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Abstract. Nowadays, the need of "return to the river" is universally recognized. The human need for contact with elements of the natural environment is particularly emphasized, in connection with our increasingly processed environment. In a number of publications in the field of architecture and urban planning, the role of these natural areas in shaping coherent, sustainable urban structures is also underlined. The aim of the article is to indicate the potential use of the corridor formed by the river and the areas constituting its neighbourhood for shaping the urban space: in a functional, compositional and ecological sense. As an example, the Vistula River in Cracow was chosen. The research covered areas that are close to the river within the city's administrative boundaries. The Vistula Valley in Kraków creates a special space in which natural and cultural values intermingle. Over the centuries, both the spatial structure of the city and the layout of the water network ¬ resulting from its natural transformations and the use of its elements for economic or defense purposes - have changed. The special cultural value of the Vistula river valley in Krakow is represented by the medieval urban layouts of the Old Town, Kazimierz, and Podgórze, as well as unique historical complexes and buildings. The historic buildings accompanying the river have significant compositional significance, being dominants or observational closures, building and deciding on the unique beauty of this Krakow salon. From the point of view of environmental values in the analyzed area, focus is drawn to the western and eastern zone of the Vistula valley. In the eastern part of the Vistula valley, particular attention should be paid to the occurrence of geothermal water deposits located in the region of Przylasek Rusiecki and Wyciąża in the vicinity of the Vistula river corridor. The analyzed area, due to its natural and cultural value, should play an important role in shaping the spatial structure of Krakow. As a linear area, it can become an important and attractive public space. Due to the extent of the area on which the research was carried out and the complexity of the research problems, some of the issues are only sketched in the article, signaling the values and significance of the studied area, and generally indicating the principles and possibilities of using these values to shape and improve the quality of urban space.

1. Introduction

As has been seen throughout history rivers were always an integral part of human life and activity, and the expansion of settlements was strictly correlated with the river system. [1] A large body of literature discusses a variety of functions performed by rivers in the course of historic urban development such as utilitarian, compositional, cultural or defensive ones. [2, 3] However, once no longer valid, even for transportation purposes, heavily polluted, with industrial facilities disappearing from their banks, rivers lost their importance and cities “turned away” from them. Consequently, abandoned waterfront river areas have become increasingly neglected.
Nowadays, the necessity to „return to the rivers and reclaim their waterfront areas” has been widely recognised. The notion addresses such a basic human need as contact with natural environment, which has become difficult to fulfil due to the increased artificiality of everyday human surroundings. The issue is raised in numerous papers in the field of psychology, in particular environmental psychology, sociology, philosophy, ecology or medicine. It is also reflected in the latest architectural and urban solutions development in compliance with human needs. At the same time numerous studies in the field of architecture and urban planning indicate that those river waterfront areas can play an important part in shaping consistent, sustainable urban structures [4].

The following paper while outlining current problems concerning spatial planning and use of the riverside areas, makes an attempt to point out those space elements, which once integrated would enable the creation of a cohesive spatial structure establishing new spatial, functional and ecological relations with various elements of urban tissue. The way of shaping nodal points of a given space, interactions between them as well as the urban tissue, are of primary importance for achieving the effect of cohesion.

The research covered the waterfront river areas along the Vistula’s banks within the administrative city borders, this is a 41.2 km long sector. The study involved carrying out field inventories including photographic documentation, as well as analysing studies, project designs, strategy papers and planning documents concerning the given area. While conducting the survey, due to the specific, linear character of the terrain, a particular attention was paid to preserving its continuity and openness especially in relation to areas situated both longitudinally or transversally to the river flow. It is relevant not only for ecological but also urban considerations as it provides more opportunities to establish functional and special relations with different elements of urban structure as well as the areas outside the city proper.

Subsequently, conclusions were drawn on the basis of the obtained synthesised results.

Given the extent of the research terrain and the complexity of the research issues, the paper focuses only on some of them, describing the advantages and values of the given area and discussing generally principles, which can be applied to achieve urban spatial integration.

2. The Vistula River Valley in Krakow – a cultural and natural space (an overview)
The Vistula River Valley in Krakow is a unique space of interwoven natural and cultural values, which resulted from gradual transitions of city spatial structure [5] taking place over the course of centuries accompanied by modifications of the waterway network system [6], which occurred either due to natural causes or were introduced for economic or protective purposes [7].

The importance of cultural heritage of the Vistula River Valley within Krakow was officially recognised in 1994 when it was awarded Monument of History status [8]. In 1997 it appeared on the UNESCO World Heritage list which included the medieval chartered City of Krakow, the town of Kazimierz and Podgórze as well as the Wawel Hill complex. Historic developments along the river banks are of significant compositional value framing scenic vistas and enhancing the beauty of the Krakow townscape.

However, when natural assets are concerned the western and eastern sections of the Vistula River Valley [9, 10] situated in the research sector, are of significant interest. The western part of the valley encompassing the area from the city boundaries to the Rudawa estuary on the left bank and Twardowski Rocks on the right one, lies within Bielańsko-Tyniecki Landscape Park. Vast grasslands of Kostrzce, Bodzowo, Tuniec and Pychowice are one of the park’s valuable assets. They are partly protected by means of the Natura 2000 network as “Dębnicko- Tyniecki meadow area” (PLH120065), comprising four grasslands with the total surface of 282,9ha and as”Skawiński meadow area” (PLH120079) of 44,1 ha. Tynieckie woodlands with Skołczanka nature reserve and the Wolski forest complex with the nature reserves of Bielańskie and Przegorzalskie Rocks also fall within the boundaries of Bielańsko-Tyniecki Landscape Park. This section of the park features an alluvial forest of unique natural value situated on the Vistula terrace within dikes in Przegorzały and the ecological reserve “Uroczysko Kowadza”.

In the eastern part of the Vistula River Valley the only area qualifying for conservation protection is the Vistula oxbow lake in the vicinity of the Central Square in Nowa Huta with “Nowohuckie Meadows”
(Figure 1) which play a double role of being an ecological reserve and a protected bird habitat (PLH120069) at the same time. Two woodland complexes can be found nearby: Łęgowski Forest along the estuary section of the Łegowski Stream and Mogilski Forest at the Dłubnia river estuary, which is the only remnant of the elm-ash forest in the whole Vistula River Valley. Whereas the vicinity of Przylasek Ruciecki and Wyciąż features geothermal water sources as well as water reservoirs bustling with a variety of flora and fauna, which replaced former excavation sites. Right-bank park complexes such as National Education Parki, Dębnicki Park, Twardowski Rocks or Florian Nowacki Plany Park in Podgórze are all significant elements comprising the green corridor of the Vistula river.

3. Waterfront river areas and their functional and spatial relations
The Vistula river with the terrains in its vicinity constitutes a functionally diversified area with many users. Due to a variety of potential solutions regarding urban planning as well as nature conservation, it is necessary to outline types of current investment being carried out as well as projects regarding spatial planning and land use in the vicinity. The analysis of the accessibility of the river waterfront areas taking into account occurring barriers and their character as well as the existing communication routes and transport hubs, bridges and their relations to the analysed terrain, must also be conducted.

The Vistula’s vicinity comprises both urbanised and unurbanised areas, the former situated mainly in the central part of the river valley, the latter ones of great natural and cultural value, found in the eastern and western sections of the city.

3.1. The specificity of areas in the central part of the river valley (an overview)
The Vistula River Valley in the city proper, constitutes, as it has been mentioned earlier, a truly unique cultural space with modern developments contributing considerably to the overall effect. Contemporary buildings of landmark and functional value situated in the vicinity of the left bank of the Vistula river include: Manggha Museum of Japanese Art and Technology opened in November 1994, in constant scenic relations to the Wawel Hill, and ICE Krakow International Conferences & Entertainment Centre completed in 2016. The right bank of the Vistula river is occupied by CRICOTEKA, the Centre for the
Documentation of the Art of Tadeusz Kantor located at Nadwiślańska Street in Podgórze, active since 2014. Further away, in the eastern direction one can encounter the campus buildings of Andrzej Frycz Modrzewski Krakow University together with MOCAK Museum of Contemporary Arts situated nearby at Lipowa Street opened since May 2011. Both developments play a significant part in redefining the image of this, until recently, neglected industrial part of town. One should not overlook the left-bank Museum of Municipal Engineering established in 1998 at the former tram depot for narrow-gauge electrical vehicles at Wawrzyńca Street.

There is a lot of controversy regarding violating scenic properties of the central Vistula River Valley by the unfortunate locations of the berthing area for restaurant barges there, especially at the embankments between Dębnicki and Grunwaldzki Bridges (Figure 2), as well as at the Wołyński Boulevard opposite Pauline Monastery on Skalka.

Moreover, town planning and legal decisions must be taken with regards to a right-bank river area of significant scenic, compositional and functional values situated between Grunwaldzki Bridge and the Vilga estuary with unused buildings of the “Krakow Beach” complex and nearby “Forum” hotel closed in 2002. Currently its waterfront elevation constitutes the longest billboard in Poland. When opened in 1998, the hotel was one of the most modern building not only in Krakow. Since 2013 a part of the former hotel complex has been taken over by Klubokawiarnia “Forum Przestrzenie” and the project Wyspa Forum with its sections devoted to fashion, design or workshops (Forum Mody, Forum Designu, Forum Pracownie, Disappearing Point). Outside the building, on the plot of 5000m2 a variety of events, such as festivals, concerts, fairs and workshops for kids are organised. There is a skating rink in the winter and in the summer, after the sunset, while reclining on deck-chairs, one can take part in film viewings of “Filmowe Lato” open air cinema. This year the walls of the Summer Forum Pavilion were adorned with works of unconventional artists within the exhibition ABSTRACT FORUM 2017.
3.2. Touristic and recreational assets of the Vistula waterfront areas

The Vistulan Boulevards corridor located between the Rudawa estuary and a railway bridge in Zabłocie just below Powstańców Śląskich Bridge resemble a city promenade in character. Two-level flood-prevention developments [11] structured from stone retaining walls were constructed between 1907 and 1913 along both river banks and constituted a part of the Danube-Oder-Vistula-Dniester channel. Loading docks and wide platforms, the left bank ones of even 20m width, were placed between internal and external walls. The boulevards also housed roads and railways built along the riverbed: on the left bank - leading towards the platform of Kraków-Grzegórzki rail station, while on the right bank - to industrial areas of Zablocie and Płaszów railway station.

A section of Vistulan Boulevards between Powstańców Śląskich Bridge and the Bernatka Overpass is included in the “Industrial Monuments of Krakow Route” opened in June 2006. Some of the technical monuments covered by the trail are located in the vicinity of the river, for instance the Vistulan Boulevards, Municipal Gasworks built between 1856 and 1857, the abutments of Podgórski Bridge constructed between 1844 and 1850, Marshal Józef Piłsudski Bridge officially opened in January 1933, Municipal Power Plant in Podgórze built between 1899 and 1900, as well as a power plant in Krakow constructed between 1904-1905 and a former tram depot from the turn of the nineteenth and twentieth century “Historical Route of Podgórze” also begins at the Vistulan embankments near Piłsudzki Bridge while terminating at Krakus Mound. “Krakow Trail of Saints” and “In the Footsteps of John Paul II” route opened in 2002, pass through Czerwiński and Inflancki Boulevards, then Grunwaldzki Bridge, to continue through Dębniki district. Vistulan embankments also host numerous international sports and cultural events such as the Cracovian Marathon since 2002 or “Wianki” an all-night open-air festivity since 1992. The latter takes place every year in June in the bend of the Vistula river and cultivates traditions relating to the mysterious and magical celebrations of Midsummer’s Eve. The event includes a competition for the most beautiful garland, an evening sound and light show and fireworks display at the Czerwiński Boulevard. For a several years now embankments are also frequented by the “Dragon Parade”.

The linear character of the research area and its potential connectivity via left- and right-bank tributaries, with the suburban terrains of significant cultural and natural value, make the river waterfront areas an ideal candidate for pedestrian and bicycle routes. There are currently two cycling routes through the Vistula valley. The first one is a right-bank 11.5km-long route “Krakow -Tyniec” leading from Tyniec towards Niepołomice along the top of a levee. The route incorporates such sights as for instance the Benedictine monastery in Tyniec, the Bodzów 53 Fort or Manggha Museum of Japanese Art and Technology. The other 6.5km-long “Bulwary Wiślane “cycling route stretches along left-bank Vistula embankments from the mouth of the Rudawa river to the estuary of the Płdnik (Białucha) river. Both routes constitute a fragment of the so-called Amber Road Vienna-Gdansk and EuroVelo4 going from Roscoff in Brittany through Paris, Prague and Krakow towards Lviv and Odessa. The eastern side of the Vistula River Valley is reached via the so-called “Nowa Huta-Dłubnia Greenway”, a 32km-long route, which is a local loop of the Amber Road and comprises three cycling loops: “Dłubnia Loop” marked out in green, “Cracow Fortress Loop” marked out in black and “Old Nowa Huta Loop” marked out in red.

Nowadays, the Vistula river is very rarely, and to a little, extent utilised for commercial and tourist navigation purposes or city transport. The water tram opened in 2009 as a part of “Touristic inland waterways on the Vistula in Krakow” project, operates on just two routes: Dąbie (Lock)-Tyniec and GaleriaKazimierz shopping centre- Wawel-Salwator. There is no route between Tyniec and areas located in the eastern part of Krakow, thus isolating both of them from the city proper and limiting tourists’ interaction with the historical and modern heritage associated with those parts of Krakow. However, two tourist routes “Architecture and town planning of Nowa Huta” and “Forgotten heritage of Nowa Huta” enable one to get a real insight into the Nowa Huta district and include a variety of cultural and natural monuments from the Cysterian Monastery in Mogila with the wooden church of St Bartholomew, town planning of the old part of Nowa Huta, manor houses, palaces and sacral buildings
of Branice, Ruszcza, Wadów, Kościelniki and Krzesławice to rich flora and fauna of the “Nowohuckie Meadows” reserve and water reservoirs in the vicinity of Przylasek Rusiecki.

Former waterway function of the Vistula is confirmed by the existence of a salt warehouse building preserved in Zabłocie and two no longer active water ports: „Plaszów Port” and „Kujawy Port”. The latter built in 1949-1954, connected with the Vistula river via a port channel, was also used as a marina for yachts.

3.3. Nodal points on the Vistula river waterfront

The river with the accompanying waterfront combine different functions and connect various areas not only longitudinally in relation to the river flow but also transversally, thus dividing the existing city structure. This in turn gives rise to the need for establishing physical river spanning structures in the form of bridges, pedestrian and bicycle footbridges or ferry crossing facilities. It is worth mentioning that their location, form, readability, validity of spatial connections with other elements of urban structure and spatial interaction values, for instance scenic ones, may significantly enhance the attractiveness of the waterfront river areas.

Over the entire length of the Vistula riverbed within city administrative borders, there are eleven bridges, including three railway ones and just two footbridges for pedestrian and bicycle use. One situated near Kościuszko navigation dam and the other one, the Bernatka Overpass connecting the districts of Kazimierz and Podgórze, opened in September 2010, built at the site of the no longer existing Podgórski Bridge.

Bridges are often significant urban nodal points due to their performed functional or landscape roles, for instance as a part of a scenic vista or a vantage point. Along the Vistula riverbed in the city proper, one can identify two such hubs in the vicinity of Dębnicki and especially Grunwaldzki Bridge. Both of them channel heavy car and pedestrian traffic, and in the case of Grunwaldzki Bridge additionally a great number of trams. The place where those two major communication routes join is the Grunwaldzkie Roundabout, the biggest interchange in the vicinity of the Vistula embankments. Marii Konopnickiej Street intersecting the roundabout while parallel to the riverbed constitutes a clear powerful linear barrier separating the district of Dębniki from the river waterfront. And neither the existence of narrow underpass located near Debnicki Bridge nor the car tunnel under Marii Konopnickiej Street connecting the areas of the Podwawelskie housing estate in Debniki with those in the neighbourhood of Wołyński Embankment, cannot counteract the effect. Grunwaldzki and Dębniicki Bridge along with their immediate vicinity are major vantage points for viewing historical objects and urban complexes of the Old Town and Kazimierz, while in the case of Dębniicki Bridge, also objects situated in the western part of town, for instance the vicinity of the St. Norbert Convent in Salwator.

Wharfs, river ports and water tram stop can also be included in nodal points of the analysed area. One of the biggest sports attraction situated near the city border, in the western part of the Vistula River Valley and the vicinity of the Benedictine Abbey in Tyniec, is a white-water canoeing course and Kolna Sport and Recreation Centre. The facility, one of the eight in the world, has been officially approved as a Continental Training Centre for White-Water Kayaking. Even though situated outside of the public transport network, it can be easily accessed via cars, a water tram or the Tyniecka Route devoted both to pedestrians and cyclists. Two historical sports clubs with canoe sections are located in the neighbourhood of this sport and recreation complex on the Vistula river. The older one is Nadwiślański Sports Club funded in 1932 with its canoe section active since 1952 and a club canoe marina opened since 1972. The other one – Kolejowy Klub Wodny- funded in 1929 operates mainly in the district of Zwierzyniec and its canoe section has been active since 1955. Further along the river bed, below Wanda Bridge, in the eastern section of the Vistula River Valley one can also find Yacht Club - Nowa Huta opened since 1955 with marinas dedicated to yachts, canoes or boats.

Estuaries of the main Vistula tributaries constitute significant natural nodal points of the analysed area. Their valleys, linear and continuous in character, once shaped as public spaces might be capable of integrating waterfront river areas with various elements of spatial urban structures. Land-water interfaces are of special importance in this context. The Vilga river valley provides a good example in
this regard. It flows into the Vistula river in the city proper area, between Wołyński and Podolski Embankment spanned by Retmański Bridge. Along its riverbed numerous historic buildings and complexes, including the ones related to health-resort medical treatments, can be found. The Divine Mercy Shrine and Saint John Paul II Shrine, important Christian pilgrimage sites in Łagiewniki are also located in the Wilga river vicinity. Nodal points of unrecognised potential but similar significance among left-bank tributaries would be the Rudawa estuary near the St. Norbert Convent, a remarkable site in the cultural city space, along with the estuaries of the Białucha (Prądnik) and Dłubnia, rivers of considerable historical significance.

4. The Vistula as an element of proecological spatial shaping of the urban space

The river along with green areas situated in its vicinity, plays an important part in urban areas, especially in the sense of encouraging their pro-ecological development. Being a linear element, the river acts as an ecological corridor, providing spatial cohesion between other elements comprising urban ecological system. River’s performance and role in urban space depends mainly on its preserved continuity and natural qualities as well as types of investments made in the waterfront areas.

Within Krakow boundaries the main ecological corridor of international significance constituting a part of the EECONET is the Vistula River Valley, which connects three important national core areas: The Niepołomice Forest (23K), Krakow (16K) and Beskid Śląski (29K).

However, the ecological system of the city and how it functions is also significantly influenced by the valleys of the Vistula’s tributaries: The Rudawa, Białucha (Prądnik), Dłubnia, Kościelnicki stream, Wilga and Serafa, with their own network of streams and brooks.

The left-bank tributaries link the Vistula corridor with areas of significant natural and cultural value comprising a part of the complex of Landscape Parks in Lesser Poland voivodship, situated on the north and west side of the city. The Rudawa river valley lies within Rudniański and Tęczyński as well as Krakow Valleys Landscape Parks, while the Dłubnia river valley outside the city borders falls within the area of Dłubniański Landscape Park.

As far as the Białucha river valley is concerned establishing a connection between the Vistula waterfront areas, the Ojcowski National Park and Krakow Valleys Landscape Park is significantly hindered within the city borders by a variety of occurring surface and linear barriers and types of investments carried out at the river waterfront [12].

Among the right-bank tributaries the Wilga river valley is especially worth mentioning as it interconnects via the ecological corridor, the Vistula waterfront with the areas of the Świątnickie Foothills and Wieliczka, where on the outskirts of town the Wilga’s sources are located.

5. Provisions in planning documents concerning the role of the Vistula River Valley area within Krakow boundaries.

The document entitled “The Study on Conditions and Spatial Development Directions for the City of Krakow” has included the Vistula river valley as a component of the natural system of the city and designated it an ecological corridor. Due to its longitudinal layout overlapping the predominant wind directions in the city area, the valley plays an important part in shaping the climate and microclimate [13] of Krakow, and especially its ventilation. The phenomenon is greatly influenced by the valleys of the left-bank Vistula tributaries which provide an outlet route enabling the air masses to flow from the terrains situated at higher altitude in the northern part of the city, right into the Vistula River Valley.

The above-mentioned municipal study has also included provisions regarding rivers and streams of Krakow along with the vegetation in their vicinity, which are to be combined into a river park system and constitute a permanent part of spatial city structure. The study has also defined their spatial development directions [13p.174]. The Vistula River Park is one of the seven designated river parks. However, in order to make the idea of the river parks reality, it is essential to acknowledge the need for their existence and introduce provisions necessary for their realisation into local spatial development plans.
Currently, there are 163 local development plans active within Krakow, which altogether cover 51.4% of the city area. Eleven of those plans include, in different degrees, terrains, which, when combined, will ultimately create the Vistula River Park. Whereas, eight of those local plans are at different stages of development. As the area should be shaped into a coherent, continuous, linear structure, verifying relations between current plans seems relevant. In case of nine of those plans, one bank of the Vistula river bed is designated as one of the plan’s boundaries, subsequently, the river bed constitutes the area where seven of them overlap. The boundaries of “Bulwary Wisły” spatial plan [14] are most advantageously defined as they enable undertaking such measures that would affect the total of the existing above-water space in a coherent way. As the study points out, the plan focuses on the key area for the cultural development of the city. Both banks and the river bank fall into the plan boundaries and its total surface area encompasses 168.2 ha. However, the lack of spatial development plans for Zwierzyniec, Stradom and Grzegórzki areas situated in the vicinity of “Bulwary Wisły” development, raises serious concerns. In April 2016 “Bulwary Wisły II” local spatial development plan was initiated.

All the existing plans acknowledge the necessity to structure publicly available recreational areas of the Vistula river valley, as well as the necessity to provide spatial connection between those areas and different elements of urban structure. They have also highlighted the role performed by the region in the city ventilation system and its function as an ecological corridor. Main cycling and pedestrian routes are to be created along the waterfront river areas. In many cases, setting up new vantage points and introducing other recreational elements have been suggested. Provisions have appeared in the “Dłubnia-Mogila” plan to continue cycling routes of “the Amber Road” as well as those of Nowa-Huta, to set up a canoeing trail on the Dłubnia river and to further develop existing building and areas related sport and recreation.

Among the plans being currently developed special attention should be paid to the one designated „For chosen natural areas of Krakow” [15], whose total surface area is equal to 3321.9 ha, and which encompasses 215 chosen parts of Krakow. Those are green areas of substantial size, predominantly privately owned, with the significant part of them situated in the eastern section of the Vistula valley, on the border between Krakow and Wieliczka. They can also be found on left bank of the river, where they form an 18 km-long segment of the southern city boundary.

The purposes of the plan is both conservation of the natural, historical and scenic qualities of those areas and providing protection against aggressive investment policies. Given the time needed to prepare and develop the plan, and the fact that it covers numerous areas, there is a reason for a well-founded concern, that decisions on land development conditions for some of the areas will inevitably be issued before the final version of the plan will be approved.

However, there are still areas with no local spatial development plans set up, which is especially worrying in the context of the terrains situated in the centre of the city bordering northern section of “Bulwary Wiślane” spatial development as well as areas of significant role in shaping and protecting natural environment and the river valley landscape, placed in the western and eastern part of the city.

6. Summary and conclusions
The conducted research indicates present and still partially untapped potential of the Vistula corridor and its waterfront area to shape and integrate urban structures of Krakow. However, there is a lack of clear interconnection between individual elements comprising the analysed space.

The linear character of the analysed area requires creating a series of spaces with coherent natural and cultural character which would be safe and interesting for different groups of users. A special attention should be paid to select proper function and character of the buildings which are to be constructed in the waterfront areas, especially in the city centre as well as their mutual space relations. Historical objects and complexes situated in the river vicinity await measures that would enhancing their scenic visibility and include them in the cohesive presentation of the waterfront areas, which could be achieved by proper shaping pedestrian routes and vantage points.

The accessibility of the research area needs to be increased, by means of setting up new pedestrian and cycling routes connecting waterfront terrains with, for instance, the corridor of Rudawa and Dłubnia,
which similarly to the Vilga valley would offer new connections to those making a pilgrimage along “In the Footsteps of John Paul II” trail. There is a clear need for establishing water connection between the western and eastern part of the Vistula corridor, that is between Kolna Sport and Recreation Complex with the waterfront areas in the vicinity of Nowa Huta Yacht Club and sports and leisure facilities in the Dłubnia valley. The existing water objects and water sports and leisure facilities are underused and not prominent enough in the river space context.

Areas situated in the western part of the Vistula valley despite their significant natural qualities, are still under pressure from potential investors. In case of the eastern areas of the valley the situation is similar. Dominated by industry until recently, the terrain requires protection of its natural and cultural values as well as sensible development projects.

As a linear element of the urban space, the area should be developed as a whole preserving all its assets, that is not only its natural values but also continuity and openness. Currently, only a fragment of this terrain is covered within the spatial development plan, which does not guarantee its proper protection and development. Attempts at narrowing the valley by constructing buildings at the river waterfront or investors’ efforts to obtain a spatial development decision concerning a given property before a local spatial development plan for the whole area is approved, give rise to serious concerns.

One can point out a variety of Polish and European examples which succeeded in creating coherent riverfront areas which play an important part in urban structure integration. The scale and type of applied solutions is highly diversified. Vistula Boulevards, however, with their historical, cultural and natural qualities still wait to be properly utilised in the process of shaping spatial space of the historical city of Krakow.

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