

Approaches to the use of historical water management facilities within the framework of recreation and tourism

Miloš Rozkošný¹, Kuei-chen Lin², Miriam Dzuráková¹

¹ T. G. Masaryk Water Research Institute, p. r. i., Czech Republic

² Institute of History and Philology, Academia Sinica, Taiwan

Introduction

Water (water management) structures of various origins, ages and purposes are witnesses to the development of human civilization and evidence of technical skill.

Today, we view these objects as an integral part of our industrial (cultural) heritage. This in itself represents a very diverse group of structures, which at the same time represent a wide range of often incommensurable qualities.

In accordance with the principles of TICCIH (The International Committee for the Conservation of the Industrial Heritage), emphasis is gradually being placed on identifying the technical and technological values of industrial structures, on the degree of authenticity and continuity of function, on the description of the technological flow and systemic links of the objects.

These criteria are subsequently incorporated into the process of assessing the significance of the given structures from the perspective of monument protection, together with traditionally used architectural, artistic-aesthetic and urban planning criteria and historical contexts.

Important question is how to preserve the facilities and functional systems for future, esp. If their function has been changed or they are no more operated.

Historické vodohospodářské objekty, jejich hodnota, funkce a význam pro současnou dobu



1 2 3 4 5 6 7 8

ÚVOD

O PROJEKTU

VÝSTUPY

Úvod

Vítáme Vás na stránkách projektu „Historické vodohospodářské objekty, jejich hodnota, funkce a význam pro současnou dobu“, řešeného v letech 2018 až 2022.



Stránky tohoto projektu byly vytvořeny za finanční podpory Ministerstva kultury ČR a na jeho řešení se podílí pět subjektů:

Výzkumný ústav vodohospodářský T. G. Masaryka, veřejná výzkumná instituce,
Národní památkový ústav,
Výzkumný ústav Silva Taroucy pro krajinu a okrasné zahradnictví, v.v.i.,
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Historický ústav Akademie věd ČR.



Datum poslední aktualizace stránky: 10.10.2022



Map: Water Protection and Management

Main online map composition. You can use HVMAP or AJAX viewing mode.

INFORMATION

HVMAP

AJAX



Another data available

Another data from our database are available under "Database" link.


WMS services

Selected data from our database are available through WMS services.

Information


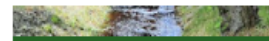
English version of our web pages includes only reduced content of Czech language version. If you want to see more data or information, you can switch to Czech language version.

Below on this site, there are links to pages of selected projects solved by TGM WRI. These pages of projects are in Czech language generally, but some of those pages are in English version available too. If you open project's page, see if language switch on the top border of newly opened window is available.




Definování a hodnocení ploch rozhodných pro dotaci strategických zdrojů podzemních vod s ohledem na jejich ochranu a stabilizaci.

heis.vuv.cz/projekty/brezova

Komplexní přístupy k identifikaci, ochraně a údržbě historických systémů retence a distribuce vody s ohledem na památkovou péči.

heis.vuv.cz/projekty/kanaly





Mapy specif. zranitelnosti podzem. vod k průniku radioaktivních látek při radiaci události v okolí JE Dukovany a JE Temelin.

heis.vuv.cz/projekty/imdukr




Projekt
Atmosf. depozice



STRÁNKY PROJEKTU
INFORMACE O ŘEŠENÍ
PRO ŘEŠITELE

Dopady atmosférické depozice na vodní prostředí se zohledněním klimatických podmínek.

heis.vuv.cz/projekty/atmosferikadepozice



Projekt
VH objekty



STRÁNKY PROJEKTU
VÝSTUPY PROJEKTU

Historické vodohospodářské objekty, jejich hodnota, funkce a význam pro současnou dobu.

heis.vuv.cz/projekty/vh-objekty



Projekt
Pitná voda




STRÁNKY PROJEKTU
VÝSTUPY PROJEKTU
METODIKA, DATA, MAPY

Nástroje pro posouzení rizik částí povodí souvisejících s místy odběru vody určené k lidské spotřebě.

pitnavoda.vuv.cz



Projekt
Závlahy



Projekt
SIMPHOS-LABE



Projekt
HOPEM



HEIS VÚV
1996-2021
25 LET

Vodohospodářská
100
padesátka 2019

SOUBOR MAP SVITAVA	SOUBOR MAP MORAVICE	SOUBOR MAP HORNÍ MORAVA	SOUBOR MAP ČÁSLAVSKO	SOUBOR MAP PLOUČNICE	SOUBOR MAP ČR
METODIKA (METHODOLOGY)	DATABÁZE ČR	DATABÁZE PILOTNÍCH POVODÍ	VÝSTAVA A KATALOG	VTEI	

Metodika klasifikace a hodnocení průmyslového dědictví z pohledu památkové péče – vodní hospodářství

Číslo osvědčení schvalovacího orgánu (Ministerstvo kultury ČR): č. 236

Dokument osvědčení:  (dokument pdf, 621 kB)

Realizace výstupu: 1. 3. 2018 – 15. 10. 2021

Autorský kolektiv

Výzkumný ústav vodohospodářský T. G. Masaryka, veřejná výzkumná instituce, pobočka Brno:

Ing. Miriam Dzuráková, Mgr. Martin Caletka, Ph.D., doc. Ing. Aleš Dráb, Ph.D., Ing. Milena Forejtníková, Mgr. David Honek, Ph.D., Ing. Hana Hudcová, Ph.D., Ing. Tomáš Julínek, Ph.D., Ing. Radka Račoch, Ing. Miloš Rozkošný, Ph.D., Ing. arch. Karel Kuča, Ph.D. (Výzkumný ústav Silva Taroucy pro krajinu a okrasné zahradnictví, v.v.i.)

Národní památkový ústav

Ing. Alena Borovcová, Ph.D., PhDr. Kryštof Drnek, Ph.D., Mgr. Miroslav Kolka, prof. PhDr. Ing. arch. Miloš Matěj, Ph.D. et Ph.D., Mgr. Michaela Ryšková, PhDr. Radim Urbánek

Přírodovědecká fakulta Univerzity Palackého v Olomouci:

RNDr. Renata Pavelková, Ph.D., Mgr. Jindřich Frajer, Ph.D., RNDr. Aleš Létal, Ph.D.

Historický ústav Akademie věd ČR:

PhDr. Sixtus Bolom-Kotari, Ph.D., Mgr. Aleš Vyskočil, Ph.D., doc. PhDr. Zbyněk Sviták, CSc.

Metodika

Metodika ke stažení:  dokument pdf (60 MB)

Available also in English:  Methodology for Classification and Evaluation of the Industrial Heritage from the Perspective of Heritage Management – Water Management, pdf document (19 MB)

Stručný popis výstupu

Metodika se zabývá objekty vodního hospodářství (přehrady, malé vodní nádrže, vodní cesty, objekty pro využití vodní energie, objekty vodárenství, stokování a čistírenství), jež posuzuje z pohledu památkové péče. Poskytuje základní orientaci v tématu, přehled typologie a nástroje k hodnocení objektů vodního hospodářství.

Tomu je přizpůsobena struktura metodiky a soustředění na hodnotící kritéria, jež nejsou dosud v památkové péči dostatečně známé a přijaté: hodnotu typologickou, hodnotu technologického toku a zapojení v širších systémech. V památkové praxi by tak měla přispět ke zlepšení v dokumentaci, hodnocení a objektivním výběru nejvýznamnějších příkladů, navržených k památkové ochraně, čímž by mohla napomoci v odstranění (nebo alespoň zmírnění) nevyváženosti ochrany jednotlivých typů vodohospodářských objektů.

Metodika je určena především pro pracovníky památkové péče a státní správu. Je nástrojem pro orientaci v tématu vodního hospodářství a pro jejich hodnocení z pohledu památkové péče. Rovněž je doporučena jako výuková pomůcka pro SŠ a VŠ technického zaměření v oblasti vodních staveb a vodního hospodářství.

SOUBOR MAP SVITAVA	SOUBOR MAP MORAVICE	SOUBOR MAP HORNÍ MORAVA	SOUBOR MAP ČÁSLAVSKO	SOUBOR MAP PLOUČNICE	SOUBOR MAP ČR
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Ryšková, M., Dzuráková, M. et al. (2022). Methodology for Classification and Evaluation of the Industrial Heritage from the Perspective of Heritage Management - Water Management. edition: first, Brno: TGM WRI, pp. 382, research for practice, vol. 1. ISBN 978-80-88484-02-8.

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Historical water management structures and systems as a part of Czech heritage database

The Czech Republic currently has approximately 2 500 cultural monuments, both movable and immovable, which can be characterized as technical monuments or industrial heritage sites.

Of these 2 500 monuments, around 700 are related to water management.

These include structures using water power – i.e. water mills (235), hammer mills (10), mangles (2), fulling mills (2), and hydro power plants (17). The large number of water mills is a consequence of extensive ethnographic research conducted during the 1960s and 70s, which encompassed production sites that sit on the boundary between ethnographic and technical monuments.

This set of 700 water management-related monuments also includes 382 fountains, which thus make up over half of the total water management structures listed in the Central Register.

Other structures: dams (13); small reservoir-type structures: around 40 ponds; watercourses (or structures for transporting water or goods): around 80 monuments, including aqueducts, weirs, docks/quays, locks, mill-races, retention facilities, canals, etc.;

structures forming part of water management systems: approximately 175 monuments, of which the most commonly represented types are water treatment plants (35, including railway water towers), water towers/tanks (58), wells (around 60), plus other structures/complexes, all represented by less than 10 monuments (water supply conduits, water supply networks, cisterns, sources, pumps, small wells, deacidification stations at water treatment plants); structures related to sewerage and water treatment: a wastewater treatment plant (1), a sewer network (1, Slavonice).

Approaches to the use of historical water management facilities and systems

In the Czech Republic, it is typical that the technical and functional continuity of water management facilities is often maintained.

Structures such as weirs, mills or hydroelectric power plants often remain part of the active infrastructure, for example within the framework of river regulation or energy production.

The adaptation of these facilities is rather gradual and in parts, combining the original technical function with new uses.

A typical example is mills that continue to be used as small hydroelectric power plants, or facilities that simultaneously fulfill technical, residential or recreational functions.

This approach can be described as a model where the “function persists”, while the connection to the landscape and the water network also plays a significant role, which allows at least partial preservation of the original operation.

In addition, there is a second line of adaptation, where historical facilities are converted into housing, offices or cultural facilities, but these are often individual, rather isolated projects than large-scale area conversions.

Approaches to the use of historical water management facilities and systems

Methods and ways of adapting and reusing unused industrial objects and complexes have been investigated - in Taiwan – e.g. Li, Wang, 2025; in the Czech Republic – e.g. Fetisov, 2015.

In practice, two main ways of further use are distinguished for historical water management objects (mills, weirs, waterworks, dams, canals, pumping stations):

- (1) preservation or restoration of the water management function
- (2) adaptive conversion to another purpose when the original function disappears or is significantly reduced.

In the case of water management objects, approaches that lead to the preservation of the continuity of technology in the landscape are generally applied in the Czech Republic, while in Taiwan and some other countries, approaches that transform the industrial past into a cultural and urban experience are generally applied.

Conclusions

We would like to recommend developing stronger ties between national heritage care and professional organisations in this specific field, for example, CzWA (Czech Water Association), Česká vědeckotechnická vodohospodářská společnost (Czech Scientific and Technical Water Management Society) and others, which gather a significant number of professionals at some informal platform including civil servants and scientific workers who work in the field of water management but also in follow-up fields (hydrobiology, hydrochemistry, microbiology, geography, etc).

Deepening mutual contact could offer new perspectives to water managers on dealing with water management structures and functional complexes and finding agreement on heritage preservation of this field for the future.



What to solve for different perspectives What not to forget in practice

Disposal of old equipments,
measurement tools, control systems
and other facility

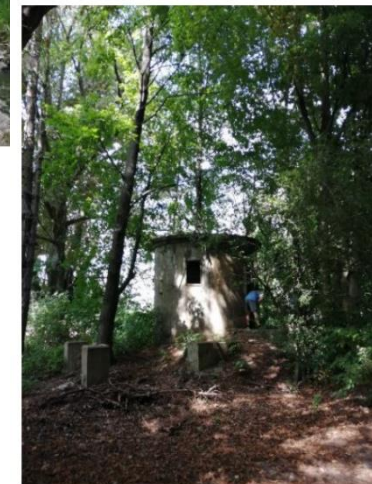
Examples of historical
constructions & approaches

nature restoration vs. industrial heritage



Degradation of historic structures

Abandoned structures of a water
management systems / functional
complex



Conclusions

Examples of new uses of historical water management facilities and functional units

Bratislava – museum of drinking water supply

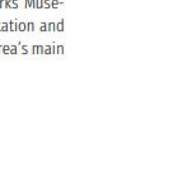
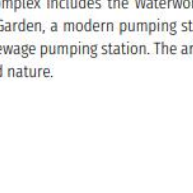
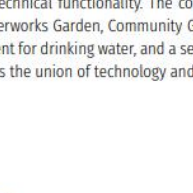
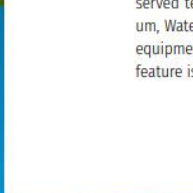
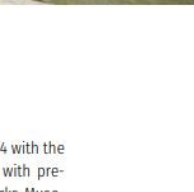
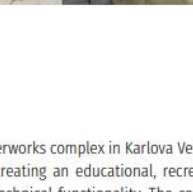
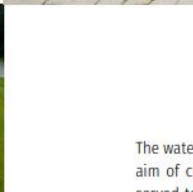
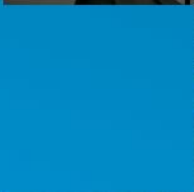
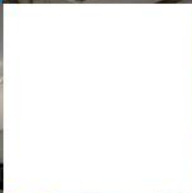


The first water pumping station was constructed on the left bank of the Danube River in Karlova Ves in 1886. Together with the well on the island of Sihot and the water reservoir near Bratislava Castle, the pumping station forms the base of the waterworks for Bratislava.

Drinking water was supplied from underground sources on the island of Sihot. These sources have been rich in naturally filtered water from the Danube. Water was supplied from the water well on Sihot to the main pumping station in Karlova Ves via a 1.7 km pipeline. From there, water was distributed by steam pumps to the entire city and then into the main water reservoir near Bratislava Castle.

Designed and engineered by Bernhard Salbach and Zdenko Ritter von Wessely, Bratislava's waterworks use a pressure-gravity system and were the first of their kind in Slovakia.

The Waterworks Museum was established by the Bratislava Water Company (Bratislavská vodárenská spoločnosť). BVS's main activity is producing and distributing drinking water, draining and treating wastewater. The company services more than 700,000 people in Bratislava as well as the population of seven districts in Záhorie and around the capital city. It supplies water to 97% of the population living in this area and operates dozens of water sources and waterworks objects, over three thousand kilometres of public water supply networks and one thousand five hundred kilometres of public sewerage networks.

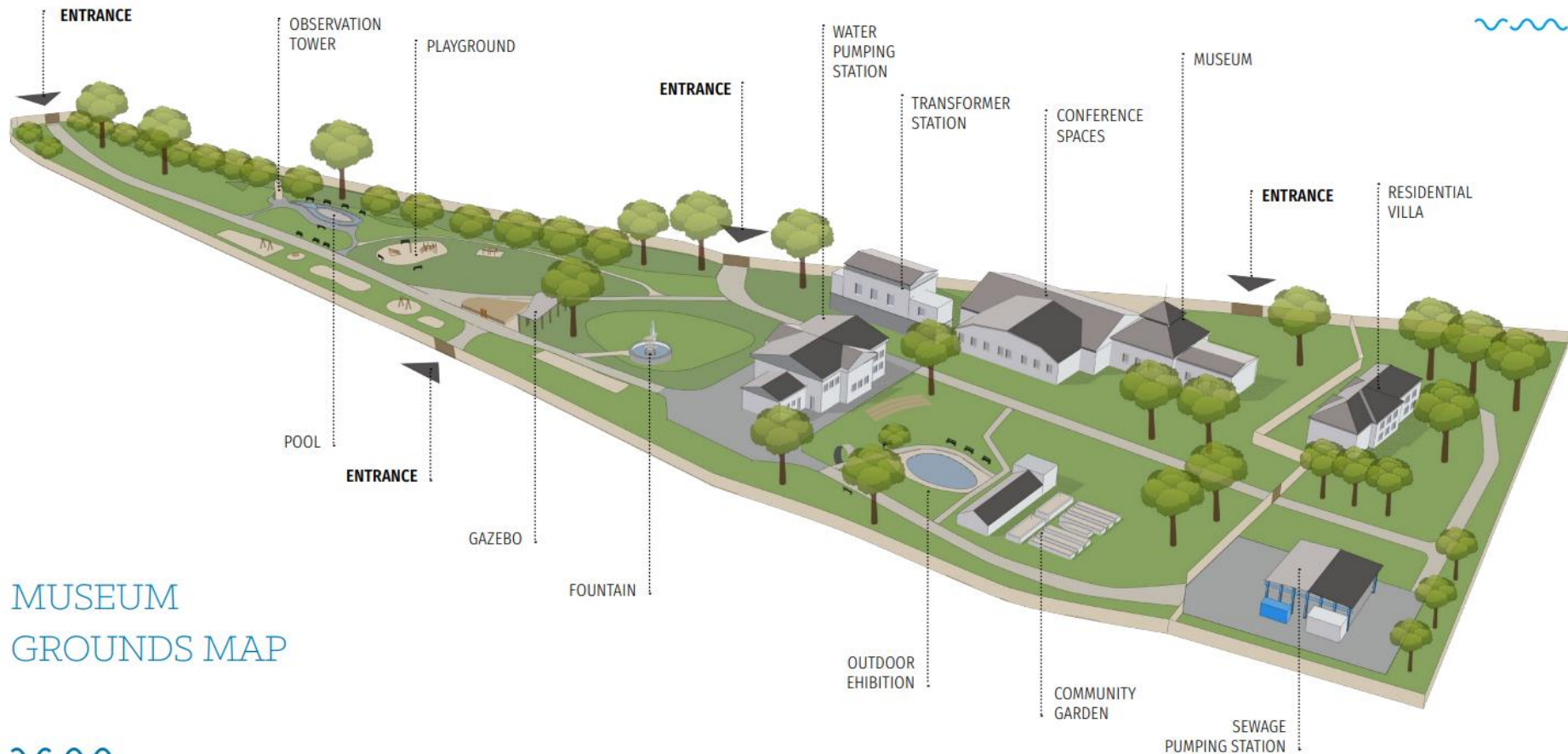


The waterworks complex in Karlova Ves was renovated in 2012 – 2014 with the aim of creating an educational, recreational and ecological area with preserved technical functionality. The complex includes the Waterworks Museum, Waterworks Garden, Community Garden, a modern pumping station and equipment for drinking water, and a sewage pumping station. The area's main feature is the union of technology and nature.



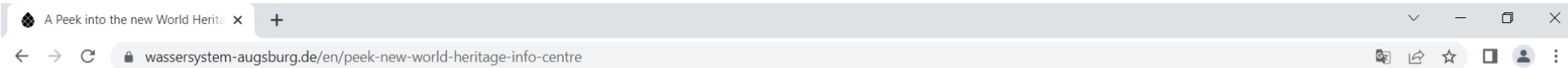
<https://www.bvsas.sk/vodarenske-muzeum/>

Bratislava – museum of drinking water supply



https://www.bvsas.sk/files/vodarenske-muzeum/muzeum-expozicie/vodarenske-muzeum/muzeum_buletin_nahlad_hdpi_en.pdf

Augsburg – complex water management system – a route of water



**WATER
MANAGEMENT
SYSTEM OF
AUGSBURG**
WORLD HERITAGE

[Dive In](#) [Water Live](#) [News](#) [Contact](#)

Thematic Routes instead of Individual Exhibitions

The centre illustrates the complex water system in pictures and texts. It serves as the first point of contact for interested visitors to Augsburg's World Heritage Site, which, with its 22 elements, is spread far and wide across the city, and beyond to the Lech River Museum in the Langweid hydroelectric power station. The themed routes include, for example, the Maximilian Museum with the original bronzes of the three fountains and the Model Chamber as well as the Historic Waterworks at the Hochablass (Lech weir).

The approach of presenting the complex theme not exclusively at one central location is also in line with the recommendations of the German Commission for UNESCO and is intended to encourage visitors to experience the individual themed routes along the various elements of the site.

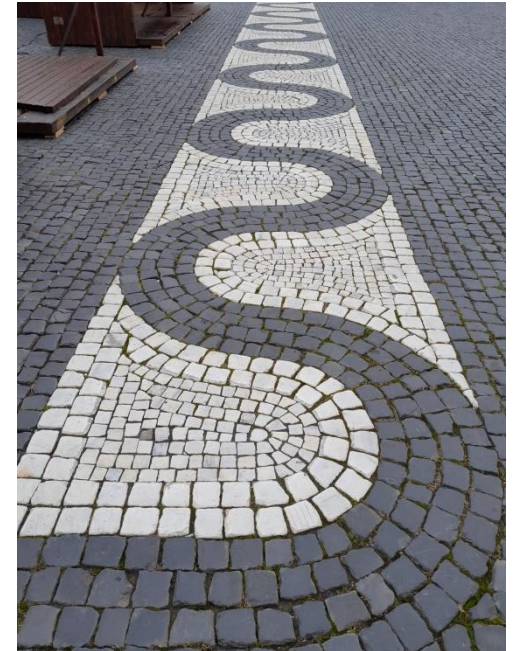
360 Grad Rundgang durchs Welterbe Info-Zentrum

DE

EN



<https://wassersystem-augsburg.de/en/peek-new-world-heritage-info-centre>





City infocenter

Taipei – museum of drinking water supply municipal water park

waterparken.water.gov.taipei

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Hot Keywords : Advanced Search

Location Map Online Reservations Guides to Park Admission Fee Note Tourists

Themes

- Museum of Drinking Water
- Guanyinshan Reservoir
- Historical Water Metering Room Plaza
- Water Country Park
- Gongguan Riverside
- Guanyin Hill Hiking Area
- Water Distribution Materials
- Pipe Sculpture Area
- Environmental Education Center

Closed on Monday

Handicap Friendly Place

Scheduled Guided Tour Information

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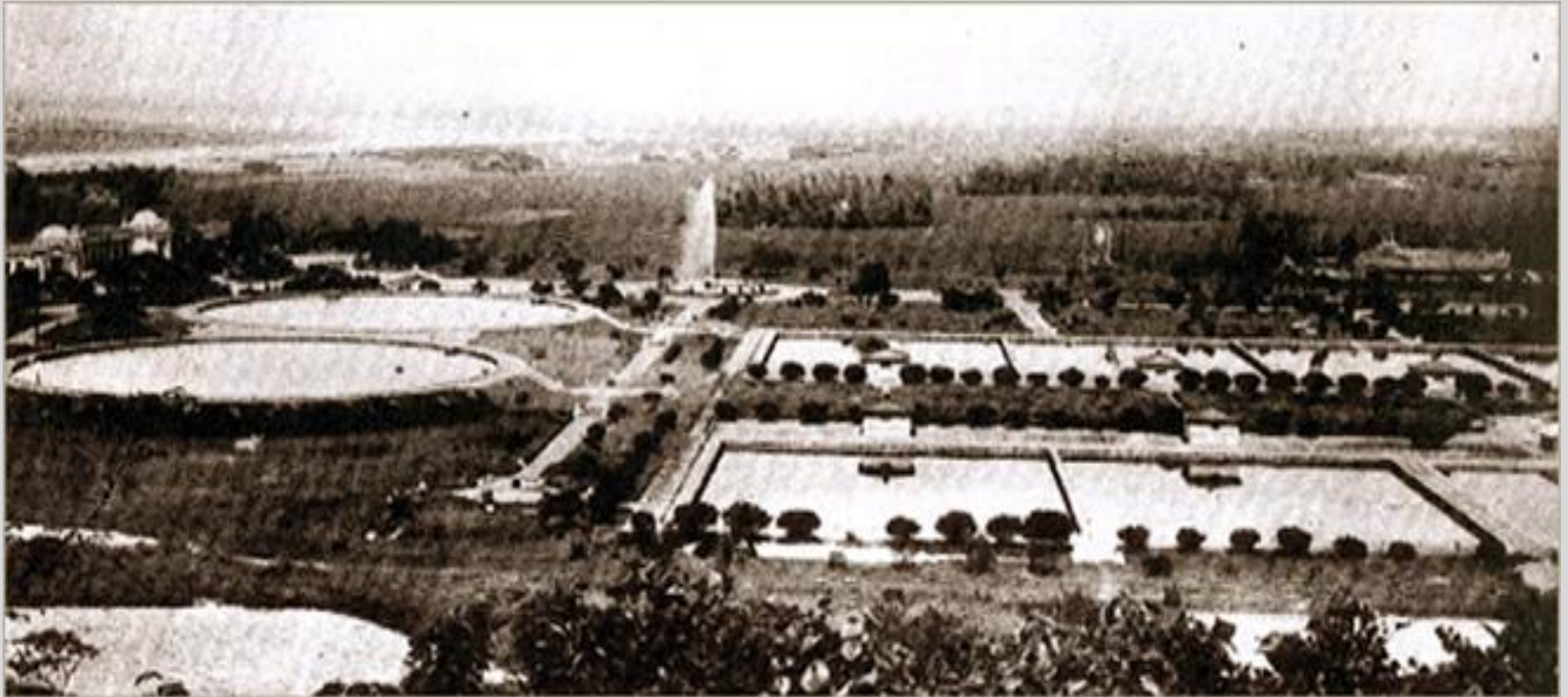
Taipei – museum of drinking water supply municipal water park

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Site Map | 中文版 | Contact us A⁻ A⁺

Hot Keywords :

Location Map Online Reservations Guides to Park Admission Fee Note Tourists



<https://waterparken.water.gov.taipei/>

臺北自來水園區

Taipei Water Park

一個讓你和 成為麻吉好朋友的地方

園區服務設施/周邊設施圖例

Taipei Water Park Service Facilities / Peripheral Facility Legends

- 黃色為收費參觀區 Yellow is the visiting area with admission fee
- 古蹟 Historical Site
- T 售票處 Ticket Stand
- ↔ 捷運站出入口 MRT Station Entrance / Exit
- 🚿 淋浴更衣間 Shower and Locker Room
- 🌿 環境教育中心 Environmental Education Center
- 🚑 自動體外心臟電擊去顫器 (AED) Automated External Defibrillator
- A 自來水博物館 Museum of Drinking Water
- C 量水室古蹟廣場 Historical Metering Room Plaza
- D 小觀音山蓄水池 Xiaoguan Yin Hill Reservoir Pond
- D 淨水抽水站 Raw Water Pumping Station
- 1 水鄉庭園 (夏季開放) Misty Garden (Opens in Summer)
- 2 景觀池 Landscape Pond
- 3 噴泉庭園 Fountain Garden
- 4 輸配水器材展示區 Exhibition Ground of Water Transportation and Distribution Materials
- 5 親水體驗教育區 Aqua-Friendly Experiencing Education Area
- i 小觀音山生態步道為收費參觀 Xiaoguan Yin Hill Ecological Hiking Trail is the visiting area with admission fee
- 🚲 免費參觀 租賃 河濱自行車租借站 Free Visit Rental Riverside Bicycle Leasing Station
- 🚶 停車路線 Parking Route
- 🚲 自行車道 Bicycle Lane
- 🍴 美食區 Gourmet Area
- P 停車場 Parking Place
- 🚿 飲水機 Drinking Fountain
- 🚽 廁所 Restroom
- 🏠 護理站 Nursing Station
- 👶 哺乳室 Breastfeeding Room
- 🏰 消壓塔 Depressurizing Tower
- 🚲 親水通廊自行車道 Aqua-Friendly Corridor Bicycle Lane
- 8 公館水岸廣場 Gongguan Riverside Plaza
- 9 水水光廊 (公館淨水場內) Gongguan Light Corridor (Inside Gongguan Purification Plant)



Taipei – museum of drinking water supply municipal water park



Museum of Drinking Water

Home Page | Themes | Museum of Drinking Water

The Period of Taipei Water Source Site | The Period of Gongguan Purification Plant

Birth of The Museum of Drinking Water | **Map Guide to The Museum of Drinking Water**

Remarks

The Museum Building is designated a Grade-3 relic. In comply with its loading specification and to protect visitors' safety and visiting quality, please observe the following regulations:

1. The building accommodates no more than 100 persons at a time. A curb will be effected to suspend admittance beyond 100.
2. No eating, drinking, smoking, loud speaking, or running in the Museum building and no combustible or hazardous objects in the entire compound. Please follow guidance of Museum personnel and help keep the compound in order and clean.
3. No photographing or filming in the Museum unless authorized.
4. Please strictly observe Kiosk HANUS' QR signs for collections. A violator who has incurred damage to the building, any facility, or collection shall be responsible for compensation or even charged.
5. Unless accompanied by adults, children under 12 of age are not allowed to enter.
6. For sake of safety, please do not enter areas marked with QR LIMIIS sign.

Layout Of Pump Equipment House

- A. → The Aisle of Time Exhibition Zone
- B. → A/V Media Projection Room
- C. → Clean Water Pump Exhibition Zone
- D. → Raw Water Pump Exhibition Zone
- E. → Low Voltage Switch Panel Exhibition (underground floor)
- F. → Lead Tube Fabricator Exhibition Zone (underground floor)
- E1. → Leakage Repair Material Exhibition Zone (ground floor)
- F1. → Water Meter Exhibition Zone (ground floor)
- G. → Air Fan Duct (underground floor)

Museum Drinking Water Map

- A. The Aisle of Time Exhibition Zone
- B. A/V Media Projection Room
- C. Clean Water Pump Exhibition Zone
- D. Raw Water Pump Exhibition Zone
- E. Low Voltage Switch Panel Exhibition (underground floor)
- F. Lead Tube Fabricator Exhibition Zone (underground floor)
- E1. Leakage Repair Material Exhibition Zone (ground floor)
- F1. Water Meter Exhibition Zone (ground floor) G. Air Fan Duct (underground floor)



Cork – museum of drinking water supply Lifetime Lab & models & expositions



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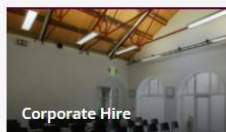


Old Cork Waterworks Experience

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We look forward to welcoming you to Old Cork Waterworks Experience

Built to serve an empire and constructed during a time of rebellion, maritime trade and mass emigration, Old Cork Waterworks stands proud on the Cork hillside overlooking the River Lee commanding the western approaches to Cork City. Our renovated Victorian buildings offer a Visitor Experience, Primary Science education space, Corporate Hire and Conference facilities.



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<https://www.corkcity.ie/en/old-cork-waterworks-experience/>

Lifetime Lab, on the banks of the River Lee, is a unique attraction for visitors of all ages with its modern interactive exhibition, themed playground, beautifully restored buildings and equipment and scenic views over the River Lee.



Contacts

Project NAKI II - DG18P02OVV019

Historical water management facilities, their value, function and significance for the present time

Ing. Miloš Rozkošný, Ph.D., Ing. Miriam Dzuráková

VÚV TGM, v.v.i.

Pobočka Brno

Mojmírovo nám. 16, 61200, Brno

Telefon

+420 541 126 318 / +420 541 126 313

E-mail

milos.rozkosny@vuv.cz

miriam.dzurakova@vuv.cz

<https://www.vuv.cz/>