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M M G A R O N

## Article

# A cultural route proposal for historical baths on the Kırkçeşme water system

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## ABSTRACT

In recent years, studies on water-related values have intensified on international platforms. İstanbul is one of the world's important water cities with its historical water structures that are part of a complex system. This study focuses on the evaluation of the public baths located in the Kırkçeşme Water System largest water system in İstanbul. Aiming for the cultural, environmental, and economic continuity of water-related historical assets, an integrated preservation approach for the existing traces of the historical water system is examined focusing on public baths. An increasing number of public baths are used in their original function with their full authenticity. They are also re-used for contemporary art and cultural activities regarding to their spatial opportunities. Cultural routes provide a versatile preservation methodology, also offering innovative solutions for the integration of historic assets into contemporary life. The study contains an evaluation of several texts, charters, and recommendations clarifying the systematics of cultural routes and their criteria. Evaluating the data, regarding their historical values and also current conditions, public baths redefined as a cultural route element of water systems have the opportunity to be an effective method in the holistic preservation approach.

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## INTRODUCTION

Throughout history, supplying clean water has been one of the main problems people have had to solve. Freshwater resources are quite limited in İstanbul, especially in the Historical Peninsula known as old İstanbul. The settlements in the region needed the constructions to access clean water. İstanbul is one of the important cities in the world with its historical water structures that are part of a wide system developed starting from the city's foundation. The water systems were developed during the period of the

empires ruled the city, either separately or by adding to or completing the previous system. During the Roman, Byzantine, and Ottoman periods, new constructions were needed to provide water to the increasing population. The first important water facilities were built during the reign of the Roman emperors. Then the water systems built during the Roman period were used and developed in the following periods.

The theme of 2011 Monuments and Sites Day by ICOMOS has been determined as 'Cultural Heritage of Water' as a

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part of that water heritage has come to the fore in the field of conservation in recent years. It is thought that technologies developed for purposes such as using, consuming, managing, and traveling on water will guide the problems that humanity will experience in the future (ICOMOS, 2011). In the 'Cultural Heritage of Water' thematic study prepared for ICOMOS in 2017, the importance of the Kırkçeşme Water System was included in the Turkey section (Cotte et al, 2017). In the study titled 'The Water Industry as World Heritage' prepared by James Douet in 2018 for TICCIH (The International Committee for the Conservation of the Industrial Heritage), it is mentioned that Rome, Carthage, and Istanbul had better water systems than those achieved in the modern cities until the 19<sup>th</sup> century (Douet, 2018). In this study, the water heritage is examined according to the criteria of the World Heritage List, and the feature of having extraordinary universal value is also discussed. Thus, the importance of Istanbul's water systems, which have a centuries-long history, is more clearly understood.

Water supply systems and structures played a direct role in the historical development of Istanbul. Old water supply systems spread throughout the city with lines that branch off at some points and join together by completing each other at some points. In this context, each line of the water supply system of Istanbul constitutes a historical route representing the city's centuries-old history. Public baths or fountains kept a water-related culture alive as the old water structures in Istanbul. The fact that bath rituals are interesting for local people and tourists ensures that their original function has been maintained in many baths for centuries.

However, old water structures like baths, fountains, e.g., are exposed to threats due the change of their environment physically and socially. Their abandonment, lack of maintenance, change of function, and lack of awareness of historical values have been causing many conservation problems. These facts also affect the continuity of the entire historical water system in today's social and economic system. The transfer of Istanbul's historical water systems to the future generations needs to be addressed using a holistic approach and considering the framework of the contemporary conservation discipline.

The study aims to discuss the continuity of existing assets and the values related to water supply systems and water structures in Istanbul, and focuses on the historical baths, especially. The old baths of Istanbul are evaluated as the living elements of the Kırkçeşme Water System using the cultural route concept. Suggestions are presented to ensure the centuries-old cultural, social, and economic continuity of the bath culture, to preserve their existing traces, and to integrate them into contemporary life.

Cultural routes offer approaches for preserving and presenting existing values and are also bringing innovative solutions for their conservation. In the study, first of all, these approaches were examined in detail in the documents of various institutions and organizations, and a table was created for the evaluation of cultural routes in a systematic way. In addition, the effects of historical water systems on urban development and daily life in Istanbul were tried to be understood by conducting literature research on the historical water systems of Istanbul, including the Kırkçeşme Water System. In order to see the positioning of the system in urban space, current aerial photographs as well as old maps were used. A cultural route proposal has been developed for the baths located within the boundaries of the study area determined on the Kırkçeşme Water System. As a result of aerial photographs and on-site examinations, the current status of the bath structures within the study area was determined. Taking into account the data obtained as a result of the research on the current situation, the potential use and conservation conditions of the proposed new route were evaluated in line with the prominent features in the table created regarding the cultural route evaluation criteria.

### **THE CONCEPT OF CULTURAL ROUTE IN THE CURRENT CONSERVATION APPROACH**

Many international and local institutions and organizations examined within the scope of the study, such as UNESCO, ICOMOS, World Roads Network, United Nations World Tourism Organization, European Ramblers Association, and Turkish Cultural Routes Association, carry out studies for the protection of cultural and natural heritage. Creating a cultural route is among the prominent methods within the scope of current studies. There are four types of definitions for an international cultural route. These are the Council of Europe Cultural Route, the ERA-pan European E-trail, the routes defined by The World Trails Network, and the UNESCO Approved World Heritage Route. Especially within the scope of European Cultural Routes, there are routes directly related to water-based cultures, such as the 'Viking Route' (Cultural Routes, n.d.). Although there are no direct water-related routes within the scope of UNESCO Approved World Heritage Routes, there are world heritage sites on the World Heritage List for water structures (such as Pont du Gard Roman Aqueduct) and holistic historical water systems (Water Management System do Augsburg) (UNESCO, n.d.).

Cultural and natural properties are distinct representations of the settings where they originate. In the globalizing world, the importance of studies aimed at the protection of cultural and natural heritage is increasing. The concept of cultural route emerged as a result of the ideas developed

within the framework of conservation science. In 1964, at the European Council meeting called 'L'Europe Continue', consisting of experts; a report<sup>1</sup> was introduced to raise collective awareness about Europe's key cultural sites and how they intersect with entertainment culture via cultural expeditions. This report can be considered the beginning of the emergence of the concept of cultural route, and it has been developed through various meetings held and bylaws prepared over time.

Cultural route is defined in the Charter on Cultural Routes of ICOMOS, published in 2008, as any means of communication physically separated by land, water, or otherwise, serving a specific and well-defined purpose, characterized by its historical functionality and its specific dynamics (ICOMOS, 2008). The effects of new cultures arising from the communication between different cultures include cultural routes into a dynamic historical system. While creating cultural routes, it is possible to use, in whole or in part, historical lines that were previously used for different purposes (religion, trade, etc.) in a certain period. In addition, new ways are being used today to ensure the flow of people to serve a special purpose. Apart from being the means of communication or transportation, the existence and importance of lines as cultural routes is explained by the fact that they have been used for a special purpose throughout a long history and thus create heritage values and cultural assets (ICOMOS, 2008).

#### Evaluation Criteria Applied in Creating Cultural Routes

Although the ICOMOS Charter on Cultural Routes dated 2008 provides a basic perspective, the evaluation criteria that should be considered when creating a cultural route diversify with the institutions and organizations that produce studies in this field. These organizations have both common and unique evaluation criteria. Within the scope of the study;

About the cultural route and water-related heritage; the documents listed below have been reviewed. In this context, it has been seen that the documents have common purposes and evaluation criteria, as well as their evaluation criteria in line with specific purposes.

About the cultural route;

- I. Cultural Routes of the Council of Europe certification criteria (Council of Europe, 2013)
- II. ICOMOS International Report on Expert Meeting on Routes as Part of Our Cultural Heritage (ICOMOS, 1994)
- III. ICOMOS International Committee on Cultural Routes (CIIC ICOMOS., n.d.)
- IV. ICOMOS Charter on Cultural Routes (ICOMOS, 2008)

V. ERIH European Route of Industrial Heritage, which adopts the Council of Europe criteria (European Route of Industrial Heritage, n.d.)

VI. UNESCO Approved World Cultural Heritage Route and UNESCO World Heritage List Criteria (UNESCO, 2004)

About walking-oriented routes;

VII. ERA Walking Commission; European Walking Code, European Code of Good Walking (European Ramblers Association, 2002)

VIII. The World Trails Network definitions (WTN) (World Trails Network, 2010)

IX. The European Long-Distance Paths, E-Paths (European Ramblers Association, n.d.)

About tourism-oriented routes;

X. The United Nations World Tourism Organisation, The UNWTO Silk Route Programme (UN Tourism, n.d.)

About local cultural routes;

XI. Turkish Cultural Routes Association Charter (Culture Route Society, n.d.) About studies focused on the concept of water;

XII. 'Water Industry as World Heritage' ICOMOS – TICCIH joint report (Douet, 2018)

XIII. Cultural Heritage of Water ICOMOS thematic study (Cotte et al, 2017)

As a result of the investigations, an evaluation table was prepared for creating a cultural route (Table 1). As can be seen in Table 1, the evaluation process in all these documents and studies is grouped under two main headings. Some characteristics of the area to be suggested as a route are questioned. In addition, it is evaluated whether the route is suitable for a purpose determined for the present or the future. The cultural and natural elements of the proposed route are considered holistically.

In the documents examined regarding the routes, evaluation criteria such as historical importance, intercultural dialogue, and cultural diversity are found in the majority of the documents. However, it appears that some of the evaluation criteria contained in the table are specific to a document.<sup>2</sup> The fact that scientific studies on the routes to be suggested have been carried out and are available to be carried out is also a common issue in the documents. Suitability for projects to be developed for education and culture-art activities and suitability in terms of cultural, economic, and environmental sustainability are also important in the evaluation. Next to each of the evaluation criteria in the table, the document in which they are mentioned is noted.

**Table 1.** Evaluation criteria for creating a cultural route

1) DOES THE ROUTE HAVE THESE FEATURES?	
Cultural Heritage	<ul style="list-style-type: none"> <li>Outstanding Universal Value (VI)</li> <li>Historical Significance (I, II, III, IV, V, VI, X, XI, XII, XIII)               <ul style="list-style-type: none"> <li>Religious</li> <li>Commercial</li> <li>Military</li> <li>Sport</li> <li>Person/Event</li> <li>Technological Development Phase</li> <li>Transfer of Technical Knowledge</li> <li>Becoming a Symbol of Creative Genius</li> </ul> </li> <li>Diversity (Diversity of Samples) (I, IV, V, XII, XIII)</li> <li>Cultural Diversity (Representation of Different Cultures) (I, II, IV, V, VIII, XIII)</li> <li>Intercultural Dialogue (I, II, IV)               <ul style="list-style-type: none"> <li>Indigenous-Immigrant Communities</li> <li>Urban-Rural Communities</li> <li>Developed-Disadvantaged Regions</li> <li>Different Regions (North, South, East, West)</li> </ul> </li> <li>Cross-Border Mutual Exchange (I, II, IV)               <ul style="list-style-type: none"> <li>Culture</li> <li>Substance/Product</li> </ul> </li> <li>Conceptual Framework (Scientifically Based) (I, IV, XIII)</li> <li>Maintaining Originality (II, IV, VI, XIII)</li> <li>Maintaining Integrity (IV, VI, XIII)</li> <li>Unique or Exceptional Value in Representation of Cultures and Civilizations (VI)</li> <li>Ethnic and Social Minority Heritage (I, II, IV, XII, XIII)</li> <li>Extraordinary Example of Environment-Human Interaction (VI, XIII)</li> <li>Relationship with Artistic and Literary Works (IV, VI)</li> <li>Scientific Studies/Research/Committees (I, IV, V, VIII)</li> <li>Physical/Spatial Features               <ul style="list-style-type: none"> <li>Route Components (II, IV)                   <ul style="list-style-type: none"> <li>Concentration Points (Departure/Arrival)</li> <li>Accommodation Points</li> <li>Water Supply Points (Human, Animal)</li> <li>Mandatory Crossing Points (Bridge, Passage, Port, etc.)</li> </ul> </li> </ul> </li> <li>Length (VIII, IX)               <ul style="list-style-type: none"> <li>Long distance</li> <li>Short distance</li> </ul> </li> <li>Territorial Scope (I, II, IV, IX, XIII)               <ul style="list-style-type: none"> <li>Local</li> <li>National</li> <li>Regional</li> <li>Continental</li> <li>Intercontinental</li> </ul> </li> </ul>

**Table 1.** Evaluation criteria for creating a cultural route (Cont.)**1) DOES THE ROUTE HAVE THESE FEATURES?**

Accessibility (IV, VIII)
On foot
Road Transportation
Sea Transportation
Railway Transportation
Public Transport
Disabled Transportation
Part of a System/Network (IV, XIII)
Natural Environment (IV, XIII)
Land
Shoreline
Sea
Structural Configuration (IV)
Linear
Circular
Cruciform
Radial
Network
Physical Values Contained (III, IV, XII, XIII)
Specialized Building Types
Monuments
Sites
Temporal Features (II, IV, XIII)
Time Range (Start-End)
Usage Time
Seasonal
Yearly
Current Historical Route
Tracking Physical Traces
Out of use
Still in Use
Tracking Footprints or Ideas
Out of Use
Still in Use
New Route to be Created
Usage Intensity
Used 1 time
Continuous use
Original State/Spirit/Local Meaning of the Movement (VII)
In groups
Individual
Many Items/Heavy Bags
Fewer Items
On a Certain Line
In Scattered Rural Area

Table 1. Evaluation criteria for creating a cultural route (Cont.)

1) DOES THE ROUTE HAVE THESE FEATURES?	
Natural Heritage	<ul style="list-style-type: none"> <li>Intangible Heritage Values (Rituals, Beliefs, etc.) (I, VI, VII, XIII)</li> <li>Extraordinary Natural Beauty/Aesthetics, Superior Natural Phenomenon (VI)</li> <li>Representation of an Important Phase in Earth History (Geological, Geomorphic, Physiographic) (VI)</li> <li>Having an Important Place in Plant and Animal Evolution (VI)</li> <li>Impact on Settlement History (V, VI, XII, XIII)</li> <li>Flora (VI, VII)               <ul style="list-style-type: none"> <li>Unique Plant Species</li> <li>Endangered Plant Species</li> </ul> </li> <li>Animals (VI, VII)               <ul style="list-style-type: none"> <li>Unique Animal Species</li> <li>Endangered Animal Species</li> </ul> </li> <li>Landscapes (IV, XII, XIII)               <ul style="list-style-type: none"> <li>Natural Resources (I, XIII)                   <ul style="list-style-type: none"> <li>Natural Water Resources                       <ul style="list-style-type: none"> <li>Available/Still in Use</li> <li>Available/Not Used</li> <li>In danger</li> <li>Extinct</li> </ul> </li> </ul> </li> </ul> </li> </ul>
2) IS THE ROUTE SUITABLE FOR THIS PURPOSE?	
	<ul style="list-style-type: none"> <li>Eligibility for Research and Development (I, IV, VIII, X)               <ul style="list-style-type: none"> <li>Multidisciplinary Committee                   <ul style="list-style-type: none"> <li>Have</li> <li>Can Be Created</li> </ul> </li> <li>Expert Research/Academic Studies</li> <li>Combining Disorganized Information</li> <li>Compliance with Regulations and Agreements</li> <li>Cooperation with Educational Institutions</li> </ul> </li> <li>Does it have legal status? (Association etc.) (I, IV)               <ul style="list-style-type: none"> <li>Education (I, III, IV, V, VIII, X)                   <ul style="list-style-type: none"> <li>Youth Education</li> <li>Concept of Citizenship                       <ul style="list-style-type: none"> <li>Emphasizing the Value of Personal Experience (Seeing Different Places/Contacts)</li> <li>Integration of Individuals with Different Social Backgrounds</li> <li>Cooperation with Educational Institutions</li> </ul> </li> </ul> </li> </ul> </li> <li>Cultural Tourism and Art Activities (I, IV, V)               <ul style="list-style-type: none"> <li>Conservation Development in Rural Destinations</li> <li>Artistic Projects Investigating the Connection Between Contemporary Culture + Cultural Heritage</li> <li>Highlighting Innovative and Creative Practices</li> <li>Artistic Projects That Promote Multidisciplinary and Intercultural Discussion</li> </ul> </li> </ul>

**Table 1.** Evaluation criteria for creating a cultural route (Cont.)**2) IS THE ROUTE SUITABLE FOR THIS PURPOSE?**

Collaboration Between Amateurs and Professionals
Creative Contemporary Practices and Skill History Relationship (Performing Arts, Visual Arts, Architecture, etc.)
Diversification, Development, and Presentation of Cultural Products/Services/Events
Sustainability (I, III, IV, V, VIII, X, XI, XIII)
Cultural Sustainability
Tangible
Intangible
Environmental Sustainability
Sustainability of Resources
Light Footprint
Compliance with Environmental Campaigns
Economic Sustainability
Increasing the Number of Visitors
Providing Economic Contribution to Local People
National Financial Sustainability
Brand/Promotion (Logo etc.) (I, IV, V, VIII)
Introduction of the System of which it is a Member
Introduction of the Route
Determining Target Audience (IV, V)
Local people
Tourist
Researchers and Experts
Students
Children

**HISTORICAL WATER SYSTEMS OF ISTANBUL**

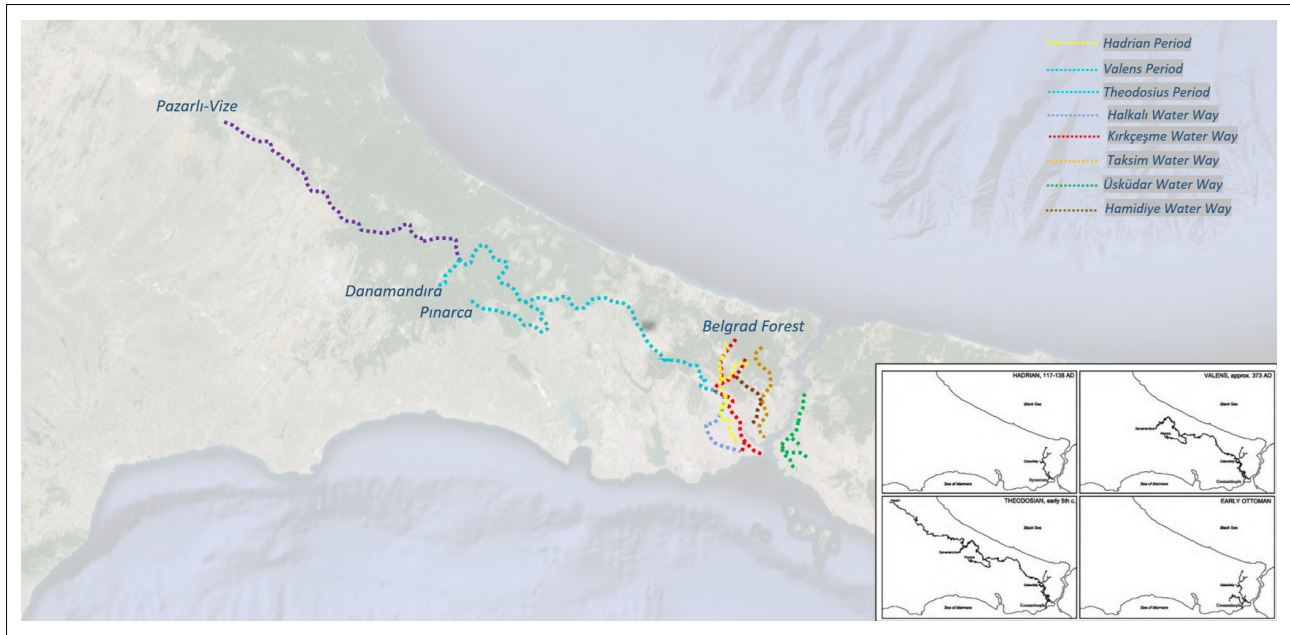
The water systems that have been created since the beginning of urban history in Istanbul have survived to the present day by adding them together, improving the existing system, or establishing new water supply lines in different periods (Figure 1). In addition to the construction of new water structures in different periods, there are also structures containing many interventions from different periods.

During the early Byzantium period, water needs were met by some underground sources and wells (Çeçen, 1997). With the expanding borders and increasing population during the Roman period, water supply became a major problem to be solved. It is seen that the first important water facilities were built during the time of the Roman emperors (Tabakoğlu, 2017). Roman-period buildings were repaired and used for a long time during the Byzantine period (Aysel, 2008).

At the beginning of the 2<sup>nd</sup> century, Emperor Hadrian (117-138) provided financial support for the construction of an aqueduct that carried the waters of the springs in the Belgrad Forests to Byzantium (Crow, 2015).<sup>3</sup> This region, where the water resources in the Belgrad Forests are located, was also used during the Byzantine and Ottoman periods.

Bozdoğan (Valens) Aqueduct<sup>4</sup> brings the water channel to a fountain and pool in today's Beyazıt Square (Figure 2). The water collected in this area was distributed to higher parts of the city, such as the Forum of Constantine (Çemberlitaş) (Crow, 2015).

In an order dated approximately 440-441 from the period of Theodosius II (408-450), information is given about the waters brought by the Hadrian Aqueduct (Crow, 2015). According to this, the water brought by the aqueduct will be used only in the public baths and the imperial palace. According to texts from later periods, it is known that the water coming from



**Figure 1.** Historical water lines of Istanbul (Drawn by the authors using different historical maps on current aerial photography. Crow's drawings were used for the Byzantine period lines (Crow, 2015).



**Figure 2.** Bozdoğan (Valens) Aqueduct.

the aqueduct met the water needs of families, private baths, public baths, and some cisterns (Crow, 2015).

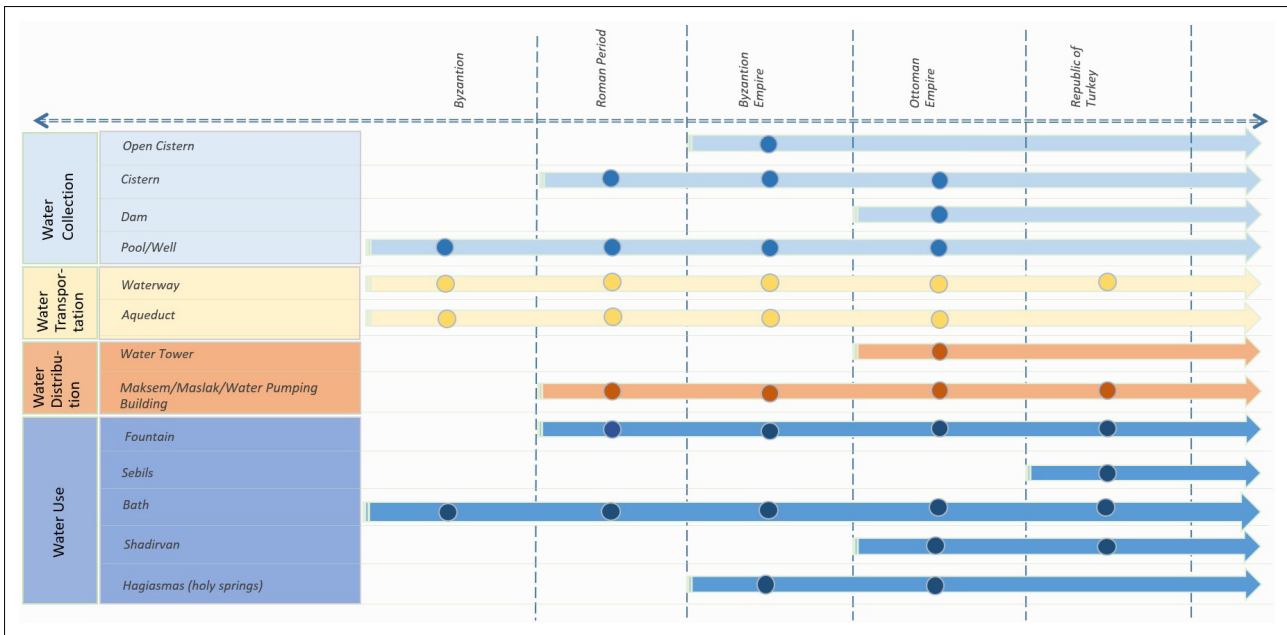
Since the 7<sup>th</sup> century, the parts of the transmission lines that supplied water to the city, especially those outside the city walls, were destroyed during various sieges (Altuğ, 2014).<sup>5</sup> The fact that the city's waterways can be easily destroyed has created insecurity. Therefore, the Byzantine Empire developed a cistern system to address these problems.<sup>6</sup>

In the Ottoman period the main water supply systems were the Halkalı Water System, Kırkçeşme Water System, Taksim Water System, Üsküdar Water System, Hamidiye Water System, and Terkos Water System.<sup>7</sup>

The structures belonging to the water systems created over the centuries in Istanbul can be grouped under four main headings;<sup>8</sup> water collection structures, water transportation structures, water distribution structures, and water use structures (Figure 3).

The cisterns in Istanbul, especially in the historical peninsula, date back to the Roman and Byzantine periods (Figure 3). The open cisterns dated to the Byzantine period were not used with their original function during the Ottoman period. The construction of pools and wells has existed since the Byzantium period. Their use and construction continued during the Roman, Byzantine, and Ottoman periods. Although the use of the city's cistern system was not preferred during the Ottoman period, there are also cisterns dating back to that period.<sup>9</sup> Waterways and aqueducts have continued their existence since the beginning of building the water supply system in Istanbul. However, over time, they have undergone some transformations as a result of technological developments or changes in the construction system. For instance, water towers started to emerge in Istanbul's water system during the Ottoman period. *Maksem*, *Maslak*, and water-pumping buildings serve the same function. *Maksem* and *maslaks*, built since the Roman period, were replaced by water-pumping buildings in the 19<sup>th</sup> century with the technological change. Fountains which are water-use structures began to be seen in the city





**Figure 3.** Structures and period analysis of water systems (note: the dots in the table indicate the periods in which the construction of the structures continued, and the arrows indicate the periods in which they continued their existence.)

during the Roman period. The construction of the baths in the city started from the ancient times. However, the baths and fountains used today are dated to the Ottoman period. Over time, there have been changes in construction systems or typologies due to reasons such as technological developments and the change of empires. *Shadirvans* (water-tank with a fountain for ablution in mosques) in the courtyards of mosques began to appear in the city during the Ottoman period. Its use continues today. *Hagiasmas* (holy springs) from the Byzantine period that are integrated with churches generally continue to function.

### KIRKÇEŞME WATER SYSTEM AND STRUCTURES

During the reign of Sultan Süleyman (1520-1566), the water problem in Istanbul was significantly solved. The waterways built by Sinan the Architect (1489-1588) in Istanbul and Edirne created the most important water facilities and the largest water system of the Ottoman period (Karakuş, 2019).<sup>10</sup> The distribution of water was made through corridors and vaulted waterways (Tabakoğlu, 2017).

The waters of the Kırkçeşme Water System<sup>11</sup> come from two regions north of Istanbul. The waters coming from Kağıthane in the northeast and Ayvat region in the northwest meet in Başhavuz and reach Topkapı Palace via Eğrikapı Maksem (Karakuş, 2019).<sup>12</sup>

The buildings built by Sinan the Architect (1489-1588) to transport water to the city on the Kırkçeşme Water System are Bend Aqueduct, Uzun Aqueduct, Mağlova Aqueduct, Güzelce Aqueduct and Müderris Köyü Aqueduct (Tabakoğlu, 2017) (Figure 4).<sup>13</sup>



**Figure 4.** Mağlova Aqueduct (Kültür Envanteri, n.d.)

After the construction of the water system was completed, the water brought according to the measurements made by Sinan the Architect (1489-1588) in 1568; is known to have fed 94 fountains, 19 wells, 15 *maslaks*, 13 baths, seven palaces, four fountains, two water closets, two basements, a palace garden and a palace aviary (İSKİ, 1983).

There were no dams on the waterway when it was first built. To increase the efficiency of water over time, four dams called Kırkçeşme Dams were built in the Belgrad Forest. These are the Topuz Dam built in 1620, the Büyük Dam built in 1723-24 (the second time in 1748 due to its collapse), the Ayvat Dam built in 1765, and the Kirazlı Dam built in 1818 (İSKİ, 1983) (Figure 5).



**Figure 5.** Ayvat Dam (Eyüp Sultan Belediyesi, n.d.).

### **Current Situation: Evaluation of Kırkçeşme Water System and Structures**

Kırkçeşme Water System was evaluated through current aerial photographs and by observing the urban physical development of the structures by the authors.<sup>14</sup> In this context, it is seen that the structures of the line have changed in the context of the environmental conditions from the period when they were built until today (Figure 6). Areas that were considered out of town in the past have now turned into residential areas that can be considered city centers. In this context, it is seen that the elements of the Kırkçeşme Water System mostly remain in settled areas. Especially the parts of the water system towards the north of the city, up to the Sultangazi City Forest, remain within densely populated areas. The part of the Belgrad Forest up to the valley of the dams is partially located in the natural environment and in residential areas.

When today's aerial photographs are examined, it is thought that the water system, which dates back centuries and creates a huge building stock, does not physically affect the development of residential areas. On the other hand, the historical water system and its facilities is not taken into consideration even in the planning process of newly developed residential areas. In addition to their physical existence, issues such as integration into social life, current usage status, and protection problems have also been ignored.

Historical fountains, as the most numerous structures of the system, are mostly out of use. Though there have been various studies on the revitalization of fountains in recent years, most of the historical fountains in residential areas are mostly in neglected or abandoned states. Bath structures, like fountains, continue to exist in residential areas today. It is seen that the large baths continue their existence with their original functions due to their use for touristic purposes. Shadirvans that continue to exist together with a religious structure have generally preserved their original function. Various re-functions such as cafes can be seen in the use of *sebils* (public fountains for free distribution of water).

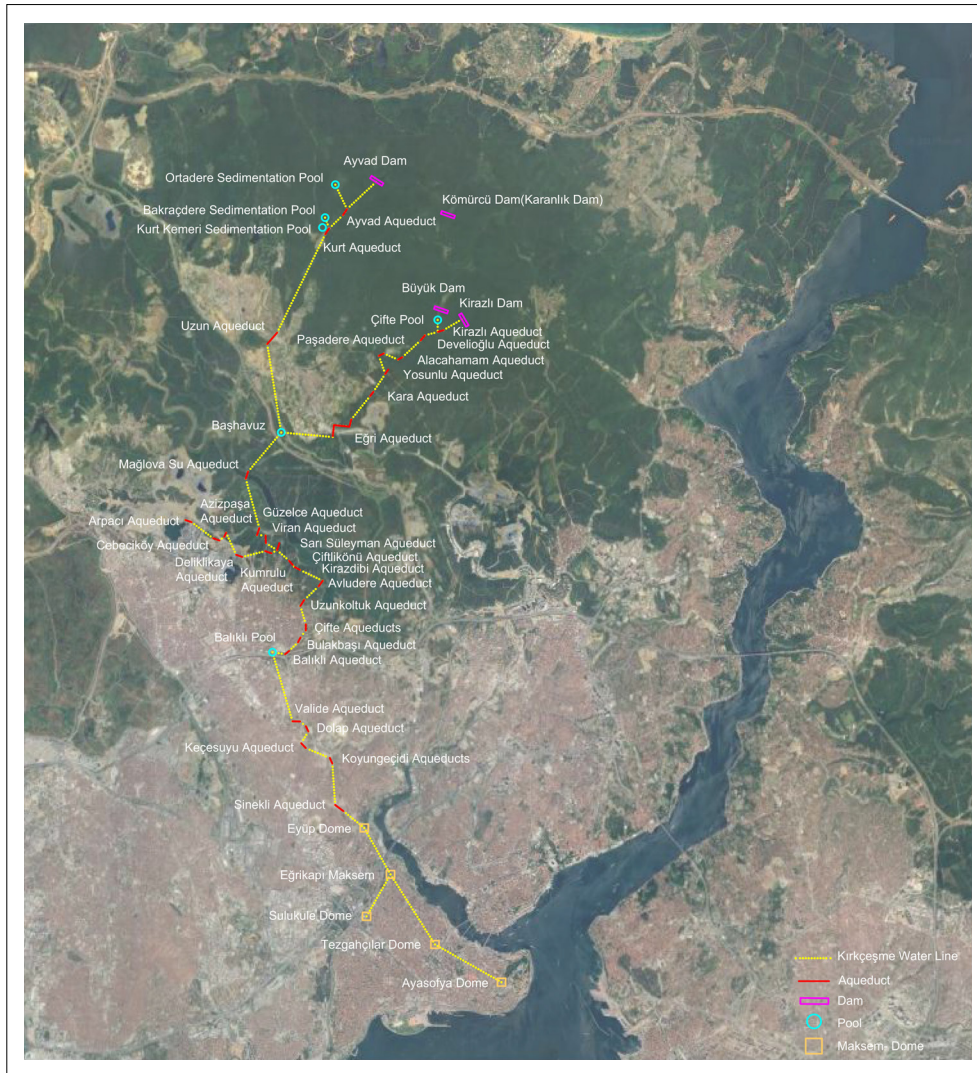
Structures such as *maksem* and *maslak*, which are part of the system, generally continue their physical existence in today's conditions. The physical existence of historical water pipes, which constitute the hidden part of the water system, partially continues. Aqueducts, which are the largest structures of the water system in size, are not used due to technological reasons. However, it is seen that both the aqueducts in residential areas and the aqueducts in the natural environment continue to exist physically. The aqueducts within the residential areas constitute a very dominant mark on the urban space. Despite this, they were not handled in a planned manner in the development of the settlements. Although its structural integrity appears to be preserved, there are areas where it has been damaged due to uncontrolled contact with the aqueduct. For example, it is observed that the walls of the structure located in the middle of the city, such as the Bozdoğan (Valens) Aqueduct, were used in many ways (Figure 7). At some points, it has been observed that cafes and schools use the walls of the aqueduct directly. Despite the proximity of people to the aqueduct, their lack of awareness about it persists as a social and conservation issue.

The dams, other significant elements of the Kırkçeşme Water System, remain within the area called the dams region of the Belgrad Forest today. The physical preservation of the buildings is good as they are not in residential areas. It is a common practice today to organize daily trips to the Bent region and include them in natural and cultural activities. In addition, the wells within the old water supply system still exist but are no longer functional.

### **THE HISTORICAL BATHS AS A CULTURAL ROUTE**

The Kırkçeşme Water System defines a linear historical cultural route. A new thematic route can be proposed for a section of the system or a specific type of structure within the system. In this regard, an assessment was conducted on the baths supplied water by the Kırkçeşme Water System, utilizing the criteria outlined in Table 1 for cultural routes, to serve as a model for preserving historical water systems and structures. The distinctive features of the baths that qualify them as a cultural route are elaborated upon.

**Establishing the boundaries of the study area:** A defined area has been outlined for the creation of a cultural route for the historical baths supplied by the water system. The area between Eğrikapı Maksemi and Sarayburnu, where the Kırkçeşme Water System enters the Walled City of Istanbul, is dominated by the Bozdoğan (Valens) Aqueduct, the most prominent and recognizable structure of the system. Together with the baths and other water structures in its vicinity, the aqueduct forms a suitable area for comprehending the historical water system (Figure 8). Additionally, this study area is an attractive tourist destination within the Historical Peninsula. For this reason,



**Figure 6.** Historical Kırkçeşme Water Line structures on the current map (Prepared by the authors using Kazım Çeçen's drawings and the 'Kültür Envanteri' Map)<sup>15</sup>



**Figure 7.** Use of Bozdoğan (Valens) Aqueduct in current urbanization.



discourse, dining, and personal hygiene (Necipoglu, 1999). Particularly during the Ottoman period, they held significant importance as social spaces where women could partake in various life rituals (Boyar & Fleet, 2012). Richard Tappin Claridge, in his guidebook about Istanbul, highlights that the women had dedicated bathhouses for their relaxation on specific days of the week, frequented by many individuals (Claridge, 1837). Baths still maintain their characteristics of experiencing some rituals as a part of social life.

**Maintaining originality and sustainability:** The preservation of the original function of the values that make up cultural routes is crucial for cultural, economic, and environmental sustainability, as well as for enhancing the historical and temporal characteristics of the route (Table 1). While the entire Kırkçeşme Water System may not be utilized in its original function, it comprises structures like baths, fountains, hagiomas, and shadirvans that continue to serve their original purposes today. Among these structures, baths are particularly noteworthy for retaining their original functions. Despite a decline in construction due to water supply to residential buildings in the 19<sup>th</sup> century, baths still hold significance, especially in terms of tourism. The extensive tourist activity also offers benefits in terms of cultural and economic sustainability. The fact that it has maintained its original function as a water-use structure for centuries is commendable. Therefore, its continued use in its original function is feasible in the future.

Climate and water crises are among the most critical issues on the agenda of this century. In this context, ensuring environmental, cultural, and economic sustainability plays a vital role in the development of cultural routes. The Kırkçeşme Water System boasts a rich inventory of physical buildings. This not only holds cultural significance but also offers opportunities for heritage-based sustainable solutions to climate and water challenges. Reviving traditional infrastructures also serves to preserve culture and natural resources. Implementing rainwater collection systems in the cistern structures supplied by the Kırkçeşme Water System, which hold a significant position in the global framework, is feasible. The harvested water can be utilized in bath structures that typically consume large amounts of water. This way, the potential of baths to contribute to environmental sustainability can be evaluated.

**Cultural tourism and art events:** As seen in Table 1, when assessing cultural routes, an essential consideration, besides the features of the route, is its suitability for future purposes. Particularly, integrating individuals from diverse backgrounds and raising awareness about cultural heritage through educating children and young people are key aspects in planning the route's future. Connecting cultural and artistic activities, contemporary culture, and cultural heritage, as well as promoting creative practices, are also encouraged for route design. Today, historical baths as parts

of the Kırkçeşme Water System are utilized for tourism, cultural events, and artistic activities, alongside their original functions and some unique rituals.<sup>16</sup> These baths are being reconsidered as alternative venues for exhibitions, performing arts, and visual arts as well as for purposes like museums and libraries. Developing comprehensive cultural practices for baths within framework of the cultural route is achievable.

**Relationship with artistic and literary works:** The incorporation of the values in cultural routes into artistic and literary works enhances the route culturally. As seen in Table 1, the connection between the route's elements and artistic and literary works is a significant evaluation criterion in the Cultural Routes Regulation and the World Heritage List Criteria. The structural and natural attributes of the Kırkçeşme Water System have often been depicted in various works across different fields.

Baths, a significant part of the system, have been a subject of artistic expressions like literature and painting within the culture they belong to, attracting attention from foreign cultures as well. The baths in Istanbul were portrayed from an orientalist viewpoint, particularly by travelers, statesmen, and writers from European nations. Helmunt Van Moltke, who visited Istanbul in 1835, elaborated on his bath experience here, detailing everything from the entrance to the washing area (Moltke, 2017). He provided thorough information on the preparation and washing process. Additionally, he described in detail the enjoyment phase of the Turks, which consists of lying down and drinking sherbet, coffee, and sticks after bathing. Similarly, in his guidebook from 1837, Claridge recounted his bath experience in Istanbul (Claridge, 1837).

#### **Evaluation: Historical baths as cultural route elements to be created**

The current status of the bath structures in the study area was assessed (Figure 8). A total of fifty-eight bath structures were evaluated in the study area. Fourteen of the bath structures were lost their cultural assets. Lost bath structures are mainly concentrated in the vicinity between the Sultan Selim Complex and the Fatih Complex. The original site of the Halil İbrahim Pasha Bath, one of the lost baths, is located on Atatürk Boulevard, which also perpendicular to the Bozdoğan (Valens) Aqueduct. Azepler Bath, existed in the city before the era of Sultan Mehmet II underwent repairs, and was demolished during the construction of Atatürk Boulevard (Köseoğlu, 1952).

Ten baths (10/58) are in ruins and have only the basic structure or some walls. Among them, there are baths from both the Roman and Ottoman periods. For instance, the ruins of a Roman bath next to the Bozdoğan Aqueduct in the garden of the Kalenderhane Mosque are visible at the ground (Figure 9).



**Figure 9.** Roman bath ruins in the garden of Kalenderhane Mosque.

There are eight (8/58) bath structures whose superstructure maintain the integrity but are neglected and requires restoration because they are out of use. These baths are not concentrated in a certain region but rather spread. Through maintenance and repair efforts, revitalization is possible for baths requiring restoration. Ayşe Kadın Bath, which is an example of a typical bath with its small scale, is one of the baths that can be used after restoration in the city. Balat Çavuşbaşı Bath, one of the oldest baths in Istanbul, shares similar potential for use as other baths in need of restoration. However, Hançerli Bath (1/57) is not in use, though it is in a good and relatively well-maintained condition.

The baths in the Istanbul Hanlar District, which exist with the dominant trade activities, are utilized for commercial purposes. Although Tahtakale Bath, Alaca Bath, Mahmut Pasha Bath, and Hoca Pasha Bath are structurally sound, they are primarily used for commerce rather than their original function. Mahmut Pasha Bath, situated in a bustling commercial area of Istanbul, underwent extensive restoration in 1989; the '*soyunmalık*' (changing room, known as the *camekân*) section now serves as a shop, '*ılıklık*' (the warm room) section functions as a tea house, and '*sıcaklık*' (the hot room) section is used as a carpet sales store (Kuruçay, 2010).

Five baths (5/58) serve cultural purposes such as exhibition areas, museums, event spaces, and performance venues. Hünkar Bath, Valide Sultan Bath, and Beşir Ağa Bath are located within the Topkapı Palace Complex, making them accessible as part of the palace complex museum. Following the restoration of the historical Çinili Bath (Zeyrek)<sup>17</sup> to its original function, it was utilized as a special performance space during the 17<sup>th</sup> Istanbul Biennial in 2022 (Figure 10). This allowed visitors to explore the baths' structure. Currently, apart from hosting exhibitions and special performances on occasion, it also houses a permanent museum. Beyazıt Bath is also one of the bath structures utilized as a museum.

Sixteen baths (16/58) still maintain their original function. These baths are distributed across the study area, with a notable concentration between Fatih Complex and Sarayburnu, now a popular tourist spot. The interest from both local and foreign visitors has played a significant role in preserving the original function of the baths. Among the baths in the Historical Peninsula, Haseki Bath which is located between Hagia Sophia and Sultan Ahmet Mosque, and designed by Sinan the Architect, stands out as a particularly intriguing attraction for tourists. Additionally, Acemoğlu Bath, one of the baths that continues its original function today, holds historical significance as the sole remaining example of the *Yeniçeri* quarters baths (Kuruçay, 2010).

Which of the bath's users want to see within the study area, used for cultural purposes, commercial purposes, in ruins, needing restoration, or still functioning, will personalize the route experience for users (Figure 11). The Bozdoğan (Valens) Aqueduct stands out as a focal point in the study area due to its physical dominance. This focal point, created by the aqueduct, offers insights into the historical water systems' interaction with their surroundings and the role of baths in urban spaces (Figure 8). In this area, visitors can explore the ruins of a Roman bath, one of the oldest baths in the city, located near the aqueduct in the garden of the Kalenderhane Mosque, as well as various surviving baths from the Ottoman era. The Çinili Bath in this area serves as a prime example, used for both cultural purposes and its original function, hosting a museum, performance arts, and exhibitions at specific times. Besides its primary function, it also promotes awareness and sustainability through contemporary art events. The region encapsulates the entire water system, from water collecting in cisterns and wells, water transportation through aqueducts, water distribution via water with water towers, to water utilization in structures like fountains, baths, and shadirvans.



Figure 10. Çinili Bath, an image from the Healing Ruins Exhibition in 2023 (Çinili Hamam, n.d.).

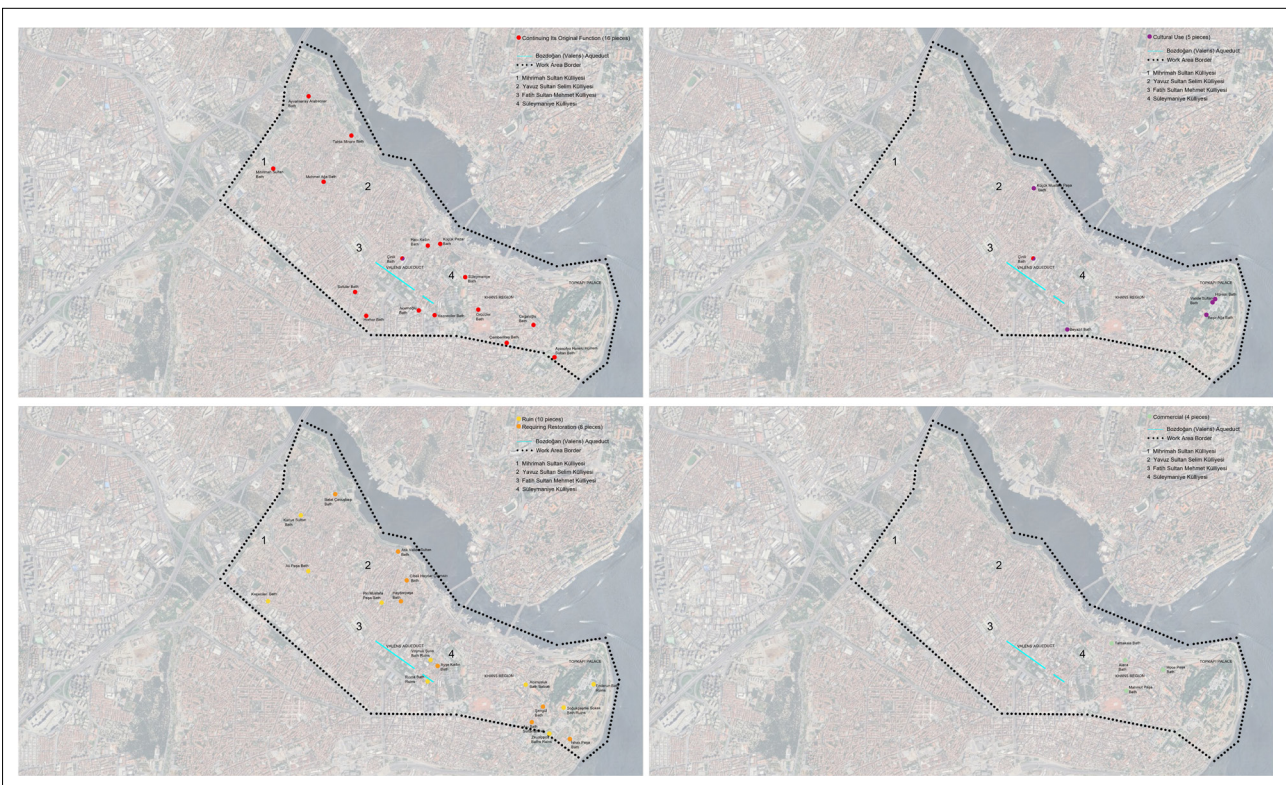


Figure 11. Alternative route contents: baths that maintain their original functions, baths for cultural use, ruins and baths requiring restoration, commercial use baths.

## CONCLUSION

The historical baths situated along the historical line of Kırkçeşme Water System encompass a diverse range of historical and cultural assets. These structures, as part of

a proposed new cultural route, allow for comprehensive planning that incorporates supportive functions and intangible components. Recommendations have been put forth for the route, considering the cultural route evaluation criteria in Table 1 and the current state of the baths.

In this context, the proposed cultural route for the baths, whose values are explained in the article, is defined in line with the temporal characteristics' subheading in the first part of the table. In line with the second part of the table, where the aims of conservation and participation in contemporary life are conveyed, the baths in the study area stand out in terms of their functional features such as maintaining their original function and use within the scope of cultural and artistic activities, contributing to economic and environmental sustainability, and brand and promotion potential. Consequently, suggestions and evaluations have been made under the following headings. In this regard,

Defining the cultural route:

- Kirkçeşme water system and structures such as the baths constitute an example of existing historical lines whose physical traces can be followed today, as seen in the temporal characteristics subheading in the first part of Table 1.
- It is possible to experience the system in its entire or partial elements. A concept can be developed to cover the entire line or focus on a specific segment or type of structure within the system, such as the historical baths highlighted in this study.

Recommendations for function; original function, cultural and/or artistic activities:

- It can be seen in Table 1 that in the evaluation of cultural assets, the preservation of their structural originality and integrity, as well as the continuation of their original function, are important for holistic conservation. Ensuring the integration of the activities and cultural functions discussed under the 'Cultural Tourism and Art Activities' subheading in the second part of the table into the cultural route supports the aims of transferring heritage elements to the future and integrating them into contemporary life. Function recommendations and evaluations have been developed in this context.
- Revitalization of the original function of structures that are possible to maintain their original function (for example, bath structures that require restoration can be restored and used with their original function); For those unable to continue their original function, functions that include cultural activities such as exhibition areas and museums can be recommended. The Atik Valide Sultan Bath (Ayakapı Bath), constructed by Sinan the Architect, and situated in the study area, is an example of a bath that can be used with its original function after restoration.
- As we see in the example of the Çinili Bath, a comprehensive planning approach can be carried out by combining creative contemporary applications with traditional uses in possible structures such as cisterns, maksems, and *sebils* belonging to water systems, as well as baths.

- By combining the use with contemporary arts and cultural events, the working principle of the water system can be explained to the target audience in a suitable section of the route. For example; Bozdoğan (Valens) Aqueduct has a fountain at one end, a cistern structure at the other, and many baths in the vicinity. Therefore, it is possible to show the relationship between storage, transportation, and usage structures.
- Different interpretation and presentation techniques and educational activities for different target groups should be supported to explain the importance of water and historical water systems and structures in the development of the city.<sup>18</sup>

Recommendations for economic, and environmental sustainability:

- The cultural, environmental, and economic sustainability characteristics of cultural routes and their elements are evaluated under the subheading 'Sustainability' in the second section of Table 1. The baths evaluated within the scope of the study have potential in this context.
- The baths, which still mostly maintain their original functions, have shown cultural, social, and economic continuity for centuries. It has the potential to contribute to environmental sustainability by encouraging its use with other structures of the historical water system, such as the cistern structures used to store water, especially those around the baths.<sup>19</sup>

Brand and promotion suggestions:

- As seen in the 'Brand and Promotion' subheading in the second section of the 'Evaluation Criteria for Creating a Cultural Route' table, the promotion of the system of which cultural routes are members and the route itself provides an advantage in terms of the awareness of the route.
- European Thermal Heritage Day is annually celebrated as part of the European Historical Thermal Cities Route, a cultural route of the Council of Europe that also highlights Turkish thermal spa areas like those in Bursa and Afyonkarahisar.<sup>20</sup> This helps to increase the visibility of the tangible and intangible cultural heritage of these structures. Similar to international cultural routes, route-specific festivals can be organized for Istanbul baths to integrate these structures into social and cultural life.

## NOTES

<sup>18</sup>“L'Europe continue” report, Strasbourg, 13 and 14 October 1964. In the early 1960s, the Council of Europe aimed to make the fundamental principles of the European Cultural Convention clear and visible to all Europeans. The Council of Europe brought together a group of experts to consider what to do to "improve collective awareness". They were



in favor of the idea of evaluating Europe's leading cultural venues, incorporating them into entertainment culture, and discovery through travel. The working party considered that it would be advisable to place greater importance on cultural journeys, which are one of the best uses of leisure time. Quoted in 'Impact of European Cultural Routes on SMEs' Innovation and Competitiveness', The Council of Europe, 2010.

<sup>2</sup>For example, the form of the original movement that took place in the proposed route in the past and the local meaning of the spirit of the movement is questioned in the European Good Walking Code document prepared by the ERA commission in 2002. It is recommended that the walk be done by the original version of the route.

<sup>3</sup>In the first half of the 2<sup>nd</sup> century, the city's water needs were met by canals built by Hadrian (117-138). Water channels convey the waters of Kağıthane Stream and Alibey Stream to the neighborhoods around the Golden Horn (Aysel, 2008).

<sup>4</sup>The aqueduct, considered one of the longest arches in the Roman world, is 971 m long (Crow, 2015).

<sup>5</sup>During the reign of Heraclius (610-641), in 626, the Avars seriously damaged the Bozdoğan (Valens) Aqueduct (Tabakoğlu, 2017). In the period before the Avar attacks, when Theodoric Strabon revolted against Emperor Zeno (474-491) in 487, the aqueduct was damaged for a short time, until it was repaired, the aqueduct lost its functionality (Crow, 2022).

<sup>6</sup>Basilica (Basilica Cistern Museum, 2023) Cistern and Binbirdirek Cistern, the two largest known closed cisterns of the Ancient World, dating back to the periods of Anastasios and Justinian, meet the large water reservoir needs of a crowded urban area (Crow, 2015).

<sup>7</sup>After the conquest of Istanbul (1453), Fatih Sultan Mehmet preferred to repair old transmission lines rather than using cisterns as the main element of the water system (Karakuş, 2019). With the addition of new springs to the old lines, plenty of clean water was brought to the city. Fatih and Turunçlu waterways emerged by rehabilitating the old line (Tabakoğlu, 2017).

<sup>8</sup>In the thematic study titled 'The Water Industry as World Heritage' prepared by James Douet in 2018 as a joint publication of ICOMOS - TICCIH; structures required for the acquisition, management, and control of water for human use; It is classified as water collection, water storage, water distribution and wastewater filtering (Douet, 2018). In his master's thesis titled İstanbul'daki Tarihi Su Sistemleri ve Kumrulukemer (Akyar Kemeri) Örneğinde Bozulma Nedenleri, Çözüm Önerileri ', structures belonging to water systems; are classified as water collection, water

transportation, water distribution, and water use structures (Akova, 2012). Within the scope of this study, structures belonging to historical water systems were classified according to their construction purposes, taking reference from the above-mentioned and similar studies.

<sup>9</sup>During the studies carried out, 25 cisterns were found within the borders of Sur-ı Sultani. One of these cisterns dates back to the Ottoman period (Altuğ, 2014).

<sup>10</sup>The waterway, whose construction started in 1554, was completed in 1564 (Karakuş, 2019).

<sup>11</sup>Since forty fountains were built during the construction of the Kırkçeşme system, this system is called 'Kırkçeşme Waters'.

<sup>12</sup>With this line, water was provided to places below 34 m elevation in the city (Salman, 2008).

<sup>13</sup>Uzun Kemer is the largest structure of the Kırkçeşme Water System. There are Roman ruins in the arch. There are documents showing that the part that was destroyed in the flood in 1563 was repaired by Sinan the Architect (Kolay, 2022). Eğri Kemer, which dates back to the Roman period, was also completely ruined and was later repaired by Sinan the Architect by opening it to its foundation (Kolay, 2022).

<sup>14</sup>For detailed information about water system structures, you can also refer to the master's thesis titled 'The Documentation and Suggested Protective Methods of the Monumental Structures That Belong to the Kırkçeşme and Taksim Historical Water Supply Systems' prepared by Ahmet Aygün at Mimar Sinan Fine Arts University in 2018.

<sup>15</sup>For detailed information; <https://kulturenvanteri.com/tr/harita/#10.96/41.116/28.9309>

<sup>16</sup>The bath hosted a variety of traditional rituals in Ottoman society. These included the postnatal bath, held on the fortieth day after a baby's birth, where a ceremonial procession entered the hammam. Red sugar syrup was poured, and a prayer was recited for protection. Bridal baths were customary for girls before their weddings, while henna baths were observed in some parts of Anatolia. Additionally, there was the fifteenth-day bath for brides and their relatives, circumcision baths for boys about to undergo the procedure, groom's baths for the groom and his entourage before a wedding, and soldier's baths for prospective military recruits.

<sup>17</sup>For detailed information about bath usage times and cultural events; <https://zeyrekcinilihamam.com/en>

<sup>18</sup>The 'Istanbul in Pursuit of Water' Project of the Culture Civic Culture and Arts Support Program financed by the European Union is a work that invites children aged 5 and above and

everyone to think about the concept of urban heritage with a focus on 'water'. In this context, various cultural events are organized. For detailed information; <https://www.culture-civic.org/projeler/suyun-pesinde-istanbul>

<sup>19</sup>The freshwater required for baths was obtained from natural water sources or structures such as wells and cisterns. In addition, there is information that some baths benefit from the snow and rain falling on their roofs (Önge, 1981).

<sup>20</sup>For detailed information; <https://historichermaltowns.eu/>

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