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Venezia



# Exploring the «Extended Museum» of Venices' water heritage through digital tours and web platforms

## Digital Itineraries and Audioguides to foster and promote «responsible» eco-tourism

**Eriberto Eulisse**

**Civiltà dell'Acqua & Global Network of Water Museums**

Beyond Museums. Tools for promoting the natural and cultural water heritage  
UNESCO Chair «Water, Heritage, and Sustainable Development» - 1st training course 2021

# OVERVIEW OF THE PRESENTATION

1. The geo-historical context of Venices' inland waterways
2. Digital tours as tools to facilitate access to water heritage and promote «responsible tourism»
3. How to create a digital tour
4. *Water Museum of Venice*: the web platform of Venices' «extended museum»

**1**

**The geo-historical  
context of Venices'  
inland waterways**

# The Venice everyone knows and...



...the silent and 'forgotten' Venices

# Venices' «liquid roads»: a waterway system



## *Riviera del Brenta* : Palladio's architectures

# Historical map of Venices' inland waterways

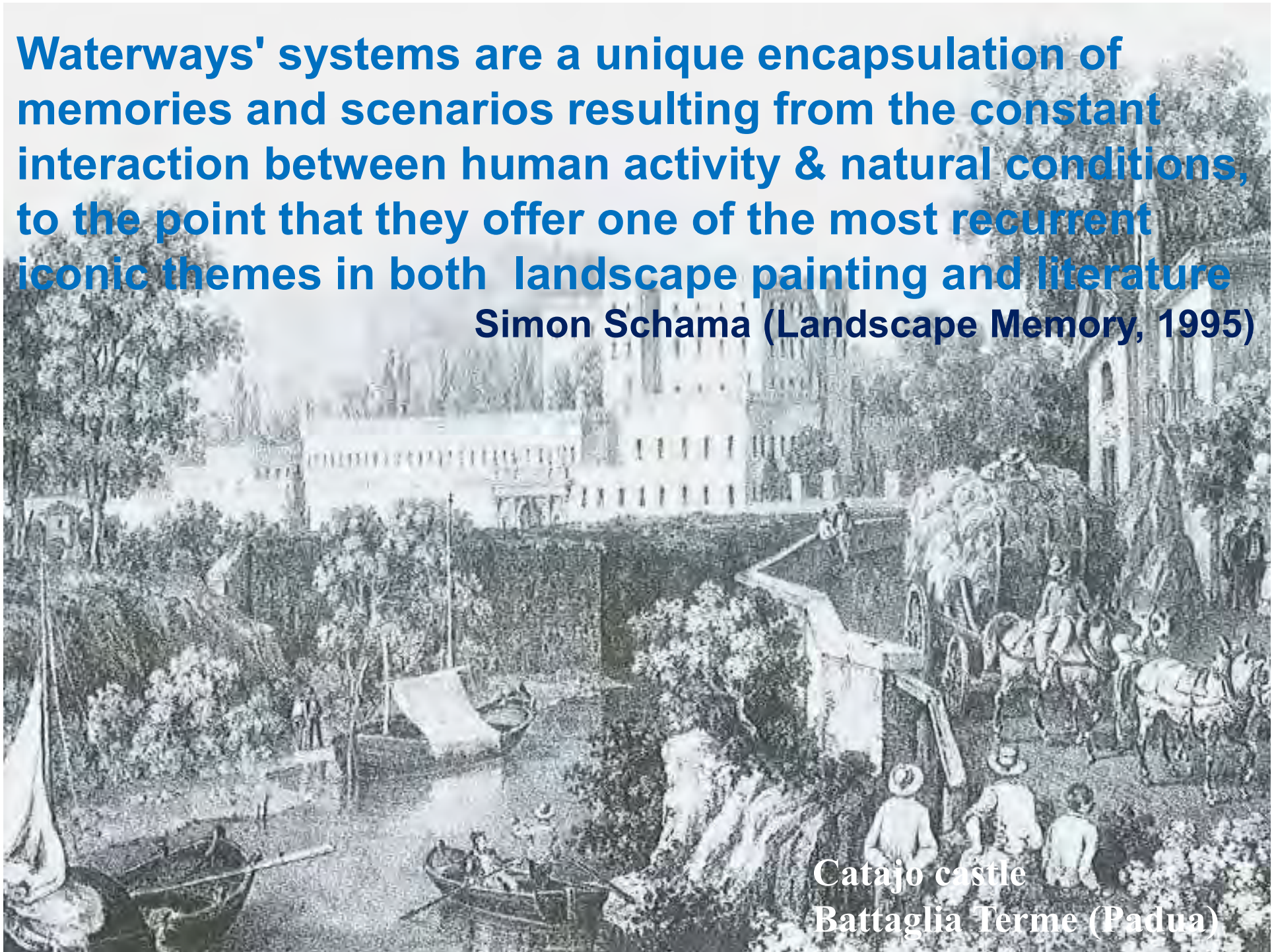


# **Waterways: a multi-functional system**

- **Navigation: to transport goods, people & troops**
- **Water management: control of water levels for drainage and irrigation, and floods mitigation**
- **Proto-industrial activities (water mills, forges...)**
- **Important aesthetic and scenic values**



**Waterways' systems are a unique encapsulation of memories and scenarios resulting from the constant interaction between human activity & natural conditions, to the point that they offer one of the most recurrent iconic themes in both landscape painting and literature**  
**Simon Schama (Landscape Memory, 1995)**



Cataja castle  
Battaglia Terme (Padua)



# **The “making” of Venices’ inland waterways**

**From the Middle Ages (XII cent. AD), the building of artificial canals linking different rivers fostered the development of inland navigation, fluvial trade, and the expansion of urban centres along waterways, like Padua, Vicenza and Treviso.**

**A fascinating water heritage made of small river ports, navigation locks, hydraulic artefacts, castles, and villas still exists and is a unique heritage for tourism and leisure.**

# Small river towns along waterways

## The Battaglia Canal (1189-1201)



# **‘The Stones of Venice’ (John Ruskin)**

## **From the Euganean Hills to the Venice Lagoon**



**The Venetian “minor” waterways’ system is forgotten and almost abandoned today**  
**A Heritage in Danger of Disappearing?**  
**Traditional knowledge and techniques for making wooden boats are vanishing...**



# Past and forgotten waterscapes? The function of memory, emotional values and the 'sense of place'

Typical 'boat bridge' of inland waterways





**Intangible heritage: historical regatta and traditional wooden boats in front of the magnificent Villa Pisani**

# How to redeem Venices' Inland water heritage?

- **PROTECTION**
- **PUBLIC ACCESS**
- **PROMOTION**

**How to make it attractive?**

# RESPONSIBLE TOURISM

NATURAL &  
CULTURAL  
HERITAGE

Outdoors activities  
on foot, or by byke,  
canoe, or boat...

NEW OPPORTUNITIES  
TO REGENERATE  
LOCAL ECONOMIES





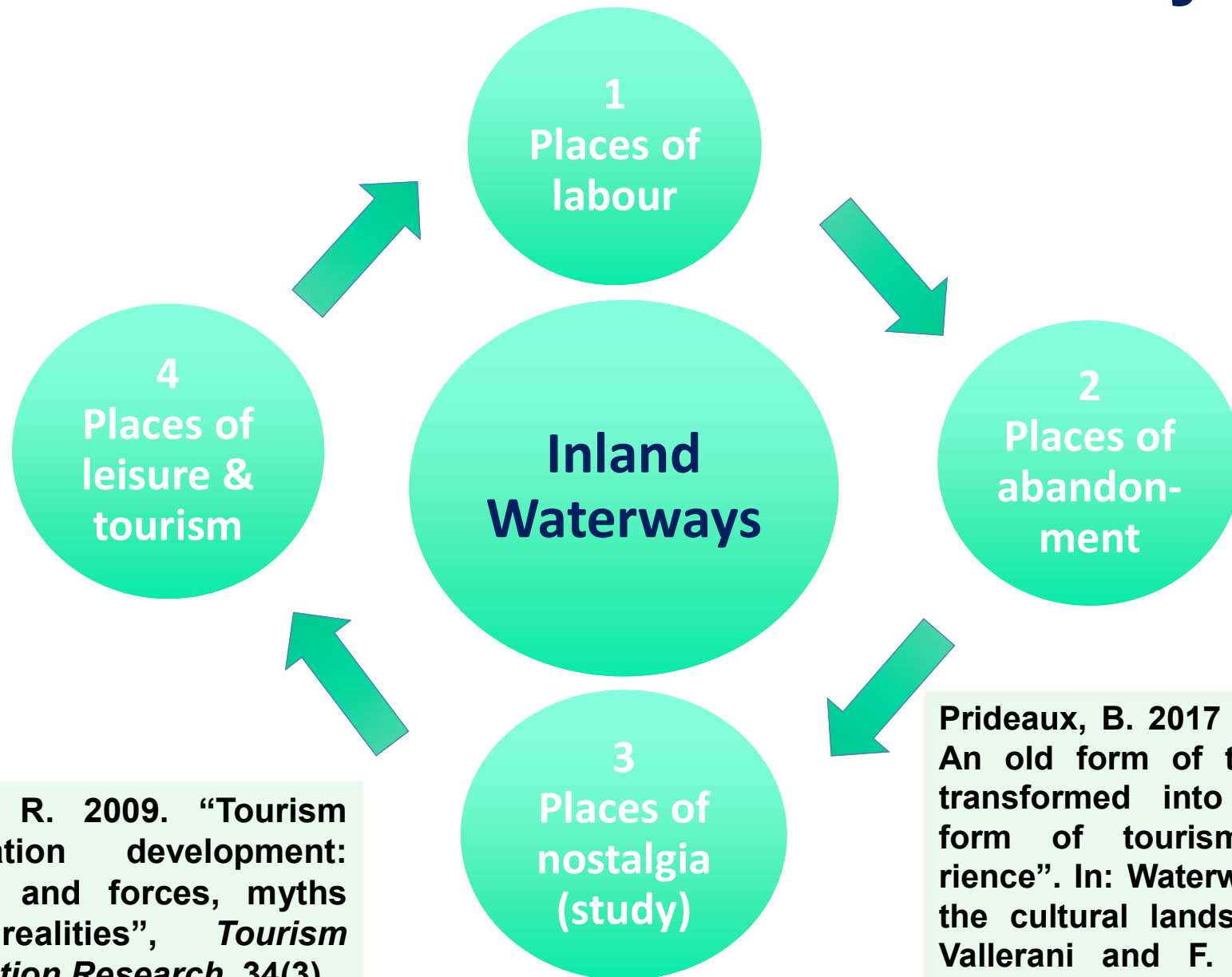


**What means 'sustainable'?**

**'Responsible tourism' *versus*  
'mass tourism'**

**30 million visitors/year in the city centre of Venice**

# Evolution of historical waterways



Butler, R. 2009. "Tourism destination development: Cycles and forces, myths and realities", *Tourism Recreation Research*, 34(3).

Prideaux, B. 2017 "Canals. An old form of transport transformed into a new form of tourism experience". In: *Waterways and the cultural landscape* (F. Vallerani and F. Visentin eds), Routledge.

**2**

**Digital tours as tools to  
facilitate access to water  
heritage and promote  
«responsible tourism»**



INTERNATIONAL CENTRE

**Non-profit NGO (1996) aimed at building a 'New Culture of Water'**

## **Mission**

**Define a more far-sighted management of water, of nature, and landscape by promoting new holistic and inter-disciplinary approaches to face the global water crisis**

**Project oriented approach**

# EXPLORING THE VENICE LAGOON

Palazzo Zorzi,  
May-October 2015

VENICE  
TO EXPO  
2015



## Places and values of the World Heritage Site



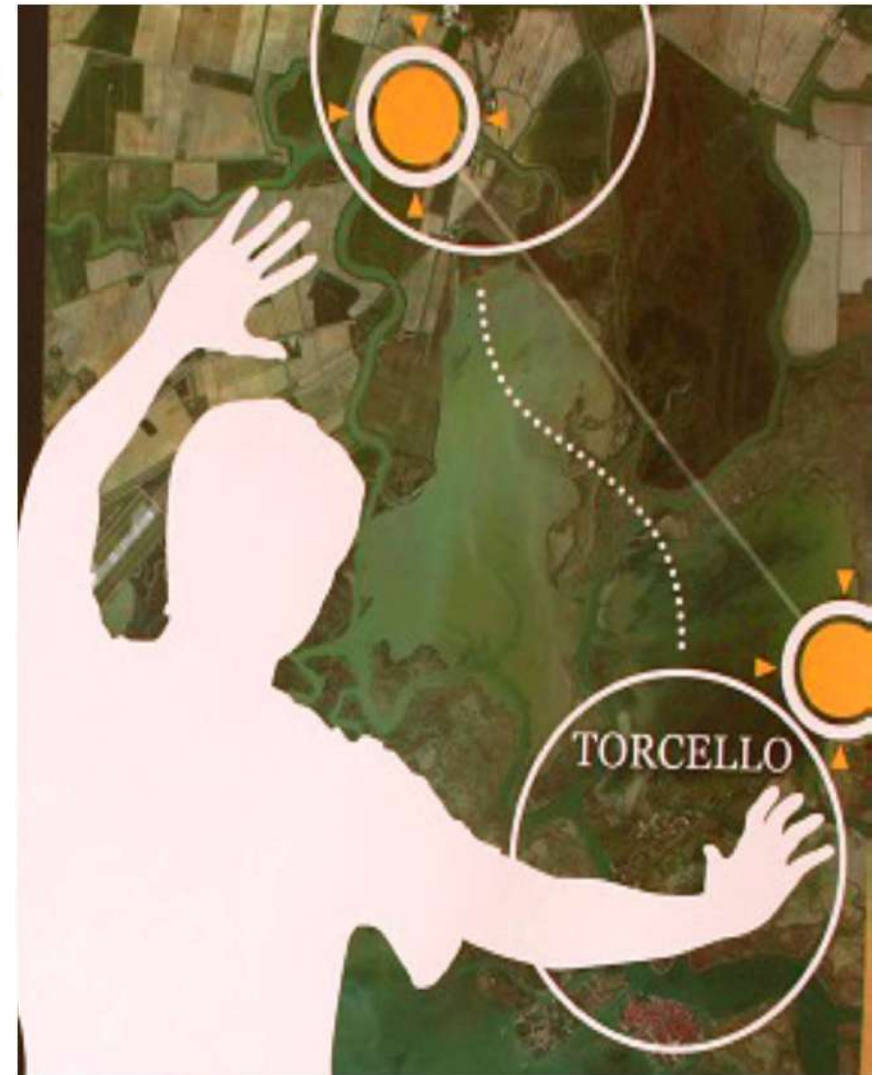
*Civiltà dell'Acqua*

INTERNATIONAL CENTRE

# EXPLORING THE VENICE LAGOON

**Four thematic explorations to  
know the «extended museum»:**

- 1) Hydraulic artefacts**
- 2) Waterways and wooden  
boats**
- 3) Cultural waterscapes**
- 4) Responsible eco-tourism**



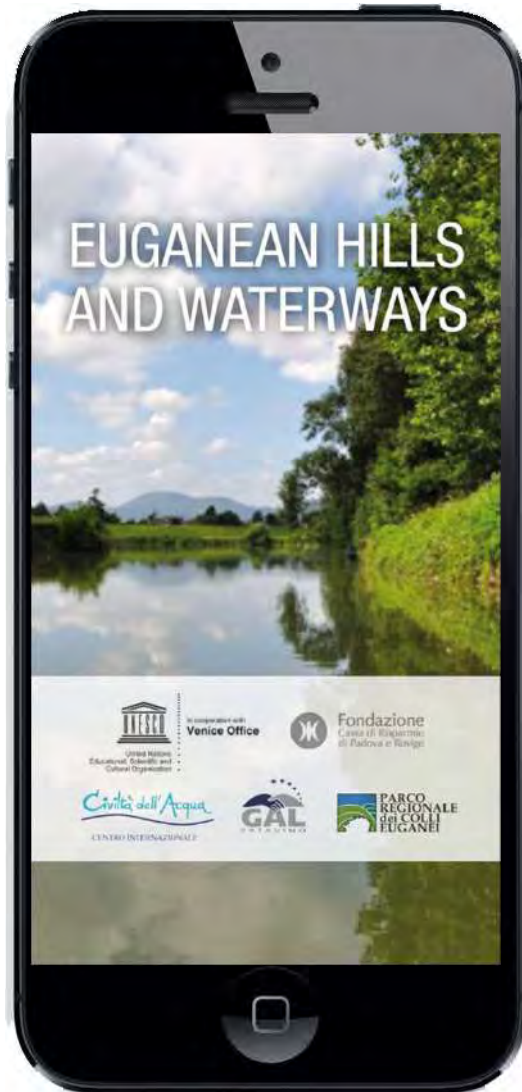
**Interactive Space**

Civiltà dell'Acqua

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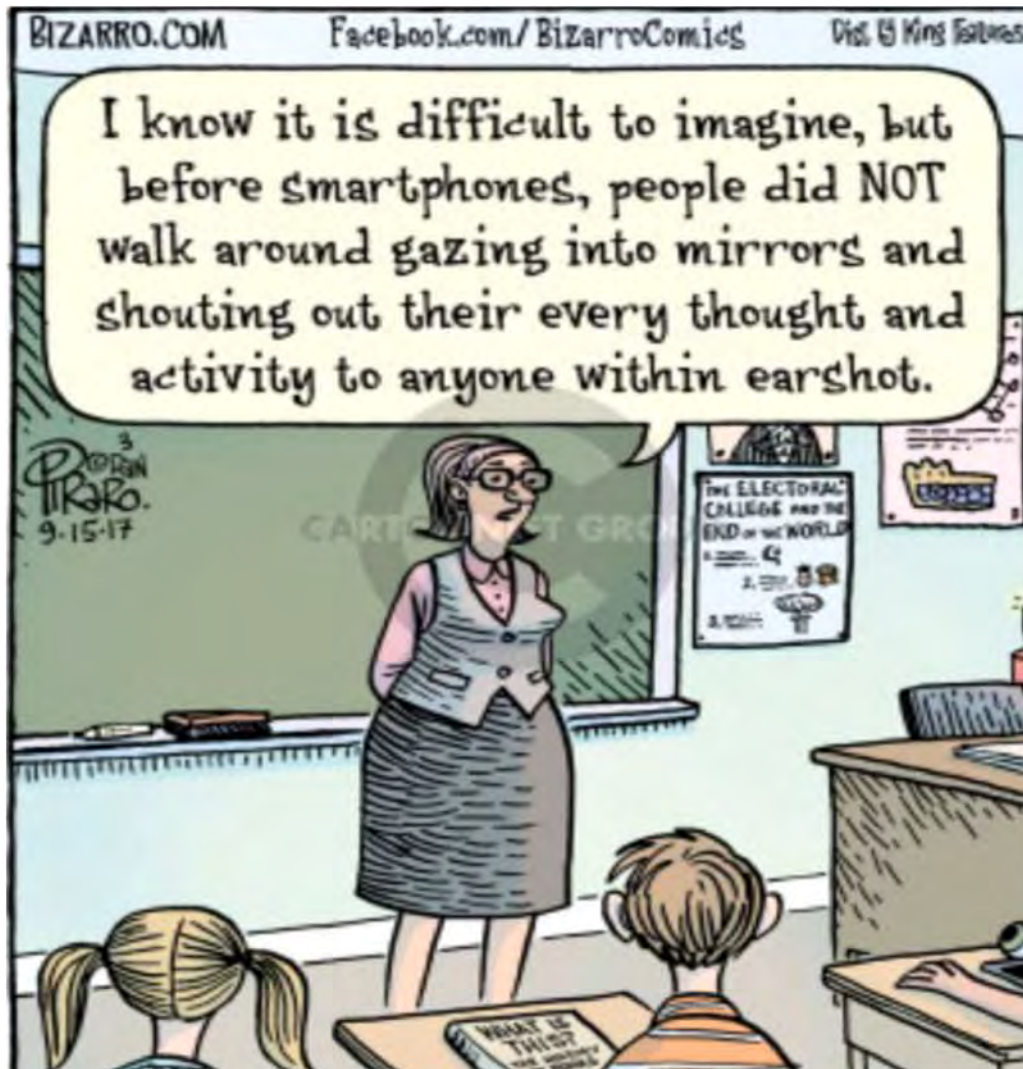


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**2014-2019**  
**Audioguides &**  
**Digital Tours**  
**VENICE'S**  
**WATERWAYS**  
**> 100 Digital Tours**  
**> 500 PoI**

# Why Geo-Spatial Technologies ?



The use of digital devices and interactive maps has transformed our knowledge of space and place

Digitisation multiplies opportunities:

- to access 'hidden' heritage
- to engage audiences

The best language to attract young audiences

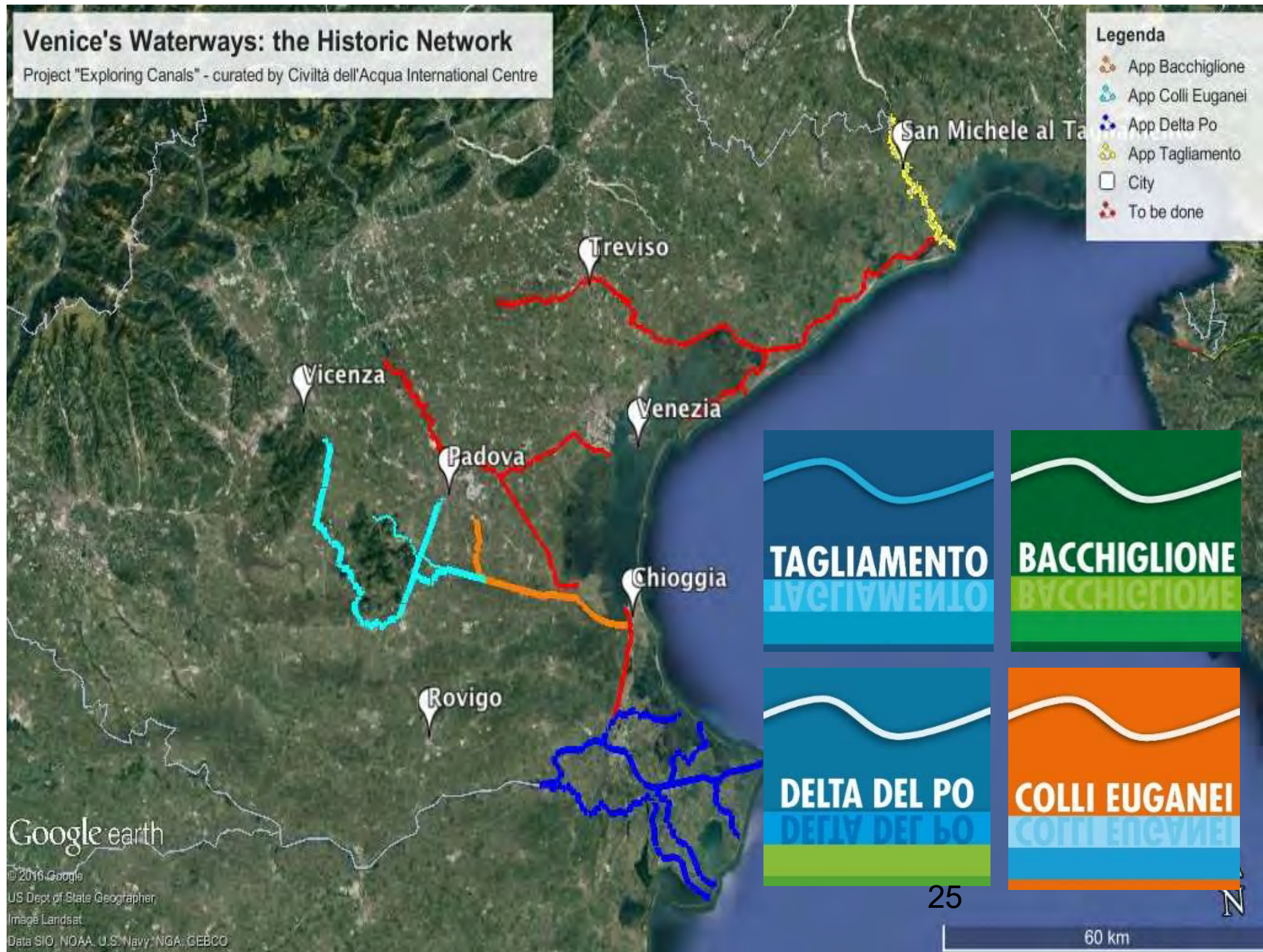


# Venice's Waterways: the Historic Network

Project "Exploring Canals" - curated by Civiltà dell'Acqua International Centre

## Legenda

- App Bacchiglione
- App Colli Euganei
- App Delta Po
- App Tagliamento
- City
- To be done



25

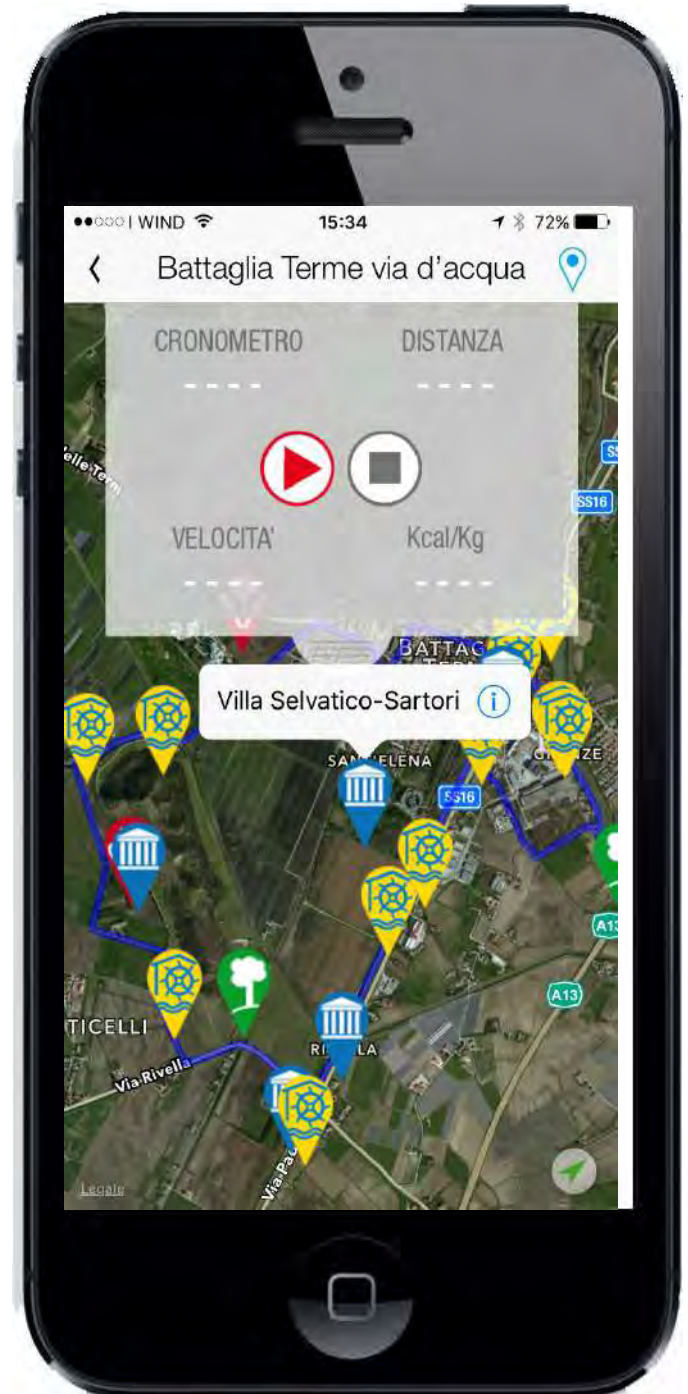
60 km

Google earth

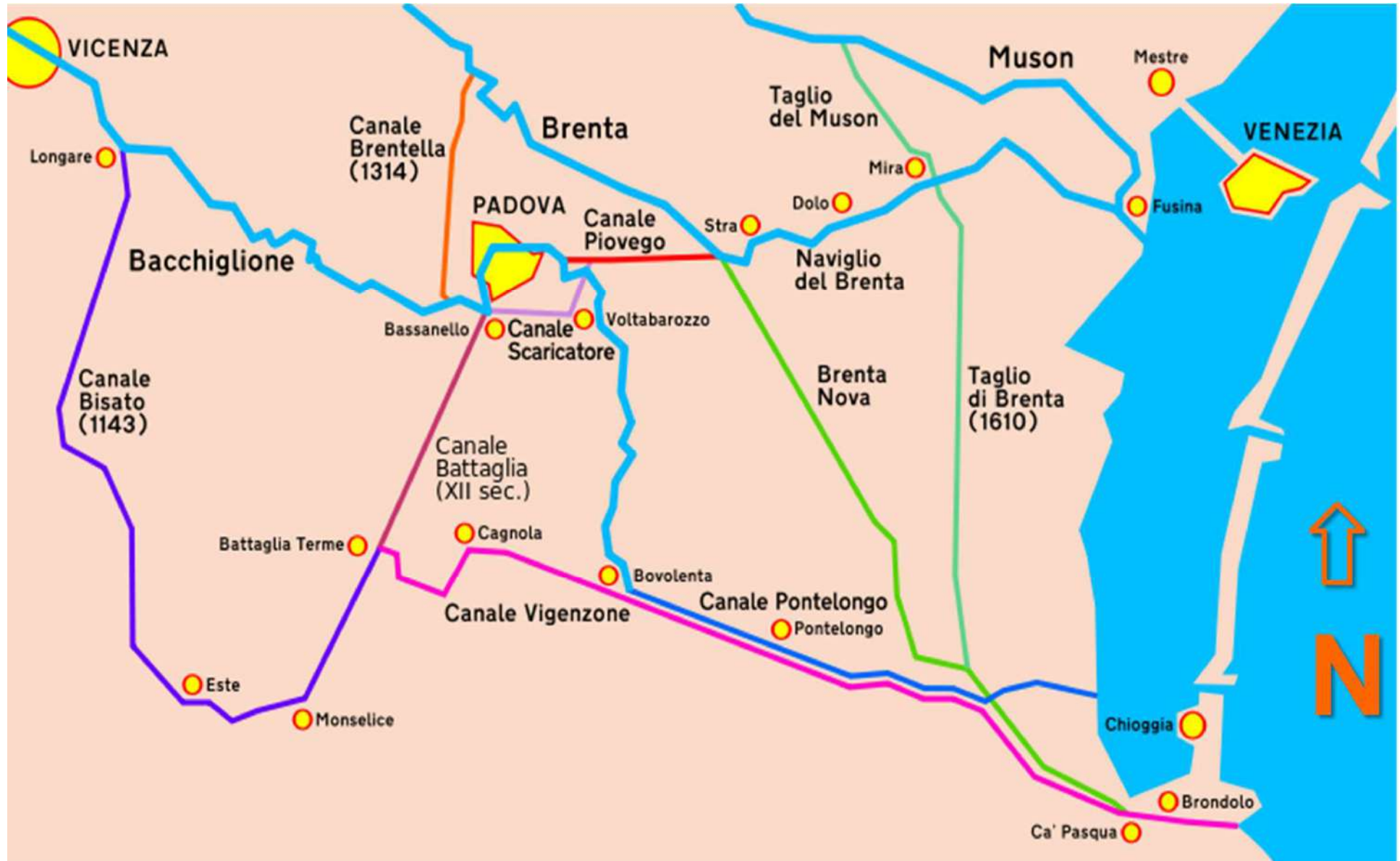
© 2016 Google  
US Dept of State Geographer  
Image Landsat  
Data SIO, NOAA, U.S. Navy, NGA, GEBCO



Tours by bike,  
boat, horse,  
canoe, walk



# Mapping and inventory of water heritages





# Artificial canals & canalised 'rivers' crossing small towns



# Hydraulic artefacts: mills



XIII cent water mill, Vigenzone canal, Euganean Hills

# Villas and aristocratic residences built on waterways



# Farms and vernacular dwellings



# Small churches and abbeys



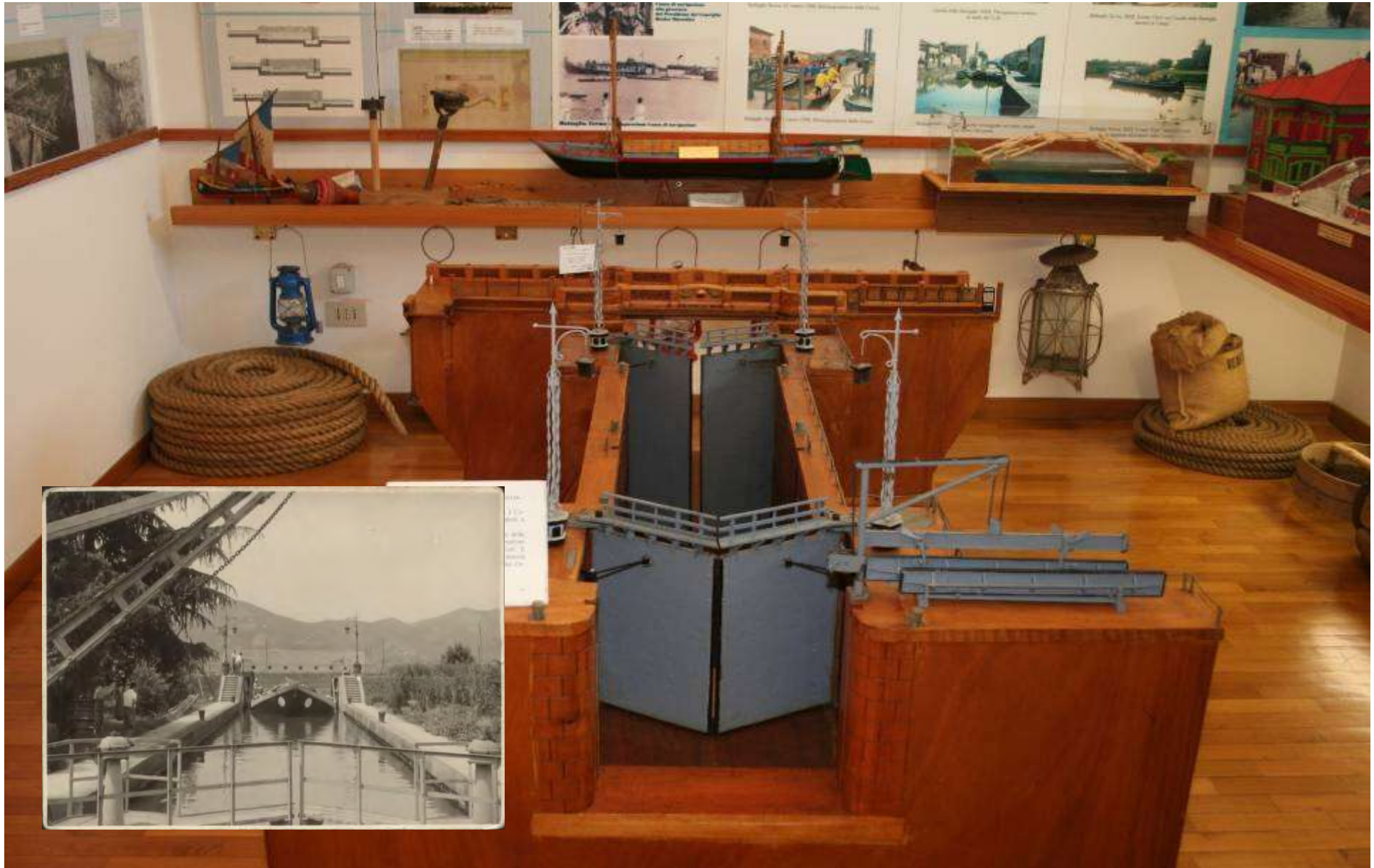


# Traditional wooden boats

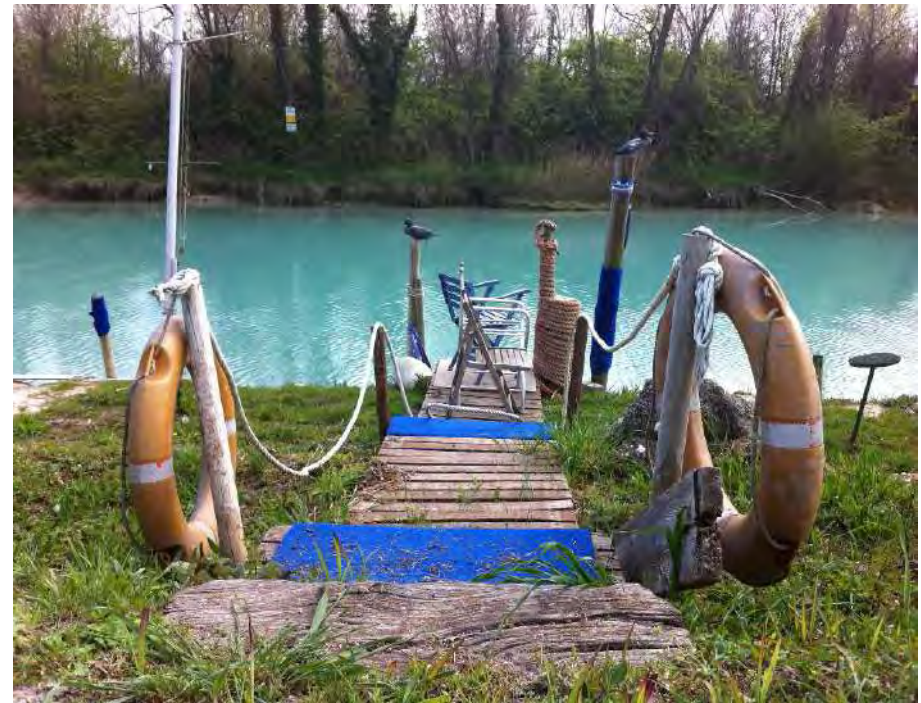


River navigation museum of Battaglia Terme (Padua)

# Lock systems and 'hydraulic lifts'



# Small river ports



# The reclamation landscape





# Natural or artificial (cultural)? The «unknown» waterscape



# Tangible and intangible heritage



**Collection of water stories can foster new imaginaries and perceptions related to water, and connected to «past water worlds»**



**Rolando Biasion: the *Canis*, traditional net of canes to trap eels**  
**Toni Frescura: the ‘last fisherman’**



# Inventory of waterway heritage



# Both natural and cultural heritage



# **Cultural heritage: tangible assets**

- Hydraulic artefacts (locks, water pumps, bridges, docks, historic canals, hydraulic factories like water mills, forges, etc)**
- Historical architecture with monuments and buildings (farms, vernacular dwellings, villas, castles, rural chapels and small churches, walled riverine towns)**
- Waterscapes (natural/built, land reclamation)**

# **Cultural heritage: intangible assets**

- Oral history and memories of boatmen, fishermen, etc**
- Literary landscape (novels, poetry...)**
- Other cultural representations (paintings, photography, postcards, ...)**
- Traditional knowledge of craftsmen, ferrymen, 'cariolanti'...**



*Civiltà dell'Acqua*

CENTRO INTERNAZIONALE



# INNOVATION AWARD

Exploring Canals: Venice's Waterways

Inverness (Scotland), 2016

29th World Canals Conference

**3**

**How to build  
a digital route**



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[www.waterwaysexplorer.org](http://www.waterwaysexplorer.org)



**izi.TRAVEL**  
the storytelling platform

[audio guides](#) [create a guide](#) [api](#) [about us](#) [login](#) [offers](#) [EN](#)



Waterways Explorer

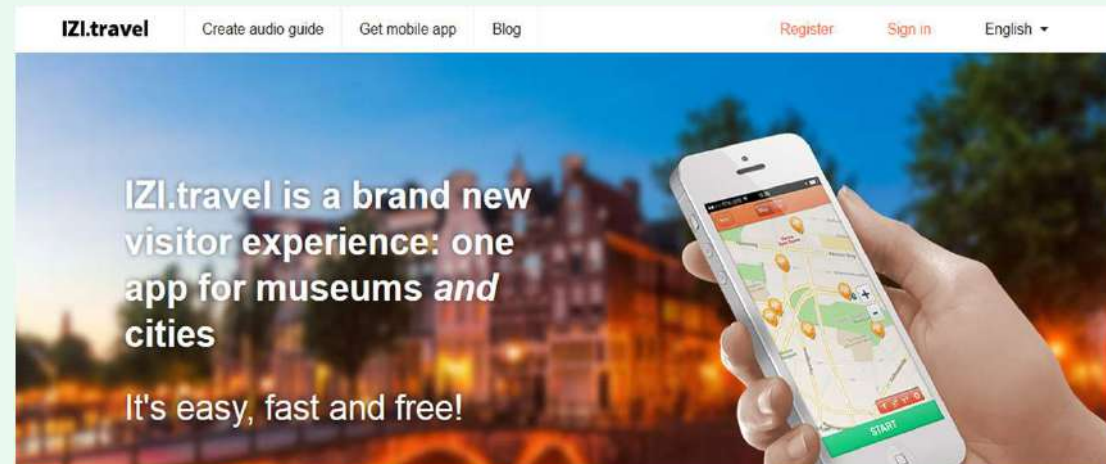


Content language: [Any language](#)





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**izi.TRAVEL: + 1 million downloads**

**An open-source web platform to build digital audio-guides as an alternative tool to Apps.**

**A powerful tool to promote project results**





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[www.waterwaysexplorer.org](http://www.waterwaysexplorer.org)



## Goals

- > Improve perceptions and awareness on the multifunctionality of waterway heritages
- > Foster new eco-tourism and leisure practices



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# DISPUTED WATERWAYS



## THREATS

Climate  
Change

Pollution

Loss of  
biodiversity

Water  
managem  
ent





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## NEW RESEARCH APPROACH



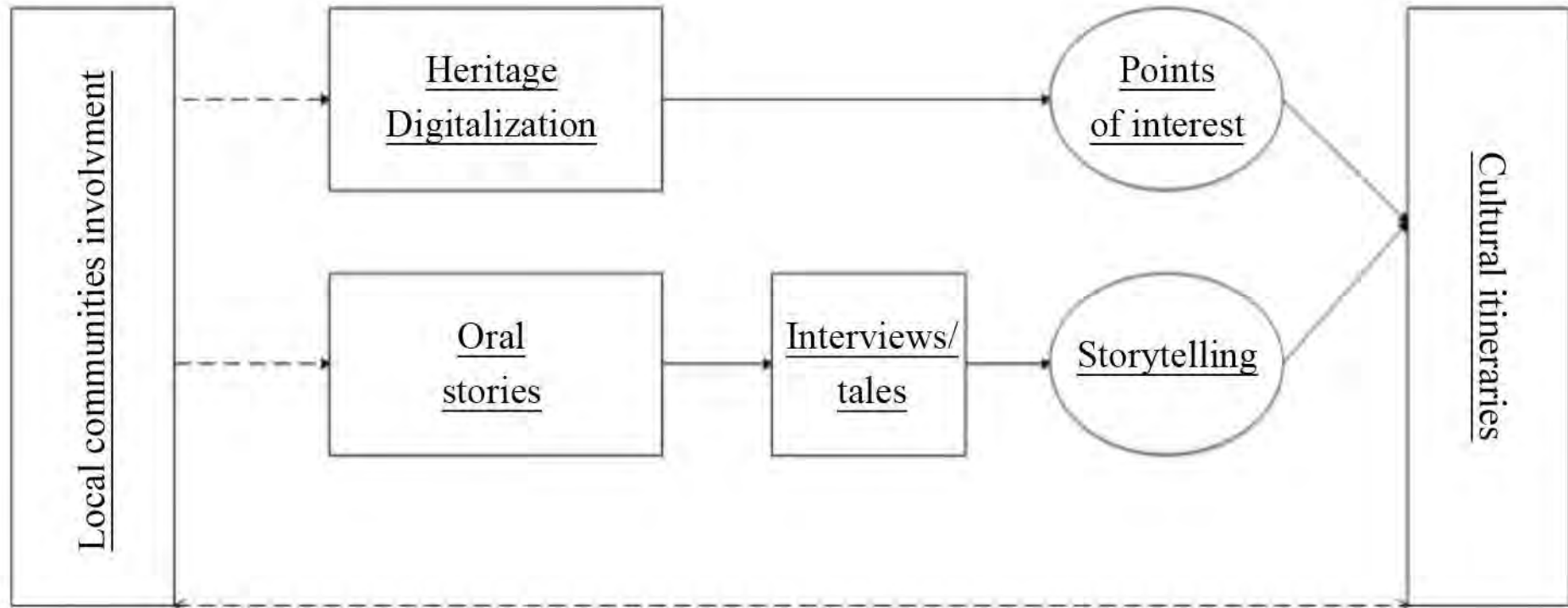
- **Open source web platform (not App)**
- **Possibility to include oral history with interviews and other media uploaded in the audioguide**
- **Methods for public participation and involvement of local communities to co-design digital tours**





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# NEW RESEARCH APPROACH



# How to create a digital tour?

## 5 different main steps

1. General survey and identification of Pols
2. Tour Design
3. Production and publication
4. Dissemination
5. Maintenance



# How to create a digital tour?

## 1) General survey and identification of main Poles

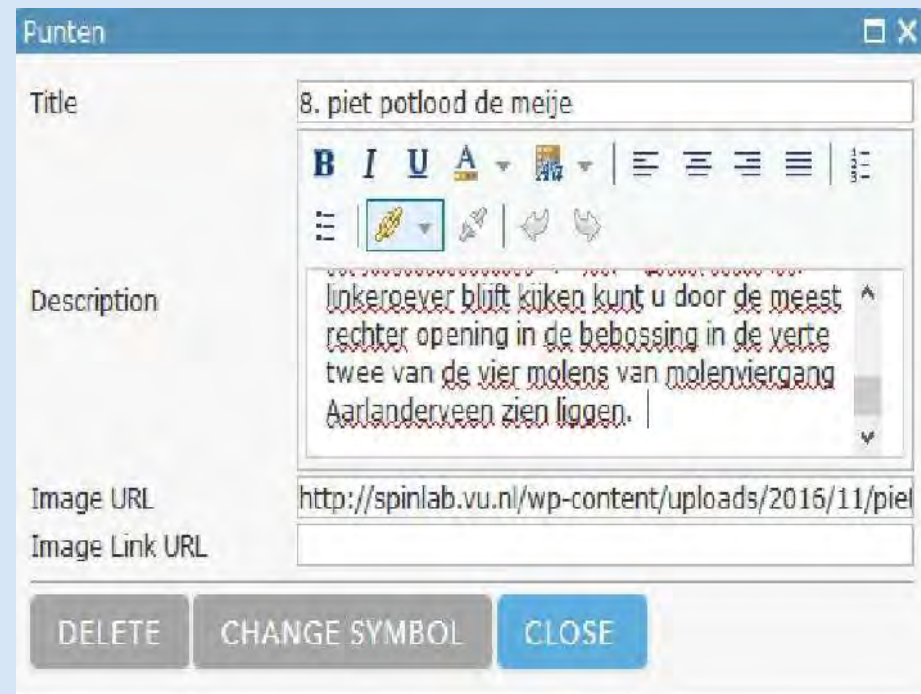
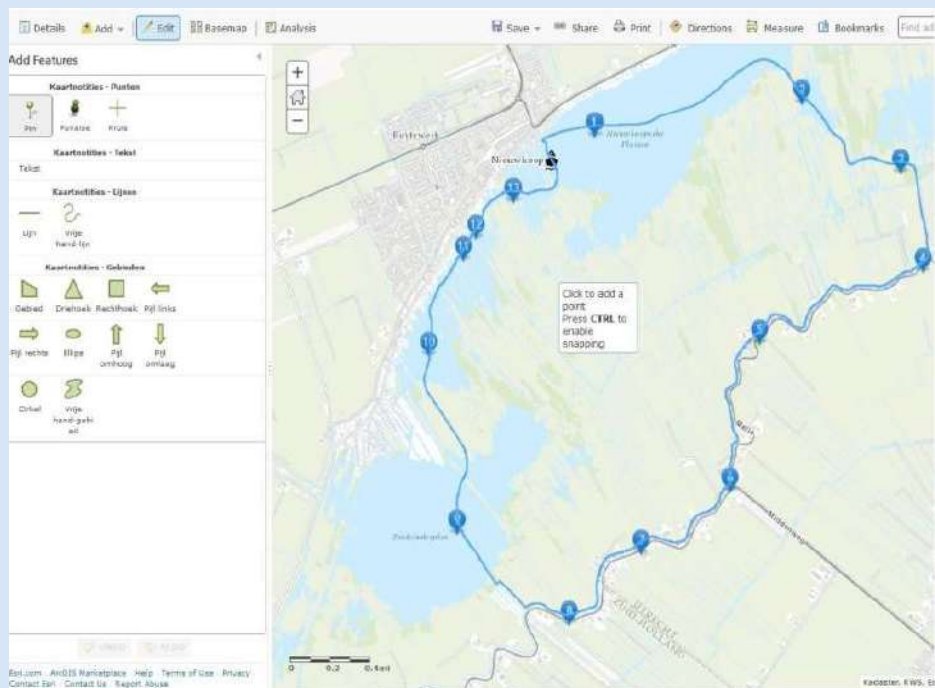
After a thorough survey of the area, the first step in developing a digital tour is to make a general outline of the trail. This is crucial to identify the main Points of Interest (apprx. 12-20 points for a visit of 2-3 hrs c.)



# How to create a digital tour?

## 2) Tour Design

- 2.1 Create a digital map & the storyboard
- 2.2 Select contents and photos and upload the POIs
- 2.3 Upload the draft tour (export to StoryMaps)



# How to create a digital tour?

## 3) Production & publication

3.1 Enrich all POIs and check further your tour

3.2 Publish (off line) your tour for field monitoring





# How to create a digital tour?

## 4) Dissemination

**Your target audience will not find your water-heritage tour unless you make a plan for disseminating the itinerary. Marketing and promotion strategies should involve key partners and stakeholders of your region**



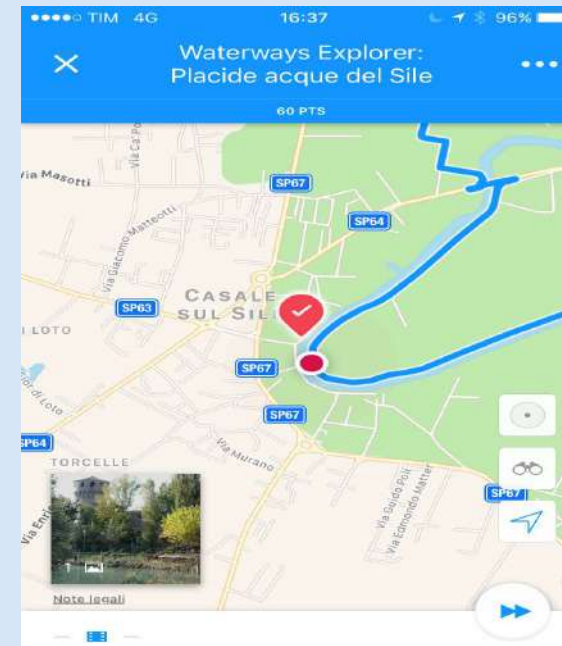
# How to create a digital tour?

## 5) Maintenance

5.1 Repeat the field check on a yearly basis to find gaps

5.2 Use izi.TRAVEL statistics to improve your tour

5.3 Consider the feedback from users



# Silent waters of the Sile River

<https://www.izi.travel/it/1e85-waterways-explorer-placide-acque-del-sile/it>

**izi.**

Scarica l'App **izi. TRAVEL**  
the storytelling platform

**Audio tour**  
**Waterways Explorer: Placide acque del Sile**  
★★★★★ [2 recensioni](#) | [Veneto, Treviso](#) | [Gratis](#)

**Sommario Auditour**

1		Villa Ninni-Carisi e il Prato di Fiera
2		Porto di Fiera
3		Makallè: il porto fluviale di Treviso
4		I mulini Mandelli e il prete rosso
5		Il Sile morto: il fiume cambia fisionomia
6		Qui riposano gli

**Mappe** Mappa Satellite

Map showing the Sile River route in Treviso, Italy, with 19 numbered stops. The route starts near the city center and follows the river towards the south.

Windows: + Registration N. a....pdf | 12\_fattura\_22\_11\_....pdf | Programma Conv....docx | Brochure Convegn....pdf | Autorizzazione ri....docx

[Mostra tutto](#)

# «YouInHerit» 2016-19

## Youth Involvement in the innovative valorization of boat builders' Craft Tourism

- New routes co-designed with young students
- Dedicated training (4 months) to develop digital itineraries on Venice's sailing tradition



# 5 NEW DIGITAL ROUTES

**Each digital tour is a combination of:**

- **Notorious tourist attractions**
- **Key sites of traditional wooden boat builders**



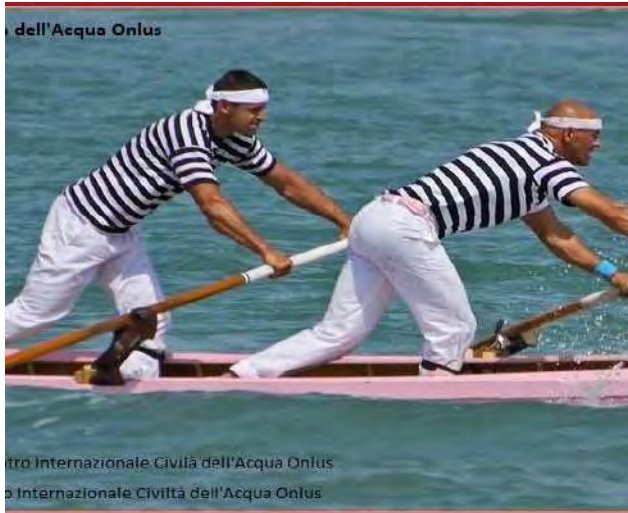
# DIGITAL STORYTELLING



**Students were involved to make interviews and find creative ways to build original contents and transmit our “watery past”: cultural practices, values, and attitudes**



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***Explore Forgotten Venice***  
**[www.watermuseumofvenice.com/storie](http://www.watermuseumofvenice.com/storie)**

**4**

***Water Museum of Venice:*  
the web platform  
of Venices'  
«extended museum»**





**2014-2019**

**The research conducted to make an inventory of POIs and new digital tours led to the web platform of an «extended museum» on Venice's hydraulic heritage 70 water heritage sites (Padua and Po Delta) out of 300 estimated sites in the Tre Venezie**

**[WWW.WATERMUSEUMOFVENICE.COM](http://WWW.WATERMUSEUMOFVENICE.COM)**



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# WATER MUSEUM OF VENICE

## *DIGITAL & EXTENDED MUSEUM, ITALY*

## GOAL

**Represent Venices' rich and diverse water heritages, and build a repository of visual knowledge to:**

- 1) Commemorate the past**
- 2) Explore the legacy of «liquid assets» with digital trails for responsible tourism**
- 3) Inspire the future by learning from previous sustainable uses of water**



[www.watermuseumofvenice.com](http://www.watermuseumofvenice.com)

70 sites = 400k visitors/year

Educational Activities

Digital routes

Water stories



**izi**.TRAVEL  
the storytelling platform



## Network



**Castello del Catajo**  
Palazzo signorile e baluardo militare a presidio dei commerci sul Canale Battaglia

[esplora >](#)



**Museo delle Idrovore di Santa Margherita**  
Un'idrovora funzionante dell'Ottocento racconta la storia della bonifica e del paesaggio

[esplora >](#)



**Porto fluviale del Portello**  
L'approdo storico del Burchiello nell'icona patavina del Canaletto

[esplora >](#)



**Colmelloni di Limena**  
Due chiuse monumentali a guardia dei canali navigabili medievali di Padova

[esplora >](#)



**Fonte della Madonna della Salute di Monteortone**  
Acque termali miracolose nel Santuario mariano ai piedi dei Colli Euganei

[esplora >](#)



**Museo Archeologico del Fiume Bacchiglione**  
Dal Neolitico al Medioevo: alla scoperta delle civiltà lungo il fiume

[esplora >](#)



**Museo della Navigazione Fluviale**  
L'epopea dei marinai d'acqua dolce e la tradizione delle pratiche nautiche di fiume in mostra

[esplora >](#)



**Anello idraulico di Padova**  
La città del Santo vista attraverso l'antica rete dei navigli urbani

[esplora >](#)



**Torre della Specola**  
Paesaggio urbano dell'acqua nell'antica Torlonga del Castello Carrarese

[esplora >](#)



**Prato della Valle**  
La piazza-simbolo della città di Padova come connubio fra acqua e architettura

[esplora >](#)



**Palude di Onara**  
Acque di risorgiva e paesaggio dei prati stabili nelle terre degli Ezzelini

[esplora >](#)



**Corte Benedettina di Corezzola**  
Sulle rive del Bacchiglione: il centro economico e produttivo della bonifica medievale

[esplora >](#)



**Giardino Monumentale di Villa Barbarigo a Valsanzibio**

Una mirabile sintesi barocca di architetture, fontane, giochi d'acqua e spazi arborei



**2:30**  
**come arrivare**

In treno: Valsanzibio si trova a circa 5 chilometri dalla stazione ferroviaria.

**mappa**



**Giardino Monumentale di Villa Barbarigo a Valsanzibio**

Una mirabile sintesi barocca di architetture, fontane, giochi d'acqua e spazi arborei



**2:30**  
**come arrivare**

In treno: Valsanzibio si trova a circa 5 chilometri dalla stazione ferroviaria.

**Informazioni aggiuntive**

**Orari di apertura ai visitatori**

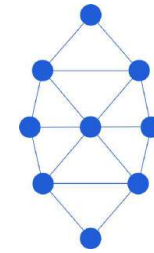
**Dove mangiare:**

**Nelle vicinanze**

- Cattedrale di Lendinè**
- Anello idraulico di Padova**
- Museo Archeologico Ambientale delle Acque di Padovana**
- Processione del Voto in Fontanelle**

*Civiltà dell'Acqua*

INTERNATIONAL CENTRE



WATER  
MUSEUMS

GLOBAL NETWORK



**MUSEUMS  
CAN STIMULATE  
SOCIAL  
INNOVATION  
& NEW VALUES  
BRIDGING  
PAST & PRESENT  
WATER  
KNOWLEDGE**

# A key guide for local development governments, communities, and museums (by ICOM/OECD)





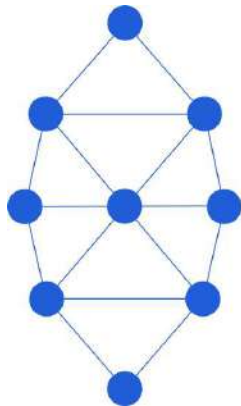


**The key role of water museums  
and water heritage sites  
to foster water sustainability  
education, the ecological  
transition and development of  
'responsible tourism'**



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## AT THE ORIGIN OF ...



**WATER  
MUSEUMS**  
GLOBAL NETWORK



**unesco**  
Intergovernmental  
Hydrological Programme



# WATER MUSEUMS GLOBAL NETWORK



**unesco**  
Intergovernmental  
Hydrological Programme

## THE GLOBAL NETWORK OF WATER MUSEUMS

**+ 70 water museums world wide**

**30 different States**

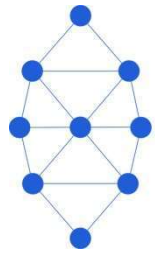
**+ 30.000.000 visitors / year**

● Water Awareness

● Natural Science

● Open air / Virtual

● History & Heritage



**WATER  
MUSEUMS**  
GLOBAL NETWORK

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United Nations  
Educational, Scientific and  
Cultural Organization

**Venice Office**  
Regional Bureau for Science  
and Culture in Europe

# GLOBAL NETWORK OF WATER MUSEUMS

## 1st International Conference: Venice, May 2017



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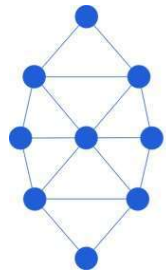
# **WHY A GLOBAL NETWORK OF WATER MUSEUMS ?**

**Water museums, eco-museums, 'extended museums', digital museums, interpretation centres etc ... exhibit an outstanding repository of water heritage (natural & cultural, tangible & intangible) which needs to be re-connected to people to face the global water crisis**

# **TOWARDS A «NEW WATER CULTURE»**

***We must “reinststate a new relationship  
between humanity and water:  
a new ‘sense of civilization’ which  
can help to reconnect people and water  
in all its dimensions - including scientific,  
technical, social, cultural, artistic  
and spiritual”***

***(quoted from the Manifesto / Charter of the  
Global Network of Water Museums)***



**WATER  
MUSEUMS**  
GLOBAL NETWORK



NETHERLANDS NATIONAL  
IHP-HWRP COMMITTEE



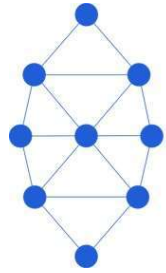
**unesco**  
Intergovernmental  
Hydrological Programme

# **UNESCO- IHP Resolution n.5-XXIII**

**June 2018**

**«The Global Network of Water  
Museums and UNESCO-IHP in support  
of water sustainability education and  
water awareness efforts»**

**> Flagship initiative of UNESCO-IHP  
Intergovernmental Council**



**WATER  
MUSEUMS**  
GLOBAL NETWORK



NETHERLANDS NATIONAL  
IHP-HWRP COMMITTEE



**unesco**  
Intergovernmental  
Hydrological Programme

# **UNESCO- IHP Resolution n.7-XXIV**

**June 2021**

**«The Global Network of Water  
Museums and UNESCO-IHP in support  
of water sustainability education and  
water awareness efforts»**

**> Worldwide inventory of water  
museums**



# YOUTH CONTEST & AWARD DIGITAL EXHIBITION

The screenshot shows a web browser window displaying the website [thewaterwewant.watermuseums.net/index.html](http://thewaterwewant.watermuseums.net/index.html). The browser's address bar and tabs are visible at the top. The website header includes the Water Museums Global Network logo, logos for UNESCO and the International Hydrological Programme, and a navigation menu with links for HOME, ABOUT, YOUTH CONTEST 2020, WINNERS, and PRESS KIT.

The main content area features a large banner on the left with the text "THE WATER WE WANT From Heritage to Future" and "Youth Prize Contest - 1st edition 2020". Below this, there are four menu items: DRAWINGS, PHOTOS, VIDEOS, and PARTNERS. The banner image shows a young child with water on their face and hands. At the bottom of the banner, it says "© Global Network of Water Museums 2020 | All rights reserved."

On the right side of the page, there is a colorful logo for "the water we want!" with the text "FROM HERITAGE TO FUTURE" and "Youth Prize Contest - 1st edition 2020" below it. Further down, a paragraph states: "The Youth Prize Contest **The Water We Want** aims at engaging young people as storytellers of our multifaceted water heritage and narrators of a more...".

At the bottom of the browser window, there are several open tabs for PDF and PPT files, and a "Mostra tutto" button.

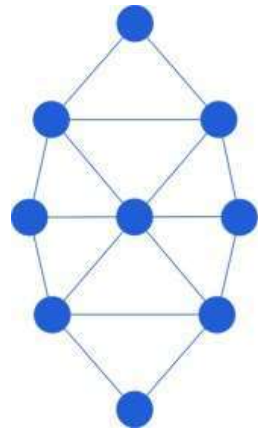
# GLOBAL COLLABORATIVE DIGITAL EXHIBITION



## I REMEMBER WATER

Deadline for submission November 15th

# **WATER MUSEUMS AS VECTORS OF SUSTAINABLE TOURISM ?**



**WATER  
MUSEUMS**  
GLOBAL NETWORK

## **A PLATFORM OF WORLDWIDE WATERY DESTINATIONS FOR RESPONSIBLE TOURISM ?**

**JOIN NOW!**



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MUSEUMS**  
GLOBAL NETWORK

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**WATER  
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GLOBAL NETWORK

**THANK YOU  
FOR YOUR  
ATTENTION**

**[WWW.WATERMUSEUMS.NET](http://WWW.WATERMUSEUMS.NET)**

**[INFO@WATERMUSEUMS.NET](mailto:INFO@WATERMUSEUMS.NET)**



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# UNESCO Chair

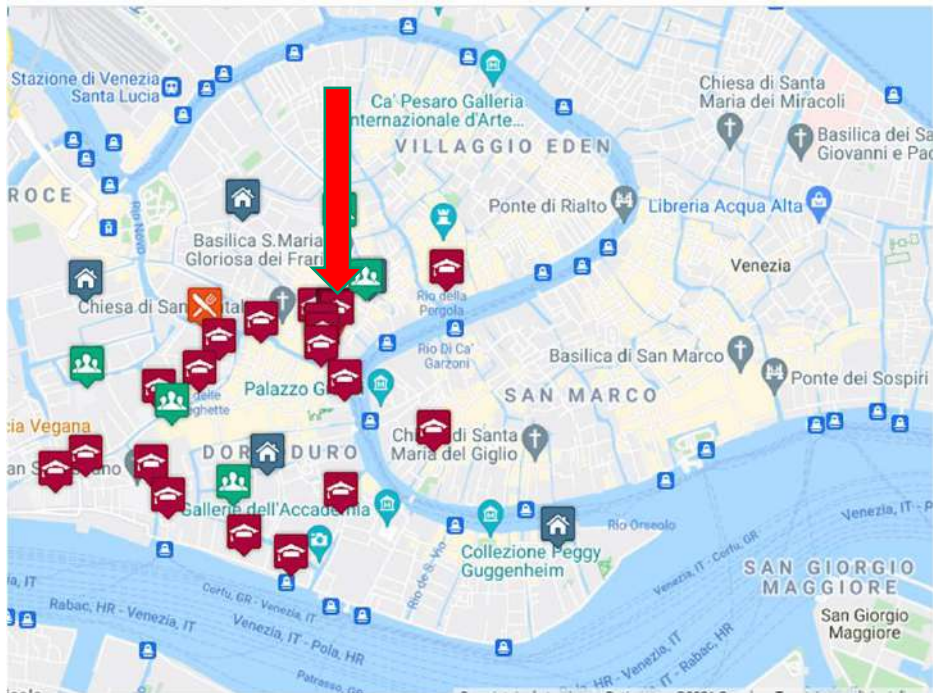
**Water, Heritage  
& Sustainable Development**

**University of Venice Ca' Foscari**



Università  
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Venezia

# UNESCO Chair located in Ca' Bottacin At the Center for Humanities & Social Change





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## GOALS

**Promote new interdisciplinary and holistic research approaches to train the staff of water museums, professionals, academics, students and decision makers**

**Strengthen the institutional and human capacities of water museums**



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## GOALS

**Maximize their impact of water museums to boost local development with new projects aimed at increasing the territorial attractiveness on hydraulic heritages and freshwater ecosystems**

**Closer cooperation with the UNESCO “water family”**