

The Evolution of Swimming Practices in Tokyo's Waterways and Its Implications for Urban Life Today

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17 April 2025

Introduction

Tokyo's waterways, once integral to the city's cultural and urban life, have undergone significant changes over time. In the Edo period (1603–1868) and up to the Taisho period (1912–1926), rivers were a central feature of cultural activities, including swimming. However, as urbanization and industrialization progressed, these practices largely disappeared. This thesis aims to explore the historical evolution of swimming in Tokyo's rivers, investigating its role in shaping urban life and cultural identity.

In the book *Tokyo: A Spatial Anthropology*, Hidenobu Jinnai uncovers how Edo was once a 'city of water'. Walking around Tokyo with a historical map in hand, Jinnai has demonstrated how rivers and canals played a fundamental role in shaping the city's urban fabric, influencing transport, trade, and daily life. His research has highlighted the lost connections between the people in Tokyo and their waterways, emphasizing how modern infrastructure has severed the city's historical reliance on water.

While Jinnai's research focuses on the role of water in Edo's urban structure, this thesis narrows in on how these waterways were not just functional but also central to cultural activities, particularly swimming. Exploring resources such as Ukiyo-e (traditional Japanese woodblock printing/painting) and historical documents presented in museums and cultural institutions in Tokyo, this thesis will add a new dimension to our understanding of Tokyo's relationship with water.

Historical Context of Swimming in Tokyo's Waterways

The City of Water – Edo Tokyo

Water has long held a central place in the daily life and culture of Japan, shaping its communities, traditions, and ways of living. Rivers were not only practical lifelines, but also spaces of spiritual, commercial, and recreational significance. The Nihonbashi River, for instance, served as a bustling hub of transportation, commerce, and culture, an artery of urban life that connected markets, merchants, and neighborhoods.

In contrast, the Sumida River, flowing farther from the castle and the noise of the city center, became a sacred space associated with purification and spiritual retreat (Jinnai, 2020). Seen as a holy river, it was where people performed *mizugori*, the ritual of self-cleansing with cold water, and found a rare tranquility that allowed them to connect with nature and themselves. Along rivers in Tokyo, people washed clothes, dyed fabrics, swam, fought, and celebrated festivals like the Ryogoku fireworks, reflecting a deep and multifaceted engagement with water. While swimming today is often viewed as a leisurely activity, in historical Japan it had a far more serious function; the traditional swimming practice was closely tied to martial discipline, survival, and preparedness.

Traditional Japanese Swimming Techniques (Nihon Eiho)

Japan has a long and unique history of swimming techniques known as *Nihon Eiho*, which were developed during the feudal era. Unlike Western competitive swimming, *Nihon Eiho* encompasses a variety of styles, many of which were originally designed for practical or martial purposes. Samurai were trained in these techniques to swim in full armor, cross rivers efficiently, and even engage in combat while swimming. These traditional methods were practiced in Edo-period waterways and were passed down through generations.



Fig. 1.1 'Hokusai Manga' Volume 4 (1815)



Fig. 1.2 'Sansui Kacho Hayabiki Manga' Volume 3 (1880)

In Volume 4 of Katsushika Hokusai's *Hokusai Manga*, *Nihon Eiho* is depicted in unique ways. Some individuals are shown using floating devices called *Ukiharamaki* (浮腹巻), which translates to 'floating belly band'. A similar device is also portrayed in Volume 3 of *Sansui Kacho Hayabiki Manga*, a series by Katsushika Isai, a pupil of Katsushika Hokusai. While the exact materials used for these devices remain unknown, their shape and visible seams suggest that they were possibly made of leather. The drawing also depicts people treading water while holding up their clothes, swimming while gripping a horse, and attempting to catch koi fish underwater.



Fig. 1.3 'Gokusho Asobi' (1852), Ota Memorial Museum of Art

Another notable drawing that captures the culture of swimming during the Edo period is *Gokusho Asobi*, which translates to ‘Playing in the Extreme Heat’. This ukiyo-e by Utagawa Kunisada depicts five men swimming in the Sumida River while people on a roofed boat watch them cheerfully. Their swimming styles are truly unique: *Dozaemon Oyogi*, where one floats on their back; *Shachihoko Tachioyogi*, where the lower body is held upright above the water; *Tokkuri-mochi Oyogi*, where one treads water while holding a sake bottle and cup; *Suribachi Oyogi*, where the head and feet stick out of the water while the waist remains submerged; and *Kaeru Oyogi*, where one floats using a wooden board. In fact, all the people depicted in this painting are Kabuki actors. The men swimming in the river are supporting actors of lower status, while the popular star actors are the ones enjoying the spectacle from the boat (Ota Memorial Museum of Art, 2021).

Suirenba: From Martial Training to Summer Tradition

According to Shoho Diary, the history of swimming in the Sumida River goes far back: on June 9th of 1647, Shogun Iemitsu went to Sumida River on a boat to observe the swimming training of his close retainers, vassals, and foot soldiers. He returned on the 25th of the same month, summoned Hotta Masamori, a daimyo of the early Edo period, and instructed him to ‘build huts along the riverbank every year and have the off-duty foot soldiers practice swimming’. From that point on, every year from before the *Doyo* period (mid-July) through August, twelve swimming huts were set up along the Suwamachi riverbank in the Asakusa area (Toshima, 1967). This tradition of swimming practice continued throughout the Edo period and became one of the typical summer scenes. Rows of reed-covered huts lined the banks, with flags from different schools of *Nihon Eiho* marking each hut.

Originally developed as a martial art, *Nihon Eiho* remained closed to outsiders for much of its early history. However, by the Meiji period, many schools began opening to the public and offering instruction beyond their inner circles. These swimming areas on the rivers were called *Suirenba* (水練場) and the Sumida River continued to be a major site for this expansion.

The area around Hamacho (now part of Nihonbashi in Chuo Ward) was especially active, with a concentration of training huts. These facilities were simple: changing areas and watchtowers

were built near the river, and swimming zones were marked with stakes, logs, and buoys to keep swimmers within safe boundaries. The central part of the river was kept clear for boat traffic, so logs also served as both boundaries and targets for swimmers (Aida, 2001). After entering through the entrance and taking off their kimono, people could go down a small stone staircase and immediately step into the river. Boats were floating at various points in the river, and narrow logs were connected to form a pool-like enclosure, which extended to about one-third of the width of the main river. Beginners would hold onto poles and practice within the enclosure, and once they improved, they would leave the enclosure and swim in the main current (Mori, 1989).



Fig. 1.4 'Illustration of Ryogoku Suirenba'
Fuzoku Gaho Volume 121 (1896)



Fig. 1.5 Suirenba in Sumida River, 'Tokyo
Keshiki Shashin Ban' (1893)

From Tradition to Competition

This environment helped create a foundation for competitive swimming in Japan. Different schools of *Nihon Eiho* began to interact and compete with one another, and formal swim meets began to take shape. Some of the earliest organized school swim clubs were established in the 1870s and 1880s by institutions like Gakushuin and the University of Tokyo, which held practices in the Sumida River. Japan's first international swimming competition took place in 1897 at the Yokohama wharf, followed by another in the Sumida River the next year—both were won by Japanese swimmers.

Japan's national swimming team made its Olympic debut in 1920. By the 1924 Games, they had already placed fifth, and in 1936, swimmer Hideko Maehata won a gold medal in Berlin. During this time, many athletes still trained in rivers, as indoor pools were not yet widespread. Competitive swimming in Japan developed quickly, but its roots can be traced back to traditional swimming practices and the longstanding use of rivers for public training.

However, the changes in the urban environment gradually made river swimming less viable. In 1917, swimming was banned in the lower part of the Sumida River due to increased pollution caused by industrial growth along the riverbanks. As a result, many swimming areas moved to the suburbs.

The Shift to Arakawa River

In the Showa period, the construction of the Arakawa Flood Bypass led to the emergence of new *suirenba* along the Arakawa River, especially around the Senju Shinbashi area. In the book *Arakawa Hosuiro Monogatari*, Yukie Kinuta maps the approximate locations of *suirenba* that once existed along the Arakawa River and vividly depicts the atmosphere and spatial qualities of these swimming areas through interviews with local residents.

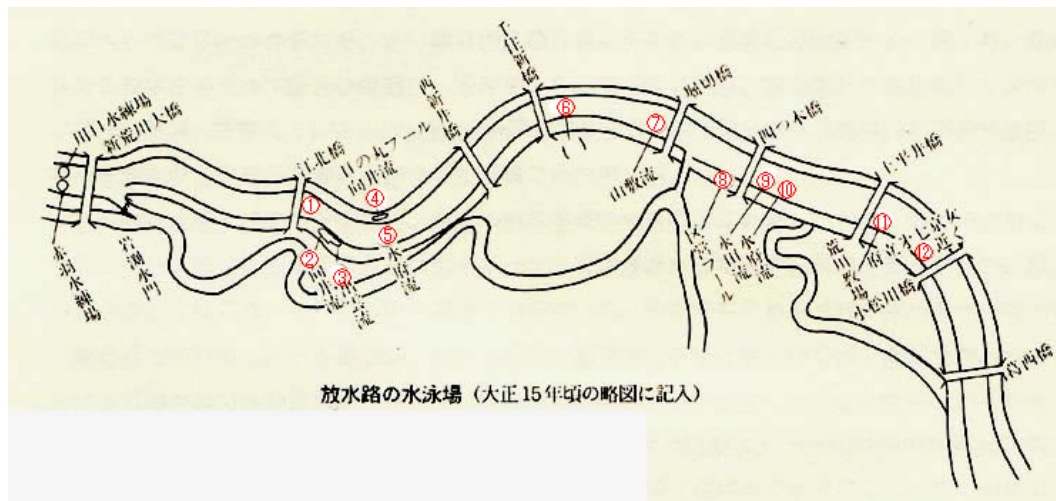


Fig. 1.6 Suirenba Locations along Arakawa River

Downstream from the old Yotsugi Bridge (point 9 on the map), during summer, a large pool about 20 meters long and 10 meters wide, enclosed by wooden boards, would float in the floodway. Thick logs were used for the pillars at the four corners, and the bottom and sides of the

box were made of slatted boards, spaced like a wooden grate. The box was firmly anchored with weights so it would not drift away. The slatted box would naturally rise and fall with the tides. On the riverbank, where the water would rise during high tide, reeds grew thickly, and two separate piers extended through the reeds from the embankment. There was a temporary hut for changing clothes, and the pool floated in the river. Once the students could swim in the boxed-in pool, they would cross the floodway. When they were able to cross it, they would get a white cap with two black stripes. If they complete the long-distance swim from the old Yotsugi Bridge to Komatsugawa Bridge (point 12 on the map), they were able to receive a purple cap and assist the instructors (Kinuta, 1990). These areas along the Arakawa River continued to serve as informal training sites and play spaces for local children.



Fig. 1.7 Children swimming in Arakawa River in 1932

Still, by the late 1940s and early 1950s, swimming in urban rivers became increasingly rare. As Japan entered a period of rapid economic growth after World War II, water quality declined due to factory waste and household sewage. Rivers became unsafe and unpleasant, and public swimming areas disappeared. Along with them, the ferries and steam-powered boats that once moved through the rivers also faded from daily life. The connection between people and the river, once a part of everyday summer activity, gradually diminished.

Museums and Water Narratives

Tokyo is home to a diverse range of museums and institutions that engage with water, yet the ways in which water is represented, and the narratives that emerge from these representations, vary significantly. While some institutions focus on water as a technical resource, essential for drinking, sanitation, and urban infrastructure, others gesture toward its historical, ecological, or cultural roles. Despite the city's long history of people engaging with rivers in multiple ways, especially from the Edo to Taisho periods, swimming rarely appears as a central theme. When it does surface, it is often treated as a nostalgic anecdote or as a visual element in ukiyo-e, rather than as a practice with relevance for today's urban experience.

Application of Water Museum Network Taxonomy to Tokyo

	Museum/Site Name	Type	Description	Sources
1	Tokyo Waterworks Historical Museum	1. MUCD 2. IDEM 3. WASH 4. ANTE 5. INTL 6. GOOD	Tokyo Waterworks Historical Museum is located in Bunkyo, Tokyo. This museum showcases the evolution of Tokyo's water supply system from the Edo period to the present. Exhibits include historical artifacts, such as old wooden water pipes, and detailed explanations of canal construction that supplied fresh water to the city. This museum is situated next to the Hongo Water Supply Station Park.	https://www.suidorekishi.jp/en/
2	Tokyo Water Science Museum	1. MUCD 2. IDEM 3. WASH 4. ANTE 5. INTL 6. GOOD	Situated in Koto, Tokyo, Tokyo Water Science Museum educates visitors about the science and importance of water. It features hands-on exhibits, including the "Aqua Trip" theater, "Aqua Forest," and "Aqua Town," which explore water's journey, its role in nature, and its significance in daily life. The museum aims to promote a deeper understanding of water resources and their conservation.	https://www.mizunokagaku.jp

3	Tokyo Sewage Museum Rainbow	1. MUCD <u>2. IDEM</u> 3.WASH 4. ANTE 5. INTL 6. GOOD	Tokyo Sewage Museum Rainbow is located in the Ariake district of Tokyo. It is dedicated to educating the public about the city's sewage and wastewater systems. It offers interactive displays and models that explain the processes involved in water treatment and sanitation, highlighting the importance of wastewater management in urban environments.	https://www.nijinogesuidoukan.jp/en/
4	Okutama Mizu to Midori no Fureaikan	1. MUCD <u>2. IDEM</u> 3.WASH 4. ANTE 5. INTL 6. GOOD	Located in Okutama Town, Okutama Mizu to Midori no Fureaikan is a collaborative effort between the Tokyo Metropolitan Government Bureau of Waterworks and Okutama Town. The center comprises six exhibition areas, including a 3D theater and various displays that introduce visitors to the natural environment of Okutama, the workings of the Ogochi Dam, and the region's history and folklore.	https://www.waterworks.metro.tokyo.lg.jp/eng/pr/fureaikan.html
5	Edo Tokyo Museum	<u>1. MUCD</u> 2. IDEM 3.WASH 4. ANTE 5. INTL 6. GOOD	Edo Tokyo Museum is located in Sumida, Tokyo. It chronicles the history and culture of Tokyo from the Edo period to modern times. Exhibits include life-sized replicas, historical artifacts, and interactive displays that depict urban life, architecture, and the city's transformation over the centuries. The museum serves as a comprehensive resource for understanding Tokyo's rich heritage.	https://www.edo-tokyo-museum.or.jp/en/
6	Ochiai Water Reclamation Center	1. MUCD 2. IDEM 3.WASH <u>4. ANTE</u> 5. INTL <u>6. GOOD</u>	Located in Shinjuku, Tokyo, Ochiai Water Reclamation Center treats wastewater and promotes sustainable water usage. It offers tours and exhibits that explain the water recycling process, showcasing how wastewater is purified and	https://www.tgs-sw.co.jp/business/service/c02/c09/

			returned to the environment, contributing to the city's water sustainability efforts.	
7	Tamagawa Josui	1. MUCD 2. IDEM <u>3. WASH</u> <u>4. ANTE</u> 5. INTL 6. GOOD	Constructed in the mid-17th century, Tamagawa Josui was built to supply drinking and fire-fighting water to Edo (now Tokyo). Today, parts of the canal and its surrounding green spaces serve as recreational areas, with walking paths that highlight its historical significance and contribution to the city's development.	https://www.waterworks.metro.tokyo.lg.jp/eng/pr/waterworks/tamagawa.html
8	Ota Memorial Museum of Art	<u>1. MUCD</u> 2. IDEM 3. WASH 4. ANTE 5. INTL 6. GOOD	Founded on the collection of the late Seizo Ota V, the Ota Memorial Museum of Art specializes in ukiyo-e woodblock prints. The museum holds around 12,000 works, many of which depict scenes from everyday life in the Edo period, often featuring water as an integral part of the landscape, daily activities, and seasonal imagery.	https://www.ukiyoe-otamuse.jp/eng/
9	The Sumida Hokusai Museum	<u>1. MUCD</u> 2. IDEM 3. WASH 4. ANTE 5. INTL 6. GOOD	The Sumida Hokusai Museum is dedicated to the world-renowned ukiyo-e artist, Katsushika Hokusai. He was born in Sumida-ku in 1760 and spent almost the entire 90 years of his life there where he created many masterpieces. Many of his artworks feature rivers, bridges, rain, and coastal scenes, reflecting the presence and importance of water in everyday life during the Edo period.	https://hokusaimuseum.jp/?lang=en
10	The National Museum of Emerging Science and Innovation (Miraikan)	1. MUCD <u>2. IDEM</u> 3. WASH 4. ANTE 5. INTL 6. GOOD	The National Museum of Emerging Science and Innovation (Miraikan) , in Odaiba, is a cutting-edge science museum. It includes exhibits related to the water cycle, environmental challenges, and sustainable technologies. Through	https://www.miraikan.jst.go.jp/en/

			this lens, water is presented as a global scientific issue, closely tied to climate change, human survival, and innovation for future cities.	
11	Arakawa Museum of Aqua (amoa)	1. MUCD <u>2. IDEM</u> 3. WASH 4. ANTE 5. INTL 6. GOOD	Arakawa Museum of Aqua (amoa) focuses on the Arakawa River and Tokyo's water infrastructure. It educates visitors on flood control, river management, and how Tokyo protects itself from water-related disasters. This museum shows how Tokyo's relationship with water is shaped by engineering and constant vigilance, especially in a city prone to typhoons and flooding.	https://www.arakawa-amoa.com
12	Tokyo Gas Science Museum	1. MUCD <u>2. IDEM</u> 3. WASH 4. ANTE 5. INTL 6. GOOD	Tokyo Gas Science Museum is a facility that explains how gas is used in daily life and how energy systems function. It also touches on the interaction between water and energy, showing how water is essential in energy production and in household infrastructure.	https://www.gas-kagakukan.com
13	Mizumoto Park	1. MUCD 2. IDEM <u>3. WASH</u> 4. ANTE 5. INTL 6. GOOD	Mizumoto Park is a large park in Katsushika-ku known for its canals, ponds, and wetland ecosystems. It offers a naturalistic environment in an urban area and shows how water can contribute to biodiversity, leisure, and flood prevention. The park demonstrates how integrating water into public space can support both ecological health and community well-being.	https://www.tokyo-park.or.jp/park/mizumoto/
14	Sumida River Terrace	1. MUCD 2. IDEM <u>3. WASH</u> 4. ANTE 5. INTL 6. GOOD	Sumida River Terrace is a public promenade along the Sumida River. Once heavily industrialized and isolated from the city, the riverbanks have been redesigned for recreation and accessibility. This transformation reflects a modern urban strategy	https://www.tokyo-park.or.jp/water/terrace/index.html

			to re-integrate water into people's lives and to soften the relationship between city and river.	
15	Old Iwabuchi Watergate	1. MUCD 2. IDEM <u>3.WASH</u> <u>4.ANTE</u> 5. INTL 6. GOOD	Old Iwabuchi Watergate is a historical floodgate located where the Arakawa and Sumida Rivers meet. Built in the early 20th century, it represents a key part of Tokyo's flood defense system. It tells the story of how Tokyo has engineered its rivers to protect against natural disasters, and how infrastructure has shaped the city's growth.	http://kanko.city.kita.lg.jp/spot/240-2/
16	Kanda Josui	1. MUCD 2. IDEM <u>3.WASH</u> <u>4.ANTE</u> 5. INTL 6. GOOD	Kanda Josui was one of the earliest aqueducts constructed in the Edo period to supply fresh water to the growing population of Edo. It highlights the importance of clean water in urban development and is a symbol of early Japanese urban planning and civil engineering centered around water access.	https://visit-chiyoda.tokyo/app/spot/detail/46



Fig. 2.1 Map of museums in Tokyo and their representations on water

 drinking
  sewage
  swimming
  safety
  shipping

Museums such as the Ota Memorial Museum of Art and the Sumida Hokusai Museum exhibit multiple paintings and drawings that depict swimming, conveying how swimming culture is embedded in traditions of martial practice as well as in scenes of people simply enjoying the water. However, as seen on the map, current institutional approaches tend to frame water through lenses of technical/infrastructure aspects such as drinking, sewage, safety, and shipping, leaving little space for understanding it as a lived or relational experience. Yet there is significant potential for museums to act as platforms for change. By integrating more experiential and culturally embedded narratives such as swimming into their exhibitions, walks, and educational programs, these institutions could help reconnect people with urban water in ways that are sensory, emotional, and socially meaningful. Such reframing would not only enrich public knowledge of Tokyo's water heritage but also contribute to more inclusive and imaginative approaches to urban planning, where water is seen not only as a resource to manage, but as a shared space to inhabit. This shift could encourage broader participation in environmental stewardship and deepen the cultural value placed on water as part of everyday life.

Reconnecting with Water in Modern Tokyo

Although swimming is not allowed in Tokyo's rivers today due to water quality and safety concerns, various movements advocate for reviving the city's swimming culture. For example, in the Kanda River, a section near Takadanobaba Station has been open to the public during summer since 2010. While swimming is prohibited and wearing appropriate footwear is required, this initiative marks a significant step forward, as it is the only river in central Tokyo where people are permitted to enter the water.



Fig. 3.1 Children playing in Kanda river in 2019



Fig. 3.2 Performance of Nihon Eiho in Sumida River in 2018

In 2018, an event promoting participation in the Tokyo 2020 Olympic and Paralympic Torch Relay through *Nihon Eiho* was held in the Sumida River. Around 40 swimmers showcased their skills by treading water while waving large flags and forming coordinated formations, demonstrating their mastery of traditional swimming techniques. The following year, in 2019, *Nihon Eiho* was featured again in the Sumida River Marine Sports Festival, where approximately 30 swimmers performed. Although swimming is generally not allowed in the Sumida River, these events highlight improvements in water quality and help promote the revival of Tokyo's river swimming culture.

As these grassroots efforts grow, museums could also serve as key reference points for urban planners and architects seeking to reintegrate water into the built environment in more human-centered ways. By documenting past practices, showcasing evolving relationships with rivers, and experimenting with participatory forms of storytelling, museums can offer insight into how water has historically shaped public space, providing both precedent and inspiration for reimagining it within contemporary design frameworks. In this way, cultural institutions can act not only as stewards of memory but also as collaborators in shaping future urban possibilities.

Conclusion

Throughout Tokyo's history, rivers have shaped the city's identity, not only as functional infrastructure but as vibrant spaces of public life and cultural expression. From Edo-period swimming and festivals to martial arts and competitions, water was once a lived and shared experience. Yet with modernization came restricted access, pollution, and rigid infrastructure, distancing people from rivers and redefining water as something to control rather than engage with.

This thesis has argued that institutional narratives often neglect water's experiential dimension, framing it mainly through technical lenses. However, museums and cultural institutions hold immense potential to revive Tokyo's forgotten swimming culture as a way to reconnect urban life with nature. We humans are part of nature, yet we've built systems that separate us from it.

River swimming once allowed people to feel the water, cool off, and train their bodies within the flow of everyday life.

Revisiting this history offers more than nostalgia; it invites us to rethink how we live in cities today. By reintroducing swimming into public storytelling, exhibitions, and urban design, Tokyo can promote a more engaged, inclusive, and ecologically aware relationship with its waterways. In doing so, we might begin to restore the shared, sensory connection with water that once flowed through the heart of the city.

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