Water in the Architectural and Urban Planning Assumptions of Częstochowa

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Abstract. Emerging trends in architecture and urban planning in the last decades concern the use of water as an important element creating both the image of the city, the environment and the landscape. The subject of the research is the analysis of ways of shaping contemporary public spaces on the example of water in the city and the nearest surroundings. The aim of the article is to show its impact on shaping urban development, natural and cultural environment. The subject of the publication is a systematically done research concerning architecture, architectural and landscape space of the area located above the Warta River flowing through Częstochowa as well as fountains and water reservoirs newly built in the city. The article discusses innovative solutions aimed at connecting the river and water objects of small architecture with innovative solutions of architectural designs of urban buildings created for people and friendly to the environment in which they reside.

1. Introduction

Water plays a major role in the process of making an architectural and urban space and a landscape of a city more attractive and engaging. It greatly affects modern architectural planning of public spaces through increasing biologically active areas, creating natural land structures, and renewal of urban landscape. It also improves ecological conditions, as well as the visual aspect of a given urban space. In the past, Polish cities did not abound in architectural solutions of such kind that may have had any value or may have been attractive visually. Fountains, ponds or other minor reservoirs, used as mere decorations as well as those used for recreation purposes, did not gain general acceptance due to the harsh climate [1]. Over the years, it was acknowledged that in an urban area as well as in nature, water reservoirs gather and purify precipitation water, humidify the air, and improve the microclimate [2]. Consequently, in contemporary trends in landscape architecture planning water and its use in a variety of solutions, and using numerous water devices appear as a tendency.

2. Materials and methods

At the turn of the XX and XXI century attempts were made in Częstochowa, a city in Śląskie Voivoidship in the Kraków-Częstochowa Highland, concerning the improvement of the environment, the city landscape and, in consequence, the quality of life in the city. The research concerns the analysis of works and architectural solutions in terms of the use of water in the architecture of Częstochowa as an aesthetic element and a part of the public space of the city. The areas and elements
that the study covers include Zawodzie – a district of Częstochowa situated on the Warta river, two fountains located in the city centre, and a pond and a fountain in Stanisław Staszic Park (a park near Jasna Góra). These areas were selected due to their dense population as well as a considerable number of tourists visiting them – a pilgrimage route goes through the city centre to Jasna Góra (Luminous Mount) Monastery – the shrine to the Virgin Mary [3]. As in the past, Częstochowa is still visited by many pilgrims. In 2018 4.3 million pilgrims came to the city [4]. Around 124 thousand people reached the Monastery on foot taking part in 255 foot pilgrimages organized in different places across Poland [5]. For many pilgrims, the final part of the pilgrimage to the Monastery in Częstochowa is a route stretching from The Sanctuary of St Father Pio on Przeprośna Górka [6] through Mstowska and Mirowska Street, The Holy Virgin Mary Avenue, Henryk Sienkiewicz Avenue to Jasna Góra commons.

3. Water in the public space of Częstochowa

The area on the Warta River; a river which flows through the city, the district of Zawodzie in the direction of Mstów and Jaskrów, two villages near Częstochowa; illustrates how water is connected with architecture and waterfront. This area also belongs to the Nature 2000 programme which aims at ensuring the long-term survival of Europe’s most valuable and threatened species and habitats [7].

This area, due to its location within the city, was used to create boulevards, a route along the Warta river; and to modernise foodbanks. It is also the beginning of the Warta Waterway from Częstochowa to Mstów where kayaking trips are organized. The area itself, situated near the city centre, with the river flowing through it, encourages tourists to cherish its visual amenity and natural values. Waterfront was used by architects to create an area that is supposed to cater to human needs as well as the environment by connecting water with a nearby shopping centre and a recreation area (Fig.1).

![Figure 1. Boulevards on the Warta river. Location: Mirowska Street](image_url)

In the vicinity of Jurajska Shopping Centre (near Mirowska and Krakowska Street) the area along the Warta river has been redeveloped. Fire protection was created and a new left-bank boulevard was built next to the entrance to the shopping centre. An area of 8.5 thousand square metres was used as a recreation site where both inhabitants of the city and visitors can do a variety of sports, and as a playground for children. It also contains a water element – a fountain in the form of a moving walkway with a shallow pond. Sprouting water encourages children to play, but also has an aesthetic
and decorative function and serves a practical function – providing refreshment for people spending time in especially created green relaxation zone. The area rich in a network of paths and walkways was embellished with trees and shrubs providing a shade shelter, as well as with decorative flowering plants. The Warta river which flows nearby adds to the special atmosphere of this place (Fig. 2).

**Figure 2.** The fountain situated next to Jurajska Shopping Centre. Location: Wojska Polskiego Avenue. Source: the author’s own photos, 2019

In the last decade two small fountains appeared on the 3rd Holy Virgin Mary Avenue which is a part of the city that is densely inhabited and also frequented by tourists and pilgrims as it is the final part of the route to the Monastery on Jasna Góra Hill. One of them, called “A girl with pigeons” (2009) is located in the middle of the 3rd Avenue in the proximity of mid-XIX and XX century tenement buildings which now serve a service-provision and residential functions. The fountain is a bronze sculpture depicting a girl with pigeons around her. This small sculpture is splashed with water gushing from all sides [8] (Fig.3).

Near „A girl with pigeons”, on the opposite side of the walkway next to Henryk Sienkiewicz Secondary School and Metropolitan Cury, two XIX century buildings, there is a fountain named “Ammonite” [10]. The fountain depicts a spiral-shaped shell which alludes to prehistoric fossilized shells often found in the area of the Polish Jurassic Highland [11]. It is made of a light yellow close-grained stone (silica bond) which increases its resistance to erosion. The surface of both fountains is made of round boulders, which draws a link between the projects and the history of the city as well as with the current surroundings – the surface of the walkway adjacent to them is made of granite. Water gushing from the base surface of the fountains in a period from May to September adds to their visual appeal. Water nozzles and clocks installed in the fountains ensure evenness and regularity in how the water splashes. What is more, a closed loop water circulation guarantees water saving. There are also filters which are installed so that the water was mechanically purified [12]. Appropriate lighting, the surrounding greenery and street lamps contribute to the attractiveness of the fountains (Fig. 4).
Figure 3. A fountain - „A girl with pigeons”. Location: The 3rd Holy Virgin Mary Avenue. Source: http://czestochowa.naszemiasto.pl/ [13]

Figure 4. A fountain - „Ammonite”. Location: The 3rd Holy Virgin Mary Avenue. Source: http://czestochowa.naszemiasto.pl/ [13]

In Stanisław Staszic Park there is a 1600 m² pond with fountains, terraces, and steps. It is a natural water reservoir which is a habitat of numerous species of fauna and flora and serves
as a watering place for a variety of birds inhabiting the park. It vitalises the landscape, adds dynamics, light, and is a source of a variety of sounds [14]. The fountain itself is made of an aggregate which delivers water directly from the pond. Self-cleaning of water is aided by a device with filters by means of which it is automatically purified [12]. Both the pond and the fountains provide an attractive spot for city inhabitants and tourists to relax (Fig. 5).

![Figure 5. A pond with a fountain. Location: Stanisław Staszic Park. Source: http://www.czestochowa.pl/ [15]](image)

4. Results and discussions
The analysis of the ways of shaping contemporary public spaces revealed that water has a significant impact on the landscape of a city, natural environment and a culture. The idea of water within a city is connected with fulfilling an aspiration to permanently improve the aesthetic aspect of a landscape by, especially, taking part in creating the elements of beauty and visual appeal in public spaces. A harmonious connection of the Warta river waterfront with fountains and the surrounding urban sprawl has a positive impact on the landscape, is a decorative element, and, finally, due to a proper character, it enhances the microclimate and ecological space of the city.

5. Conclusions
Contemporary trends and innovative solutions in architecture and urban planning are characterised by a tendency to create projects which place a human being in their centre and which, at the same time, are environment friendly. In the urban space of Częstochowa with the river Warta, fountains in the city centre and a pond in a city park, a link between nature and the city is clearly visible. All this is an attempt to create an urban space which is in harmony with the city as a whole, and constitutes a proper attitude towards shaping architecture and landscape.
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