



**WATER  
MUSEUMS**  
GLOBAL NETWORK



**Porto.**

5th International Conference of the  
GLOBAL NETWORK OF WATER MUSEUMS

# CITIES OF WATER

Peace and Prosperity through  
Water Sustainability Education

9 - 11 October 2024  
PORTO, PORTUGAL

Pestana Douro - Palácio Do Freixo







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- Karl M. Wantzen, UNESCO Chair 'Rivers and Heritage', University of Strasbourg, France

## Conference organisation team

- Charlery Marje-Pierre, Global Network of Water Museums
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## Rationale of the Conference

The 5th International Conference of the Global Network of Water Museums (WAMU-NET) aims to address the **historical and contemporary challenges of sustainable urban water management** with a view to promoting our unique water heritage. In addition to exploring the international dimension, the conference will focus on the water heritage of Porto and Portugal, highlighting relevant contributions to **water assets preservation, promotion, and education**.

Each WAMU-NET conference tackles a different theme and invites researchers, stakeholders, museum staff, and practitioners from around the world to share their experiences and learn from international experts in the field to enhance **water sustainability education**.

In Porto, the cultural heritage of water is represented by **Parque Patrimonial das Águas** (Waters Heritage Park), managed by the public water and energy supply company, **Águas e Energia do Porto**. Parque Patrimonial das Águas is an open-air museum of the territory that gathers all the water infrastructure of the city, registered on an online repository (Porto Water City), that aims to educate about the Porto's Water Heritage and its historical value ensuring accessibility and sustainability.

During the three-day conference, theoretical approaches will be combined with discussions, breakout rooms, and interactive sessions to exchange knowledge and stimulate new ideas and solutions for water heritage promotion and education. The contributions of WAMU-NET and its members to the **Phase 9 of IHP** and the theme of this year's WWD, **'Water for Prosperity and Peace'**, will be addressed. Specific sessions to present and discuss projects implemented by WAMU-NET and water museums for sharing experiences and networking opportunities are planned. WAMU-NET's **online repository of educational resources** will also be presented.



Water museums are a key vehicle for promoting **tangible and intangible water heritage along with natural and cultural diversity** and fostering education toward new generations. These institutions are engaged to explore and disseminate in new ways the history of water and its relations with humans, focusing on urban settings, ports, shipping, water management and other socially relevant practices.

Museums are a key platform for reflection and involvement of the large public in the technical, social, and cultural fields, addressing the complex daily functioning of urban water management and its sustainable impact on our increasingly fragile natural environment. From a contemporary perspective, museums are to be seen as providers of key insights to design new practices in a global context of critical challenges.

## Mapping Urban Waters and Water Heritage Sites

Cities have grown historically around rivers: there are many notorious examples worldwide. Cities and rivers are the **everlasting reflection of human activities that evolve over time**, and therefore a case of **perpetual transformation of this relationship**. In this sense, cities are also the materialisation of the eternal conflict between memory and oblivion. They have left in their process of constant change several **overlapping layers of knowledge and techniques relating to water management** that are worth tracing, interpreting, and showcasing. This is exactly the scope of many water museums.

The 'cities of water' represent a key component of our cultural heritage: a paradigmatic model of water civilisation. From a contemporary perspective, historical examples of water knowledge and techniques provide key insights to outline **new visions and new practices in a global context of critical challenges**.

Today the cities of water and their **contemporary transformations** are important to understand and overcome, in the eternal game between visible and invisible, the contradictions of a crucial public industrial service and the recognition and relevance of **water as an essential public good**.

The European **Port City Atlas** will be addressed during the conference together with the **Urban Heritage Atlas of UNESCO**, as they provide models and insights into **living with water paradigms** and can inspire future water management in a period that is challenging traditional water management. Living on and with (fresh) water has created unique tangible and intangible heritage around the world. People have carefully designed buildings and **cities that are uniquely adapted to local water challenges**. Examples include not only notorious cities like Porto, Lisbon, Amsterdam or Venice, just to name a few, but also distinctive settlements on stilts (like Nzulezo, Ghana), floating towns (Zhouzhuang Water Town, China) or construction in the bayous of the Southern US. Similarly, tidal or seasonal changes have provoked special responses in architecture and design; think of tidal ports, such as on the Elbe River in Hamburg, or living with seasonal rivers as the Bou Regreg which separates Rabat and Salé, in Morocco. River cities are also closely related to **intangible values**, including religious beliefs, for example bathing in the Ganges, India, or sending a message of peace through floating lanterns on the Motoyasu River in Hiroshima, Japan.

### Links >

Blue Papers: <https://books.open.tudelft.nl/home/catalog/book/73>

K.M. Wantzen (ed) 'River Culture': <https://unesdoc.unesco.org/ark:/48223/pf0000382775>

Urban Heritage Atlas of UNESCO: <https://whc.unesco.org/en/urban-heritage-atlas>

## Conference objectives

- Highlight the relevance of water-related urban management practices, concepts, and visions as a source of inspiration for sustainable management (also including architectural planning that is relevant to hydraulic assets, waterways and historical river ports and related social practices)
- Promote the history of urban water management to reflect on the key role of water and sanitation in the new urban society of the 21st century and improve adaptation to climate change
- Stimulate museums and institutions to develop further storytelling on historical uses of urban waters as key driver to create awareness on water values and vulnerability
- Share with WAMU-NET members projects and good practices that contribute to the 2nd priority of UNESCO-IHP Phase 9 (2022-29) on water sustainability education
- Stimulate institutions to promote the historical heritage of water cities through innovative exhibitions and projects co-designed with research centres, schools and local communities
- Develop educational and capacity-building programmes to foster new projects aimed at preserving and managing traditional water systems and practices and connecting them to future practices



**Follow us via Zoom on:**

**Day 1 – Wednesday 9 October (from 10,00 am to 5,30 pm)**

<https://zoom.us/j/91652654741?pwd=eb6JUx4tfeZnlvRUMkryWlUhHsWwRw.1>

ID meeting: 916 5265 4741 - Code: 915694

**Day 2 – Thursday 10 October (from 10,00 am to 1,30 pm)**

<https://zoom.us/meeting/register/tJllid-2urDgtHNBByzFxFyUdJHNPCFFuLmwP>

Participation on Day 2 is subject to mandatory registration for the breakout rooms

**Day 3 – Friday 11 October (from 10,00 am to 4,00 pm)**

<https://zoom.us/j/91810196440?pwd=Rjy82jMyrbUGXAhCiE5huoon8OzaoU.1>

ID meeting: 918 1019 6440 - Code: 317307



# PROGRAMME

Tuesday 8 October

## Pre-conference working session

15.00 – 18.00 Early Registration. Palacio do Freixo, Porto.

16.00 – 18.00 **Waterviews: How can mapping facilitate a better understanding of water systems and practices in cities and landscapes? Past, present and future perspectives**

Carola Hein and Yvonne van Mil, TU Delft, UNESCO Chair 'Water, Ports and Historic Cities'

18.00 – 19.00 WAMU-NET Management Board meeting (*by invitation only*)

Wednesday 9 October - Day 1

## Cities of Water: Mapping our Liquid Heritage

8.30 – 10.00 Registrations. Palacio do Freixo, Porto.

10.00 – 11.00 **OPENING SESSION – WELCOME SPEECHES**

- Rui Moreira (City Mayor of Porto)
- Abou Amani (Director of the Division of Water Sciences and Secretary UNESCO-IHP)
- Jyoti Hosagrahar (Deputy Director, UNESCO-WHC)
- José Carlos Pimenta Machado (President of the Agência Portuguesa do Ambiente)
- Luis Chainho (Representative of the National Portugal Committee of UNESCO-IHP)
- Ruben Fernandes (Executive Administrator of Águas e Energia do Porto)
- Yongming Chen (Deputy President of the Global Network of Water Museums)

11.00 – 11.25 Coffee break

11.25 – 11.30 Presentation of the interview schedule

*During the conference, interviews on water heritage and educational activities of water museums will be conducted by the UNESCO Chair of TU Delft (NL) with interviews to all conference participants*

<https://www.portcityfutures.nl/unesco-chair/blue-papers-valuing-water-and-culture>

11.30 – 13.00 **SESSION 1**

### **CITIES OF WATER IN PORTUGAL**

**Chair:** José Guilherme Abreu (Historian, R3IAP, Rede Portuguesa de Arte Pública, UCP-Porto, Portugal)

**Keynote:** Carola Hein (UNESCO Chair 'Water, Ports and Historic Cities', TU Delft, the Netherlands):

Building with water. Mapping Portugal's port cities and water heritage

### **Roundtable 'Connecting Water, Culture, and Heritage'**

- Sara Ahmed (Deputy President of WAMU-NET, Director of the Living Waters Museum, India)
- Mário Mesquita (Architect, Professor at FAUP, AEdP Heritage Advisor, Portugal)
- Helena Cardoso (Museu da Água e Resíduos, SMAS de Sintra)
- Ian Kerr Wilson (WAMU-NET, Canada)

13.00 – 14.00 Lunch

14.00 – 16.00 **SESSION 2**

### **MAPPING OUR LIQUID HERITAGE FOR WATER SUSTAINABILITY EDUCATION**

**Chair:** Mariana Castro Henriques (Director of the Museu da Água, Lisbon, Portugal)

#### **Keynotes:**

- Alexander Otte (UNESCO-IHP): The role of WAMU-NET in the Ninth Phase of the UNESCO Intergovernmental Hydrological Programme
- Eriberto Eulisse (Executive Director, Global Network of Water Museums): Mapping Ancient Hydro-Technologies (AHTs) for the upcoming Virtual Science Museum of UNESCO and the World Inventory of water museums (WIN)

### Archaeological and Industrial Heritage and Digital Museums

- Alioune Dème (Université Cheikh Anta Diop, Senegal): Artificial Intelligence as a tool for diversity and memory inclusion: the case of symbolic water holes
- Bárbara Rangel (FEUP Porto, Portugal): The archaeological and industrial heritage of water in Portugal
- Matteo D'Agostino and Foteini Tsigoni (TU Delft, Netherlands): Step two of WAMU-NET's World Inventory of Water Museums (WIN): Getting started with the Netherlands
- Débora Silva (Responsible for the historical heritage of the AEdP, Portugal): Virtual and digital museums

16.00 - 16.30 Coffee-Break

16.30 - 17.00 Continuation and Q&A session

17.00 - 17.30 **Conclusions of Day 1**

- Ruben Fernandes (Executive Administrator of Águas e Energia do Porto)
- Ian Kerr Wilson (WAMU-NET, Canada)

18.00 - 20.30 Networking Cocktail and promenade through the city centre

## Thursday 10 October - Day 2

### Water Sustainability Education for Peace and Prosperity

9.30 - 10.00 Registrations. Palacio do Freixo, Porto.

10.00 - 13.00 **SESSION 3**

#### **TOWARD AN ONLINE REPOSITORY OF EDUCATIONAL RESOURCES: CONTRIBUTIONS FROM AND TO WATER MUSEUMS**

**Chair:** Farah Kabir (Director, ActionAid Bangladesh)

**Speakers:**

- Lucrezia Gigante (Global Network of Water Museums): An Introduction to WAMU-NET's Online Repository for Water Education
- Ellen Freedman Schultz (Fairmount Interpretive Center, Philadelphia, US)
- Sara Ahmed (Living Waters Museum, India)
- Vicky Malotidi (MIO-ECSD/ECSD/ECSD, Athens, Greece)
- Margarida Filipe and Barbara Sofia Bruno (Museu da Agua, Lisboa, Portugal)
- Patrizia Famà and Chiara Steffanini (MUSE - Natural Science Museum of Trento, Italy)
- Gimenez Serra Eudald (Museu de l'Agua y el Textil, Manresa, Spain)

11.00 - 11.30 Coffee break

11.30 - 12.00 Continuation and Q&A session

12.00 - 13.00 **Breakout rooms: Purpose and features of WAMU-NET's Online Repository for Water Education**

13.00 - 13.30 Reporting to the plenary, discussion, and conclusion

**Rapporteurs:**

Victor Croitoru (Board member of WAMU-NET and Director of the Water Museum 'L.Truta', Apa Somes, Cluj, Romania); Karin Wundsam (Director, Danube Water-Adventure, Austria); Manuel Sapiano (Director, The Energy & Water Agency, Malta); Anna Brusarosco (University of Udine, Italy).

13.30 - 14.30 Lunch

14.30 - 15.30 **Interactive Networking and Video Session**

- Sandra de Vries, Gabriela Costea and Pippa de Kinder ('Danube4all' project): Puzzle Wall for Interactive Collaboration: exploring the Danube through ideas of co-creating a travelling exhibition on the multiple human relationships with water.



- Abdennabi El Mandour (Deputy President of WAMU-NET and Director of the Water Civilization Museum of Morocco 'Mohammed VI'): 'The Moroccan Khettara': a videoclip by Alaoui Lalla Badr Saoud (FMCIM).  
Report on the reconstruction of the Water Mill of Ouirgane, Atlas Mountains.
- Linda Lilienfeld (the Netherlands): 'Let's talk about water'. Open discussion.

### 15.30 – 17.30 **Cultural Visits**

The Water Heritage of Porto and the Parque Patrimonial das Águas

### 21.00 – 23.00 Gala Dinner

## Friday 11 October - Day 3

### Project and Opportunities for Networking

#### 10.00 – 13.30 SESSION 4

#### **GENERAL ASSEMBLY OF THE GLOBAL NETWORK OF WATER MUSEUMS**

**Chair:** Eddy Moors (President of WAMU-NET and Rector of IHE Delft, the Netherlands)

#### 10.00 – 11.00 **Part 1: Projects and opportunities for networking: Building Cultural Bridges through Water Museums**

- Javier Taks (UNESCO Chair 'Water and Culture', Udelar, Uruguay): Book announcement 'A guide to water museums in Latin America and the Caribbean' (in cooperation with the UNESCO PHI Regional Office, Montevideo)
- Karl M. Wantzen (UNESCO Chair 'Rivers and Heritage', University of Strasbourg, France): Book presentation 'Life as a Dance to the Rhythm of Waters'. A UNESCO study on biocultural diversity in the world's riverscapes
- Margarita Maruškić Kulaš, Ivana Kaleb Vuletić, and Eriberto Eulisse ('CREDIT' project): 'AQUAPLAY' - a new educational tool for online colouring on WAMU-NET website. Presentation of the MoU with different WAMU-NET members
- Sandra de Vries, Gabriela Costea and Pippa de Kinder ('Danube4all' project): The Healthy Danube Network - Share and Co-create Exhibitions and Citizen Science Methods
- Yixin Cao (University of Lyon, France): A survey on human-river relationships through museums
- Sara Ahmed and Amitangshu Acharya ('Aquamuse' project): Reimagining Water Museums

#### 11.00 – 11.15 Coffee break

#### 11.15 – 11.30 **Part 2: Signing of Partner Agreements**

- Manuel Sapiano (The Energy & Water Agency, Malta) and Osvaldo Martinez Torres (Instituto Nacional de Recursos Hidraulicos, Cuba): *Signing of the MoU between the Ghajn Interpretive Centre, Malta, and the Albear Aqueduct Museum, La Habana, Cuba.*
- Javadanzadeh Mohammadmahdi (ICQHS UNESCO Cat.2 Centre, Yazd, Iran) and Raffaele Iovine ('Lapis' Water Museum, Naples, Italy): *Signing of the MoU between the Yazd Water Museum, Iran, and the Water Museum of Naples 'Lapis', Italy.*
- Signature of MoUs 'AQUAPLAY' (between WAMU-NET and different members)

#### 11.30 – 13.30 **Part 3: Contributions from WAMU-NET members and open debate**

- Chairs:** Gisela Herrerias (Deputy President of WAMU-NET and Director of the Water Museum 'Agua Para Siempre', Puebla, Mexico), Francisco Almenar Cubells (Water Tribunal of Valencia, Spain) and Eriberto Eulisse (Executive Director of WAMU-NET, Italy)
- Rashad Salim and Hannah Lewis (Open Museum Initiative for Water Culture; Basra, Iraq)
  - Liliana Pena Naval (Brazilian Water Museum, Tocantins, Brazil)
  - Evelyn Arias Garriga, Yanet Morales Mesa, and José Antonio Yanez Balbuena (Albear Aqueduct Museum, La Habana, Cuba)
  - Margarita Maruškić Kulaš and Ivana Kaleb Vuletić (AQUATIKA, Karlovac, Croatia)
  - Alessandro Capati (Multimedia Museum of the Marmore Waterfalls, Terni, Italy)
  - Alassane Samoura (Musée de l'Eau, Ouagadougou, Burkina Faso)

### **Communications from new members**

- Rosso Rogerio, Raimundo Ribeiro, Vinicius Benevides, Felix Palazzo, and Apolinário Rebelo (International Water Memorial MINA, ADASA, Brasília, Brazil)
- Daniel Manyaka (Musée de l'Eau Siga-Bonjo, Cameroun)
- Alioune Dème and Ornella Tchanque Kanda Leni (Université Cheikh Anta Diop, Senegal)
- Anna Brusarosco (University of Udine, Italy)
- Claude Frangin (L'Eau à Lyon et la Pompe de Cornouailles, France)
- Gianfranco Brivio (Ecomuseum 'Adda di Leonardo', Milano, Italy)
- Raffaele Iovine, Pina Ciotola and Ivan Varriale ('Lapis' Water Museum, Naples, Italy)
- Michelle Boyle (artist, Ireland)

### **Report on interviews for the Blue Papers: Water and Heritage for Sustainable Development**

Carlien Donkor, Matteo D'Agostino and Foteini Tsigoni (UNESCO Chair, TU Delft)

### **Open debate and Q&A**

- Jianping Wang (Yellow River Museum, China)
- Leordan Loredana (Aquatim Water Museum Timisoara, Romania)
- Javier Rodes (Museos de Mequinenza, Mequinenza, Spain)
- Šárka Jiroušková (Historical Wastewater Treatment Plant, Prague, Czech Republic)
- Deirdre Crowe (Water Museum of Ireland)
- Ron Karels and Hugo Snabille (Broekerveiling Water Museum, the Netherlands)
- Raul Hernandez Garciadiego (Water Museum 'Agua Para Siempre', Puebla, Mexico)

13.30 – 15.00 Lunch

### **15.00 – 15.30 Conference conclusions: WAMU-NET's contribution to IHP Phase 9 and to the Water Agenda 2030**

- Eddy Moors (President of WAMU-NET and Rector of IHE Delft, the Netherlands)
- Filipe Araújo (President of Águas e Energia do Porto, Portugal)

### **15.30 – 17.30 Cultural Visits**

The Sewage Heritage of Porto and the Exhibition 'Brasília, from Utopia to the Capital', curated by D. Athayde at the Instituto Pernambuco.  
The International Water Memorial Project (MINA) coordinated by ADASA, Brazil.

## **Saturday 12 October - Day 4**

### **Field trip (only for participants already registered)**

8.00 – 19.00 Douro, UNESCO World Heritage: A Cultural, Evolving and Living Landscape.  
Field trip from Porto to Pocinho on the river Douro

#### **Itinerary**

Porto – Peso da Régua (ship) / Peso da Régua – Porto (bus)



