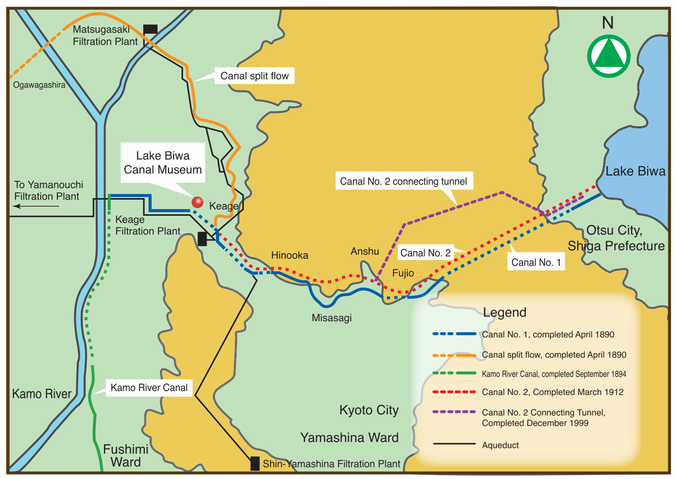
STAMP Date: . .

MEMO

Map of the Lake Biwa Canal Area



Merchandise

Sosui Monogatari – Tap Water of Kyoto

Kyoto's tap water is bottled as drinking water for emergency use. At room temperature the water keeps for five years after manufacture.

¥100 (per bottle)

Illustrated Guide to Permanent Exhibits at the Lake Biwa Canal Museum

The book describes permanent exhibits with illustrations. We hope that this book helps you deepen your understanding of the Lake Biwa Canals as you go through the book and reflect upon the history.

¥500

Hundred Years of the Lake Biwa Canals

These three volumes commemorate the hundredth anniversary of completion of the Lake Biwa Canals and were published in the anniversary year of 1990. The history of Kyoto is described as centering on the Canals.

¥36,699

Lake Biwa Canal Museum Walking Map

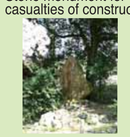
1 Lake Biwa Canal Museum

2 Incline

3 Elevated aqueduct

4 Nejirimanpo tunnel

5 Stone monument for casualties of construction

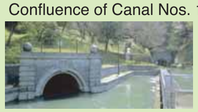


6 Bronze statue of Tanabe Sakuro

7 Wheeled platform and underwater pulleys of Incline

8 Stone monument for casualties of canal construction

9 Confluence of Canal Nos. 1 and 2



10 Pumping facilities of Old Kujoyama Filtration Plant

Hours of Operation

March 1 to November 30: 9:00 a.m. to 5:00 p.m.
December 1 to End of February: 9:00 a.m. to 4:30 p.m.
Note: No admission during the last 30 minutes
● The Museum is also accessible from the zoo.

Admission

Free

Access

7-minute walk from Keage Station, Municipal subway Tozai Line
4-minute walk from Hosshouji-cho stop on City Bus lines 5
● We do not have parking lot

Closed

Mondays
(except holiday Mondays, in which case we are closed on the following day)
Year end and the new year (December 28 to January 3)

Lake Biwa Canal Museum
Kyoto-shi, Sakyo-ku,
Nanzenji Kusagawa-cho17〒606-8437
TEL: 075-752-2530 / FAX: 075-752-2532
http://www.city.kyoto.lg.jp/suido/

Published by: Department of General Affairs, Division of General Affairs, Kyoto City Waterworks Bureau
Kyoto-shi, Minami-ku, Higashikujo Higashi Sanno-cho 12
TEL: 075-672-7810 / FAX: 075-682-2711
(October 2010)

Lake Biwa Canal Museum of Kyoto

BiwakoSosui Kinenkan
Waterworks Bureau,City of Kyoto

Welcome to the Lake Biwa Canal Museum of Kyoto

Thanks to the support of the people of Kyoto, this museum was established in August 1989 in commemoration of the hundredth anniversary of the opening of the first Lake Biwa Canal. Our aim is to raise appreciation for the crucial role played by the canals in the history of this city, and celebrate the monumental achievements of the far-sighted pioneers who built them. It is our hope that by commemorating the great works of the past we can contribute to the diverse and thriving culture of Kyoto today, and serve as an inspiration for those who will build our future.
The Museum went through a renovation, and was reopened in October 2009 for the twentieth anniversary with more extensive exhibits.

Kyoto's Canals

Since ancient times, the people of Kyoto had dreamed of tapping the waters of Lake Biwa. The third governor of Kyoto Prefecture, Kitagaki Kunimichi, had witnessed the city's decline following the transfer of the capital to Tokyo in 1868. Hoping to inject new life into the city, he commissioned construction of a Lake Biwa canal. As a transport artery, this waterway would bring new wealth into the city, and the waterpower it provided would stimulate new industries.
In preparation, Minami Ichirobe who had been chief engineer for the Asaka Canal in Fukushima prefecture was commissioned to conduct a preliminary survey for the planning of the canal; Shimada Michio was ordered to carry out the necessary measurements between Otsu and Kyoto; and Tanabe Sakuro freshly graduated from the government's engineering academy in Tokyo (now Tokyo University) was engaged as chief civil engineer.
A budget of \600,000 (at contemporary prices) was originally planned, but this was raised to \1.25 million when the national government recommended a more comprehensive building plan. The prefectural assembly resolved to proceed with the project, even if this meant imposing heavier taxes on the city's inhabitants. In 1885 construction began.
The 2,436m long No. 1 tunnel was a difficult project that many doubted could be completed. It involved the excavation of a vertical shaft the first of its kind in the country. Bricks and timber were produced especially for this purpose, and for the most part it was accomplished by manpower alone.
The first Lake Biwa Canal was finally completed in 1890, five years after work had begun. Thanks to the hydroelectric power the canal provided, new factories sprang up, the first trams appeared, and the city of Kyoto began to prosper once more. Twenty years later, seeking to obtain a still more plentiful supply of water, a second canal was constructed, and at the same time the city's water system and municipal tram network were launched. The foundations of Kyoto as we know it had truly been laid.
For over a century, the Lake Biwa Canals have brought the water that is Kyoto's lifeblood to the heart of the city.

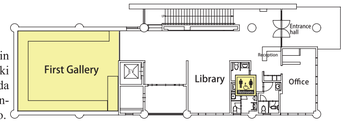
Authorization to commence construction of Lake Biwa Canal

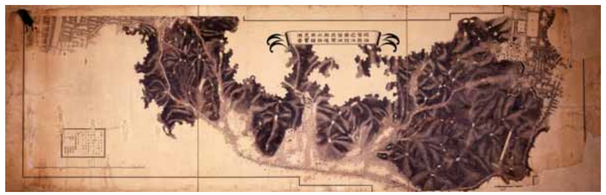
1881 Feb. Kitagaki Kunimichi becomes Prefectural Governor
1883 Feb. Completion of survey measurements between Otsu and Kyoto
May. Tanabe Sakuro takes charge of construction of the first Lake Biwa canal
1884 May. Permission to begin construction sought from national government
1885 Jan. Authorisation to commence construction
June. Official start of construction
1889 Apr. Kyoto city council is established
1890 Apr. Construction of Lake Biwa Canal officially completed
June. Authorization to commence construction of Kamo River Canal. Construction partially commences
1891 May. First phase of Keage Power Station completed (power delivery commences in November)
1892 Nov. Work begins on the construction of the Kamo River Canal (completed in September 1892)
1895 Feb. Opening of the Kyoto electric railway Fushimi line
1902 Apr. Approval for plans for Canal No.2 sought from Kyoto Prefecture
1905 Sep. Approval for plans for Canal No.2 sought from Shiga Prefecture
1906 Apr. Plans for Canal No.2 approved jointly by Kyoto and Shiga Prefectures
1908 Oct. Official commencement of the "Big Three" civil engineering projects
1909 May. Work begins on the city's water system
1912 Mar. Completion of Canal No.2 and Keage Filtration Plant
June. Municipal tram network opens Official completion of the "Big Three" project
1914 Mar. Ebisugawa hydroelectric power plant completed
May. Fushimi (Sumizome) hydroelectric power plant completed
1915 Feb. Power delivery boundary agreed by the City of Kyoto and Kyoto Dentou (power utility company) to make northern part of Kyoto City to be Kyoto's, and southern part of Kyoto City to be Kyoto Dentou's territory
1918 July. The City of Kyoto acquired Kyoto Denki Tetsudo Co., Ltd. (electric railway) to unify tram network
1927 June. Matsugasaki Filtration Plant completed
1931 Apr. Fushimi lock gate completed
1935 Only human waste ships remain as freight ships on the Kamo River Canal
1936 Jan. Completion of third phase of the Keage Power Plant
Aug. Completion of the Yamashina Filtration Plant (operation halted in March 1969 and decommissioned in June 1975)
1941 Aug. Power Delivery Restriction Act issued
1942 Apr. The City of Kyoto transferred electrical power business to Kansai Haiden Co., Ltd.
1945 Oct. Completion of Fushimi Filtration Plant (operation halted in March 1969 and decommissioned in October 1977)
1948 Nov. Keage Incline operation halted
1949 May. Completion of Kujoyama Filtration Plant (operation halted in March 1987 and decommissioned in March 2004)
1951 Aug. The City of Kyoto asked Kansai Electric Power Co., Ltd. to return Keage Power Generation Plant
Sep. The last ship on canal transported earth and sand between Otsu andYamashina
1952 Oct. Water supply business becomes financially independent from the City of Kyoto together with transit business due to Regional Publicly-Owned Corporations Act
1963 Mar. The City of Kyoto ends efforts to regain public control of power supply upon Kansai Electric Power's collaboration to build Nishikyogoku Sports Center
1966 Nov. Completion of Yamanouchi Filtration Plant
1970 May. Completion of First Moroha Canal Tunnel due to construction of JR Kosei Line
Nov. Completion of Shin-Yamashina Filtration Plant
1972 Mar. Formal opening of the Philosopher's Walk
1974 May. Completion of upgrading of all Lake Biwa Canals between Otsu and Keage
1977 May. Completion of restoration of Keage Incline for preservation
1978 Sep. The entire tram network decommissioned
1982 Nov. Bronze statue of Dr. Sakuro Tanabe erected at a park in Keage
1983 July. Elevated aqueduct at Nanzenji and Keage Incline designated as historic sites
1988 Aug. Kamo River Canal goes underground due to renovation between Reizei and Shiokouji
1989 Aug. Opening of Lake Biwa Canal Museum of Kyoto
1990 Apr. Commemorates 100th Anniversary of Lake Biwa Canals. Bronze statue of Kitagaki Taizo re-erected
1996 June. Twelve facilities related to the first canal designated as national historic sites
2006 Feb. Lake Biwa Canals selected as one of hundred canals of Japan
2007 Nov. Materials housed at Lake Biwa Canal Museum and others designated as Industrial Heritage for Modernization
2009 Oct. Reopening of newly renovated Lake Biwa Canal Museum on its 20th anniversary

1F

The First Gallery

Materials that chronicle the plans and construction of the Lake Biwa canals are main exhibits in the first gallery. Among the exhibits are artifacts related to Kitagaki Kunimichi who played the central role in the construction of the canals, Shimada Michio who was responsible for the land surveys, Tanabe Sakuro who was responsible for the civil works, as well as paintings by Tamura Soryu and Kawada Shoryo.




Survey map between Lake Biwa at Omi, Shiga Prefecture, and Kyoto By Shimada Michio


Brick manufacturing plant in Misasagi, Yamashina By Tamura Soryu


Brick made for canal construction


Telford Medal

Library

Visitors can view and read videos and books on Lake Biwa canals and water supply system

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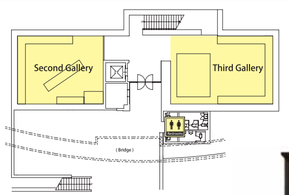
Second Gallery
(Roles Lake Biwa canals have been playing)

Third Gallery
(Implementation of Three Major Projects of Kyoto City)
(History of Kyoto's water supply system)

The second gallery takes you through various roles that the Lake Biwa canals have been playing including electrical power generation, canal transportation and hydraulic power.
The third gallery introduces you to the Three Major Projects of the City of Kyoto. These projects built the foundation of Kyoto as it is known today. The third gallery also introduces Kyoto's water supply projects.




Interior view of the Keage Power Plant constructed in its second phase


Model of Keage and vicinity in the past


Model of a tramcar

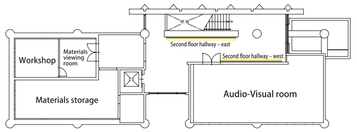

Venturi meter

2F

Second floor hallway – west
(Today's Lake Biwa Canals)

Second floor hallway – east
(memorial tablets and plaques)

In the hallways on the second floor, visitors can browse through current photographs and memorial tablets of Lake Biwa Canals, and photographs of the plaques displayed in canal tunnels.




East mouth of the first tunnel


Keage Dam (The first and second canals meet here)


East mouth of the third tunnel and Bridge No. 11


Split flow of the canal and the Philosopher's Walk

Audio-Visual Room

A group of up to around 40 people can watch videos and do other activities.

Outside

The Lake Biwa Canals enabled the construction of Japan's first industrial hydroelectric power generation plant. A Pelton waterwheel and Stanley generator that were used at the generation plant are on display outside the Museum.


Pelton waterwheel


Stanley generator