

# Urban Spatial Transformation Observed through the Lens of Osaka's Riversides

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## 1. The Urban Space Known as the Higashi Yokobori River

There is an artificial waterway that diverges from the Tosabori River in Kitahama, flows south through the heart of the city and extends to Dotonbori. That waterway is the Higashi Yokobori River. Although a river park has been prepared for use along one section of the river, the area is covered up by the Hanshin Expressway Loop, which runs overhead, and as a consequence sees few visitors. The Higashi Yokobori River has its origin in the construction of Osaka Castle, its history is long, and even among Osaka's artificial rivers and canals it is among the oldest type.



fig-1. Higashi Yokobori River

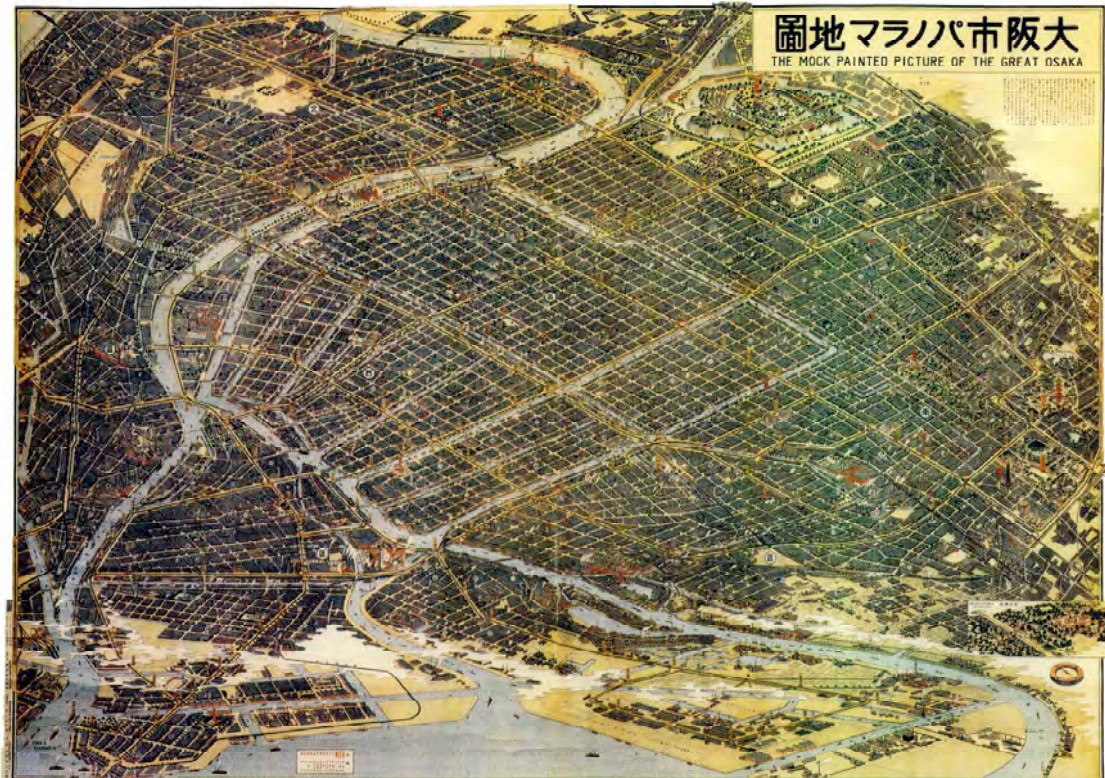


fig-2. Osaka Panorama Map (1923) Dai Osaka period

At one time, Osaka was called *mizu no miyako* (city of water/capital of water/aquapolis). The early modern river and canal excavations and the Edo-period(1603-1867) city area, the opening and development of new lands, and the magnificent and stylish culture that grew up around the riversides all symbolized Osaka during the early modern *mizu no miyako* period. Later, the Meiji-era(1868-1912) port construction and development project and the modern architecture that came to line the riversides during the *Dai Osaka* “Great Osaka” period of the Taisho (1912-1926) and prewar Showa(1926-1945) periods became the symbols of the city, but there was once a period during which Osaka was called *mizu no miyako*.

The city of Osaka developed possessing a spatial structure in which the riversides served as the city’s skeleton. However, unfortunately, in the contemporary city of Osaka one feels very little connection with the city’s riversides. How has the urban space of Osaka transformed the relationship between the city (urban land district) and its riversides? In this **report**, I would like to examine changes in the spatial structure of the riversides located in the Higashi Yokobori River area.

## 2. The Early Modern Era~The Modern Era

In 1585, the Higashi Yokobori River was constructed per the command of Toyotomi Hideyoshi as the outermost of the three circular moats that surrounded Osaka Castle. Until 1615 when the three circular moats were opened, the area around the Higashi Yokobori River was divided into two parts with the river itself serving as the boundary. To the east was Senba which was a residential area for merchant households and to the west was Uemachi which was a residential area for samurai households. In this area there was a clearly demarcated boundary. This method of urban partitioning developed with the major thoroughfare running east-west from Osaka Castle as its axis and in the Senba area, towns were established on both sides of the ditch carrying Toyotomi Hideyoshi's drainage from Osaka Castle and the drainage ditch itself came to serve as a town boundary. In addition, city roads running north-south were identified as *suji*, or secondary roads.

In this way, during the Edo period in the Osaka *sangō* (the three large subsections or jurisdictions into which the Osaka area was divided during the Edo period) a large number of artificial waterways were constructed, water transport developed, and the foundation of Osaka as *mizu no miyako* was secured.

Also, from the early modern to the modern period the Higashi Yokobori River and more generally the city's riversides were not only urban constructions, but were also intimately linked to every facet of urban life. The people and the cargo that emerged from Osaka's riverbanks were also responsible for the traffic that filled the streets of the city and even the water that Osaka's denizens needed each day for washing and cooking and the fertilizer they needed for agriculture linked the city to its riversides. For example, at that time, there existed peddlers called *mizuya* who transported and sold water for daily use. The *mizuya* made their way around the city distributing water to households that were located far from rivers and had difficulty getting water. In this way, the river was an indispensable lifeline that could not be severed for people living in Osaka at this time.

The intimate relationship between the city and the riversides of this period was formed by the common lands along the riversides that were called *hamachi* or *hama* in Osaka and the spatial structure of the riversides that gave birth to those riverside lands.

From the early modern to the modern period *hamachi* were publicly held lands and their use was closely restricted. The townspeople of the wholesale firms and other businesses around these *hamachi* paid a rental fee called *hamachi myōgagin* and used the *hamachi* as storage spaces.

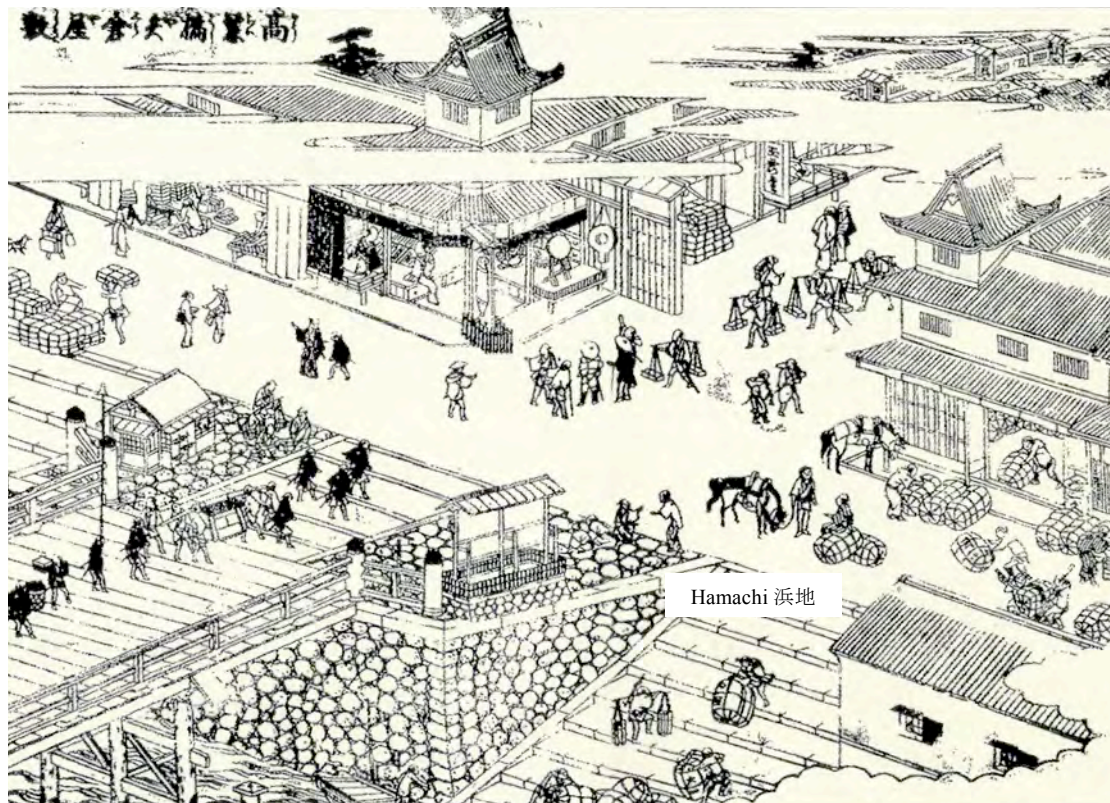


fig-3. Higashi Yokobori River, Kōrai Bridge area (Settsu Meisyo Zue)(1796-1798)

Structures called *ashidazukuri*, which were built on top of a raised wooden frame and stood above the sloping stone riparian works that ran along Osaka's waterways, lined the riverside *hamachi* areas and in the spaces surrounding these structures were stone stairs called *gangi* which extended down to the river and open spaces which were all 3 shaku wide (1 shaku=.303 meters) called *inubashiri*. In these places, spaces emerged which increased the accessibility of the both rivers and the city and were used by the people of the city. Among these spaces, the *gangi* and *inubashiri* were not only used for the traffic of people and cargo to and from the rivers, but also as spaces for water recreation where people played and caught the fish and crabs near the stone embankments of the riversides and as such also served as a common space of communication for neighbors and as a rest area for people on break from work. In this way, the *hama* were points of convergence that connected the city and its riverside areas and at the same time, as a boundary between the city and its riversides, were rich, attractive, and multifaceted urban spaces that played a complex range of roles.

Let us try now to trace the landscape of the river area at that time. Fig-4. is of the *ashidazukuri*-style white-walled storehouses, which lined the banks of the Higashi Yokobori River in an orderly manner. The figure of the area, which was captured in the sunlight, reflects beautifully off of the water enabling one to admire the impressive and emotive scenery. Fig-5. is of a crowded row of dyed goods storehouses on the eastern side of the Honmachi bend in the Higashi Yokobori River where artisans working in a washing area that thrusts itself into the river admirably manipulate long poles, dip dye powder into the river, and hang freshly dyed material to dry on a drying rack that is many times taller than a house. The cotton cloth, which is hung on the drying racks above, sways in the river wind and the work of the people melts into the river landscape. Other than

this, beginning with the turrets of the Kōrai Bridge area, the famous Kōrai steel bridge itself, and the crab boats connected by the sides of the bridges, there are numerous impressive scenes of the *hama* of this area.



fig-4. Ashidazukuri (Meiji Era)

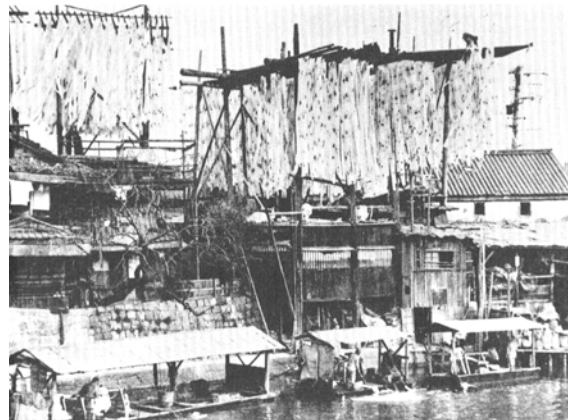


fig-5. Dyed goods storehouses(Taisyo Era)

Yet, how did the unique *ashidazukuri* architectural form come about? Its emergence is related to the Bakufu policy of *hamachi* management, which sought to maintain the *hamachi* as open spaces. The oldest policies or regulations concerning the *hamachi* date back to a record from 1649 (Keian 2) of an official proclamation and testimony which sought to prevent the disorderly and excessive development of the *hamachi* and a set of 12 regulations on rivers and other waterways from 1675 (Enpō 3). These can be seen as spatial regulations similar to the construction laws and regulations and area zoning restrictions of today. The *ashidazukuri* structures, which were constructed on the basis of the above sort of restrictions, played the role of protecting goods stored in riverside warehouses from flood damage and at the same time were built with the purpose of preserving the sky above the *hamachi* as an open space and as result, a three-dimensional spatial structure was created in which the linkages between the riversides and the areas surrounding them were preserved.

### 3. The Modern Era~The Prewar Era

With the advent of the Meiji era of civilization and enlightenment, trains, horse-drawn wagons, rickshaws, and large two-wheeled carts came to be used in the transportation of goods and the development of overland transport began. With this shift, water transport began to gradually decline.

On one hand, this period also marks a turning point in the environment in which water transport was carried out. There was a massive increase in the scale of vessels that came into operation with the steam ship. Until then Osaka's only outer port had been in Kawaguchi, which was located six kilometers upstream from the entrance to Osaka Bay, and it had been difficult for large-scale vessels to approach. At Kawaguchi, the trouble had to be taken to unload arriving cargo off of large-scale vessels and load it onto smaller ships before it could be carried to its final destination and as such it came to be thought that some sort of steps needed to be taken at the Osaka port to accommodate the increase in the scale of shipping vessels. There in 1897 (Meiji 30) Osaka city authorities began a project



fig-6. Map of Higashiyokobori River(1886)

of port construction. While it is well known that the Osaka city government struggled to raise enough money to carry out this project, which required massive funding, one part of the city's efforts to raise project funds that was proactively pursued was the sale of publicly owned lands. Osaka city, which had taken over ownership rights to the city's riverside *hamachi*, moved forward with the sale of that *hamachi* whose use value had declined and as a result the *hamachi* gradually began to lose their unique spatial character as open spaces.

The impact caused by the shift to overland transport also began to extend to the transformation of the urban structure of Osaka. Around the time of World War I (late Meiji~early Taisho), Osaka entered a period of dramatic urban industrialization and began to develop into a metropolis with a massive accumulation of industry and population. In order to cope effectively with the rapid increase in large-scale traffic, a railroad network extending into Osaka's suburbs and a municipal rail system within the city were constructed. In the formation of this overland transportation network, the structure of Osaka's urban core began to change from one based around an east-west axis that centered on artificial canals and rivers to one based around a north-south axis that centered on roads and highways. In the vicinity of the Higashi Yokobori River as well the widening of Sakai Boulevard (1912/Meiji 45) was carried out together with the construction of the municipal rail system.

Due to the large number and dense concentration of factories and row houses, the pollution of Osaka's rivers continued apace. The Osaka of the *mizu no miyako* period, which was constructed as a commercial city, began to turn into an industrial city, a *kemuri no miyako* (city of smoke). Accompanying this shift, the consciousness of the city's population began to move further away from the rivers.

Also, the period that spans the late Taisho and prewar Showa eras was the period during which urban planning was for the first time genuinely introduced into Japan. Rapidly growing cities were systematically designed and so as to realize the construction of urban areas possessing an organization and style on par with or exceeding cities in Europe and America, large-scale plans for major thoroughfares, such as the Mido Boulevard, and for the construction in the area around Osaka Station, etc. were prepared. This era is what was known as the "Great Osaka" era.

During this era, in Osaka's urban core, where the city's connection to its rivers and canals been weakening since the Meiji period, riversides once again became a focal point. The city beautiful movement, which possessed the will to once again make the riversides that symbolized the urban spatial structure of Osaka beautiful and grand despite the fact that it can be said that they had declined, grew increasingly larger, the construction rush to build Western-style architecture brought on by advancements in architectural technologies began, and around Osaka's riversides a landscape dominated by modern architectural structures emerged. Reflecting this resurgence of interest in Osaka's riversides, the sightseeing boat, the *mizu no miyako*, also came into operation and while the riversides had seen a change in their form, they were once again in the limelight. However, this period of resurgence was short-lived. With the strengthening of the wartime system, the riversides gradually lost their vitality.



fig-7. modern architectural structures of *mizu no miyako* (Prewar Era)

#### 4. The Postwar Era~The Era of High-speed Growth

As a consequence of the Second World War, which took place between 1941 and 1945 (Showa 16-Showa 20), Osaka's urban core sustained massive damage. During the postwar reconstruction period a war damage reconstruction land readjustment project was carried out in the Higashi Yokobori area. In the war damage reconstruction plan the total surface area of the Higashi Yokobori River was determined to be 7.22ha and it was decided that a riverside park area would be planned. This plan, which sought to turn the riversides around the waterways in the heart of the city to parks and link all of the rivers that encircled the core of the city (the Dotonbori River, the Higashi Yokobori River, the Dōjima River, the Tosabori River, and the Kizu River) into a connected whole, included most of the area that is today called the *mizu no kairō* (the water corridor). Also, the unique feature of this plan, as one part of the project of war damage reconstruction, was its provision for the installation of large-scale park areas, which the urban core of Osaka lacked, and establishment of a linked network which connected those parks. In particular, Higashi Yokobori River was identified as one part of that network structure which would run north-south and have Ōgimachi Park as its nucleus. Inheriting prewar trends, the reconstruction plan that appeared in the immediate aftermath of the war identified Osaka's riversides as its spatial axis.

However, most of this plan was never realized. While it can be assumed that there were a number of factors that kept the project from being completed, including insufficient funding for war damage reconstruction projects, a lack of public facilities in the process of executing the project of land readjustment, etc., it is easy to surmise that the establishment of this sort of large park network in the existing city area during the postwar confusion would have been exceedingly difficult.

Entering the period of high-speed growth between 1955 and 1965 (the Showa 30s) the water quality of the Higashi Yokobori River declined dramatically due to pollution from the Neyu River upstream and environmental problems caused by the rapid increase in automobile traffic and the building rush in riverside urban areas began to intensify.

Together with this dramatic economic and industrial growth, the Osaka metropolitan area began to grow even larger. Together with the arrival of the full-fledged automobile era, debates about urban highways for the purpose of coping effectively with rapidly increasing automobile traffic were carried out at a fevered pitch. In Osaka, which had only a



fig-8. Postwar Park Plan (1947)

weak traffic infrastructure because it was a historical city, there was no road system to deal smoothly and effectively with the rapid influx of automobile traffic into the urban core and as such the preparation of a highway system to make up for that lack quickly became a major issue. However, in the extremely congested preexisting city the open land necessary for the construction of such an urban highway system could not be secured and as the result of a series of debates the air space directly above the rivers, which had been maintained as a valuable open space in the core of the city, was in the end reluctantly selected as the route. Then in 1965 (Showa 40), the Hanshin Expressway was opened for traffic above the Higashi Yokobori River.

Also, from the time of the aforementioned war damage reconstruction land readjustment project, in the urban core of Osaka one after the next the rivers and canals of the waterway network which had spread across the city like the strands of a web, were filled in. The Nishi Yokobori River, which was west of and flowed parallel to the Higashi Yokobori River, a river that had escaped being filled in as the result of a number of circumstances, was filled in at the same time that the Hanshin Expressway was being constructed overhead. Also, in 1961 the Nagahori canal, which had flowed east-west through the center of the city, was filled in.

After that, repairs were made on the embankments of the Higashi Yokobori River as part of the small urban waterway repair projects carried out between 1968 and 1976 (Showa 43-51). The continuity that had bound the city to its rivesrides was severed by these embankments. The Higashi Yokobori Park, which was constructed as part of the park and green space installation projects carried out at the same time, was at last realized as a fragment of the prewar design for a network of riverside parks.

In this way, the spatial structure of present-day Higashi Yokobori River was almost complete.

## **5. The Higashi Yokobori River in the Future**

Presently Osaka is developing a variety of measures with the aim of regaining the appellation *mizu no miyako*. While making use of the resources of its riversides, the city is working to improve the environment and the landscape of the riversides and turn them into bustling spaces. They are seeking to transform the rivers that encircle the city center, something very rare worldwide, into a water corridor through the installation of facilities in river areas, such as the Tonbori Riverwalk and Hachikenyahama. The authorities have also worked energetically to transform the riversides through the planning and holding of events beginning with the “Renaissance of Light” and through the use of boats in programs like the “Naniwa Discovery Cruise” and in response the people’s interest appears to be growing. In 2009, there are also plans to hold “Mizu no miyako Osaka 2009” as a symbolic event.

Together with this flurry of riverside activity, a movement to reform riversides in the vicinity of the Higashi Yokobori River has also appeared. Efforts at improving the water quality have achieved results, restaurants and residences have once again started to be built along the rivers, and little by little

activity is returning to Osaka's riversides. At the Higashi Yokobori River

Waterway Regeneration Committee, which was founded by area residents and workers, NPOs, and representatives from the Osaka Chamber of Commerce and Industry, people are planning riverside concerts, organizing volunteer bridge cleaning projects, and beginning to try to rebuild a relationship to the isolated riversides of Osaka. For Osaka to genuinely realize the regeneration of the city as *mizu no miyako*, the riversides must be opened to the city and there is also a necessity to reconstruct the relationship that connected the city and its riversides. There are many problems that need to be resolved, including the highways, which were built out of impending necessity, the vertical embankments which isolate the riversides, and the rows of buildings that stand with their backs facing the riversides, etc. However, a city worthy of the designation *mizu no miyako* must possess a spatial structure in which riversides form the axis. The movement to reform the riversides is already showing signs of beginning. I think that we are next coming to the step where we need to consider how the structure of the city should be reorganized to face the riversides.

#### Creating an Attractive Urban Environment and Developing Water Corridors that Reflect the City's History

Our goal is to create throughout Osaka, the city of water, distinctive landscapes that maximize its natural properties.

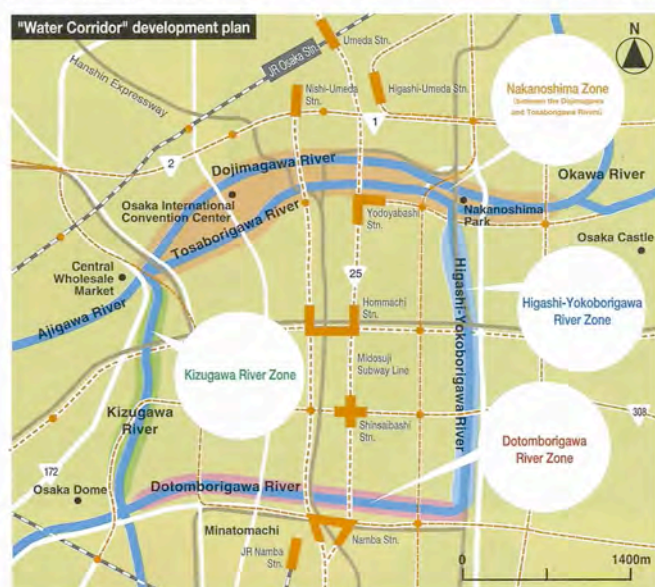


fig-9. Water Corridor Development Plan

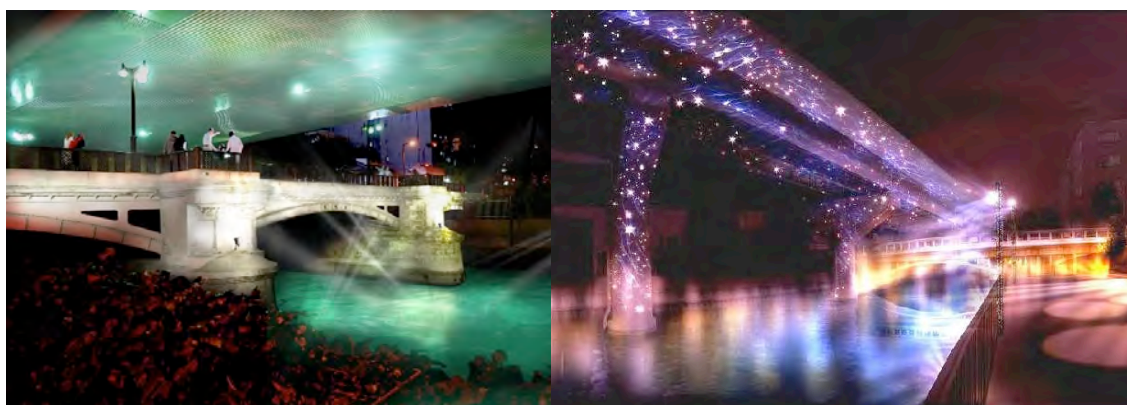


fig-10. Light Up of Higashi Yokobori River