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A residential building in the center of Katowice, Poland, called "Superjednostka" ("Superunit") / Photo: Matylda Klos

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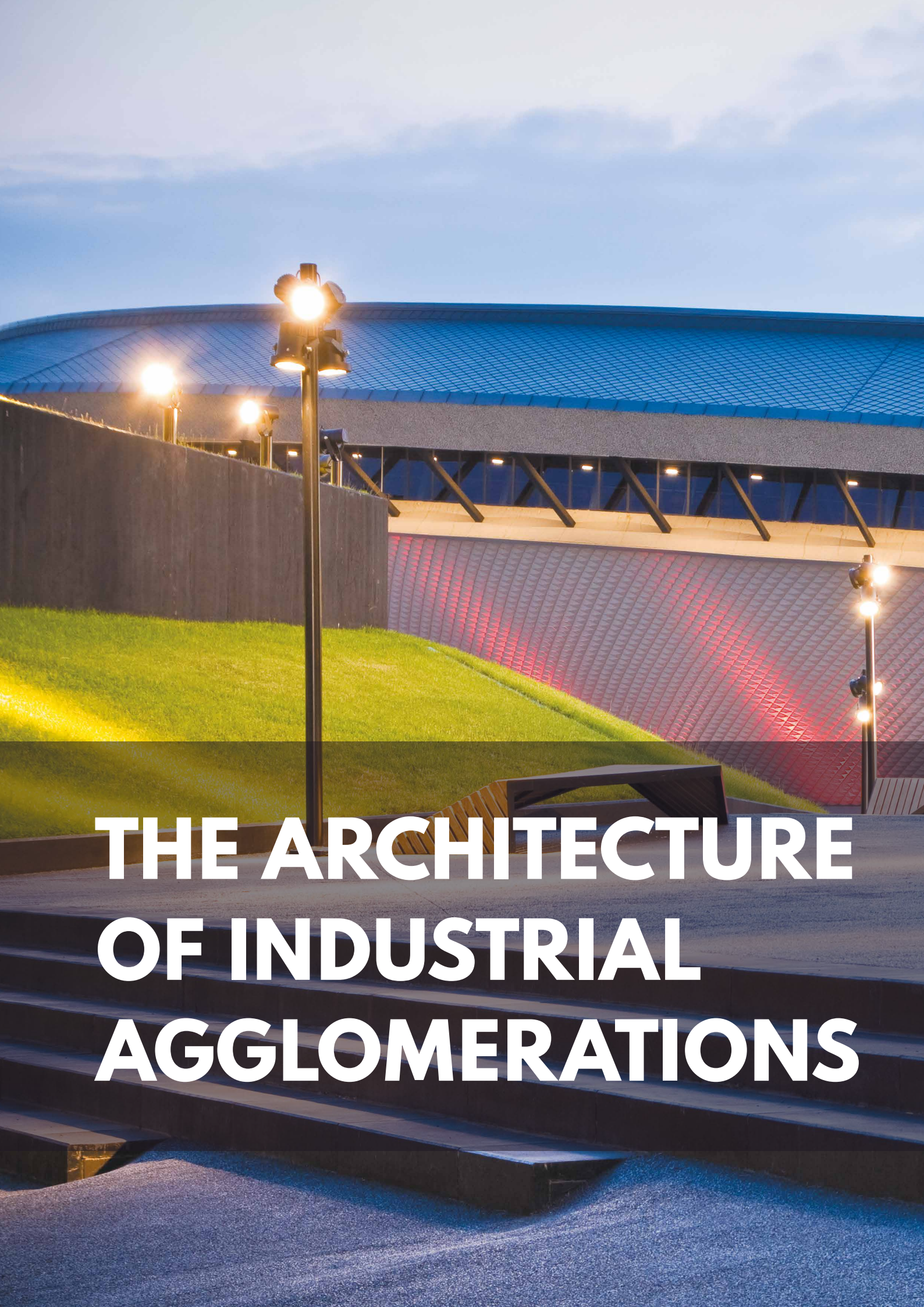
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A photograph of a modern stadium at dusk. The stadium's roof is a vibrant blue, and the seating bowl is illuminated with a warm red glow. In the foreground, there is a grassy slope and a concrete walkway with a modern, angular bench. Several tall, black light poles with multiple warm-white lights are positioned around the stadium. The sky is a deep blue with some light clouds.

THE ARCHITECTURE OF INDUSTRIAL AGGLOMERATIONS



Numerous industrial cities developed in the 19th century. Although they cannot boast unique, centuries-old gems, they do not have to be ashamed of their architecture. An excellent example is Katowice, Silesia (southern Poland), which is only 156 years old. Although this city cannot compete with, e.g., 800-year-olds in terms of monuments, it impresses with its pace of development, momentum, and innovative urban solutions.



Text: Maria Sztuka



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FOUNDATIONS: INDUSTRY AND RAILROADS

At the beginning of the 19th century, when Europe was driven by the Industrial Revolution, villages and agricultural settlements stretched across the future metropolis of Katowice, and the current districts were covered by dense forests interspersed with lazily flowing, picturesque rivers. Everything changed in 1838, when landowner Franz Winckler purchased Katowice's knightly goods, transferred the management of his own goods there, and assigned supervision over them to Friedrich Grundmann, the overseer of the nearby Tarnowskie Góry mine. The best evidence of Winckler's entrepreneurship is the wealth gathered by him, since the industrialist quickly became the owner or co-owner of 69 hard coal mines and 14 ore mines. With lightning speed, coal and metallurgical companies, offices, schools, and religious communes were established in Katowice, and this conglomerate stimulated the construction boom in the region. "The city was established on two foundations: the mining industry (ore and coal) and the railways, thanks to which

Katowice gained a connection to European cities, such as Berlin, Cracow, Vienna, and Warsaw," recalls Dr. Aneta Borowik, art historian from the Institute of Arts Studies at the Faculty of Humanities of the University of Silesia and author of numerous publications on Katowice's architecture and its creators.

When the decision on the route of the railway was made, Katowice did not yet have city rights. The same was the case when the first passenger train pulled in (August 6th, 1847), but the potential of the small village could be seen in the magnificent churches designed by German architects: Neo-Romanesque Evangelical church and Neo-Gothic Catholic church. The construction of the brick synagogue was completed in 1862. Katowice quickly embarked on the journey to obtain the status of a city. Already at the beginning of the second half of the 19th century, architect August Nottebohm, commissioned by the Winckler family, drew up the first land development plan. According to the project, the city was to be built at the intersection of two roads running from north to south (from Mikołów to Królewska

Huta and Bytom) and from east to west. Two representative spaces were then created: a market square and an octagonal square (now Plac Wolności, i.e., "liberty square"). Along the main streets, whose current names are Warszawska and 3 Maja, palaces of rich industrialists and glamorous villas surrounded by gardens began to appear, which, as the art historian emphasizes, became the city's distinctive feature. The exterior design of the buildings was dictated by the fashion of the time – in the 1840s, the most popular styles were Neo-Renaissance and Neoclassicism of Berlin provenance, preferred by both industrial tycoons and wealthy apartment building owners. When Katowice obtained city rights on September 11th, 1865 it had almost 5,000 residents; 35 years later, this number increased sixfold, and in 1939, over 134,000 people lived there.

New constructions had to keep pace with the rapid population growth. As a result of the process, bourgeois villas located away from the city center multiplied.

The showpiece of the city's splendor was, among others, the Neo-Renaissance-style Goldstein Villa built in 1872 at Plac Wolności (nowadays Pałac Ślubów, i.e., "wedding palace"), whose exterior elevations are decorated with rich ornaments and stonework. The streets near Rynek (i.e., "market square", today: Adama Mickiewicza, Piastowska, Stanisława Moniuszki) were filled with apartment buildings whose architecture reflected the tastes of their owners, hence the variety of styles: from Neoclassicism through Neo-Renaissance to Neo-Baroque, Art Nouveau, and eclecticism, an example of which is the apartment building at the corner of Stawowa and Adama Mickiewicza streets. In the 1840s, those were one- or two-story family buildings, but over the years they were transformed into multi-story apartment buildings. The city's prestige was raised by the early Modernist and neoclassical theater building (1907). The spatial development was hindered by the limited territory, since even a part of Wojciecha Korfanteo avenue, the present-day city center artery, was already outside the city limits.



TOO CRAMPED

In 1922, Katowice was incorporated into Poland and became the capital of the Silesian Voivodeship. At that time, the city began to grow dynamically, and numerous Modernist public utility buildings were constructed. August Nottebohm's concept was no longer useful when the territory of Katowice began to expand.

According to Prof. A. Borowik, the railroad line, which was a boon for the city and its residents, became a serious problem for architects when planning new buildings, since it was located close to the center and divided it into two parts. The "natural" city border was crossed already in the 1880s, and thus new space for development in the areas of the following contemporary streets appeared: Wita Stwosza, Jagiellońska, Jana Kochanowskiego, and Tadeusza Kościuszki. In the first decade of the 20th century, these areas were parceled out and developed in a new style.

"At that time, there was a fashion for the so-called 'International Style of 1800', which was based on a combination of German Traditionalism with elements of Classicism and Neo-Baroque. In Germany, this style was considered native, national. Examples of this style in Katowice include the apartment buildings at today's Tadeusza Kościuszki, Jana Kochanowskiego, and Wita Stwosza streets, which can be admired until today. At the beginning of the 20th century, monumental administrative edifices were erected (including the Silesian Voivodeship Office, the Silesian Parliament, and the Independent Offices) as well as luxurious apartment buildings, e.g., at PCK, Marii Skłodowskiej-Curie, and Józefa Rymera streets. As a result, Katowice can be proud of Modernist buildings from the interwar period, distinguished by their modernity," the art historian emphasizes. Although the city's heavy industry hampered the builders' momentum (most of the land in Katowice belonged to private owners, and underground extensive coal mining was going on too), the first Polish skyscraper (1930), the first artificial ice rink Torkat (1930), and the ultramodern Palace of Technology, i.e., the Silesian Technical Academic Works (1928), were built in the capital of the Silesian Voivodeship during

the interwar period. Dozens of similar objects can still be found in Katowice.

The working-class districts looked much worse, since they were dominated by the outdated *familoki*, as the typical houses for many families, designed for workers of the coal industry, are called in the Upper Silesia. On the city's outskirts, an increasing number of bootleg mining pits and mud huts began to appear. In 1929-1933, poverty was made particularly apparent by the Bedorowiec intervention housing estate (today: Osiedle Tysiąclecia, i.e., "millennial district"), built in 1934 on the initiative of the city authorities as part of a social program. In order to alleviate the living conditions of the poorest, blocks with one-room apartments with shared toilets outside were erected.

POSTWAR METAMORPHOSES

After 1945, the city became the capital of the Silesian Voivodeship with priority significance for the Polish economy. Its downtown had to reflect the fact that Katowice was the main city of the region, which generated 80 percent of the national income. In 1949-1956, Socialist Realism became the leading idea, and all development plans had to correspond with the only creative method considered valid.

"During that time, urban planning was in full swing, and because socialism assumed egalitarianism, urban spaces had to meet the criterion of mass compliance and serve all people for huge gatherings, shopping, and entertainment. Thus, new space was to be created for these purposes. The 1945 market square fire, which destroyed the southern frontage, supported the new plans and cleared the way for the demolition of the rest of the eclectic townhouses. The main square of the city tripled in size and was opened up along its entire width to

the current Wojciecha Korfantego Avenue, which, thanks to a considerable expansion, became a monumental axis designed already in the 1950s, at the time when the doctrine of Socialist Realism was strictly adhered to.

New buildings were erected in huge numbers, quickly, and on a grand scale, in line with the directives of socialism. During that time, several icons of post-war architecture were created, including the Spodek (i.e., "saucer," so called due to its shape) Sports and Entertainment Arena (1971), Osiedle Tysiąclecia (i.e., "millennial district") (1961-1982), the famous Gwiazdy (i.e., "stars," so called due to the ground plan of an eight-pointed star), and the Walentego Różdzieńskiego housing estate (1970-1978). In 1972, a new railway station was built in Katowice with a unique chalice structure, which made it one of the most outstanding Brutalist buildings in Europe. The huge and modern Zenit and Skarbek department stores appeared in the city's very center. These are just some examples from a long list of new investments.

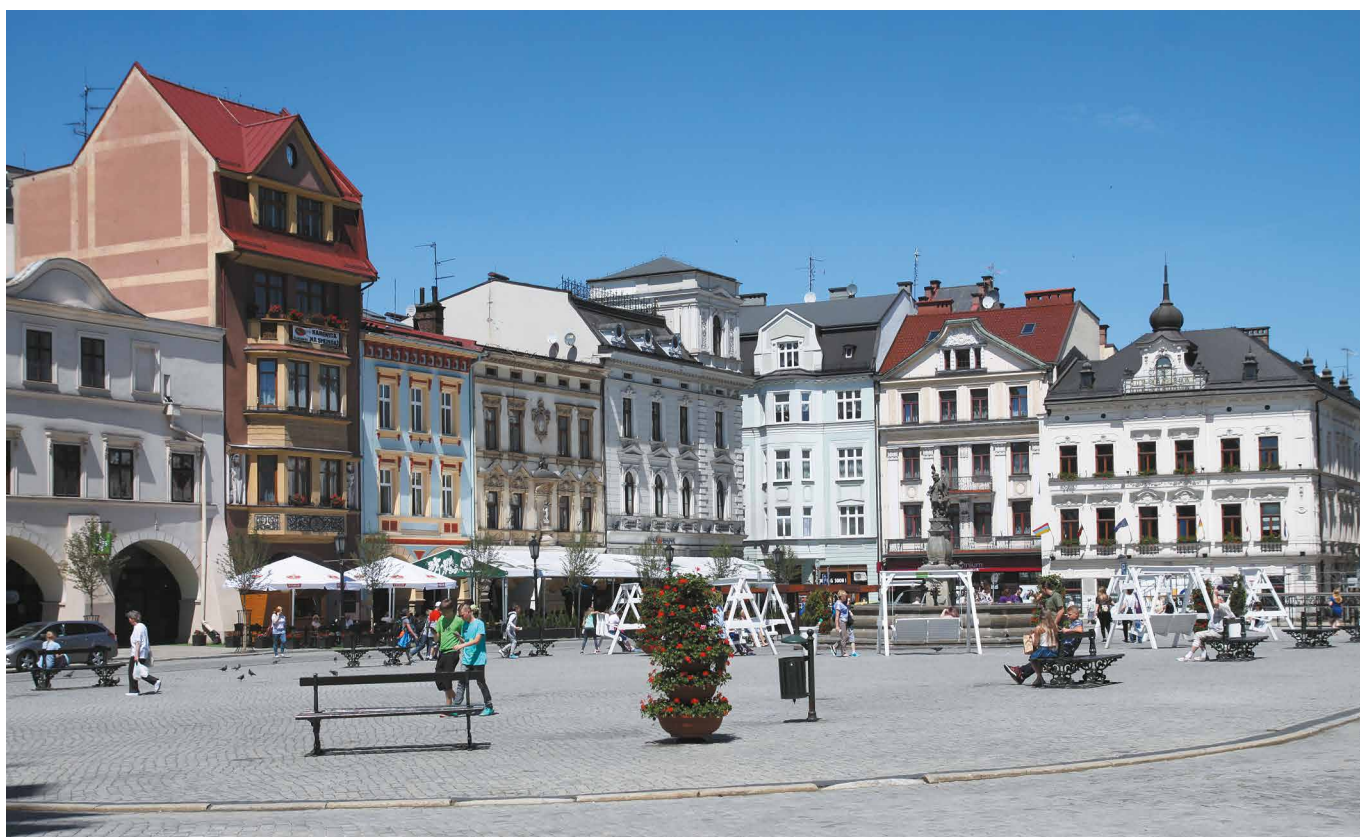
After 1989, the concept of a city previously associated almost exclusively with heavy industry was abandoned. After its restructuring, Katowice, which aspired to the title of the European Capital of Culture, became a city of gardens, music, and science. The architecturally stunning edifices of the National Polish Radio Symphony Orchestra, the Silesian Museum, and the International Congress Center were built there, but this is the beginning of a completely different story.

Paradoxically, we are replacing late Modernism with contemporary... new Modernism," Prof. Aneta Borowik concludes. "Honestly, good architecture of the 1960s and 1970s is slowly dying out, and only thanks to the enthusiasts with their photographs and published studies, it can be saved from total oblivion."

The building of the Silesian Parliament, 1929-1939 / Photo: National Digital Museum, shelf no. 3/131/0/-/593



Market square in Cieszyn before World War II / Photo: National Digital Museum, shelf no. 3/1/0/9/659



Market square in Cieszyn today / Photo: Agnieszka Sikora



Text: Dr. Agnieszka Sikora



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BORDER TOWNS AND CITIES

Cieszyn is a town in southern Poland on the border with the Czech Republic, on the Olza river. It only has 32,000 inhabitants, but it boasts a long and rich history. The town's development and shape were influenced by shifting state borders and thus by various cultures, languages, religions, and traditions.

"Cieszyn is a city on the border and with a border in itself. Just like every borderland, this Polish-Czech region is a specific area where we can observe the clash of linguistically, socially, and historically different groups, which are often burdened with negative stereotypes about their neighbors from the other side of the river," says Dr. Magdalena Szalbot from the Faculty of Arts and Educational Science of the University of Silesia, a researcher of borderland and multicultural issues, especially towns and cities divided by borders.

A LONG HISTORY

From the 7th to the 9th centuries, there were several Slavic settlements belonging to the Golensizi tribe in the vicinity of today's Cieszyn. After the destruction of the Golensizi strongholds, probably by the Great Moravia, the settlement moved to a hill now called Góra Zamkowa (i.e., "castle top"). In the 10th century, the settlement was transformed into a fortified town and incorporated into the territories under the rule of the Piast dynasty by Duke Mieszko I. It grew rapidly and gained importance as a frontier watchtower on the southern outskirts of the lands of the nascent Poland. During the existence of the early medieval city, a suburb developed on the eastern side, which became the basis for the later Cieszyn in the Middle Ages. The name *Tescin* was first mentioned in a bull of Pope Hadrian IV in 1155.

In the mid-11th century or around 1180, the first religious building was built there, the Romanesque rotunda of St. Nicholas, which has survived to this day.

At the beginning of the 13th century, Cieszyn received town privileges (borough rights) under the law of Lwówek Śląski. At the end of the 13th century, there was an independent Duchy of Cieszyn. In the 14th century, the town developed quickly; a stone castle was built in place of the wooden one, the mayor's office and the town council were established, and their seats were located in the newly built town hall. In 1374, a new foundation of Cieszyn under the Magdeburg Law took place. The 15th and 16th centuries were also a time when the town flourished. In the middle of the 16th century, Reformation began to develop in the Duchy of Cieszyn, and Protestantism became the dominant religion of the region.

During the Thirty Years' War (1618-1648), Cieszyn was destroyed to a large extent. In 1645, the town was plundered by Swedish troops. In the middle of the 17th century, Cieszyn came under the rule of the Austrian Habsburgs, which caused a period of economic stagnation in the entire region. At the beginning of the 18th century, construction of a huge church began. It is now the largest Lutheran church in Poland and it belongs to the Evangelical Church of the Augsburg Confession.

Over the next years, the region was plagued by wars; the town was destroyed

by numerous disasters (fires and even an earthquake), and successive rulers rebuilt Cieszyn in their own fashion. In 1839, the Piast castle was demolished, and on the castle top, by order of Prince Charles Habsburg, a classical palace surrounded by a park was built. In 1848, during the Springtime of the Peoples, Cieszyn became an important center of Polish national thought. At that time, the first Polish newspaper was published in the town. In 1869, a railway connection was built in Cieszyn, a fact that contributed to the acceleration of its economic development. On the west bank of the Olza river grew an industrial district – the current Czeski Cieszyn (Czech: Český Těšín).

After World War I, Cieszyn and the whole Cieszyn Silesia became a disputed territory between Poland and the new state of Czechoslovakia. Border disputes, including armed attacks, led to a division of Cieszyn Silesia. The town itself was divided geographically along the Olza river (on July 28th, 1920 at a peace conference in Spa, Belgium). In 1938-1945, Cieszyn and Český Těšín, were again combined into one town. First, in October 1938, Polish troops seized Trans-Olza Silesia (Polish: Zaolzie) together with Český Těšín. Afterwards, in September 1939, the whole Cieszyn Silesia was incorporated into the Third Reich, but shortly after the end of World War II the geographical division was restored.



Polish-Czechoslovak border crossing in Český Těšín (Czechia, then Czechoslovakia), 1938
/ Photo: National Digital Museum, shelf no. 3/1/0/17/2361

BORDER TOWNS AND CITIES. A BORDER IN A CITY

The uniqueness, development, culture, and social processes of Cieszyn are influenced by the fact that it is a town located on the border of two countries. Towns or cities divided by a national border have been quite a rarity in Europe. On the Polish borders, similar examples are Frankfurt (Oder) and Słubice, Guben and Gubin, or Görlitz and Zgorzelec. In Cieszyn, as a result of such demarcation of the Polish border, individual fragments of the urban structure were artificially separated from each other. Subsequently, these split fragments became independent towns, and the municipal infrastructure separated by the “surgical cut” had to be complemented in the other part of the city.

After the end of World War I, Cieszyn was divided along the Olza river. The railroad station, the water supply center, and the gasworks became the town's Czechoslovakian part, which was called Český Těšín, whereas the historic old town with a market square and a castle, the power station, the theater, official buildings, schools, and many churches was incorporated into Poland. The division of the town significantly inhibited the development of both parts. On

the Polish side, residents were cut off from industrial plants, which fell to the Czech side, and the inhabitants of Český Těšín lost the possibility to work in culture, education, and offices. Moreover, the Polish side of the city was deprived of a railway connection with the rest of the country. It is also worth to mention the streetcar system which existed in Cieszyn between 1911 and 1921 and connected both sides of the Olza river. In 1920, the town was divided into Polish and Czechoslovakian parts, but the streetcar continued to run without changes, however, increased controls on the border bridge prevented smooth communication. On April 2nd, 1921, a decision to liquidate the streetcar line and to sell the rolling stock was made. The depot building and the rosettes for the overhead contact line have been preserved to this day in Cieszyn. You can see them while walking down the Głęboka street. It can be said that after the Central and Eastern European countries joined the Schengen area, the two sides of the Polish-Czech border came closer to each other again. Although the river is still in the same place, it can be crossed almost with-

out being noticed, which many town residents and tourists do on a daily basis. These changes had a positive effect on the development of the border town. The local economy has been activated, projects for both parts of the town have been carried out, including, for example, the Garden of the Two River Banks and the Bridge Park as well as the establishment of many different cross-border institutions serving people living in both parts of the town and in the entire Silesian Euroregion Śląsk Cieszyński – Těšínské Slezsko. In addition, cultural events are organized, such as the annual film review Kino na Granicy/ Kino na Hranici (Cinema on the Border), which has been taking place in Cieszyn since 1999 and presents Polish, Czech, and Slovak feature films and retrospectives of artists with numerous accompanying events such as concerts, art exhibitions, discussion panels, meetings with artists, and city tours. The festival has been held in one city for over two decades – on two sides of the border.

MULTICULTURALISM

For centuries, Cieszyn Silesia lay at the crossroads of several important communication and trade routes. It should also be remembered that, depending on the political situation, the region was ruled by different countries throughout history. It was inhabited not only by Czechs, Slovaks, and Poles, but also by representatives of other nations – Germans, Hungarians, Vlachs, and of different religions – Catholicism, Protestantism, and Judaism. Jews were a special group in Cieszyn. The Jewish community appeared in Cieszyn in the 16th century, although for a short time, from the second half of that century, imperial regulations prohibited Jews from remaining in Silesia. A permanent Jewish settlement in Cieszyn did not begin until the 1730s, and it expanded considerably at the beginning of the 18th century, when Emperor Charles VI issued a tolerance edict for Jews. The Jewish population gained full civil rights in the second half of the 19th century, after political reforms in Austria. Jews soon occupied an important place in the economic life of Cieszyn. They opened prosperous companies and factories and founded synagogues, societies, and a Jewish cemetery. In the interwar period, Jews living in Cieszyn constituted from 10 to more than 15% of the population of Cieszyn County, and most of them identified as loyal citizens of the Polish state and cooperated well with other inhabitants of the town.

During World War II, the non-German population was discriminated against. Jews were deported to concentration camps where most of them died, Jewish synagogues and houses of prayer were demolished, cemeteries were closed, and factories were taken over. This religious, cultural, national, and ethnic diversity shaped the inhabitants of Cieszyn and Cieszyn Silesia, who began to refer to themselves as *tu stela* (“from here”).

“People living in Cieszyn Silesia are aware of their cultural distinctness and are proud of it, but they also remember difficult episodes from the

past, especially the older generation does,” says Dr. Magdalena Szalbot.

The sense of identity based on “being from here” is therefore very important for the inhabitants of Cieszyn Silesia, but thanks to the long history and rich multiculturalism of the region, the inhabitants of Cieszyn are also characterized by great tolerance and openness to others.

Góra Zamkowa (“Castle top”), St. Nicholas Rotunda in Cieszyn, Poland / Photo: Marcin Konsek





Text: Dr. Małgorzata Kłoskiewicz



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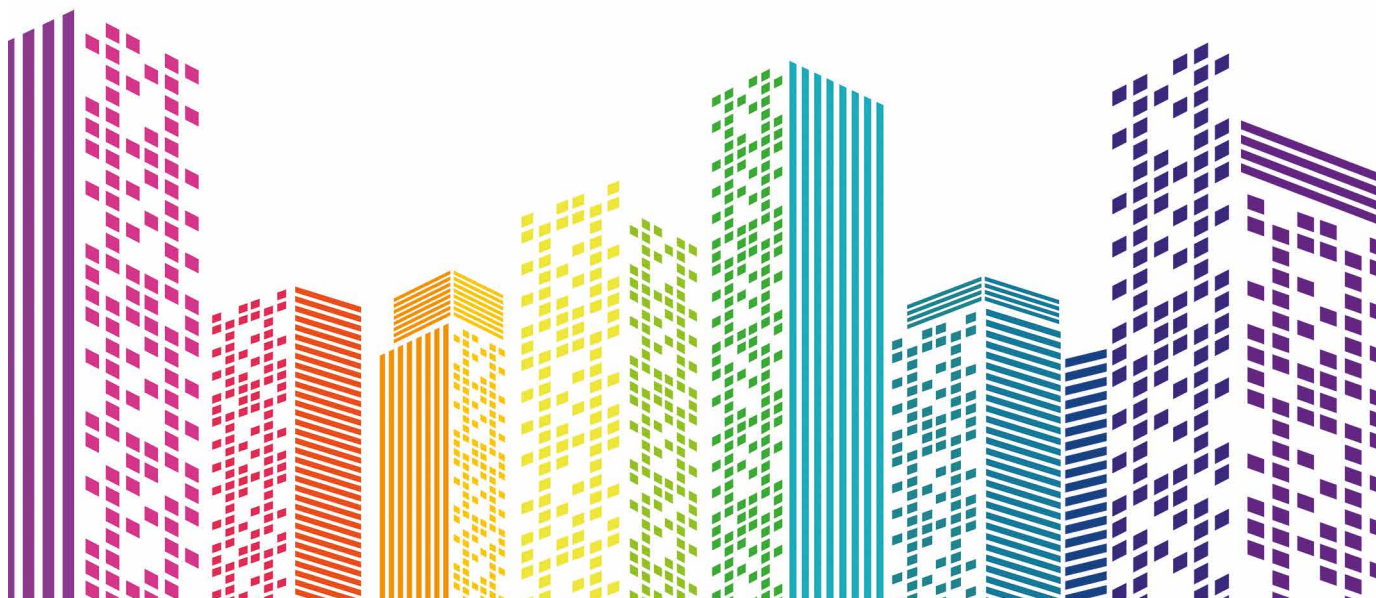


Photo: djvstock – Fotolia

CITY-FORMING PROCESSES AND TRANSFORMATIONS

The Katowice conurbation is one of the most interesting settlement systems in Poland. It is distinguished by its close proximity to as many as 54 municipalities (including 17 major cities and medium-sized cities/towns) covering an area of 3,329 square kilometers (1,285 square miles) and inhabited by about 2 million people (2019 data). The conurbation's origins date back to the 19th century, and its dynamic development took place after World War II. Although individual cities developed independently, they were linked by the same city-forming factor – hard coal mining and, to some extent, also other branches of traditional industry. This in turn has had significant consequences for the economic, business-related, political, social, and spatial dimensions of the conurbation.

On the one hand, the dominant industry in the region influenced the direction of urban development, created job opportunities, was the source of a specific, strong mining culture, determined the infrastructure and urban landscape, and impacted political decisions. On the other hand, it was constantly subject to transformation, as described by Assoc. Prof. Robert Krzysztófik, professor of socio-economic geography at the University of Silesia.

It seems that transformation may be the key word to understand the area and all the processes taking place in it, which in one way or another affect the lives of its inhabitants. The term "transformation," however, is very complex.

In the 19th century, we were confronted with transformation at the time of the transition from the feudal era to the industrial era. Then we witnessed the effects of the efforts to modernize the Polish industry in the 1970s and 1980s. In the history of this country, the next huge, or even revolutionary breakthrough was, of course, the early 1990s. Today, in turn, the so-called green and digital transformation and smart regions are frequently mentioned.

"Already from this short enumeration, it follows that there is an overlap of the time perspective and the transformation process, a hierarchical overlap, so to speak," the geographer comments. "It can be observed with regard to all changes that originate at global, state, regional, and local policy levels. Top-down recommendations related to the fight against the effects of climate change are a succinct example. Moves made at the level of the European Union or, even more broadly, decisions taken at successive climate summits, have a major impact on the direction of the entire conurbation's transformation, including the cities that comprise it. A good example is the ongoing coronavirus pandemic, as it forces many changes in the functioning of the world and individual regions".

And here a paradox appears. Since the very beginning of the formation

of this interesting settlement form, the conurbation, namely each of the cities and towns, have developed independently. Despite the mutual dependencies and many common city-forming processes, key decisions have been and most likely will be made in such a way that the local community will be affected by the changes as little as possible.

"The point of the inhabitants is basically this: we know that the fight for cleaner air and climate is important, but it should not be done at our expense," says Prof. Robert Krzysztófik. He adds that the green transition could prove challenging for this region, which had a natural abundance of coal deposits, and which developed and gained its current status thanks to the mining industry. It suffices to go back to the 1990s, when Poland was not yet a member of the European Union. The subsequent liquidation of mines, as well as the closure of many large enterprises throughout the country, without financial support or any an idea for the future, were the sources of socio-economic decline, mainly in the smaller cities and, what is particularly worth emphasizing, caused many human dramas.

It is also worth noting that the industry dominating in the Katowice conurbation has been the source of energy security for the region, which is one of the largest producers and consumers of energy in Poland.

"It is therefore not surprising that many municipalities not only have no intention to close coal mines, but actually plan to develop the existing infrastructure and build new ones. Such actions are certainly not encouraged by national, let alone global, sentiment against the coal sector," the scientist explains.

In this context, it is interesting to look at the entire Katowice conurbation. In such a settlement pattern, there are mainly centrifugal forces, in contrast to large, developed cities, such as Cracow, Warsaw, or Wrocław. This means that the centers of gravity are distributed slightly differently, without being concentrated in one central point on

the map. This particular collection of cities resembles a plasma rather than a collection of independent and distant points. According to research, larger cities, such as Katowice, Gliwice, or Sosnowiec, cope best with the effects of various transformations. The third city is a good example of a change in function or rather a certain specialization that occurred as a result of successive transformations. While today's Katowice is a cluster of service and office centers, Sosnowiec has become a place for the development of logistics, a fact that has made the city attractive for many international companies.

"It is true, therefore, that each of the cities, as a result of the transformation and using the potential it already has, should find its own new specialization and path of transformation. So maybe it is worth changing the structure of employment or the function of former industrial buildings or even entire housing estates, as it was successfully done in Katowice or Sosnowiec? It is apparent when we look at the Nikiszowiec District in Katowice, the Katowice Cultural Zone, or the Jacek Kuroń Park in Sosnowiec, in the Kazimierz Górniczy post-mining district," says Prof. Robert Krzysztófik.

"Of course, this is not an easy task. Cities often compete with one another. As a consequence, those with less potential are negatively affected. A good example is Świętochłowice, surrounded by larger cities, which they are forced to compete against on many levels. The limited amount of funding available to local governments does not help the transition either. This, in turn, means that unavoidable changes are introduced in a fragmentary way, sometimes a bit randomly. However, their responsible and consistent implementation should not be abandoned. Thanks to them, individual cities should become better places to live. Only then will they be attractive not only to the present, but also to new residents. When will we see the new face of the Katowice conurbation? I believe it is a matter of the next ten or fifteen years," the researcher concludes.

HOW DOES A METROPOLIS COME INTO EXISTENCE?



Cities have always had a magnetic attraction, since they offered more opportunities for improving the individual's educational, professional, material, social, or personal situation. Despite the fact that life in the city, in addition to numerous opportunities, is also associated with risks and disadvantages, and many "city people" often decide to spontaneously leave for a place in the middle of nowhere, the attraction of cities is not decreasing: quite the contrary. It is estimated that by the end of this century nearly 90% of all people will live in cities or within their reach. The importance of metropolitan areas will systematically increase, since the population will most likely concentrate around them.



A metropolitan area or simply a metropolis? As emphasized by Assoc. Prof. Robert Pyka, researcher at the Institute of Sociology of the University of Silesia in Katowice and Head of the Observatory of Urban and Metropolitan Processes, the first term is more precise, since from the European perspective, only Paris and London could be considered fully-fledged metropolises, whereas the term “metropolis” is used mainly in journalistic debates, usually in an institutional context.

A metropolitan area has, of course, its own characteristics (such as the status as the center of a given region, high level of urbanization, well-developed land and air transport, the presence of an advanced service sector, and the ability to host events of international significance), but the model of its spatial organization (monocentric with one city as the dominant core and weaker peripheries, or polycentric with several urban organisms as the core) is, in Prof. Pyka's opinion, a secondary issue – the metropolization process taking place in a given area is more important. It consists in gaining importance on an international scale, incorporating a given urban area in the global flow of resources, and becoming a junction point in this system, which accumulates economic, scientific, business, and cultural potential.

“It is about the emergence of an area that has fully developed functions of higher order, for example, employment in the knowledge economy sectors. The metropolis is a specific product of globalization influences and holds a position in the transnational economy. Of course, we can support this process and create good conditions for its occurrence, but actually it is a phenomenon that can be controlled to a small extent,” Prof. Pyka argues.

Katowice is the center of the GZM Metropolis (Polish: Górnośląsko-Zagłębiowska Metropolia), comprising the Upper Silesia and Zagłębie Dąbrowskie, the only metropolitan area in Poland

sanctioned by law (as of 2017), with a total of 41 municipalities, some of which are located outside the strict core. The metropolization process taking place in this region demonstrates several important developments. One of them is the increase in the number of passengers served by the Katowice-Pyrzowice airport. In 2003, before Poland joined the European Union, it was 257,000 people per year, whereas in 2019 the number reached almost 5 million. Another important factor is the accumulation of “metropolitan jobs,” i.e., employment in the FIRE (Financial, Insurance, Real Estate) sectors as well as in the technical, scientific, administrative, and support services sectors. According to Eurostat data, seven Polish metropolitan areas concentrate 54.5% of all metropolitan jobs in the country, of which 18.4% are in Warsaw, and 9% in the GZM Metropolis (for comparison, metropolitan areas concentrate 65% of metropolitan jobs in Europe).

In line with the concept of collaborative governance by Chris Ansell and Alison Gash, four factors are particularly conducive to effective management of a metropolitan area: (1) appropriate institutional architecture, (2) incentives for cooperation of the municipalities in a given metropolitan area, (3) balance of power between them, and (4) mutual trust. According to Prof. Pyka, within the GZM there is a problem mainly with the last aspect, a fact manifested in the lack of readiness to put the common interests of the metropolitan area above the particular interests of communes. The process of metropolization in this region is influenced by institutional issues (GZM is in a dilemma whether to remain a technostructure, an institutional “overlay” with no causal potential, or to evolve into a fully-fledged local government unit with the power to actually influence the lives of its residents), demographic factors (negative migration balance, low birth rate, old

age index), and environmental concerns (pollution, spontaneous suburbanization inside cities, i.e., erecting new buildings on every available piece of land, and outside of them in the form of uncontrolled urban sprawl of cities as far as possible from their centers).

In his work, the researcher analyzes the metropolitan processes taking place in France and Canada, and concludes that there is virtually no possibility of transferring foreign solutions to Poland. However, it is possible to observe what not to do and learn from the mistakes of others. As an example, he mentions the solutions applied by the authorities of the Québec Province on the island of Montréal. In 2002, a decision was made to merge the urban organisms located there into one large city, as a global metropolis. It seemed to be a logical solution that would facilitate the management of this urban area, and the merger was pushed through despite the objections of, particularly, Anglo-Saxon communities, which perceived the merger as an attack on their cultural and linguistic distinctiveness. The next election was won by politicians who promised referendums to revise the forced merger, as a result of which several cities separated from the metropolis. Consequently, Montréal looks like Swiss cheese, and instead of facilitated governance, new institutions had to be established to handle the relationship between Montréal and the disconnected entities.

“Everyone has to build their own path of the metropolization process, and GZM has to offer an amazing story of a place which has come a long way from an area based solely on heavy industry to a modern metropolitan region that attracts global events and allows its residents to enjoy all the benefits of living in a metropolis while preserving the advantages of a medium-sized city,” Prof. Robert Pyka emphasizes.

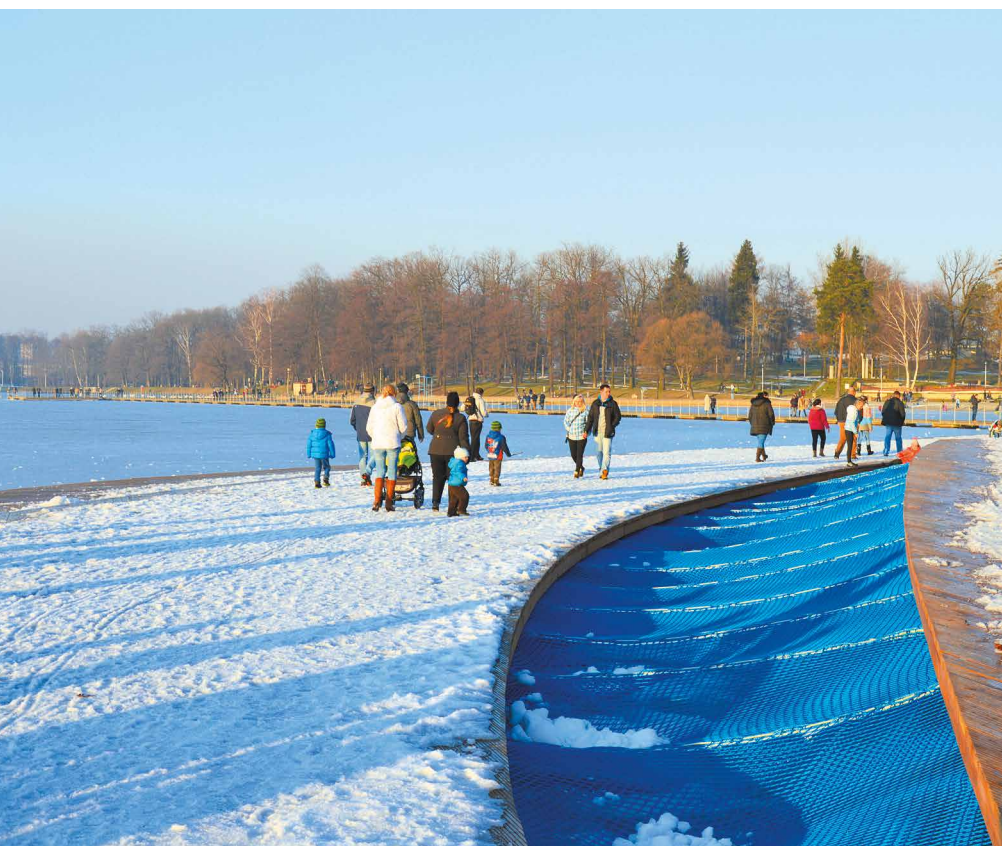


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THE SOCIAL MEANING OF PUBLIC SPACES

A city is, according to the Cambridge Online Dictionary, "a place where many people live, with many houses, stores, businesses, etc., and which is bigger than a town." Each city has its own specificity expressed in the history, architecture, and urban layout, while its inhabitants often prefer a distinct way of living. A city is expected to have aesthetically pleasing, attractive, and diverse spaces with interesting blue-green infrastructure. Although many cities meet these criteria, few people wonder how important they are in social terms.



Promenade at Paprocańskie Lake in Tychy, Poland / Photo: Krzysztof Bierwiazonek



Text: Katarzyna Stołpiec



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Without a community, which makes it possible to be *among* and live *for*, a person falls into a state of alienation that leads to serious psychological consequences. A deficit of joy, an attitude of helplessness in stressful situations, submissiveness, a feeling of loneliness, and lack of self-fulfillment are just some of the symptoms that a person with low social engagement may experience. Cities are becoming increasingly attractive in order to provide ways to have a good time and offer opportunities for rest or entertainment.

The above-mentioned *attractiveness* often brings to mind modernity which, in turn, is strongly associated with glamor and consumerism. A key property of urban space is its utilitarian significance. As Danish architect Jan Gehl noted, residents use urban space to undertake or participate in activities that are necessary (e.g., going to work, doing basic shopping, walking a child to school) and those that are optional (e.g., visiting galleries and shopping malls).

Shopping centers, which appeared in Polish cities in the first decade of the 21st century, have changed their image and character. The paths inside a mall on which consumers moved were designed to resemble park alleys, the interior was rich in vegetation, and the heart of the building, serving as an urban marketplace, was supposed to bring people together.

“Until recently this was the case,” says Assoc. Prof. Krzysztof Bierwiazonek, a sociologist and researcher of urban spaces at the Faculty of Social Scienc-



The Silesian Museum in Katowice built on the site of the former coal mine “Katowice”
/ Photo: Tomasz Kielkowski

es of the University of Silesia. “In 2010, together with Assoc. Prof. Tomasz Nawrocki, and Dr. Barbara Lewicka, we conducted research on the importance of public spaces for the residents of Katowice and found that, according to 30% of the respondents, the Silesia City Center shopping mall was the most attractive place in the city (a walk through its long paths was then considered one of the most pleasant ways to spend free time). Shopping centers have been more and more frequently equipped with entertainment facilities, such as cinemas, theaters, gyms, and bowling alleys. The food court has also become an indispensable part of a mall. Thanks to its presence, visitors can enjoy some refreshment, spend more time in the shopping center, and thus spend more money. As a result, malls have become an attractive meeting place for families and friends. Fortunately, people need a lot more to live than just buying new products. From today's perspective, i.e., more than 10 years after this shopping fascination, one can see that this kind of entertainment has become commonplace.”

The influx of funds into city budgets has made urban spaces better and nicer. Taking care of them is one of the main obligations of local authorities. Urban space has an axiological significance and is of value to its inhabitants. This means that it is important for them, they like to “be in it,” and it gives them a sense of comfort, an opportunity to rest and to stabilize.

“As early as the 1950s, Jane Jacobs emphasized the importance of both architectural and social diversity in creating an atmosphere of urbanity. The layout of the housing estates and the style of construction are also important. The city should encourage people to live and stay in it. Creating fenced off or even closed streets, districts, and settlements, whose inhabitants are separated from other areas of the city, or designing surfaces with excessive amounts of concrete, do not favor a positive reception,” argues the sociologist from the University of Silesia.



Multifunctional activity zone in Chorzów, Poland, on one of the University of Silesia campuses
/ Photo: Agnieszka Szymala

The latter phenomenon was brilliantly described in a book by Polish cultural animator, publicist, and urban activist Jan Mencwel, who criticized huge areas in cities that are largely devoid of greenery. There was a time when city authorities were fascinated with concrete cubes and used them in excess during the modernization works of city squares and markets. Fortunately, this trend is becoming increasingly rare. Correspondingly, information on the importance of green spaces for cities and their inhabitants is more widespread. Spaces in the XS (little parks or green squares) and XXL sizes (large parks) are important in this context. Appealing green areas attract residents and city visitors, thus effectively competing with shopping centers.

In addition to the utility values related to necessary and optional activities, the sense of security is important for city dwellers. However, this factor is not free from external influence. According to the specialist, the sense of security is also affected by media reports. Daily news of accidents, disasters, thefts, and murders reduce the

peace of mind of residents, and this makes people use various security systems: from simple barriers, through fencing and monitoring, to hiring private security agencies. In addition to caring for oneself and loved ones, there is also anxiety about personal possessions. The loss of what was once a major expense or the awareness of its possible destruction creates uncertainty that city dwellers try to alleviate as much as possible.

Regardless of the implemented security systems and their effectiveness, the best means of prevention is good relations with neighbors. Assoc. Prof. Krzysztof Bierwiałonek reiterates that, despite being surrounded by so many amenities, one cannot forget about caring for other members of the neighborhood and local community.

“Mutual kindness and concern for others are the best guarantees of safety. We are all human and always will be. No one should forget about building and maintaining friendly ties. Modernity and technology are one thing, but there is never a substitute for contact with other people.”



CITY AS AN ECOSYSTEM AND ITS GREEN INFRASTRUCTURE

What do Stockholm, Hamburg, Nantes, Copenhagen, and Tallinn have in common? All these cities were awarded the title of the Green Capital of Europe by the European Commission. However, for a city to be considered truly ecological, a few green roofs or walls are not enough.



Text: Weronika Cygan



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Green roof on a shopping and service center in Porto, Portugal
/ Photo: Marta Weber-Siwirska, Polish Green Roofs Association



“Our understanding of ‘green infrastructure’ is flawed,” emphasizes Assoc. Prof. Edyta Sierka, biologist from the Institute of Biology, Biotechnology and Environmental Protection at the Faculty of Natural Sciences of the University of Silesia. “Most often we mean everything that was created by humans, somehow ignoring the elements created in a spontaneous manner. In addition to gardens tended by residents and trees planted along roads, we should also consider in this context ‘extras’ in the form of areas where extremely diverse clusters of plants form on their own. The pressure of nature is visible wherever there are conditions for plants to spring.”

The idea of a green city itself is nothing new. As early as 1898, British urban planner Ebenezer Howard proposed the concept of garden cities. Their dispersed infrastructure was to operate on the basis of zones performing specific functions, including the provision of services or recreation. Such a city was also supposed to be green, with arranged urban greenery surrounding residential buildings and industrial plants. In Poland, one of the first completed investments in the spirit of Howard’s garden cities was Milanówek near Warsaw.

Contemporary metropolitan revitalization and urban planning are in fact a step back to the roots and old ideas, but in a modernized and improved version. Flower meadows are becoming increasingly popular in cities, as they not only are an eye-catcher, but

also support biodiversity, which positively affects the entire urban ecosystem. Something similar applies in the case of green roofs, which are often a visual feast and at the same time perform numerous practical functions. Building such roofs is currently one of the most effective ways to curb the increasingly severe effects of climate change. They are also perfect as a thermal insulation layer in buildings – a much better alternative than traditional air conditioning, which consumes huge amounts of energy and money. Installations of renewable energy sources, such as solar roofs, as well as water retention places in land depressions or pocket gardens, are also located in the immediate proximity of such roofs.

Gradually, we are beginning to understand our mistakes in urban planning. Besides the obvious fact that concrete markets and housing estates look ugly, they also disturb the water balance of the city’s ecosystem. This can be seen in the increasingly frequent flooding, when water does not find an outlet after a large and sudden rainfall and uncontrollably flows in the streets and walkways. On hot days, the same concrete square is like a hot frying pan, and the situation is not improved by water curtains placed every few dozen meters to cool the overheated passers-by. Such a simple measure as planting trees in the city center could help reduce the perceived temperature by providing soothing shade or shelter from gusty winds.

“Basically, we don’t have to do everything from scratch,” Prof. Edyta Sierka remarks. “Suburban areas in Poland usually have garden plots, and they became even more popular during the pandemic, since everyone wanted a place for themselves to breathe fresh air and be in the midst of nature. In such gardens and on private properties, it is possible to take care of the preservation of urban biodiversity through such simple measures as not mowing the lawn (or heavily reducing this activity), setting up bird feeders, or putting up the so-called bee hotels (hospitable not only for bees). For those who do not have their own plot, community gardens can be an alternative, as they are open to residents to join forces and grow a variety of plants together.”

The city is an ecosystem that differs slightly from the “traditional” ones in terms of natural processes. As a relatively recent phenomenon, it is devoid of stability in the form of food chains established over thousands of years, provided to us by forests, mountain areas, lakes, and seas. What is attractive about the city for humans (and all living organisms, for that matter) is the fact that the buffet here is open 24 hours a day and year-round. Even when snow falls in the winter, tough animals are able to dig for scraps abandoned in dumpsters or take advantage of the offerings available at feeders refilled by kind *Homo sapiens* individuals. As a rule, it is also warmer in cities, which favors a longer breeding period

Roof of the University of Warsaw Library / Photo: Agnieszka Sikora

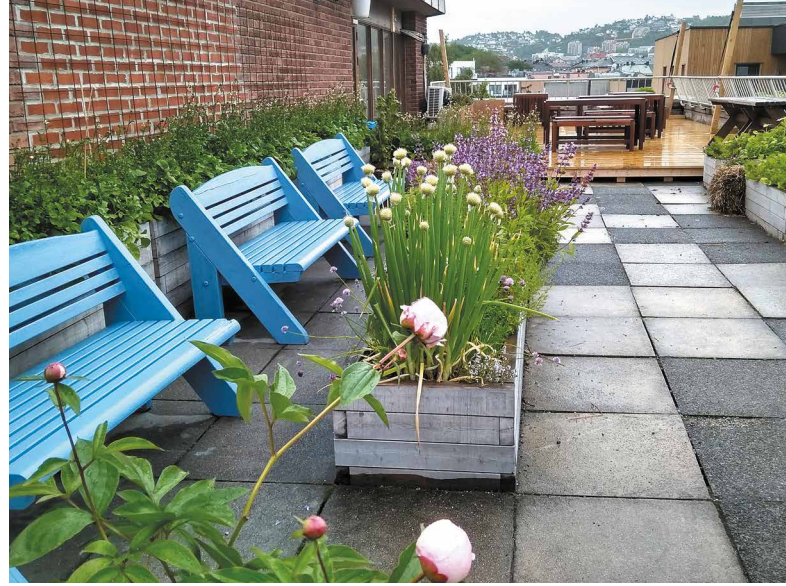


Sedum roof on a multi-apartment building in Wrocław, Poland / Photo: Marta Weber-Siwirska





Roof of the Podlasie Philharmonic Orchestra in Białystok, Poland
/ Photo: Marta Weber-Siwińska



Herb garden on the roof of a company in Oslo, Norway
/ Photo: Marta Weber-Siwińska

for animals and a more extended vegetation period in case of plants.

It is worth remembering that the presence of a city's animal inhabitants is not always as obvious as in the case of an impertinent magpie trotting on the windowsill or a wild boar popping into the garden, whose visit we can infer from the "plowed" lawn. More than once, we may have unconsciously walked over an ant colony, as this species feels quite cozy under the paving slabs. A certain species of ant known as *Lasius niger*, which can also be found in mountainous areas, has taken a liking to cities where it feels as comfortable under concrete covers as it does around rocks.

The attractive companionship of humans, who tend to inhabit increasingly large cities, has caused many animals to permanently relocate to our metropolitan areas to obtain food and find a mate more easily. Such species, called synanthropes, have adapted well to an environment transformed by humans. They include tits chirping eagerly under our windows or cooing pigeons as well as less graceful animals, such as spiders or cockroaches. In New York City, no one is particularly surprised anymore to see a raccoon running from dumpster to dumpster. Likewise, in New Delhi, it is now common to see a herd of rhesus monkeys jumping on buildings.

"Cities that exhibit very high biodiversity and green space ratios are also the ones most often identified by independent bodies as those where people feel

most at home. This is important because it shows how much humans are connected with nature. Where there are few green elements, our quality of life significantly decreases," emphasizes Prof. Edyta Sierka. The researcher mentions the increasingly frequent diagnosis of nature deficit syndrome in children and adolescents, and points to the necessity of investing in green cities.

Urban planners continue to invent and implement new ways to force us to have more contact with nature. One of them is the concept of "a quarter-hour city." According to it, we should be able to take care of all the necessities in our life within 15 minutes. It should not take longer to get to the store, doctor, school, or work, and it is desirable to ensure that the residents pass a park or at least a few larger trees along the way. Green infrastructure also focuses on green transport. Of course, the best way to move from place to place is on foot or by bike in order to exclude cars from the strict city center. Moreover, public transport should make use of electric vehicles. Reykjavik is present in many rankings for the greenest cities, and thus, it is not surprising that hydrogen busses roam its streets using this modern energy source.

Asian metropolises can boast even greater dedication to the creation of green infrastructure, as their projects feature the latest technological advances, including genetic engineering. Plants enriched with the DNA of proper bacteria can fight contamination more easily, and some even gain the ability to emit light.

It is sufficient to look at Singapore where the botanical garden looks like a piece of jungle transplanted into the middle of a city. It is not only a place where locals can breathe fresh air and relax, but it attracts tourists like a magnet. An increasing number of people are realizing the potential of greenery in tourism. Thus, for instance, Central Park is one of the spots that every visitor of New York definitely wants to tick off their list. The story of its creation is also an example of how a neglected space can be transformed into something that attracts crowds of people. Such practices are also quite common in Europe, as made apparent by the 2014 European Green Capital – Copenhagen. One of its neighborhoods, built on a former harbor site, was redeveloped and powered entirely by renewable energy. Stockholm, the Green Capital of 2010, followed a similar path. These ventures were co-created with city residents while incorporating Nature-Based Solutions (NBS). They are now the basis for planning in smart cities that invest in green infrastructure.

Nature is an excellent service provider and really does not need much from us. Its most important requirement is that we do not disturb it by erecting more barriers or harm it with constantly emitted pollutants. So let us invite nature into our cities in different places, under different forms, and thus we will ensure not only views that soothe our senses, but also provide for a healthier and safer environment.



Text: Maria Sztuka



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URBAN RIVERS

Rome, Paris, London, Vienna... Europe's most beautiful metropolises owe their fame and power largely to the rivers on which they are located. Since the dawn of time, people looked for the most convenient places to settle and chose the valleys of life-giving rivers, which fed, watered, fertilized crops, collected waste, served as fast communication routes, and in situations of danger also played a defensive role. In Leonardo da Vinci's design of the ideal city of 1487, the river was the *sine qua non*. It provided people not only with opportunities for maintaining proper hygiene but also for transporting goods which allowed for the reconciliation of practical and aesthetic requirements.

Rawa river / Photo: Tomasz Kielkowski

ZACHÓD
SŁONCA

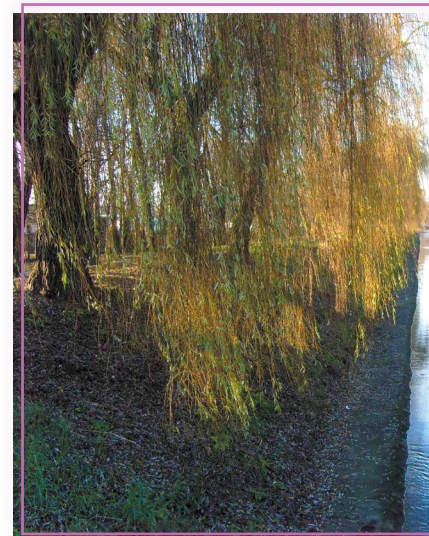


With time, however, people needed more living space and wanted to control nature, so they started to “straighten” rivers, drain industrial wastewater into riverbeds, drain floodplains, and build housing developments on them. Uneven quays were tamed by being flooded with tons of concrete, and high embankments along the bed were to prevent floods. The “reformers” were guided by the belief that closing a river in its riverbed and speeding up its current in case of excessive rainfall would prevent the river’s waters from spilling into the valley. Time has verified these concepts. The effects of restraining rivers have become apparent in a very dramatic way at the end of the 20th and the beginning of the 21st centuries. The “millennium flood” in July 1997, which hit Poland, Czechia, Germany, Slovakia, and Austria, claimed over a hundred lives and caused material losses in the billions of dollars. A series of floods that affected Germany, Belgium, Italy, Austria, and Romania in 2021 had similar effects. From a life-giving boon, rivers turned into terror-bearing elements. However, it is not the picturesque mountain streams or the majestic Rhine, Danube, or Seine that bring terror. The reasons for large-scale destruction include both climate changes and anthropogenic factors: regulation of large sections of rivers, obstruction of riverbeds and development of polders, i.e., natural floodplains, which during floods allow excess water to spill out of the riverbed and to be naturally retained. While mighty rivers such as the Rhine, Thames, Danube, Seine, Vltava, Tiber, or Vistula remain a constant boast and tourist attraction, the fate of small rivers in cities often trapped within concrete walls was quite gloomy: some were hidden underground, while others turned into stinking sewers.

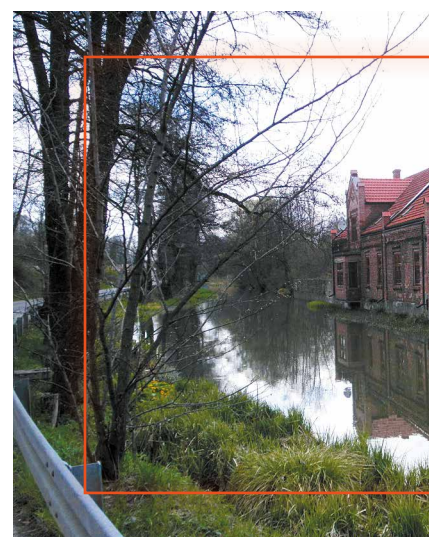
THE RIVER SHOULD BE THE VALLEY’S HOST

The taming of rivers has been met with severe criticism. Many modern publications contain lists of errors that have contributed to the current state of things. However, Prof. Andrzej Kowalczyk, hydrologist from the Institute of Earth Sciences at the Faculty of Natural Sciences of the University of Silesia, who specializes in water management and environmental geology, is not in favor of such easily formulated accusations against the initiators of river regulation. According to the scientist, the decisions made in the 19th and early 20th centuries corresponded to the level of knowledge at that time. Today, the risk of floods can be dealt with and its effects reduced not on the basis of long-term forecasts (as builders did in the past), but on the basis of constantly updated results of monitoring carried out in individual basins, as well as interdisciplinary research of extreme phenomena (whose frequency is increasing). According to Prof. A. Kowalczyk, an example that shows how interference in the natural environment can turn against humans is the Rhine, one of the longest rivers in Europe (766 miles) – straightened, most channelized, with strengthened banks and high embankments. The first corrections of the Rhine date back to the beginning of the 19th century when, in order to speed up the current of the river, works were undertaken not only to narrow it, but also to strenuously straighten the river, thus depriving it of bends and meanders. While channelization of the river allowed for year-round navigation, the development of the coastal areas reduced the floodplain areas by over 30%. Catastrophic floods in the Rhine basin (e.g., in 1983, 1993, 2021) caused by heavy rainfall revealed the dramatic ineffectiveness of hydrotechnical measures made on the river and its tributaries – roads, houses, and industrial facilities were put under water.

Another example of wrong decisions that we are paying for is the Oder/Odra river. Flood hazards in its basin are of course due to meteorological, climatic, and natural conditions, but anthropogenic factor, such as regulatory works that shortened the course of the river by 160 km, or massive hydrotechnical buildings, have also largely contributed to them. The intensive development of housing construction on floodplain terraces (e.g., in Wrocław or Opole) was an obvious and costly mistake. According to the scientist, the valley should be hosted primarily by a river, not by humans. The 21st century brought many changes to the relationship between cities and rivers.



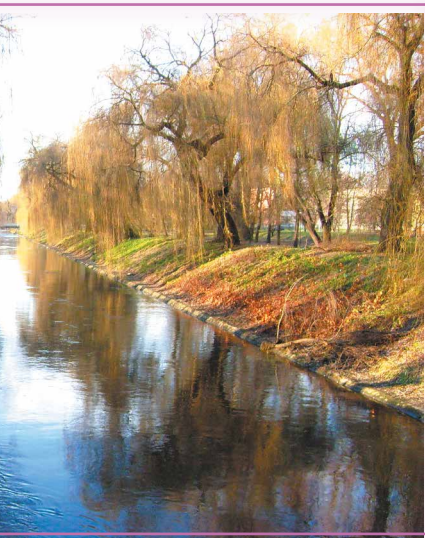
Brynica river in Sosnowiec
/ Photo: Maria Sztuka



Biała Przemsza river in Okradzionów district,
Dąbrowa Górnicza / Photo: Maria Sztuka



Rawa river in the center of Katowice
/ Photo: Agnieszka Sikora



Residents supported by scientists demanded riverside green areas, noticing not only the economic potential in the often forgotten canal, but above all its cultural aspect, helping create new social interactions.

RENATURALIZATION

Many rivers in cities still perform their original functions. They receive excess water resulting from both short-term and extreme rainfall as well as treated municipal and industrial wastewater. Taking care of efficient operation of sewage treatment plant slowly restores biological life and rebuilds degraded ecosystems. Although this is a long-term process, the effects of the actions taken are already noticeable. The way local communities perceive troublesome streams, canals, and rivers has also changed. When foul, stinking water flowed in them, inhabitants avoided these places with disgust; when flocks of birds appeared on the transparent surface, and fish in the water, even the forgotten river names returned. An excellent example is Rawa in Silesia, a less than 20 km long stream in the Vistula basin, which starts at the Marcin pond in Ruda Śląska. Passing successively through Świętochłowice, Chorzów, and Katowice, it reaches the border with Sosnowiec, where it flows into the Brynica river. At the beginning of the 19th century, Rawa was still a wild stream, but by 1893 intensive industrialization already caused the disappearance of fish and death of biological life. The river became a victim of predatory and greedy industry. In fear of flooding, its banks were concreted over and its bed straightened, which was the best solution according to the knowledge available at that time. In order to obtain land for development, the river was subdued, converted into a channel, and the swamps were drained. It was regulated several times, partially hidden underground, and thus experienced “reanimation.” Due to its location, Rawa is still of great importance for Katowice, as it is the main rainwater catchment for most of the city. Prof. A. Kowalczyk, who for years has been following and participating in discussions on the revitalization of the river, believes that the return of biological life to the river may be caused, among others, by the slowing down of the water current. According to the hydrologist, this effect can be achieved by restoring the bars to the river. When huge amounts of industrial sewage were flowing through the riverbed, a swift current was indispensable, as it slowed down the silting up of the riverbed and ensured self-purification from suspended solids, which were pumped into the river by the surrounding mines, among others. Today, this current should definitely slow down.



TIGHTENING THE CATCHMENT AREA

This is a topic that almost all riverside cities are struggling with. Concreted catchment areas of rivers, roads sealed with asphalt, squares, streets, and even promenades tightly covered with tiles, groves cut out, riverbanks turned into parking lots lined with large cobblestones, and the constant shrinking of green areas seized for the construction of new investments – this is just the beginning of the list of “sins” that make life in agglomerations increasingly uncomfortable. Urban heat islands have become a plague of the 21st century. This microclimate phenomenon results, among others, from a shortage of biologically active surfaces, which are being displaced by dense building development. When flows are too low, even prolonged and intense downpours will only briefly raise the water level in the river. Instead of soaking up and slowly recharging the river with underground runoff, the water almost instantaneously finds its way to the riverbed. Lack of natural floodplains, removal of wetlands and concreted catchment areas prevent groundwater recharge, and as the hydrologist reminds us, the natural environment is a reservoir of water, since it retains resources and ensures that it flows more slowly and stays in the environment longer. Hardened surfaces not only raise the temperature in the city by blocking the uptake of water by the ground, but also contribute to the occurrence of floods and increase their effects. Well-maintained rivers not only provide safety; they can also be an oasis that encourages people to spend time in nature, even in an industrialized city.





Text: Mariusz Jankowski, M.A.



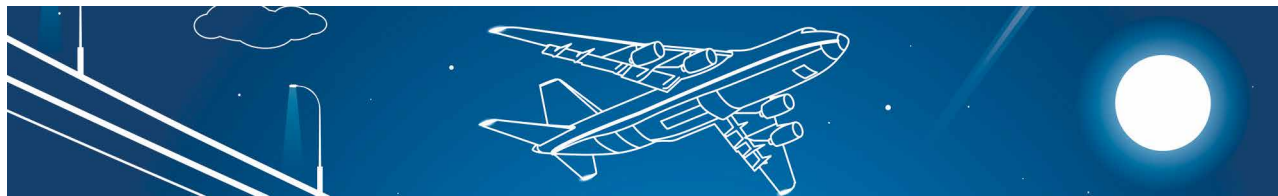
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WHAT MAKES A CITY *SMART?*

Even if we live in a small town, we identify with the nearest large urban center and are interested in its development. This topic has become important, since more than 3.5 billion people already live in cities, and by 2030 city residents will constitute 60% of the world's population. The trend is extremely dynamic and transforms the reality that surrounds us.



Photo: panimoni – Fotolia



According to United Nations forecasts, the population of cities will almost have doubled by 2050. Therefore, it is not surprising that the 2016 Quito Declaration emphasized the importance and role of cities in the context of demographic processes, economic activities, social and cultural interactions, as well as the effects of environmental and humanitarian processes. Today, this reality mainly develops in cities, and this process results in challenges related to sustainable housing, infrastructure, security, basic health services, education as well as social rights, decent work, and, last but not least, protection of natural resources.

To face these challenges, the concept of smart city was created, but unfortunately it is sometimes overused as an *idée fixe* for city management. Some columnists and feature writers dealing with the issues of civilization and the influence of technology on social life claim that each city is a story of its own, and therefore, not even highly advanced technology can replace the sensitivity to identity contexts, economic potential, or the energy inherent in social activity. However, technological advances represent an opportunity for growth, improved quality of life, and savings to our time, which we can allocate to private purposes, as well as an almost unlimited opportunity to improve the process of city management. Thus, it seems that living in a smart city is a good thing after all, as long as managers keep up with the technological innovations. It is not technologies that decide about the “smartness” of a given city, but the innovation of ideas in their creation, co-management, and governance. Creation refers in this context to contributing to the city’s development by all groups involved in this process, co-management means social

participation and joint responsibility for the space we live in, and governance is the political responsibility for the decisions made. Smart cities should focus on innovative solutions allowing for the development of modern cities through qualitative and quantitative improvements of their productivity. This efficiency mainly applies to the city’s administrators. In this context, a city is smart when decision-makers and people involved in its creation ensure maximum comfort for its residents with the lowest possible consumption of natural resources available to the urban area. In other words, it is important to develop the advantages that have arisen through a historical process and that pass as endogenous wealth assigned to a specific place. Obviously, a range of urban functions is essential for sustainable development. Those which are for some reason insufficient have to be strengthened, but recognizing the distinctive features and basing the development strategy on them usually brings very good results.

Katowice is a fine example of this philosophy. For over two decades, the city has been quite consistently implementing the process of socio-economic transformation from a center of heavy mining and metallurgical industry. From the past characterized by immense degradation of the natural environment, the city has embarked on an environmentally friendly path, which has also translated into constantly improving living conditions for residents and economy, which is now focused on new technologies and modern services. Today, Katowice is one of the five most important business service centers in Poland. It is the foundation of the local economy and offers modern jobs to nearly 30,000 people. However, the lack of new goals and challenges would

mean stagnation. Because of their experiences in the past, Silesians are deeply aware of this truth. Hence the focus on innovation and modern industries, such as gaming. In all of Europe, Katowice, together with the GZM Metropolis (Polish: Górnośląsko-Zagłębiowska Metropolia), comprising the Upper Silesia and Zagłębie Dąbrowskie, is a unique conglomerate of intellectual potential, infrastructure for industry, and a specific work ethos. On this foundation, it is possible to effectively support emerging industries, develop new technologies, and create a modern economic ecosystem. Katowice owes the success of its development policy not only to its economic growth, but also to its international recognition and esteem. At the end of 2018, Katowice hosted the UN Climate Change Conference COP24. In 2019, the World Anti-Doping Conference was organized there. In 2021, the city hosted the Internet Governance Forum, an intergovernmental consultative initiative on the effective and safe use of the Internet. In June 2022, Katowice will in turn become the venue of the most important meeting of politicians, experts, and activists dealing with urban policy, which is organized every two years by UN-Habitat, the United Nations Human Settlements Programme. Katowice has gained the recognition of the international community thanks to the effective transformation and consistent revitalization of post-industrial areas. Following this path, the city now intends to move on to the next stage, i.e., to create a new technology district, a project that sets a new development trend. While the process certainly has not been completed, it is clear that available resources have been used for that purpose and skillfully transformed into network visibility. This recognition carries a significant potential.



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During one of the many walks through New York City, that took the flaneur protagonist of Teju Cole's novel *Open City* (2011) to the construction site of the One World Trade Center, he reflects on the image of Manhattan one decade after the devastating attacks of September 11th, 2001: "This was not the first erasure on the site. [...] The site was a palimpsest, written, erased, rewritten. There had been communities here before Columbus ever set sail, before Verrazano anchored his ships in the narrows, or the black Portuguese slave trader Esteban Gomez sailed up the Hudson River. Human beings had lived here, built homes, and quarreled with their neighbors long before the Dutch ever saw a business opportunity in the rich furs and timber of the island and its calm bay."

In this context, the city is not only "open" (i.e., militarily undefended) because of the fact that New York as a metropolis symbolizes the capital of the free world, but also because its urban space is always evolving. The destroyed site, now referred to as Ground Zero, thus continues a process that goes back to the earliest traces of human civilizational activity. You can trace in it, layer by layer, the historical changes that have taken place in the area, and new buildings continue to emerge on the debris of the past. And even after Manhattan was (metaphorically) wounded in September of 2001, the debris and human remains will inevitably become part of the city's history - only their social and political treatment is yet to be agreed upon.

As part of our exhibition in Saarbrücken, we took a closer look at the challenges and problems that had to be dealt with in the immediate aftermath of the attacks. An area of approximate-

ly 700,000 square feet was completely destroyed. It once was one of the most valuable building sites in the entire city, and then as Ground Zero it turned into a sacred, emotionally charged place for grieving families and friends. It thus quickly became apparent that the World Trade Center could not simply be rebuilt in the same spot, and also that there was a genuine need for a permanent place of remembrance as well as public involvement in the redevelopment of the area.

Along with the promise of an inclusive and transparent planning process, the newly formed Lower Manhattan Development Corporation (LMDC) was tasked with reconciling these two needs, which sometimes proved difficult. For instance, the Corporation gave stakeholders the opportunity to participate in redesigning the site, but this was ultimately limited to a few presentations and discussions, and final decisions were made almost exclusively by the LMDC. Both the 2002 decision on Daniel Libeskind's Freedom Tower proposal and the subsequent redesign by architect David Childs were made without input from the broader public. The One World Trade Center, which was finally completed in late 2014 and early 2015 and was 1,776 feet tall (as a reference to the year 1776 when the *Declaration of Independence* was signed), was intended both to create as much rentable office space as possible and to replace the Twin Towers with a new landmark at the southern tip of Manhattan.

Similarly, LMDC set the general design guidelines at the beginning of the design process for the National September 11 Memorial & Museum. Only after a thirteen-member committee made a preliminary selection from the 5,201

proposals received were survivors and family members of the victims given the opportunity to provide their feedback. In 2003, the jury selected eight designs for further discussion, after which Michael Arad and Peter Walker's *Reflecting Absence* was selected as the winning entry. Their design included twin waterfall pools with water cascading down from a height of approximately 30 feet into reflecting pools, marking the original location of the Twin Towers, surrounded by walls which displayed the names of nearly 3,000 victims, all set within a plaza with more than 400 swamp white oak trees. The LMDC then also presented its plans for the design of the Memorial Center, which was to be located below the plaza. The underground museum, which opened in 2014, not only houses thousands of artifacts and photographs, but also displays the original slurry wall of the World Trade Center. In this way, the "wound" in the urban space was architecturally exposed, and the ruins of the past were overwritten like a palimpsest.

Today, two decades after the September 11 attacks, Lower Manhattan is a new and diverse urban space. At the same time, it is also a place of mourning and remembrance as well as the economic center of the United States (of which the luxury shopping mall in the new Oculus building is perhaps the most impressive symbol).

Meanwhile, downtown New York has become a truly urban space for another reason as well. After all, the plaza around the new skyscraper, museum, and pools has been heavily shaped by an ever-present security architecture, including surveillance cameras and steel bollards.

NEW YORK

A WOUNDED CITY

The area of New York City destroyed by the terrorist attacks on September 11th, 2001, now referred to as Ground Zero, continues a process that goes back to the earliest traces of human civilizational activity. Here you can trace, layer by layer, the historical changes that have taken place in the area, and new buildings continue to emerge on the debris of the past.





It is estimated that by the end of this century nearly 90% of all people will live in cities or within their reach. The importance of metropolitan areas will systematically increase, since the population will most likely concentrate around them.

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