban spaces that would draw inspiration from our cultural heritage to a higher degree.

The article's main thesis is that a revision of our hierarchy of values is necessary in order for urban spaces to develop in a sustainable manner and for new construction projects to introduce positive values into the cityscape.

The proposition of conducting such a revision implies that a hierarchy of values does not always provide us with satisfying outcomes. The paper provides examples that confirm this diagnosis, at least in the context of Poland and Polish planning conditions. An attempt at defining a remedy for this state of affairs has been provided in the conclusion.

The paper is based on a method of drawing conclusions on the basis of specific cases. The focus was kept on the visual aspect of the occurrence of values within the space of a city, making the cityscape a more objective carrier of content and knowledge regarding the state of culture.

The paper bridges the gap between philosophy and the sciences related to architecture and urban design, which is why it references subject literature both on the topic of axiology, as well as architecture, urban design and landscape architecture.

The first of these groups contains the works of Władysław Stróżewski¹, Henryk Elzelberg², Tadeusz Gadacz³ and Roman Ingarden⁴, in addition to philosophical syntheses of the thoughts of Max Scheler or Edmund Husserl, that are contained in the works of Leszek Kopciuch⁵ and Zofia Majewska⁶, who paint an image of values as definable and normative (that obligate human beings to take action), as objective "special qualities" that share their existence with their object. Such an understanding distinctly separates the concept of values from the qualities of a given object - when speaking of architecture and discussing cities, should we really use the terms "beauty, durability and utility", and not those that related to their physical properties - like colour and shape? The latter can lead to the emergence of values, but are not values themselves. The works listed above build a unified image of the hierarchy of values, which point in the same direction, apart from containing differences depending on the author. That direction is established between the lower values (hedonic, utilitarian), as well as higher values (aesthetic, legal, cognitive, spiritual)⁷.

Even scholars of architecture and urban design explore the area between the fields of axiology and architecture either directly or indirectly, and their achievements are valuable sources of scientific materials. Andrzej Basista deserves a mention as a member of this group, due to his extraordinarily valuable "observations on the topic of values in architecture", in which he made the exceedingly important statement that the doubt whether values belong to a certain type of architecture or whether they are only attributed to it is purely theoretical, as it regards aesthetic values. There seem to be no similar dilemmas in the case of utilitarian values⁸. But even in the case that we can all agree that values are objective, then their perception is surely subjective. Here we can rely on the works of Wojciech Kosiński, who proposes that values related to urban

¹Stróżewski W., *Logos, wartość, miłość*, Kraków, Wydaw. Znak 2013,

²Elzenberg H., *Wartość i Człowiek, Rozprawy z humanistyki i filozofii*, Toruń, PWN, 1966,

³Gadacz T., *Wartości w czasach zamętu*, w: *Wartościowanie współczesnej przestrzeni miejskiej*, ed. –M. Madurowicz., Wydaw. WGiSR UW and the Office of the Capital City of Warsaw, Warszawa, 2010,

⁴Ingarden R., *Studia z estetyki*, vol. 3, Warsaw, Wydaw. Nauk. PWN, 1970,

⁵Kopciuch L., *Wolność a wartości, Max Scheler Nicolai Hartmann, Dietrich von Hildebrand, Hans Reiner*, Lublin, Wydaw. UMCS, 2010,

⁶Majewska Z., *Problemy doświadczania i istnienia wartości. W kręgu myśli Edmunda Husserla i Romana Ingardena*, Lublin, Wydaw. UMCS, 2010,

⁷Additional results of original research on the topic of values and finding their essence in the material world, especially in architecture and the landscape: Zieliński M., *Values in the space of architecture*, *Space & Form* 2014, no.22/2, także: Zieliński M., *Values in space – architecture and landscape perspectiv*, *Space & Form* 2014, no.22/2,

⁸Basista A., *Architektura i wartości*, Kraków, Wydaw. Universitas, 2009,

spaces should be considered as the duo of "beauty and good", with friendly (in functional terms) and visually attractive (in aesthetic terms) urban spaces considered indicative of the value of the space of a city⁹.

Ewa Węclawowicz-Gyurkovich, on the other hand, claims that it is possible to introduce new values into a historical urban environment, not only without causing any damage to it, but providing it with better exposure¹⁰.

Disturbance of the hierarchy of values within a space - the case of the Łazienki Park

Figure 1. A view of the Royal Łazienki park in Warsaw



Source: Photograph by the author

The XIX century composition of a romantic garden and a visual axis enclosed by the building of the Belvedere. In 2013 the composition obtained a "new closure" in the form of a commercial and office high rise. If we assume that this disharmony is the result of a wide-scale planning oversight, then the most important thing to remember in the future should be a more effective process of analysing existing conditions and estimating the effects of construction projects within a city. The condition here is that we all need to agree that the view like the one to the side is valuable enough to be protected.

The reconstruction of the capital is, without a doubt, a source of pride for the Polish. In the place of a never before seen barbarity, a city was reborn, becoming a symbol. Despite all of the

⁹ Kosiński W., Well-being and beauty - places friendly to the people in pre-modern cities. Ideas, projects, implementations, *Space & Form*, iss. 18, 2012, see also: *Idem*, Well-being and beauty - people friendly places in modernist cities: Ideas, projects and implementations, *Space & Form*, iss. 19, 2013.; także: *Idem*, Well-being and beauty - people friendly places in the modernist cities after 1945: Ideas, projects, implementations, *Space & Form*, iss. 20, 2013,

¹⁰ Węclawowicz-Gyurkovich E., *Architektura najnowsza w historycznym środowisku miast europejskich*, Krakow, Wydaw. Politechniki Krakowskiej, 2013,

arguments regarding its distinct aspects - socialist realism included - many treasures of our culture have been saved or recreated. And thus, our generation is forced to look on as these accomplishments are wasted, in the absence of war or other cataclysms, being turned into junk-space".¹¹ This is the manner in which Aleksander Böhm comments on the modern approach to the shaping of the space of Warsaw in his thought-provokingly titled paper "Do the Polish People Know They have Europe's Ugliest Capital City?". This comment was addressed at the largely thoughtless construction projects that have been carried out in a manner which dismantles the historically valuable composition of the Royal Axis in Wilanów¹².

Sadly, similar situations happen nearly every day in various places, which are more or less precious due to their distinct values.

The photograph above shows the landscape composition of the Łazienki Royal Park in Warsaw (Fig. 1). It is nearly impossible to claim that it does not represent historical, cognitive and especially compositional and symbolic values. This image shows the fragment of a romantic garden, a XIX-century composition that is based on the characteristic visual axis crowned by the classicist shape of the Belvedere, which rests upon an escarpment. From the point of view of landscape architecture theory, such a composition forms a finished work. Despite this fact, the entire composition is now marred by a mixed-use building located at the Square of the Union of Lublin, which has been towering above the previous dominant since 2013. This building clearly overshadows the classicist manor. This image expresses the qualities of Bauman's "liquid modernity", in which traditional notions become "liquid". Thus, certain values can be relatively easily replaced with different ones.

If we assume that the example that is being analysed - which features a visual dissonance that changes the perception of a traditional landscape - is a hapless coincidence, the result of some genuine oversight while developing a zoning plan on a wider scale, then the best that we can do is draw our own conclusions so that such mistakes are not repeated in the future¹³. However, this case points to more serious problems related to a change in the hierarchy of values.

The site which is currently occupied by the high rise¹⁴ used to be the location of a shopping centre called Supersam, which stood there for 44 years. This building was highly praised by architects and civil engineers, as well as art critics - often hailed as a marvel of modernist architecture. This opinion was based on the innovative and sublime form of its roof, which defined both the architectural expression of the building, as well as its functional value. Its outstanding qualities were praised not only in Poland, but also beyond its borders¹⁵. The demolition of the pavilion, and thus the annihilation of the values that it represented is an example of a perverted hierarchy of values. The case does not revolve around the replacing of one building with another - with the latter being larger and more profitable (and which, *nota*

¹¹ Böhm A., „Do the polish people know they have Euerope's ugliest capital city?“, Teka Komisji Urbanistyki i Architektury o/PAN w Krakowie, Vol. XL, Krakow, 2008,p.154-155,

¹² *Ibidem*,

¹³ The authors of the complex explain that they performed a wide spectrum of analyses on the scale of the entire city. Cf.: Kuryłowicz E., *Plac Unii – Trwanie i przemijanie*, [in:] Warszawa wielkowiejska, Plac Unii i okolice, EKNIN Studio PR, Warsaw 2013, p.272-274. This is further proof of the necessity of conducting visual analyses.

¹⁴ it is in fact a complex of three commercial and office buildings which includes a 90 m tall tower. Its usable space is almost 94064m². Information obtained from www.apaka.com.pl, retrieved in March 2016

¹⁵ Cf. *Warszawa mi się podoba. Z Christianem Kerezem rozmawia Jan Strumiłło*, [in:] *Ukryty modernizm. Warszawa według Christiana Kereza*, Karakrter, Museum of Modern Art, Krakow - Warsaw, 2015, p. 31-35,

bene, possesses its own set of architectural values). The problem is the ease with which we accept the loss of values in a larger sense. The demolition of the Supersam building brought with it a dismantlement of the material evidence of the professional skill and creativity of its designers. The destruction of a piece of architecture, which was valuable not only in the sense of being original, but also because it had been an expression of the culture of the society which had created it - just like the disappearance of the Supersam building in general - is proof of the level of modern culture, which, it seems, has a problem with the perception of values and providing an answer to them¹⁶.

It is worth mentioning that the area which used to be occupied by the Supersam building, and which is now the site of the Union Square commercial and office complex, was assigned to be the location of a vertical dominant back in the years of the interwar period. It was the planned site of the building of the Polish Radio, designed by Bohdan Pniewski in 1938. This building was envisioned as a spatial signal, a crowning element of the monumental Puławska street. The competition requirements postulated that the building needed to have 21 stories, which would translate into a height of around 70 m¹⁷. That is 20 m less than the current tower. When looking at the photograph (Fig. 1) once again, it is easy to point out that this difference "would make a difference" in the case of the view along the axis towards the Belvedere¹⁸. The authors of the building were of a different opinion: "The height limit included in the zoning decision that had been attached to the competition requirements in 2007 postulated that the building was not to exceed 90 m. We are currently of the opinion, one which we also held during the competition, that the tower could have been taller. (...) XXI century Warsaw is a metropolis that reaches far beyond its pre-war borders, it is accented by the PKiN (The Palace of Culture and Science), the Wola skyscrapers and the large districts of Ursynów and Wilanów, from which one enters the city centre by the Union of Lublin Square. In comparison to the extent of these changes in the scale of the pre- and post-war city, a difference of 20 m seems a little bit too small." While this statement is not without its own merits (the scale of modern Warsaw and the need to accentuate this urban node intuitively force the introduction of a dominant), we need to remind our readers, after Aleksander Böhm, that the pool of elements which belong both to the set of outstanding works, as well as to the set that includes those works which distinguish our own domestic culture from that of other cultures (in the face of globalisation) is limited¹⁹. This forces us to make decisions.

As the example above has shown, in order to attain the highest possible level of knowledge before making a decision, a broad and thorough analysis of the site should be performed, an analysis which also includes areas that are farther away from the location of the site - while remembering that architecture is not confined to its own walls - it enters into a series of relationships with its distant surroundings. It should be added that the currently used tools - both

¹⁶ The technical documentation of the building, as well as additional materials regarding it, have been preserved, so there is still a chance that the building can be recreated - either in better times or in order to address a demand to reintroduce the cultural values that were once lost. However, it would not be original. Practical experience has shown that such a course of action can be beneficial in certain cases, vide: Mies van der Rohe's pavilion in Barcelona.

¹⁷ Trybuś J., *Warszawa niezaistniała, Niezrealizowane projekty urbanistyczne i architektoniczne Warszawy dwudziestolecia międzywojennego*, Muzeum Powstania Warszawskiego, Muzeum Narodowe w Warszawie, Fundacja Bęc Zmiana, Warsaw, 2012, p.280-281,

¹⁸ After: Kuryłowicz E., *Plac Unii... Op. cit.*, p. 274,

¹⁹ Böhm A., „Czy Polacy wiedzą... Op. cit. p.157-158,

virtual and real²⁰ - allow designers to effectively estimate the consequences of the carrying out of certain construction projects. The virtual world offers a particularly wide spectrum of possibilities - among other things, they allow designers to analyse and estimate the visual results of newly designed buildings within the scope of the urban substance. The cities of London²¹ and Vancouver²² can serve as an example of this, as the value of their skylines in the broad scale of the landscape of the city have been determined to be worthy of protecting for future generations. In order to do so, these cities have introduced the requirement of performing digital visual analyses into their planning systems.

Disturbance of the hierarchy of values within a space - the case of the Post-January areas in Gdańsk

Figure 2. Solidarity Square in Gdańsk along with a monument dedicated to the Fallen Dockworkers of 1970, as well as the European Solidarity Centre - a space marked by history and symbolism



Its dynamic change is the cause of worry about the preservation of the identity of this place and the clarity of the values that share its existence.

Source: Photography by the author

²⁰ An example of the use of such a tool has been presented by the authors of the "tower-gate to the city" experiment, which involved the use of a balloon and a string in order to analyse the visibility of the designed building and its relationships with the historical views of urban interiors, as if on a living organism. Cf. Forczek-Brataniec U., Stokłosa K., *Krajobrazowy eksperyment autorski „Wieża-brama do nowego miasta w Krakowie, [in:] Sztuka ochrony i kształtowania środowiska. Twórczość – Nauka – Dydaktyka, Czasopismo Techniczne iss.5-A/2007, Krakow,*

²¹ Olesiński W., *Postrzeganie krajobrazu miasta w warunkach wertykalizacji zabudowy*, doctoral thesis, Politechnika Krakowska, 2014, p. 109-110,

²² Berelowitz L., *Dream City: Vancouver and the Global Imagination*, Vancouver, Douglas&McIntyre,2005,

The photograph shown above depicts Solidarity Square in Gdańsk, along with the Monument to the Fallen Dockworkers of 1970, as well as the European Solidarity Centre. In the lower right corner of the image we can see the route which leads to Gate no. 2, which was the entrance to the Gdańsk Shipyard when it was still operational (Fig. 2). Both the square, the gate, as well as some of the buildings that are located on the former shipyard grounds have been put on the historical monuments registry as the mute witnesses of history²³. This space and its character are currently undergoing dynamic changes. The shipyard has been closed and its former grounds are in the hands of private owners. It is evident that the landscape of this place is going to change dramatically - from a typically industrial one to an urban one. However, there are certain fears that are associated with this. They are mostly based on the possibility of the erasure of the identity of the area and at the same time making its historical, symbolic, educational and social values unperceivable²⁴. Other evidence which points to the fact that these fears might not be unfounded is provided on the photograph below (Fig. 3.).

Figure.3. A view of the new office development in the centre of Gdańsk



When viewed from afar, nothing seems to draw the observer's attention (a). However, a closer look reveals a window of sorts (b). It is three storey high opening in the building, which makes it possible to see the top part of Monument to the Fallen Dockworkers of 1970 in the distance. It is an interpretation of a condition outlined in the zoning plan, regarding the preservation of a visual axis towards the monument. (c) aerial photography showing the urban context. The direction of the visual axis has been marked with an arrow.

Source: Photography by the author. Map: www.googlemaps.com

²³ The events known as "December '70" or "the massacre on the Coast" took place in the year 1970. They were tied to a bloody pacification of striking workers and civilians by the military, acting on the orders of the communist regime. The protests and social unrest were caused by a catastrophic economic situation caused by drastic increases in the retail prices of meat and other foodstuffs. A monument in memory of the fallen dockworkers was unveiled in 1980. The shipyard itself became a symbolic place. It was there, that the fall of communism and the political, social and economic transformation of the country began.

²⁴ This issue is discussed at length in: Zieliński M., The struggle of the values for existence in space, *Space & Form* 2014, iss. 22/3,

This is a view of Błędnik²⁵ street, in the centre of Gdańsk. It shows the possible consequences of changes in the hierarchy of values within the landscape of a city. A section of the local zoning plan²⁶ regarding the preservation of a visual axis towards the monument, most appropriate in regards to the symbolism and culture of the place, justified from the perspective of the principle of urban design, has been interpreted by the investor in a caricatural manner²⁷. The resultant parody of a visual axis lays bare the weakness of planning and the dictum of economic values. It is a clear signal, that the shape of the city is subjected to the price per square metre of usable space and not to composition, history, or the identity of a place. In the presence of such conditions we can forget about the values of the cityscape that we learned about in urban design handbooks - about the streets, the axes, the background, the closures and visual openings, and other elements which provide the opportunity for aesthetic experiences like those that Gordon Cullen had written about²⁸. It is going to be harder and harder to preserve and shape spaces that could provide us with cultural experiences, as the symbols and content that is important from the point of view of local identity that are ingrained into the cityscape is either going to disappear for good under the foundations of new corporate offices or is going to be covered by new office buildings and shopping centres.

Summary and conclusion

The examples provided above can be identified in the words of Sławomir Gzell as research by design, which a scholar might aptly compare to the military term "reconnaissance by fire". However, in order for the losses caused by this approach not to be in vain, we should draw our conclusions from them. The cited author postulates that the shaping of a space should not be carried out in the form of ceaselessly increasing its built-up area, but that it should involve factors which move the imagination, which provide meaning for the theory of a place and create urban motivations for architectural design²⁹. It is, without a doubt, helpful to weigh various and often conflicting values that are often placed on different levels of the hierarchy. Thus - identifying what is valuable and the performing of a thorough inspection of these values, the care for their preservation and the development of designs on their basis and not at their cost - should precede new construction projects, so that they can directly increase the value of a city. The table below shows a comparison of a traditional hierarchy of values with the values that are currently becoming a reality through the architecture of the spaces that surrounds us:

²⁵ It is a major transportation artery of the city.

²⁶ Resolution no. XVIII/285/11 of the City Council of Gdańsk of the 29th of September 2011 regarding the entry into force of the Śródmieście zoning plan for the region in the area of Jana z Kolna street and Dyrekcyjna street in the city of Gdańsk, www.gdansk.pl/zagospodarowanie-przestrzenne/plany,1154, retrieved: April 2016,

²⁷ The window which provides a view of the top section of the monument is a part of the Tryton office building, built in 2015 and designed by the ArchDeco design company. The building has 17460 m² of usable space. archdeco.pl/projekty/budyne-biurowy-tryton retrieved: March 2016,

²⁸ Cullen G., *The Concise Townscape*, Architectural Press, New York, 1971,

²⁹ Gzell S., *Why the architecture for us? What for the urbanism for us?* TeKa Komisji Urbanistyki i Architektury o/PAN w Krakowie, Vol. XLII, Krakow, 2014,

AXIOLOGICAL HIERARCHY OF VALUES	ARCHITECTURAL HIERARCHY OF VALUES
SPIRITUAL	SPIRITUAL
ETHICAL	ETHICAL
AESTHETICAL	AESTHETICAL
CULTURAL	HISTORICAL, COMPOSITIONAL, COGNITIVE, EDUCATIONAL, SOCIAL, IDEOLOGICAL
VITAL	FUNCTIONAL, ECOLOGICAL
UTILIARIAN	TECHNICAL, ECONOMIC
HEDONIC	LUDIC

If the values that are in the lower part of the table are placed above those from the upper part in our everyday choices and in regard to our private lives, then the matter is simple and depends on our own conscience and the morality of the person that performs the evaluation. However, when this hierarchy is starting to influence the space of the city and other people, which is definitely the case as the examples provided above have shown, then the matter becomes a question of ethics.

The first of the examples shows that an administrative zoning decision is not conducive to the preservation of values. The second one has proven once again that the hopes associated with zoning plans can be dashed more often than not. This illustrates that when faced with imperfect tools, the values that are materialised in the spaces of cities are going to be dependent on human choices. This is why, in accordance with the principle that the human world is a world of values and all of the choices that are made are the result of evaluation, we need to remember, that the assumption that places alone are the source of values can be proven wrong. On the other hand, the statement that it is the values that create a place could be useful in the process of making decisions about the shape of a space, especially in the future.

Looking at the statement above, a return to the roots of the city - to its sense - can mean a return to values.

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back to the sense of the city