

# REVITALIZATION OF THE WATER CHANNELS SYSTEM IN THE HISTORIC CENTER OF PRIZREN

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## Abstract

Throughout the history, water served and sustained societies, and it was considered one of the crucial factors for their development. People have shaped their flow, form, and function for the development of settlements and civilizations and have created socio-economic and cultural structures around them. Looking at the historical development of the city of Prizren, the city has been spread and developed around the river, which passes in the middle of it. The clean and flowing water from the river was one of the most important factors in the development of the city. The city of Prizren was also known for its sophisticated system of water channels used to have that played a very important role in the urban area. The water channels were branched from the river and scattered throughout the neighborhoods of the city. Further, these channels branched into smaller channels, which carried water through small public streets to each house in Prizren.

The paper deals with the revitalization method to restore these historical water channels in the Historic Center of Prizren to modern requirements, from which the greatest benefit would have the citizens of Prizren in social, economic, spatial, and environmental aspects.

*Keywords:* Revitalization, water channels, restoration, modern requirements.

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## 1 Introduction

Throughout history, water served and sustained societies, and it was considered one of the crucial factors for their development. People have shaped their flow, form, and function for the development of settlements and civilizations and have created socio-economic and cultural structures around them. Nowadays, the complex and diverse water systems of the past are necessarily the framework for the preservation and reuse of new systems. It describes an alternative emerging present in which policymaking and design work together to recognize and build on traditional knowledge and how such efforts will help in developing sustainable futures for cities, landscapes, and bodies of water [1].

Cultural endowments such as traditional architecture, unique streetscapes, and historic sites are increasingly recognized as important economic resources for the sustainable development of the cities. Cities are an important focal point for sustainable development based on these resources because they provide concentrations of cultural heritage assets, infrastructure services, the private sector, and social activities. Improving the conservation and management of urban heritage is not only important for preserving its historic significance, but also for its potential to increase income-earning opportunities, city livability, and competitiveness [2]. The challenge for the architects is the treatment of the existing areas, their adaption in harmony with the requirements of the new generations, and social changes [3].

Concentrated urban development in cities is associated with negative effects. Simultaneously, less favorably located cities suffer from population loss and economic decline. Shrinking cities face a loss of urban functions such as public infrastructure, high-quality services, and various aspects of urban living; the cultural heritage is also degraded through the declining population and vacant buildings. The result is a lower level of attractiveness and competitiveness along with negative development prospects [4].

The historic centers of the cities to retain their liveliness and vibrancy must be able to grow and change. It presents a big challenge for contemporary architecture to balance the socio-economic needs of the city and its community on one hand, and the protection of cultural heritage on the other. It is important to

create high-quality designs for historic centers to create a unique sense of place and attractive areas for residents, business owners, and visitors [5].

Urban public spaces and the old urban elements are involved in urban revitalization projects to create symbols of the city and are proven to be useful for urban revitalization. In the city dimension, public spaces are important in the aspect of the environment, culture, and economy for the improvement and balancing of the city. Without the proper revitalization strategy to uphold those qualities, urban public spaces deteriorated due to natural and time factors, which will cause the loss of their attraction and the activity of visitors. Therefore, to remain relevant to the current urban environment, a good program for the revitalization of urban public spaces and old urban elements is needed [6].

In the urban context, it is necessary to take a strategic approach and identify synergies in relationships between environmental and human systems. Materials, designed elements, buildings, neighborhoods, and cities should not be considered as separated components on different scales but rather designed to become parts of larger systems that function by creating a resilient and regenerative built environment in every scale and dimension [7].

## **2 Background**

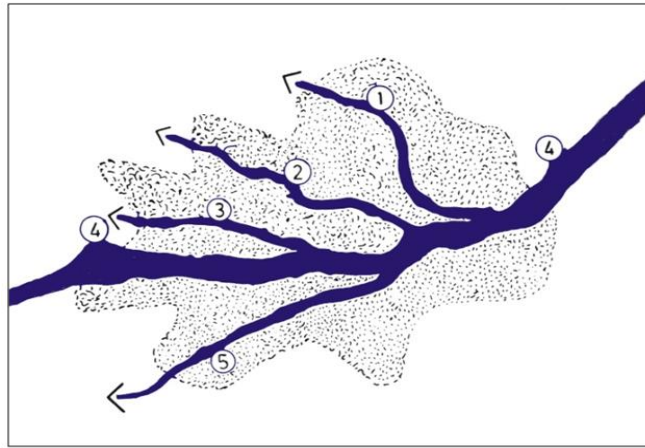
The city of Prizren is one of the oldest settlements in Kosovo and in Eastern Europe, located in the middle of the ancient Venice-Istanbul trading route, which has always been a crossroad of trade and culture for the whole region and ethnic cultures which lived next to each other, as were: Dardanian-Ilyrian-Albanian, Roman, Byzantine, Serb, Turkish-Ottoman, etc. [9]. The Historic Center of Prizren is a most outstanding zone of urban heritage in Kosovo, with a rich historical and cultural heritage. The cultural heritage of Prizren reflects the wonderful history of the city with a culture that stretches throughout the centuries up to the present day [9].

Looking at the historical development of the city of Prizren, the city has been spread and developed around the river, which passes in the middle of it. The clean and flowing water from the river was one of the most important features in the development of the city. The city of Prizren was also known for its sophisticated system of water channels used to have that played a very important role in the urban area. The water channels were branched from the river and scattered throughout the neighborhoods of the city. Further, these channels branched into smaller channels, which carried water through small public streets to each house in Prizren [10]. Therefore, Prizren used to be called the 'Venice of Balkans' thanks to its sophisticated unique system of water channels that used to have the so-called 'Jaze'.

The paper deals with the revitalization method to restore these historical water channels in the Historic Center of Prizren to modern requirements, from which the greatest benefit would have the citizens of Prizren in social, economic, spatial, and environmental aspects.

## **3 Water channels system**

This sophisticated system of water channels is supposed that is created during Ottoman Era in an organic way as per local crafts and knowledge of the inhabitants of Prizren. During this period four main channels were spreading from the river Bistrica. Three of them were on the right side, starting from Kasim Beg, Kugli Beg, and Suzi Çelebi, and from the left side Beg Zade, as it is shown in Figure 1. The largest part of the city was supplied by two channels, one from the right side - Kukli Beg, which passed almost through the entire city, thus supplying almost all houses, and another one from the left side - Beg Zade. The other two canals were smaller and more peripheral, including a smaller area of the city, and were less used for house gardens.



**Figure 1.** Scheme of the main water channels, 1. Kasim Beg; 2. Kukli Beg; 3. Suzi Çelebi; 4. Bistrica River; 5. Beg Zade [11]

In the beginning, the primary function of these water channels was irrigation of the fields near the city of Prizren, supplying households with clean water for washing and drinking, and watering the gardens. By the time these channels started to play a very important role also in the social life of the city, holding many social activities alongside these channels [10] (Figure 2).



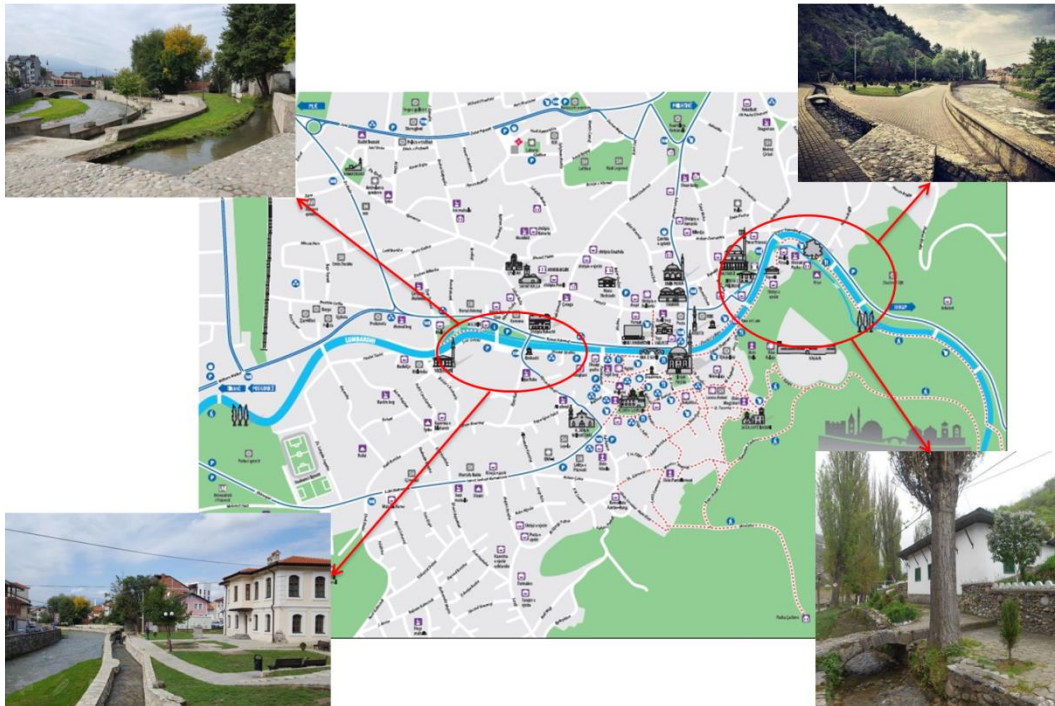
**Figure 2.** The main water channel branched from the river Bistrica [12]

These channels played an important role also in the development of trade in the city. On this water, channels were built mills, tanneries, coffee and tea houses, pastry shops, butchers, and other craft shops. They served to put into function over 35 mills in the city of Prizren for grinding cereals, and mills for processing wool and leather. Through the energy from the river, it has been managed to put into the function of these mills (Figure 3). These characteristic elements of the river valley landscape represent the unique feature of the city's architectural and cultural identity [13].



**Figure 3.** Putting a mill into the function by the water channel, Albert Kahn 1913 [14]

Destruction of the water channels started after World War II by the reign of the settlers, who did not realize the value of these channels for the city and the community. Nowadays, there are remaining some of these water channels, however, they are not even similar to the system of channels that used to be, and they do not act as an integral part of the sophisticated system as it was before. All these are made as single projects, not as a whole, more like improvised channels with standing water, and they are more like a source of wastewater, rather than an integral part of the urban area. Even their dimensions, materials, and implementation do not correspond with the nature, character, and functions of the unique system of water channels that used to be sometimes (Figure 4).



**Figure 4.** Water channels

#### **4 Revitalization of the water channels**

The remaining old water channel which passes through the Gazi Mehmed Pasha Hamam's yard is proposed to be revitalized as a unique urban element to reflect the character of the old historic center, thus creating an attractive visitor place. Also, the landscape around the building will be revitalized with attractive elements and street furniture. The Gazi Mehmed Pasha Hamam's Monument in Arasta, Zone II of the Historic Center of Prizren will be as well open to the public, removing the fences from its yard. The Hamam will be again publicly accessible as an exhibition space and event venue. In this way, more emphasis will be placed on its cultural values and their importance to the cultural life of the city. It must be adapted to the economic, social, and cultural needs of the citizens, and to preserve the cultural values of the monument. In Figure 5 on the left the current state is presented and on the right is the design proposal for the revitalization of the old water channel next to the Hamam.

The landscape of the building Beledije, next to the river Bistrica, in zone III of the Historic Center of Prizren, is proposed to be revitalized with attractive elements, lights, and urban furniture (Figure 6). Rehabilitation of the water channels passing through the building will be done with appropriate dimensions and local materials, in harmony with their original appearance and the current state of the historic center, to achieve a harmonious development (Figure 7). Figures 6&7 presents the current state of the landscape and the water channel next to the Beledije Monument, and the design proposal for the revitalization of the water channel and landscape around the building, which will be harmoniously interconnected with the rest of the public spaces of the historic center.



**Figure 5.** The current state (left); design proposal for the revitalization of the old water channel (right) at the Gazi Mehmed Pasha Hamam



**Figure 6.** The current state (left); design proposal for the revitalization of the water channel and landscape (right) at the Beledije Monument



**Figure 7.** The current state (left); design proposal for the revitalization of the water channel and landscape (right) at the Beledije Monument

## Conclusions

This unique sophisticated system of water channels played a very important role in the urban area of the city of Prizren, which connected the city with the environment. This system of water channels has been among the main features that distinguished Prizren from the other cities of the region. Therefore, the revitalization of these water channels would bring benefits to both the community and the whole city. The

citizens of Prizren will benefit in social, economic, spatial, and environmental aspects. Due to the big number of new constructions in the city of Prizren, it was possible to propose revitalizing only partially the water channels in the historic center, where remain some parts of these channels. The rehabilitation of the channels is done with appropriate dimensions and local materials, in harmony with the existing situation of the historic center, to achieve harmonious development of the Historic Center of Prizren.

Revitalization of this rich value of the cultural heritage of Prizren is one of the crucial actions that should be undertaken to protect the collective memories of the city and pass them on to future generations.

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