WATER MUSEUMS GLOBAL NETWORK

unesco Intergovernmental Hydrological Programme

KINGDOM OF MOROCCO
MINISTRY OF RELIGIOUS ENDOWMENTS AND ISLAMIC AFFAIRS

aman MUSÉE MOHAMMED VI POUR LA CIVILISATION DE L'EAU AU MAROC
MINISTERE DES HABOUS ET DES AFFAIRES ISLAMIQUES

4th International Conference of the

Global Network of Water Museums

Water Museums and Groundwater

Making the invisible visible

PROGRAMME

26 – 28 Octobre 2022

Musée Mohammed VI de la Civilisation de l'Eau au Maroc – 'Aman'
Museum of the Water Civilization in Morocco Mohammed VI – 'Aman'
Marrakesh, Morocco

Organized by

Supported by

In cooperation with

Advisory Board

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- Benqlilou Hanane, National Office of Electricity and Drinking Water, Morocco
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- Boujrouf Said, FLSH University Cadi Ayyad Marrakech, Morocco
- Croitoru Victor, Water Museum of Cluj-Napoca 'Leonida Truta', Romania
- El Mandour Abdennabi, Musée Mohammed VI de la Civilisation de l'Eau au Maroc 'Aman', Morocco
- Eulisse Eriberto, Ca' Foscari University of Venice / Civiltà dell'Acqua International Centre, Italy
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- Hasnaoui Moulay Driss, Ministry of Equipment and Water, Morocco
- Kerr-Wilson Ian, Senior expert in water management, Canada
- Lessa Joana, University of Algarve, Portugal
- Madani Tariq, FLSH University Mohamed Premier Oujda, Morocco
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- Otte Alexander, UNESCO Division of Water Sciences, Intergovernmental Hydrological Programme
- Ruf Thierry, IRD - Research Institute for Development, Montpellier, France
- Tarocco Francesca, THE NEW INSTITUTE - Centre for Environmental Humanities (NICHE), Ca' Foscari University of Venice, Italy
- Vallerani Francesco, UNESCO Chair, Ca' Foscari University of Venice, Italy

Organizing Team

- Lamaamla Mohamed, Director of Cooperation, Ministry of Habous & Islamic Affairs, Morocco
- Baghzli Abderrahim, Regional Delegate of the Ministry of Habous & Islamic Affairs Marrakech Safi
- El Mandour Abdennabi, Director of the Musée Mohammed VI de la Civilisation de l'Eau au Maroc
- Mouhsin Ghazouf, Head of Budget and Accounting Division, Ministry of Habous & Islamic Affairs
- Essabri Abdelkader, Head of Administrative and Financial Affairs, Ministry of Habous & Islamic Affairs
- Chitaouy Jihad, Museographer, Musée Mohammed VI de la Civilisation de l'Eau au Maroc
- Ouhaji Chakir, Museographer, Musée Mohammed VI de la Civilisation de l'Eau au Maroc
- Tabrouri Kawtar, Communication Manager, Musée Mohammed VI Civilisation de l'Eau au Maroc
- Moufakir Moulay Errachid, Head Teacher
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- Oulgriss Amina, Executive Assistant, Musée Mohammed VI de la Civilisation de l'Eau au Maroc
- El Adnani Imane, Excursion Manager, Musée Mohammed VI de la Civilisation de l'Eau au Maroc
- Schiavon Stefania, WAMU-NET Secretariat
- Charlery Marie Pierre, WAMU-NET Secretariat

Rationale and objectives of the 4th International Conference of WAMU-NET

The 4th International Conference of the Global Network of Water Museums (WAMU-NET) aims to shed light on the different forms of human interaction with water and promote our unique water heritage through educational and capacity-building programs for just and sustainable water management.

This year, the conference will focus in particular on the 'water culture' of Morocco and other Arab and Maghreb countries. Different conceptual perspectives and frameworks will be combined with interactive sessions to outline new ideas and proposals for water resilience, participatory approaches, water awareness education and project fundraising aimed at restoring and rehabilitating ancient practices.

Past societies built sophisticated technologies based on the natural hydrological cycle which provided adaptive responses to cope with challenges related to water scarcity and floods. Also, the conference will provide insights on how cultural values - social, symbolic, spiritual - shape our relationship with water.

Ancient hydro-technologies represent a wealth of water wisdom that must be recognized and preserved as an integral part of our cultural heritage - but they also provide, from a contemporary perspective, key insights to imagine new practices in a rapidly changing global context where addressing climate change, food security and peace have become critical challenges confronting our shared waters.

The conference also includes specific sessions for the presentation of projects implemented by WAMU-NET and its members on water awareness education for their potential contributions to the 9th Phase of the IHP Operative Strategy focused on science and society.

Objectives

- Outline and share with WAMU-NET members concrete projects and activities that might contribute to the implementation of the Operative Program of the 9th phase of IHP
- Highlight the relevance of historical/ancestral groundwater management practices, concepts, and farsighted visions as a source of inspiration for just and sustainable water management
- Recognize and promote further the potential of ancestral hydro-technologies as a possible response to the current climate and biodiversity emergency
- Identify a number of potential projects for the rehabilitation and restoration of ancestral technologies as demonstration sites for replication in other Arab and African countries
- Develop educational and capacity-building programs to foster new projects aimed at supporting both researchers and local communities to preserve and manage ancestral water systems
- Stimulate museums and interpretation centres to consider the historical uses of groundwater as key assets to create awareness of its vulnerability through permanent and temporary exhibitions

Day 0 – Tuesday 25 October

15.00 – 18.00 **Early Registration**

Venue: **Musée Mohammed VI pour la Civilisation de l'Eau au Maroc**
Abdelkrim Avenue El Khattabi - Road of Casablanca, Marrakesh
Entrance from the Palm Grove circuit - Circuit de la Palmeraie

Palm groove with camels in the outskirts of Marrakesh (left) and aereal wells of the 'khettara' (underground canal system) of Akrich (right).

Day 1 – Wednesday 26 October *[conference available online - see link on back cover]*

8.30 – 10.00 **Registration**

10.00 – 11-00 **OPENING SESSION – WELCOME SPEECHES**

Chair: **El Mouden El Hassan**, Dean of the Faculty of Science, Univ. of Semlalia Cadi Ayyad, Morocco
Ahmed Toufiq, Minister of Islamic Affairs and Religious Endowments 'Habous', Morocco
Eric Falt, UNESCO Maghreb Office in Rabat
Samir Addahre, Permanent Ambassador-Delegate of the Kingdom of Morocco to UNESCO
Eddy Moors, President of the Global Network of Water Museums
Francesca Tarocco, Director of THE NEW INSTITUTE - Centre for Environmental Humanities (NICHE), Ca' Foscari University of Venice, Italy
Eriberto Eulisse, Executive Director of the Global Network of Water Museums
Abdennabi El Mandour, Director of the Musée Mohammed VI de la Civilisation de l'Eau au Maroc 'Aman', Morocco
Awarding ceremony of the youth contest and award TWWW (2022) with Mohamed Bayo (High School 'Imam Al Boukhari', Morocco) - Winner of the category 'Drawings'

11.00 – 11.30 Coffee break

11.30 – 13.30 **SESSION 1 – THE HERITAGE OF WATER IN MOROCCO AND MAGHREB**

ANCESTRAL HYDROTECHNOLOGIES FOR FARSIGHTED USE OF GROUNDWATER

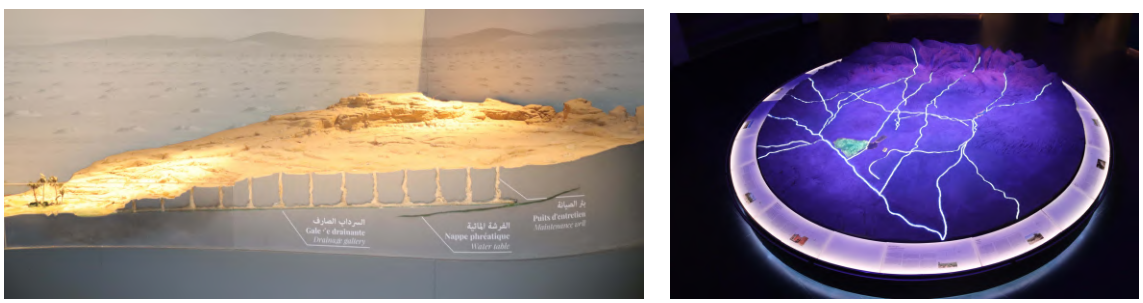
Chairs: **Sara Ahmed** (Living Waters Museum, India) and **Alexander Otte** (UNESCO-IHP)
Jordi F. Moratò, UNESCO Chair, Polytechnic University of Catalunya, Barcelona, Spain
Ancestral hydrotechnologies to increase resilience to climate change
Souad Belkeziz, architect and urban planner, Marrakech
The miracle of water. Marrakech, the ideal garden-city
Thierry Ruf, IRD, Montpellier, France, and **Mohamed Madane**, Univ. of Agadir, Morocco
Learning sustainable groundwater management: the case study of the Morocco 'khettaras'
Said Boujrouf, LERMA, Université Cadi Ayad, Marrakech
Tourism and hydraulic heritage in Marrakech: how to use local resources sustainably?
Toufik Ftaita, University of Nice, France
The hydraulic heritage of Morocco between disappearance and safeguarding.
Lahcen Kabiri, Moulay Ismail University and Oasis Ferkla Association for Environment and Heritage, Errachidia, Morocco
Community actions for conservation and enhancement of water resources in the oases

13.30 – 14.30 Lunch

14.30 – 15.30 **Massimiliano Borroni**, UNESCO Chair on Water Heritage, Ca' Foscari Venice Univ., Italy
The place of water in the premodern Maghreb: a review of topics and trends
Abdullah S. Al-Ghafri and **Majid Labbaf**, UNESCO Chair on Archaeo-Hydrology, University of Nizwa, Oman
Philosophy, structure, and goals for designing the National Water Museum of Oman

15.30 – 17.00 **VISIT OF THE MUSEÉ MOHAMED VI DE LA CIVILISATION DE L'EAU AU MAROC 'AMAN'**

17.00 – 18.00 Coffee Break



Model of khettara system at the Museum of Water Civilization Mohammed VI – 'Aman', Morocco

Day 2 – Thursday 27 October *[conference available online - see link on back cover]*

10.00 – 11.30 **SESSION 2 - PROPOSALS, SOLUTIONS, AND GOOD PRACTICES FOR WATER RESILIENCE: THE CONTRIBUTION OF WATER MUSEUMS**

Chairs: **Gisela H. Guerra** ('Agua para siempre!', Mexico) and **Ian-Kerr Wilson** (Canada)

Alexander Otte, Intergovernmental Hydrological Programme, UNESCO
The expected contribution of WAMU-NET to the 9th Phase of IHP
Hanane Benqlilou, National Office of Electricity and Drinking Water, Morocco
Water education, heritage, and knowledge sharing to face water scarcity and climate change in Morocco and Africa. A contribution to the World Inventory of water museums
Samoura Alassane, Musée de l'Eau de Ouagadougou, Burkina Faso
Promoting water awareness education for a wider network of African museums
Joana Lessa, Algarve University, Portugal
Water museums' response to COVID-19: the importance of digital media
Karin Wundsam, Engelhartszeller Donau-Welt, Engelhartszell, Austria, and **Ralf Braun**, Haus am Strom, Jochenstein, Bavaria, Germany
How to raise awareness on the 17 SDGs? Build them a house and an adventure trail!
Mario Mesquita, Parque Patrimonial das Aguas de Porto, Portugal, and **David R. Pujol**, Museu de les Aigües de Barcelona, Spain
Industrial water heritage: a worldwide inventory and exhibition project
Amy Sharrocks, artist, United Kingdom
Unlearning museums
Betsy Damon, artist, USA
Water museums as centers for information and solutions for resilience

11.30 – 12.00 Coffee Break

12.00 – 12.30 **Hugo Snabilie** and **Ron Karels**, Broekerveiling Museum, Netherlands
Inclusive museums and disabilities: the Sign Language International Potential
Caroline Delcourt, Musée de l'Eau et de la Fontaine, Ottignies, Belgium
Beyond museums: how to make a collection live without an exhibition space

12.30 – 13.30 **Interactive Sessions**

BREAKOUT ROOMS ON INNOVATIVE PROPOSALS AND SOLUTIONS FOR WATER RESILIENCE
Rapporteurs: presentation of proposals from the breakout rooms

13.30 – 14.30 Lunch

14.30 – 15.15 **'THE CHILDREN OF WATER'** - A documentary film by **Joy Penroz** and **Sylvain Grain**
Projection of "***The miracle of oasis***" (26', episode n.5 in Tafilalet, Morocco; Raki Films and Senal Colombia production) and discussion with the producer, **Sylvain Grain**.
Children from all over the world discover the knowledge of ancient cultures to protect the most important treasure they have inherited: water.

15.15 – 19.00 **VISIT OF THE MEDINA (HISTORICAL CITY) OF MARRAKECH**

The Medina of Marrakech and the historical souk

Day 3 – Friday 28 October *[conference available online - see link on back cover]*

10.00 – 11.30 **GENERAL ASSEMBLY OF THE GLOBAL NETWORK OF WATER MUSEUMS (WAMU-NET)**
Chair: **Eddy Moors**, President of the Global Network of Water Museums
Inauguration of the new WAMU-NET web site
'Water museums for Peace': inauguration of the restyled WAMU-NET logo
Eriberto Eulisse, Executive Director of the Global Network of Water Museums
Presentation and discussion of WAMU-NET ongoing projects
- Contribution of WAMU-NET to UN-Water Summit on Groundwater (Paris, 6-8 December 2022) with the side-event titled 'Rethinking Sustainable Groundwater Management. Ancestral Knowledge and Hydro-technologies as Inspiring Source of Innovation'
- World Inventory of Water Museums
- Youth Contest and Award 'The Water We Want' (TWWW)
- Worldwide Exhibition 'I Remember Water'
- Fundraising activities and e-commerce platform
- The way forward

Interactive Session
BREAKOUT ROOMS ON WATER EDUCATION, SCIENCE AND SOCIETY, PROJECT FUNDRAISING

11.30 – 12.00 Coffee break

12.00 – 12.30 **Discussion on the way forward (Plenary Assembly)**
Chairs: **José Soria** and **Javier Pastor** (Tribunal of Waters of Valencia, Spain) and **Victor Croitoru** (Water Museum of Cluj 'L.Truta', Romania)
Rapporteurs: presentation of findings and proposals from the interactive session
Discussion with all WAMU-NET members

12.30 – 13.30 **PRESENTATION OF NEW MEMBERS (2021-22)**
Riccardo Seccarello, The Aqueduct Museum of Venice / VERITAS, Venice, Italy
Manuel Sapiano and **Natalino Spiteri**, GAHJN Water Museum, Malta
Francesco Fioretti and **Alessandro Capati**, Museum of the Marmore Waterfalls, Piediluco, Italy
Marco Iamiceli, Waterland / Paese d'Acqua, Sassinoro, Benevento, Italy

13.30 – 14.30 Lunch

14.30 – 15.30 **Conference conclusions (Plenary Assembly)**
Panel discussion with the Management Board members: Eddy Moors, Eriberto Eulisse, Abdennabi El Mandour, Sara Ahmed, Gisela Guerra, Ian Kerr-Wilson, Victor Croitoru

15.30 – 16.00 Coffee break

16.00 – 18.00 **SITE VISIT OF THE HISTORICAL BASIN AND ROYAL GARDENS OF THE MENARA (12TH CENTURY)**

20.30 – 23.30 **GALA DINNER** at the traditional restaurant **'Chez Ali'**
For WAMU-NET members and by invitation only

The Menara historical basin (12th cent.) and Royal Gardens with the High Atlas covered by snow

Day 4 and Day 5 (optional) – Saturday 29 and Sunday 30 October

FIELD TRIP TO THE HIGH ATLAS MOUNTAINS AND THE HAOUZ PLAIN

Cost of the field trip: 140 € (all-inclusive fee). The fee includes: bus transfers from and back to Marrakech, lunches, the dinner, and the hotel accomodation at La Bergerie Hotel (incl. breakfast).

Day 4 – Saturday 29 October

9.00 **DEPARTURE FROM MARRAKECH TO OUIRGHANE AND MARIGHA**

First station: Piedmont of the High Atlas and Village of Tahanaout

Second station: Traditional Village of Tahanaout
(with flow measurement station of Oued Rherhaya)

Third station: Traditional Village of Marigha
(the hydraulic mill and the traditional techniques of water sharing for irrigation)

Fourth station: Ouirgane Dam

Map and Route of the 1st Day Trip

From left to right: Marigha, Tahanaout, Ouirgane Dam

Day 5 – Sunday 30 October

9.00 **DEPARTURE FROM OUIRGHANE TO IMLIL**

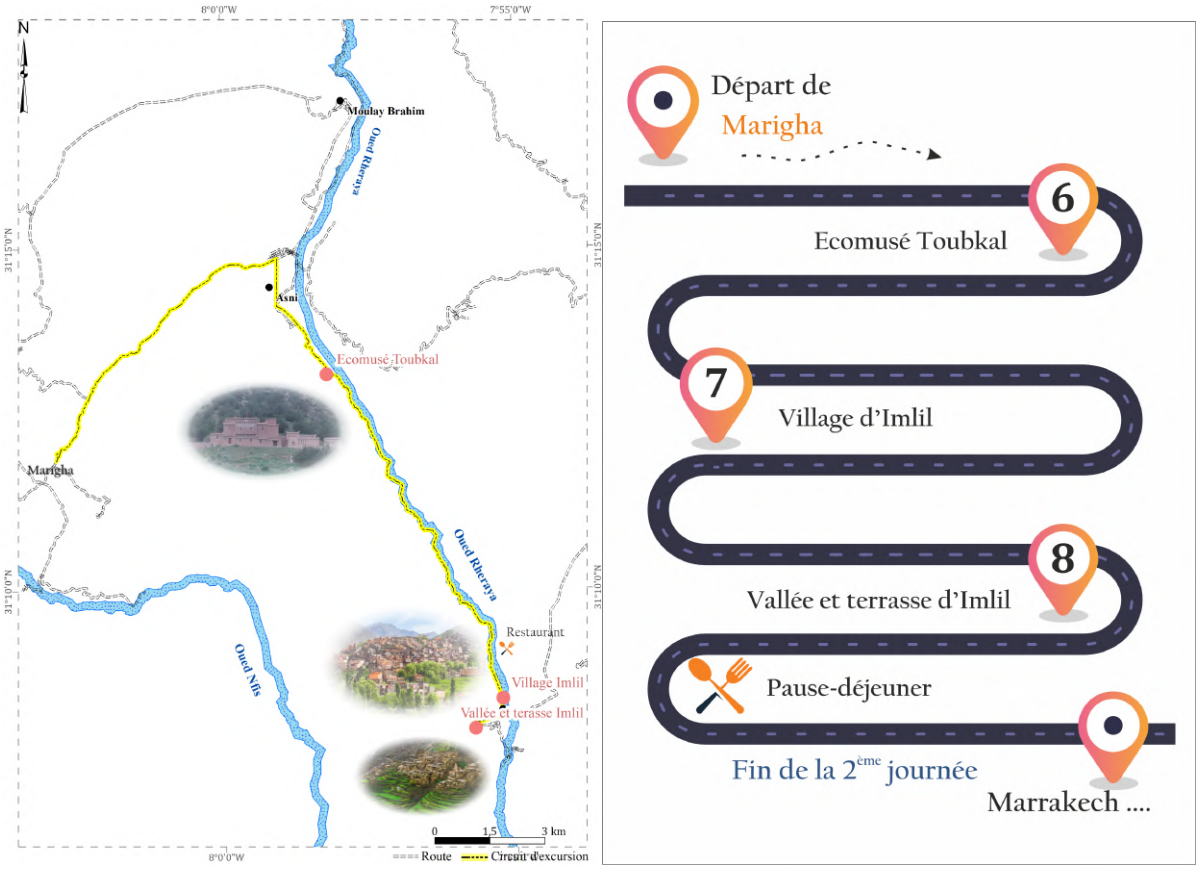
First station: The Gherhaya Valley and the Toubkal Ecomuseum

Second station: Hiking field trip to Aremd valley and terraces: departure from Imlil to Aremd and return to Imlil (easy hiking of almost 3 hours to visit: the water sharing techniques, the 'seguias' underground canals, agricultural terraces, the water mill)

Lunch and walk in the village of Imlil

17.00 Return from Imlil to Marrakech

19.00 Arrival to Marrakech



Map and Route of the 2nd Day Trip

From left to right: The Gheraya Valley, Imlil terraces, and the Amred village

Links available for attending the conference

Day 1 – Wednesday 26 October (from 09:30 am CEST – local time 08:30 am Casablanca)
Zoom link:
https://us02web.zoom.us/j/83969148109?pwd=MEdmVlVQdVFuNVNIY3V3c014RTc2UT09
ID: 839 6914 8109 - Code: 658133

Day 2 – Thursday 27 October (from 09:30 am CEST – local time 08:30 am Casablanca)
Zoom link:
https://us02web.zoom.us/j/83393145176?pwd=K2czZHJ1Nm5RTU1NYUwwL0hCWU9odz09
ID: 833 9314 5176 - Code: 539974

Day 3 – Friday 28 October (from 09:30 am CEST – local time 08:30 am Casablanca)
Zoom link:
https://us02web.zoom.us/j/86969556005?pwd=OHpneUQ4dEFEb1VpZVh0Q3hCQUVDUT09
ID: 869 6955 6005 - Code: 458603

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