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TRZECH WIESZCZÓW AVENUE IN KRAKOW – SPATIAL REINTERPRETATION IN LIGHT OF PREDICTED TRANSPORT CHANGES

ALEJE TRZECH WIESZCZÓW W KRAKOWIE – REINTERPRETACJA PRZESTRZENI WOBEC PROGNOZOWANYCH ZMIAN KOMUNIKACYJNYCH

Abstract

The space of the Trzech Wieszców Avenues, which has opened up the development of Krakow in a Poland that had become united after World War I, has presently become dominated by transport functions. It is one of the most recognisable urban spaces, along which many outstanding works of architecture and important public forms of use are located. The forecasted traffic calming along the avenue, which is to happen after the completion of Krakow's third ring road, could lead to spatial transformations, as an improvement in the quality of residential areas and the reintegration of public spaces. The detailed variants which present *The Green Gardens of the Avenues* and the *Woonerf Along the Avenues* were developed at the *ATW 2.0* 2016 workshop by a Cracow University of Technology team under the supervision of Andrzej Szarata.

Keywords: city avenues, Trzech Wieszców Avenues - Krakow, traffic calming, ATW 2.0 workshop

Streszczenie

Przestrzeń Alei Trzech Wieszców, która symbolicznie otworzyła rozwój Krakowa w zjednoczonej po I wojnie światowej Polsce, zdominowana została współcześnie przez funkcje komunikacyjne. To jedna z bardziej rozpoznawalnych przestrzeni miejskich, przy której znajduje się wiele wybitnych realizacji architektonicznych i ważnych funkcji publicznych. Prognozowane uspokojenie ruchu na Alejach, które ma nastąpić w momencie domykania trzeciej obwodnicy Krakowa, może przyczynić się do transformacji przestrzennych – w tym poprawy jakości obszarów mieszkalnych i reintegracji przestrzeni publicznych. Szczegółowe warianty prezentujące *Zielone Ogrody Alei* i *Woonerf przy Alejach* opracowane zostały w ramach warsztatów *ATW 2.0* 2016 przez zespół z Politechniki Krakowskiej pod kierunkiem Andrzeja Szaraty.

Słowa kluczowe: aleje miejskie, Aleje Trzech Wieszców – Kraków, uspokajanie ruchu, Warsztaty ATW 2.0

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1. Current conditions

It would be very difficult to imagine modern Krakow without its Trzech Wieszców Avenues, which have maintained their position as a distinctive space within the city. The avenues are currently one of the most significant transport routes in Krakow. They have, in a certain manner, become an important way of experiencing the city for the travellers who use them. The Trzech Wieszców Avenues are also a key feature in understanding the development of Krakow over the last century. During this period, they have reflected the changing image of the city – its spatial and transport development, the influx of new residents and students, as well as tourists.

The reduction in the volume of traffic that is anticipated following the completion of the Krakow's third ring road will alter not only the character of the avenues themselves but, equally importantly, that of the city that surrounds them. The forecasted changes raise many questions regarding vehicular traffic, as well as about the mode of public transport that would be the most adequate for this location. In addition, there are also questions regarding the quality of public spaces and the accompanying residential spaces in this part of the city.

1.1. The Delimitation of the City

Delimitation is the moment of freeing the development of a city, this came somewhat late in the case of Krakow. The placement of important for the Austro-Hungarian Empire fortifications around Krakow¹ had weighed on the maintaining of a disciplined structure of the city for the next years. In the context of the imposed urban rigour of a military fortress, we can risk making the statement that Emperor Franz Joseph saved Krakow from the rampant processes of industrialisation and preserved the character and beauty of the historical city. The rigidity of the borders was conducive to the balanced increase of the density of urbanised areas. Whilst these days, the limitation of cities would be an ideal that could allow us to tame the all-encompassing process of urban sprawl, to our ancestors, borders meant that the development opportunities of the city were limited.

At the start of the XX century, Krakow was confined to the rigorous framework of a fortress; around 100 thousand inhabitants resided inside the dense fortified area. Attempts were made to search for urban conceptual designs that could allow the development to go beyond the barriers of the fortress-city – thus the organisation of the competition that attempted to deal with the problem of planned growth. The winning proposal for the regulation plan of Grand Krakow (1909) by Józef Czajkowski, Władysław Ekielski, Tadeusz Stryjeński, Ludwik Wojtyczko and Kazimierz Wyczyński was to have a considerable influence on future designs, including the plan by Kazimierz Stolecki (1912). These designs initiated the process of the planned growth of the city, the implementation of which were dragged out over time. The decommissioning of the peripheral railway line in 1911 opened the way to new spaces designed in the form of city avenues. The Dębnicki Bridge, after the dismantling of the railway tracks, was converted into a road bridge. The areas of the villages located to the north-west that had until then been separated from the main body of the city by the railway

¹ Emperor Franz Joseph announced his decision to build a fortress in Krakow in 1850.

line, including Półwie Zwierzynieckie, Krowdrza, a part of Prądnik Biały and Prądnik Czerwony, were incorporated into the city.

The changes connected with increasing the size of Krakow, which were planned and slowly implemented by the city, would coincide with the end of World War I and with Poland regaining its independence in 1918. The avenues along the line of the fortifications would become a key element of this process – located between the old and the new city, they would cement its subsequent changes.

1.2. The Architecture of the Avenues

Symbolically the location of the avenues would also begin a new era for Krakow in the free Poland of the twenty years of the interwar period. The city required places to show the signs of its newly gained independence, the avenues became such a place. In addition to the houses which proudly rose along the street, important public service buildings also came to be located here. The regaining of independence would outline the framework of the assigned to the avenues important edifices including Jagiellonian Library, or the main building of the National Museum. Both buildings would later be redeveloped – of particular importance is the fact that the redevelopment would be kept in the spirit of previous conceptual designs. The Jagiellonian Library, the work of Waław Krzyżanowski, would obtain an outstanding expansion (constructed 1995–2001) designed by Romuald Loegler. The new National Museum building², the construction of which started before the war and was only completed in the years 1978–1989, is still undergoing changes. The architectural competition that has recently been concluded was won by the bold conceptual design of the Stelmach & Partners architectural practice – this design features a public space in the form of a garden on top of the roof of the museum.

The academic buildings that would firmly anchor themselves in the avenues became an important element of the structure that was created during the 1920s. There is quite a number of examples of these types of buildings, starting with the somewhat less recognisable edifice of the Silesian Seminar³ (constructed 1926–1928) also the AGH University of Science and Technology⁴ (constructed 1921–1936), to the currently erected Collegium Paderevianum II⁵ (2015). The avenues document the stylistic changes that have occurred in architecture. Here, we can find works of modernism, examples of which include the complex of the Kijów Cinema and the Cracovia Hotel designed by Witold Cęckiewicz in 1967, as well as works of postmodernism which is represented by the Radio Krakow Building by Tomasz Mańkowski & Piotr Wróbel (1999).

The ability to incorporate monumental buildings into the landscape of the city is a distinct quality of the Trzech Wieszców Avenues. We can even state that the ability to change and absorb new structures while at the same time respect the character of the interior of the street is an important quality of this place. What is even more important, is that this occurs regardless of the period during which such buildings were built. It would be appropriate

² Design by: Bolesław Schmidt, Czesław Boratyński and Edward Kreisler.

³ The architects: Franciszek Mączyński and Zygmunt Gawlik.

⁴ Authors: Sławomir Odrzywolski (competition design) and Waław Krzyżanowski (implementation).

⁵ Author: Bożena Bończa-Tomaszewska, Bończa Studio in cooperation with her team.

to mention the competition guidelines of the 1929 architectural competition for the construction of the Jagiellonian Library, in the hope that modern projects can have such a noble and monumental character and, just like it was then, become “an expression of modern culture and the spirit of the times”⁶.

1.3. From a Distinctive Urban Avenue to an Overgrown Transport Function

The construction of the avenues was, without doubt, an expression of the beautification of the city and of the search to reference grand European examples, with the Viennese Ring or the Parisian Boulevards of Hausmann at the fore. Krakow also took pride in its Dietla Avenue⁷, built during the period of the Austrian partition – this was a consequence of filling up the old riverbed of the Vistula.

Initially, the space of the avenues was constituted by a green lawn, along which, rows of poplar trees were planted. The promenade was then called the ‘Boulevards of Freedom’, although the name stopped being used. The volume of vehicular traffic was very low before the Second World War, with transport provided with narrow strips of road visible in archive photographs [Ill. 1, 2]. After the war, the number of cars was still negligible. Older residents of Krakow will still remember the times when football used to be played on the avenues. The increase in vehicular traffic was, however, inevitable and the widening of the road lanes took priority over all other uses of the avenues over the span of a couple of decades. One of a few factors opposing the ongoing pressures relating to the needs of transportation was the greenery, which was fiercely defended by Janusz Bogdanowski for many years.

Today, the avenues of Krakow are some of the more important and recognisable urban spaces, they are also very heavily affected by traffic. Recent decades, which have seen the excessive development of personal transport, have led to the spatial degradation of both the street and its neighbourhood. The transit of heavy vehicles, partially limited by the gradual completion of the outside ring road, remains an issue. The unavoidable consequence of the high volume of traffic is an enormous amount of air pollution, which is visible in the record-breaking results of measurements of smog levels – one consequence of this being the grey facades of the surrounding buildings which are gradually being abandoned by their residents.

The avenues are currently a barrier, which makes it difficult to connect public areas around the edifices of undisputable importance to the heritage of Krakow. We are also observing the troubling phenomenon that the entrances of buildings are starting to face away from the streets, the main entrances are being relocated towards the back of the structure. The external outline of a façade seems barely a recording of the representativeness of a building, made poorer by the insufficient breadth of the pavement. This erodes their monumental character, which is already experienced almost exclusively from the perspective of the stressed occupants of vehicles – regardless of whether they are in cars or standing on a crowded bus. Pedestrians have practically been eliminated from the avenues, while the central path no longer plays the role of a comfortable green space, not only due to the noise and the air pollution but also due to the quality of the green interior itself.

⁶ www.szlakmodernizmu.pl (access: 1.10.2016).

⁷ Also called Planty Dietlowskie.



Ill. 1. View of Słowackiego Avenue (1930–1935). The rows of trees are a monument in remembrance of the 11th anniversary of the regaining of Polish independence; Source: NDA National Digital Archives, signature 1-U-2626



Ill. 2. A view of 60-66 Słowackiego Avenue (1934); Source: NDA National Digital Archives, signature 1-U-2624



Il. 3. Trzech Wieszców Avenues – an urban avenue, a green park or a space for transport?
Photo by – Marek Leja (2016)

Currently, the Trzech Wieszców Avenues are sadly not the wonderful urban space that our predecessors dreamed of. The functional approach to the city which delegated the responsibility for our streets to transport engineering has led to the conversion of avenues, boulevards or representative promenades into elements of the transportation infrastructure. For several decades, or perhaps even forever, we have lost control over the city.

2. Concepts of the Forecasted Changes in Traffic – *ATW 2,0* Workshop

In April 2016, a team from the Faculty of Civil Engineering of Cracow University of Technology⁸ organised the *ATW 2,0* multidisciplinary workshop. The end product of the workshop was a report entitled: ‘Conceptual Design of the Urban Space Along the Trzech Wieszców Avenue’, commissioned by the Department of Municipal Economy of the Office of the City of Krakow⁹. The team of authors from the Cracow University of Technology, under the supervision of Andrzej Szarata, included the members of the Chair of Transport Systems of the Faculty of Civil Engineering: Marek Bauer, Maciej Berendt, Arkadiusz Drabicki, Urszula Duda, Mariusz Dudek, Wiesław Dźwigoń, Aleksandra Faron, Rafał

⁸ WIL PK – Polish abbreviation, transl. note.

⁹ The workshop took place between 7 – 10.04.2016, Andrzej Szarata, the director of the Chair of Transport Systems of the Faculty of Civil Engineering of Cracow University of Technology was the supervisor and author of thematic guidelines.

Kucharski, Marian Kurowski, Vitalii Naumov, Katarzyna Nosal, as well as representatives of the Faculty of Architecture of Cracow University of Technology¹⁰ from the Chair of Public Spaces for Movement: Kinga Racoń – Leja and Bartłomiej Homiński. A group of students from the Transport Systems Scientific Club of the Faculty of Civil Engineering, the Road Designers' Scientific Club 'Virage', as well as students of the Faculty of Architecture of Cracow University of Technology also participated in the workshop. The fact that the work had a multidisciplinary character was crucial – the students represented branches of engineering associated with transport, spatial management, and urban and architectural design across all three levels of higher education (Bachelor, Master, PhD). Their work was supported by a panel of experts represented by Krzysztof Bieda, Andrzej Rudnicki and Zbigniew K. Zuziak.

The overall goal of the workshop was an attempt to analyse changes in the flow of vehicular traffic at the forecasted reduction of the number of lanes along the avenues. The documentation featured an optimal variant of traffic calming possible after the future completion of the third ring road – consisting of Łagiewnicka, Pychowicka and Zwierzyniecka routes. A variant featuring the complete banning of individual traffic was not analysed.

2.1. Urban Design Laboratory

The assumption that we cannot separate transport and spatial aspects was the foundation of establishing a team that would work on problems associated with urban and architectural issues. The team was supervised by A. Faron, K. Racoń-Leja & B. Homiński. The remaining teams in charge of mobility and transport were consulted about the solutions that were being developed. Four conceptual variants, differing in terms of the scale of the limiting of vehicular traffic, were selected – these which were characterised by different solutions in street cross-section and the number of lanes. The variants were assigned different, implementable forms of public transport, including an overground tram, an underground tram and bus rapid transit.

In light of the forecasted limitation in the traffic of individual vehicles, it is seen as necessary to improve the functioning of public transport by allocating it separate lanes. The city of Krakow is currently leaning towards the proposal of providing a bus rapid transit along the avenues. This solution, in light of the current inability to delineate a tram route across the Vistula, seems to be the most effective. Bus rapid transit introduction within the historical city context, however, is a source of much controversy. Wrocław, which is close to finalising such a project, is facing the necessity of having to convince its residents to accept it¹¹. In the case of Krakow, the tram is, without a doubt, a form of transport that would be more integrated with urban space. The comfort of use, the aesthetics, the efficiency, the carrying capacity and the manner in which the residents of Krakow are used to trams have mobilised the workshop groups to present detailed visions that featured this mode of transport. Of course, the introduction of the tram would require the redevelopment of Dębnicki Bridge or the construction of a tunnel under the Vistula, assuming that it would have to be extended even as far as Grunwaldzkie Roundabout.

¹⁰ WA PK – Polish abbreviation, transl. note.

¹¹ The residents of Wrocław demand a referendum regarding the development of public transport and the introduction of a rapid bus transport.

2.2. Spatial Variants

The modern specifics of the Trzech Wieszczów Avenues is based on their uneven distribution of functions. The initial sections, near Dębnicki Bridge and around Nowy Kleparz are framed by residential buildings. The dense built environment of the avenues is systematically undergoing the process of architectural revitalisation. This process is, however, being carried out far too slowly and numerous structures with grey and neglected facades still negatively influence the perception of this space. The central part of the avenues houses many representative public buildings, which are not properly connected to the network of public spaces. The implementation of the variety of solutions that have been adopted – both in residential, as well as in public areas – has been one of the more important challenges.

The basic assumption for the variants that were being prepared was to test how traffic calming is going to influence the quality of public spaces. Spaces that were important to the whole of the city, as well as those of a semi-public nature, intended for the use of the local residents, were analysed. Due to the nature of the work carried out during the workshop, its results were limited to the simplified record of an urban design strategy and the rough draft of a conceptual architectural design. The strategies that were developed form a record of an urban concept that shows new or newly discovered relationships between the avenues and the city. An important design task was the creation of a common public space and the integration of the nearby pedestrian walkways. Such an approach is designed to reintroduce an important function of the avenues – that of a public space.

The cross-section of the avenues has a relatively high capacity, even in light of compact adjacent urban structure. A reduction in the amount of lanes for driving could allow the quality of pedestrian traffic to increase in the future, as well as enable the introduction of bicycle lanes and the widening of green zones. However, maintaining the of the current amount of trees remains a significant problem, as their condition currently requires additional assessment. The greenery of the avenues has undergone serious degradation, caused by the successive widening of lanes, as well as due to air pollution. It seems that the city has, to a large degree, squandered the efforts of previous generations, which created a compositional framework for a green park. We addressed the problem of the preservation and adaptation of greenery within the solutions that were developed as this was one of the most important problems to be taken into account during the design process.

The variant which features the reintroduction of green areas into the space of the avenues is the *Green Gardens of the Avenues*¹² conceptual design [Ill. 4, 5]. In this solution, the removal of the external road lanes was intended to widen the pavements and introduce trees near the buildings. The tramline, which was laid in the middle of the green belt, took up the space of the currently under-used footpath. The concept assumed the revitalisation of the green zone and an introduction of a green pergola that would shield and dampen the noise resulted from the tramline. The greenery would also protect the passengers waiting at tram stops. A part of the roof of the pergola is planned to be converted into a public garden space, isolated from obtrusive traffic. Greenery was also meant to be introduced onto the walls of the neglected, grey houses – this would not only improve the aesthetic but also the environmental qualities of the location.

¹² Authors: Magdalena Jawień, Katarzyna Grzych, Katarzyna Ner, Ewelina Stypułkowska, Monika Trzaska; under the supervision of A. Faron, B. Homiński and K. Racoń-Leja.



Ill. 4, 5. The *Green Gardens of the Avenues* – design concept developed as a part of the *ATW 2,0* workshop. Authors: Magdalena Jawień, Katarzyna Grzych, Katarzyna Ner, Ewelina Stypułkowska, Monika Trzaska; under the supervision of Aleksandra Faron, Bartłomiej Homiński and Kinga Racoń-Leja



III. 6, 7. The *Woonerf Along the Avenues* – project developed as a part of the *ATW 2,0* workshop. Authors: Monika Binkowska, Marianna Marszałkowska, Edyta Ptasznik, Kinga Stafin, Magdalena Wegrzyn; under the supervision of Aleksandra Faron, Bartłomiej Homiński and Kinga Racoń-Leja

The conceptual design of the *Woonerf Along the Avenues*¹³ [Ill. 6, 7] seems to be an interesting proposition for the city. For some time, proposals of introducing of living streets¹⁴ have been appearing in Poland and have been met with much interest from residents. One example is Łódź, where, due to the initiative of citizens, the process of revitalising urban spaces is to be carried out by the introduction of a concept of shared space streets. In the case of the avenues, we can attempt to create service streets placed next to the buildings in residential sections. Their character should lean towards the living street, a friendly public space for the residents. A woonerf could also separate residential areas from the busy street. Theoretically, this approach could cause the residents to return to the avenues.

Work intended to calm the traffic in the area of the Trzech Wieszców Avenues will improve residential spaces, it is anticipated that this will lead to the return of small businesses on the ground floors of buildings and will also improve the desirability of pedestrian zones. It is also important to consider opportunities to use space in new forms – this should also take into account the needs of students. Thus, we have the proposals of various academic activities near University of Agriculture and AGH University of Science and Technology, or an area with summer cafes that would be an extension of Park Krakowski¹⁵. Less formal solutions could allow some sections of the avenues to become spaces for young people. The key problem here is the necessity to reinforce the connections between each side of the street by widening its crosswalks as well as the inclusion of pedestrian crossings in the wider pedestrian network in order to improve the comfort of people walking in the city.

3. Discussion and Conclusions

Initiating public consultation is an important part of reshaping public spaces; a couple of such discussions have already been organised in Krakow, for example, in the Krzysztofory Palace and at the Faculty of Architecture at Cracow University of Technology¹⁶. Discussions on the results of the ATW 2,0 workshop have highlighted the divisions among the residents of Krakow. The citizens expressed many different attitudes towards the subject of transport. Critical comments by proponents of individual transport were focused on the overall idea of traffic calming, showing just how much needs to be done in connection with the attitudes of residents in terms of mobility.

The more extreme opinions included accusations of conceptual designs not considering the complete elimination of individual transport from the avenues. This variant was rejected during the course of the workshop due to its current improbability; such solutions could lead to a significant growth of traffic within the surrounding urban structures. This would also require an immense transformation in the chosen transport modes of residents – forcing

¹³ Authors: Monika Binkowska, Marianna Marszałkowska, Edyta Ptasznik, Kinga Stafin, Magdalena Węgrzyn; under the supervision of A. Faron, B. Homiński and K. Racoń-Leja.

¹⁴ Woonerf – living street or shared space street (authors' note).

¹⁵ Park Krakowski – a park adjacent to the Trzech Wieszców Avenue (authors' note).

¹⁶ A public discussion of the results of the *ATW 2,0* workshop took place as a part of the Mobility Forum at the Krzysztofory Palace, with the participation of the local press and the media (15.06.2016) as well as of the Open Urban Planners' Discussion Forum entitled 'Traffic Calming in Krakow' (22.06.2016).

them to abandon cars in favour of public transport. On the other hand, the quality and size of the public and green spaces in the centre would, without doubt, be the largest. Instead of selecting this solution as one of the variants, the possibility of introducing an independent, underground tram line that would free up the public space at ground level was proposed.

Mostly positive reaction of the listeners to the forecasted changes, leading to an improvement in the quality of public spaces, was a surprise to everyone. There were also rationalising ideas, proposing to start planting trees by the municipality which could grow and await being replanted in the future at the regained green areas along avenues.

Avenues, boulevards and promenades have always introduced unique and timeless values into city environments. Discussion on the history of Trzech Wieszców Avenue inspire numerous questions about the surroundings of the transport areas of the city. One can get the impression that the architecture of the street is a topic which has been completely ignored in modern planning in Poland. The façades of streets, the accentuation of corners, the rows of trees, arcades and commercial passages, even wide pavements have disappeared from our urban planning. Does the modern alphabet of urban design allow us to make use of an urban avenue, a boulevard or a promenade? The rich typology of streets that has been reduced over multiple decades has been replaced with a classification of roads, with its functional language limited to such terms as: artery, collective, local or access road. The plentiful structure of the city that was built over the centuries, especially in the XIX century, has been simplified.

The current economic approach adopted in spatial planning seems to be indifferent to efforts leading to the beautification of cities. In light of the simplified form of architectural recording, we should cease to be amazed at the fact that projects designed by architects who are members of the New Urbanism movement are so successful. The term 'new', in this case, means a return to forgotten architectural motifs and their implantation in urban design.

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