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Revitalization of River Valleys and Development of Tourism (Lublin and Puławy Study Case)

Abstract: River valleys are special zones in the structure of the city. In many cities, a river valley forms one of a few open spaces with free exchange of the air and specific microclimate. River valleys are also elements of social ties and concentration of inhabitants, who fulfill their own needs of social relationships, leisure and sport. Rivers have the ability to create typical places, characterized by originality of form, function and content; and magical unusual places. Thanks to them the city is recognizable and associated by inhabitants as well as visitors. Riverside areas, emphasizing individuality and unique character of cities-on-river, have become strategically important for city development. Revitalization, as the main direction of Polish cities development in the first half of the 21st century is considered as the chance for new quality of riverside urban space and improvement of river valleys functioning in cities. Revitalization activities can contribute to the improvement of life quality and increase touristic potential of cities.

The main aim of the paper is to analyse the relationship between revitalisation and the development of tourism and recreation in relation to urban stretches of river valleys. The analytic-synthetic method was used in the research to show the attractiveness of urban riversides based on literature. Furthermore, comparative studies were carried out concerning the relationship of revitalisation vis-à-vis tourism and recreation¹. Two locations in Lublin region were selected for this purpose: Lublin and the Bystrzyca valley (a large city and a small river, the valley forming the axis of the city), and Puławy and the Vistula valley (a medium-sized town and a large river whose valley adjoins the town). Attention is given to provisions concerning the revitalisation of river valleys (urban space within river valleys) in strategic documents, particularly local revitalisation schemes, and examples of measures improving the attractiveness of riverside areas. The final remarks present revitalisation measures carried out within urban stretches of river valleys.

Key words: revitalization, tourism, river valley, Lublin region

Introduction

Valley bottoms constituted the first component of natural environment to be used and modified by man. Location on the banks of a river was an advantage that boosted the development of towns and cities. A change in the socio-economic conditions changed the way valley bottoms were developed. When a river valley lost its harbour, industrial or transport functions, its recreational role became increasingly significant. However, landscape continuity was disrupted and river valleys became unattractive for recreation due to changes in their

environment (polluting water, lining the river channels with concrete, establishing transport routes as well as industrial and storage facilities). Revitalisation¹, the main development trend in Polish cities in the first half of the 21st century, is considered to be an opportunity to bring a new quality to urban riverside spaces and improve the functioning of river valleys in cities (Bernat 2007a). Revitalisation measures are aimed at improving living conditions and the tourism potential of cities.

¹ As defined by the Polish association *Forum Rewitalizacji* (Revitalisation Forum), revitalisation is a process of spatial, social and economic changes in degraded urban areas, aimed at improving inhabitants' quality of life, restoring spatial order, achieving economic recovery and rebuilding social ties.

The research objective is to analyse the relationship between revitalisation and the development of tourism and recreation in relation to urban stretches of river valleys. Accordingly, the following research questions were formulated:

Does the development of tourism and recreation require revitalisation measures?

Should revitalisation be linked with tourism and recreation investment projects?

What should revitalisation involve in order to help the development of tourism and recreation?

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concerning the relationship of “revitalisation vis-à-vis tourism and recreation”. Two locations in Lublin region were selected for this purpose: Lublin and the Bystrzyca valley (a large city and a small river, the valley forming the axis of the city), and Puławy and the Vistula valley (a medium-sized town and a large river whose valley adjoins the town). Attention is given to provisions concerning the revitalisation of river valleys (urban space within river valleys) in strategic documents, particularly local revitalisation schemes, and examples of measures improving the attractiveness of riverside areas. The final remarks present revitalisation measures carried out within urban stretches of river valleys.

Attractiveness of Urban Riverside Space

River valleys are an important part of urban space and play a key role in the functioning of natural environment and the recreation of city dwellers. In many towns and cities, a river valley forms one of the few open spaces allowing a free circulation of air and having a peculiar microclimate. A river lends particular value to a riverside town and sets off the local architecture, emphasising the essence of the urban structure and enabling a positive perception of urban space. Well-arranged urban riverside space serves to fulfil the needs of residents, namely the need for variation and stability, tranquillity and buzz, calm and movement, solitude and belonging to a community, anonymity and appearing in public, individual expression of one's personality (Wallis 1971). Such space enables spontaneous actions alleviating the monotony and stress of the daily routine; mental and physical relaxation is achieved through entertainment, sports, and recreation (Pancewicz 2003).

Vast panoramic views stretching from the high points of riverside landscape and vantage points situated within and outside the city limits are the hallmarks of urban landscape handed down through generations. They reflect the history of a city, lend culture a sense of stability, and enable a three-dimensional, spatial

perception of a landscape setting. A reflection of an urban panorama in the water, the clarity of a landmark or suitable lighting often highlight the character of a place. The attractiveness of urban riverside space can also be increased thanks to well-designed boulevards, bridges and footbridges (Pancewicz 2003; Gubańska 2009). The shaping of public spaces enabling direct contact with the river is conducive to bringing both sides of the river together and reducing barriers created by the river. One should bear in mind that people experience not only visual sensations, but also the sounds and smells of the water. The soothing sound of the water and a cooling breeze on a hot day are the reasons why people like spending time by the waterside provided that the water is sufficiently clean and free of offensive smells and noise (Bernat 2010).

The Greater London Authority attaches importance to riverside boulevards, parks and squares as reservoirs of tranquillity and balance. Soundscape management in these areas is a major challenge in *Sounder City. The Mayor's Ambient Noise Strategy*². Model schemes for soundscape improvement are promoted through public-private partnership. Noise is reduced and the most valuable, varied acoustic

² *Sounder City. The Mayor's Ambient Noise Strategy*. Greater London Authority 2004. http://www.london.gov.uk/mayor/strategies/noise/docs/noise_strategy_all.pdf.

landscapes are preserved through appropriate planning.

The soundscape of Warsaw used to be inextricably linked with the Vistula. The sounds emitted by river boats and the shouting of their crews formed part of the city's identity. Since the demise of navigation on the Vistula many years ago, the river's presence in Warsaw's public space has been decreasing, overshadowed by the omnipresent noise of the traffic. However, there exists a soundscape that can be personally experienced through direct contact with the river. Depending on individual sensitivity, one can hear the lapping of water against the sandy banks. Finding such tranquil places, however, is difficult because of the limited access to the river itself. We can see the Vistula, but we cannot hear it. It has been proposed to install water wheels on barges on the Vistula close to the riverbank in order to create a zone of tranquillising sounds in Warsaw (Skalski 2008).

"The Vistula, River of Opportunities" is one of three main themes of the Warsaw's European Capital of Culture 2016 programme³. As the authors of Warsaw's bid for the title emphasise, "this is where we unite our city, this is where we shall build a bridge for the new Europe". The deliverables of the programme include the revitalisation of the Vistula riverside, introduction of recreational and cultural functions, social transformation (linking the eastern and western bank of the river) and highlighting the green assets of the city – a starting point for the implementation of environmentally friendly technologies supporting the city's sustainable development.

Besides Warsaw, other cities are also opening up to rivers. Under the CENTRAL EUROPE Programme, in cooperation with five cities (Bydgoszcz, Brno, Pilsen, Leipzig, Stuttgart), the city of Katowice is implementing the REURIS project (Revitalisation of Urban River

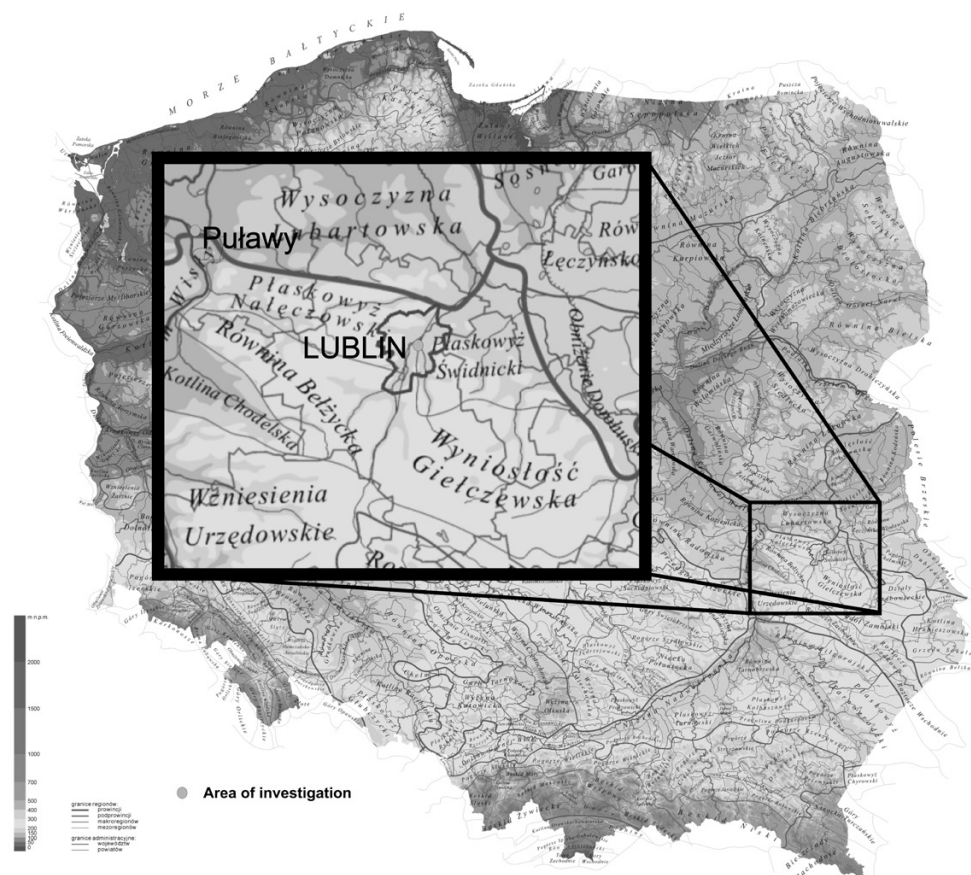


Fig. 1. Localization of the studied area on the background of physiographic units acc. Kondracki, 1998
Source: Author's compilation after Kondracki 1998

³ <http://www.warszawa2016.pl/index.php/pol/Warszawa-ESK-2016/Aplikacja-Warszawa-ESK-2016>.

Spaces) along the Ślepotka river⁴. The project is aimed at developing a common approach to shaping “people-friendly” riverside spaces

in cities. Besides the research part and public consultations, the project seeks to create a new, ordered recreational space for inhabitants.

Lublin – the Bystrzyca Valley

Lublin is the largest city⁵ in eastern Poland; an administrative, economic, academic and cultural centre in the agricultural Lublin region. It is also a borderland city. Tourism plays an important role in Lublin whose assets include a rich history (the Union of Lublin being a major event), multiculturalism and attachment to folk culture. Located in central Poland until the mid-20th century, and in eastern Poland after the Second World War, Lublin lies on important routes linking the East with the West and constitutes an important place where various cultures meet and interact. This “City in Dialogue” was shortlisted as a candidate for the European Capital of Culture in 2016.

Lublin features diverse landforms, including the valleys of the Bystrzyca (a river of the third order, a tributary of the Wieprz), the Czechówka and Czerniejówka (rivers of the fourth order, tributaries of the Bystrzyca), and numerous dry valleys intersecting the loess plateau. The spatial development of the city and the preferred development conditions were fundamentally determined by river valleys. The functions of the abovementioned valleys were changing over the centuries (Kociuba 2003). Initially, the dominant functions were related to natural defence and transport factors; hence, settlements grew within the isolated hills at the confluence of the Bystrzyca and Czechówka. With new advances in technology and the economic and spatial growth of the city, natural factors were giving way to political and economic determinants. It is worth mentioning the important recreational functions of the Bystrzyca and Czerniejówka towards the end of the 19th and at the turn of the 20th century (Trzaskowska et al. 2009). Bathing sites, a bathhouse, a municipal park and a landing stage were located on their banks. The greatest functional changes in the valleys occurred after

the regulation of the hydrologic regime (drainage of the valley bottoms) in the 20th century. Nowadays, Lublin’s river valleys function as traffic routes and serve industrial, residential, sports, recreational, and commercial functions. The Czechówka valley has been subjected to the strongest anthropogenic pressure resulting from the presence of a major traffic artery. Following training works, the river became a straight and quite deep ditch; along a stretch of 909 meters, it flows in an underground canal. The Czechówka valley has become almost entirely urbanised; only a few willows and poplar trees have remained from the natural riparian vegetation, and the wet meadows have been reduced to a lawn adjoining the busy road. The northern slope of the valley is almost entirely built-up, and only small non-built-up areas (mainly allotments) remain on the southern slope.

The Bystrzyca valley within Lublin’s territory is 22.5 km long (30.4% of the entire length of the river), and 0.5-1 km wide (class 3 ecological potential). The valley constitutes the city’s main environmental and landscape axis, dividing the central and north-western part of Lublin, located within the Nałęczów Plateau, from the south-eastern part situated within the Giełczew Elevation. It is the least built-up valley in the city, with relatively well-preserved green areas. Only short stretches of the valley are used as traffic routes. In the 1970s, the Bystrzyca was dammed in the southern part of Lublin to create the Zemborzycki Lake as a recreation area which, however, underwent successive degradation. As it flows through Lublin, the river forms various spatial and landscape relationships. Four stretches can be distinguished that vary in terms of their environmental and cultural value (Trzaskowska, Sobczak 2007). The embankments built along a considerable

⁴ <http://www.reuris.gig.eu/en/home.html>.

⁵ Lublin ranks ninth in Poland in terms of population size (approx. 350 thousand inhabitants).

length of the river in Lublin have reduced its visibility in the city landscape. The river can only be observed from four bridges, a railway bridge, buildings of the Lublin University of Technology, buildings in Romera and Aleje Zygmuntofskie streets, and during a walk or bicycle ride along the riverside path atop the embankment. One should also remember that

the Bystrzyca valley is the key ecological route connecting 12 components of the ecological structure (woodland and meadow complexes, allotments) with the urbanised city centre. Thus it has an important biological, hydrological, and air circulation function. The valley is a major leisure and recreation area for Lublin's residents (a bicycle/walking path, allotments).



Photo 1. The panorama of Old Town in Lublin from the Bystrzyca River bank
Photo by S. Bernat

The Zemborzycki Lake is the most important facility with a recreational function (area: 230 ha, i.e., 1.55 % of the total area of the city; mean depth: 2.3 m). The western banks of the reservoir are adjoined by arable fields and buildings of a village called Zemborzyce. There is a recreational centre, a landing for sailing boats and canoes, bathing sites, a campsite, a ropes course, and a bicycle path around the lake. The recreational use of the lake is impeded by its poor ecological condition (dirty water with a low level of transparency). Widespread toxicogenic blue-green algae (Cyanobacteria), green algae (chlorophytes) and diatom algae have resulted in a temporary ban on bathing in the lake. A swimming pool complex Słoneczny Wrotków was recently opened by the lakeside, and the Lublin Sailing Centre is being developed. These are good signs for the future even though sports and recreation infrastructure is

still of poor quality. Despite the fact that the area around the reservoir is still a bit neglected and requires revitalisation, the Zemborzycki Lake is an important landmark on the city map, which is confirmed by many of Lublin's residents who mention it among their favourite places and regard it as significant for the city (Kałamucka, Rodzoń 2011). The lake is also mentioned as a place characterised by pleasant natural sounds associated with tranquillity and offering respite from the din of the city (Bernat 2009). Interestingly enough, the noise-free zone (a form of legal protection) by the Zemborzycki Lake was abolished in 1999.

The issue of revitalising the river valleys was discussed a few years ago in the *Development Strategy for the City of Lublin* (2005) and the *Local Revitalisation Programme for the City of Lublin* (Bernat 2007b). The main objective of revitalisation in relation to the river valleys is to

“restore the significant role of the river valleys in shaping the living conditions and image of the city” through “improving ecological parameters in the river valleys, improving public safety and promotion of recreation for a better quality of life and business growth.” Revitalisation projects focus on selected areas located mainly in the Bystrzyca valley. A particularly interesting project envisages the development of the valley at the confluence of the three rivers and at the foot of the Old Town hill by creating a Central Park. The priority of this project is to highlight the cityscape, reconstruct the former Royal Pond for recreational purposes, and to ensure a high quality of landscape.

Currently there is an even greater awareness of the need for comprehensive tourism and recreational development of the Bystrzyca valley in order to protect it against the establishment of commercial facilities that would be a nuisance⁶. Towards the end of 2010, a study was prepared entitled “The concept of tourism and recreation product ‘Zemborzycki Lake’ along with the programme for the development of the area around the reservoir”⁷. According to the study, in the future the lake will become “a municipal themed water park”, dedicated to active leisure and cultural events in open spaces by the water-side, a leisure centre situated within a large city, catering for the needs of residents and tourists. In accordance with the theme of a seaside resort by the “Lublin Sea”, all its key attributes have been planned: a beach with water park features (beach games, pools, slides), a marina (for fishing boats and yachts), a breakwater, a pier, a seaside promenade (Sunset Boulevard), a concert bowl, and even a lighthouse. The basic

infrastructure with seaside resort features will be complemented by hotels (including floating hotels), food outlets (taverns), parking areas, walking routes, etc. Other attractions proposed include a golf course, tennis courts, water taxis, boating equipment rental, a cable ski park, an entertainment centre, a roller-skating track, a nature park, a mini-zoo, etc. The northern part of the lake is to be a “buzz zone”, and the southern part a “noise-free zone”. Thanks to the implementation of the project, the lake and its environs will be well-developed for leisure purposes, properly managed, and clean, serving the local community and tourists as an attractive place of recreation. It should also become a hallmark of Lublin.

At the beginning of 2011, a decision was made to expand the recreational development concept to include the stretch of the Bystrzyca valley closer to the city centre. It would become another “leisure zone” that would also divert some tourist traffic from the Old Town.

Actions for the revitalisation of riverside areas are also pursued in residential districts in the Bystrzyca valley, e.g. riverside boulevards are created in the Bronowice district. These actions prove that local communities care about the proper development of the Bystrzyca valley.

The urban stretch of the Bystrzyca valley is part of a tourism product under the Lublin region brand, “Kajakiem po Bystrzycy i Wieprzu” (“Canoeing Along the Bystrzyca and the Wieprz”)⁸. This project uses modern technologies such as an audio guide and virtual walk to promote the development of active tourism and places of interest along canoeing trails.

Puławy – the Vistula Valley

Puławy is a medium-sized town located by the Vistula, in the western part of the Lublin Province. With a population of approx. 50,000, it is a dynamically developing industrial, scientific (5 scientific research institutes), and cultural

centre. It also lies on important traffic arteries (railway line and national roads with two bridges across the Vistula). Thanks to the attractive landscape (including the Małopolska Vistula Gap) and numerous historic sites (including

⁶ Some residents vehemently opposed the proposed construction of Galeria Zamek, a shopping and entertainment centre in the Bystrzyca valley at the foot of Lublin Castle, because it would mean the degradation of the valley’s landscape as a vantage point towards the Old town, and blur the spatial context of Lublin’s historic quarter.

⁷ <http://mosir.lublin.pl/zalew/index.php?s=addcontent&id=47>.

⁸ <http://www.kajakiem.lublin.pl/>



Photo 2. The Vistula bank in Puławy after revitalization
Photo by S. Bernat

the Czartoryski park and palace complex), the town belongs to the popular “tourist triangle” Puławy-Kazimierz Dolny-Naęczów.

The need to develop the Vistula riverside was recognised a few years ago in the *Development Strategy for the Town of Puławy* (2004), the *Revitalisation Programme for the Degraded Urban Areas in Puławy* (2005), and the *Revitalisation Programme for Post-Industrial Areas*. Zones earmarked for revitalisation include two areas in the Vistula valley, north of the bridge. The proposed recreation and tourism development programme includes the establishment of bicycle paths, riverside promenades with street lights and elegant stairs, an amphitheatre and a harbour for tourist boats, as well as the restoration of green areas. It is also recognised that the functionality of the existing harbour for barges, along with the recreation and staff facilities, has to be improved. All the abovementioned projects are aimed at “opening up the town to the Vistula”. In the years

2004-2006, in the northern part of the town, several hundred metres of pavement were built, along with benches, street lamps, stairs leading down to the river, and a stand with seating for participants of various events. The riverside boulevard in Puławy is popular with the town’s residents and has won an honourable mention in the Cristal Brick competition⁹.

In Puławy and the communes of Kazimierz Dolny and Janowiec, a project is being implemented entitled “Using the Assets of the River Vistula to Create a Joint Tourism Product by Kazimierz Dolny, Puławy, Janowiec”¹⁰. Besides a tourism product relying on the assets of the river, the project will result in the integration of these three towns lying on the Vistula. The project envisages launching regular passenger links along the river between the partner towns, including water taxis, organising canoeing trips, and launching, mooring and serving motor boats and tourist boats. In order to achieve this goal, the river port in Puławy is

⁹ An annual competition promoting the best building projects, organised by the Polish Housing Association.

¹⁰ http://www.um.pulawy.pl/epraca/artykul/6368_3001.html.

being modernised so as to adapt it to tourism and recreation functions. As part of the riverside development, boulevards will be estab-

lished along the river, improving the tourist attractiveness of each of the three towns.

Conclusions and Final Remarks

The revitalisation of river valleys in towns and cities is a challenge of modern times. River valleys have become a sought-after asset from the perspective of creating tourism products built around the historical links between the city or town and the river.

This revitalisation depends on the character of a valley, the extent of its transformation, its role in urban structure as well as the size of a valley, river, and town or city. It is also important whether a particular river divides the city or whether the city lies on one of its banks.

Revitalisation projects ought to ensure appropriate water quality (cleaner rivers) and proper functioning of valleys, restore or strengthen their natural environment functions, ensure that the ecological corridor is passable, eliminate activities that are in conflict with the ecological function of valleys, and link valleys with existing green areas forming the Natural System of a town or city. Therefore, it is vital to implement re-naturalisation measures. It is also essential to use the river's integrating function with regard to architecture, urban development, economy, society and culture, and to strive to preserve the unique character of particular places, shaped by centuries of tradition, while ensuring access for all users. Riverside boulevards should be established because they facilitate the functioning of the ecological corridor. At the same time, they serve recreation purposes and are a place that residents can be proud of. It is important to emphasise the value of vast panoramic views stretching from the high points of riverside landscape as well as from vantage points situated within and outside a particular town or city. A river valley should retain its integrity both lengthwise and crosswise.

The implementation of revitalisation measures faces many challenges. It is necessary to develop zoning schemes (local spatial development plans), regulate property ownership, attract investors, conduct public consultations and secure the consent of the public. It is advisable to use the experience of other cities, particularly in other European countries, which have revitalised their riversides about fifteen years or even decades ago. However, finding a model of revitalisation is difficult because each town or city is different and has its local determinants. Therefore, individual solutions should be developed.

Revitalisation is a long-term process, and a sufficient amount of time is needed to predict the consequences of the actions planned and to achieve the desired results. Revitalisation measures should be preceded by in-depth landscape studies (including value assessment), an assessment of the impact of specific projects on landscape and the functioning of a town or city, and a survey of the preferences of the local community because the revitalisation of river valleys is about meeting the needs of residents and tourists.

River valleys are potentially tranquil areas¹¹. The designation of tranquil areas yields positive ecological results by preserving biologically active areas and biodiversity. It also contributes to an improved quality of life for residents. The preservation of tranquil areas may be helped by combining the recreational and ecological functions, e.g., designing a wild park, flowery meadows, sensory gardens.

Unfortunately, this instrument has been rarely used so far. On the other hand, regular outdoor events by the riverside such as the "River Festival", enjoy a growing popularity.

¹¹ Pursuant to the Environmental Protection Act (Dz.U. 2001.62.627), "a tranquil area in a conurbation" is an area where the maximum permitted noise levels are not exceeded, as measured with the noise index LDWN (a long-term average sound level A expressed in decibels, on all days of the year, during the day, in the evening and at night). The designation of such tranquil areas, by way of a county council resolution, is binding for spatial planning and development instruments (Article 73 and 118b).

A well-thought-out scenario of outdoor events with a range of artistic, cultural, educational, and recreational features will attract people's attention to the local river and its valley. In fact, the image of river valleys has to be changed so that they are no longer degraded and littered with rubbish by their users. As the activities of numerous local initiatives show, there is a wealth of opportunities, and it is really worthwhile creating an atmosphere that fosters the development of a bond between residents, the river, and its valley.

Revitalisation is a starting point for developing tourism products that increase the attractiveness of riverside areas. The introduction of tourist attractions without a wider context and without close links with revitalisation can be ineffective. As demonstrated in this paper, Lublin and Puławy undertake different actions related to the revitalisation of their river valleys, and increasing recreational and tourist attractiveness. The Bystrzyca river and its valley in Lublin have a huge potential related to the natural environment, landscape, and recreation. Unfortunately, this potential has not been sufficiently tapped into so far. For many years, the multitude of development concepts has not translated into concrete actions for the benefit

of residents. The currently growing pressure of investors on attractive plots located in river valleys, along with the residents' demand for recreation areas, necessitates prompt but systematic actions aimed at restoring the river to the city and its inhabitants and increasing the tourist attractiveness of these special areas. The town of Puławy appreciates its advantageous location on the Vistula, particularly from the perspective of tourism. Revitalisation projects carried out for several years have brought results as residents can now enjoy new recreational areas, while more tourists are attracted thanks to tourism products developed in conjunction with the revitalisation.

Finally, it should be stressed that the revitalisation of river valleys and enhancement of their tourist and recreational attractiveness is a modern challenge that necessitates the cooperation of authorities, specialists in various areas (including planners, urban planners, landscape architects, ecologists, geographers, and sociologists), administrators of land and facilities located in the valleys, as well as the involvement of the local community in the process, both at the planning and implementation stage.

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Board of Cultural Landscape Commission in the Polish Geography Society, and Scientific Council of Dissertations Commission of Cultural Landscape. He is also involved in Lublin Scientific Festival as the coordinator on behalf of the Institute of Earth Sciences. He was a chairman of the organization committee during three interdisciplinary seminars: "Sound in Landscape. Present Status and Future Strategy for Researches" in 2008, "Intangible Values of Cultural Landscapes" in 2010 and "Sacrum in landscape" in 2012. He is still inspired by his music passions to look for bridges between art and science.