



Università
Ca' Foscari
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

Venice's «liquid roads»: a waterway system



Riviera del Brenta : Palladio's architectures

Historical map of Venices' inland waterways



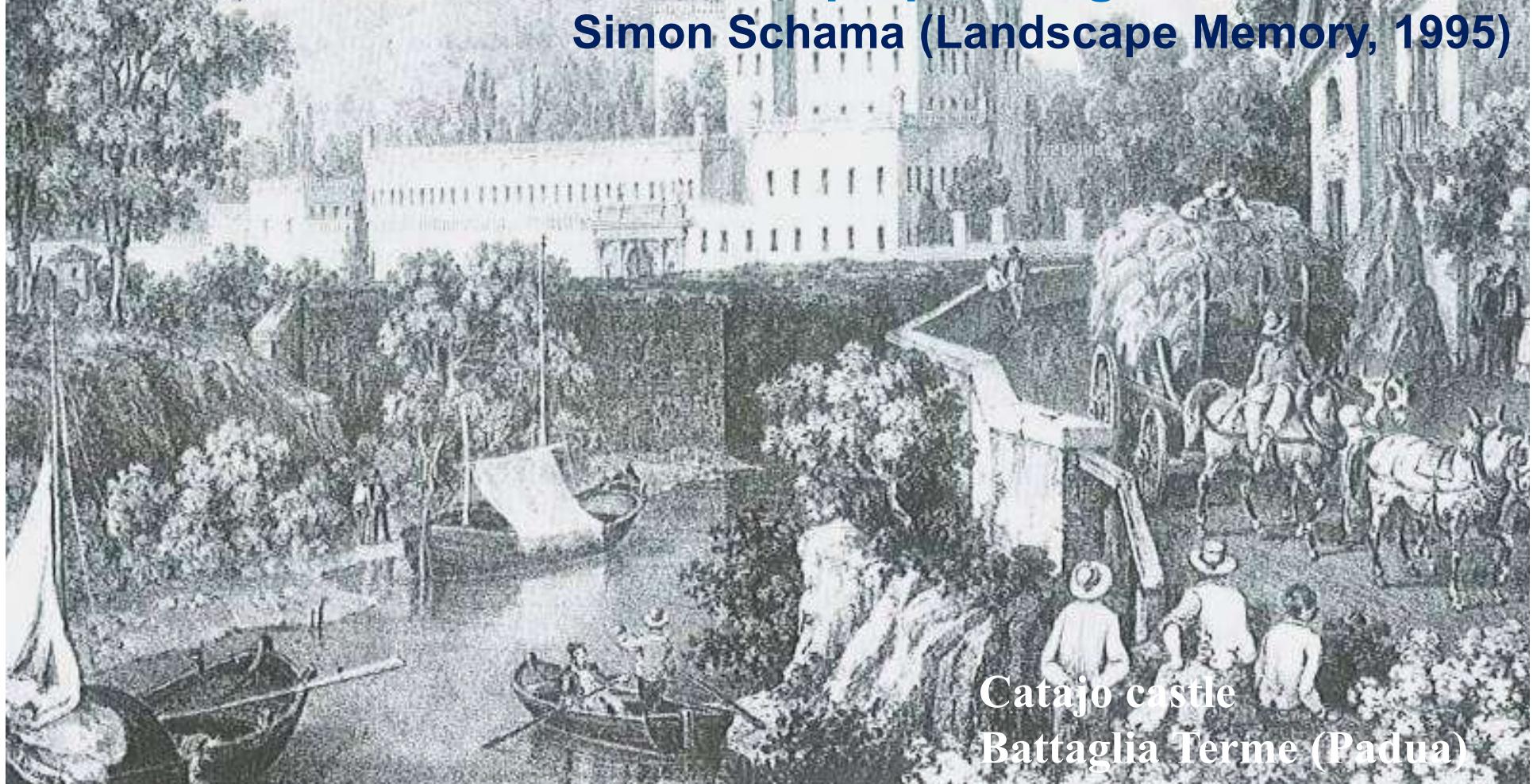
Waterways: a multi-functional system

- 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)



**Catajo 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?

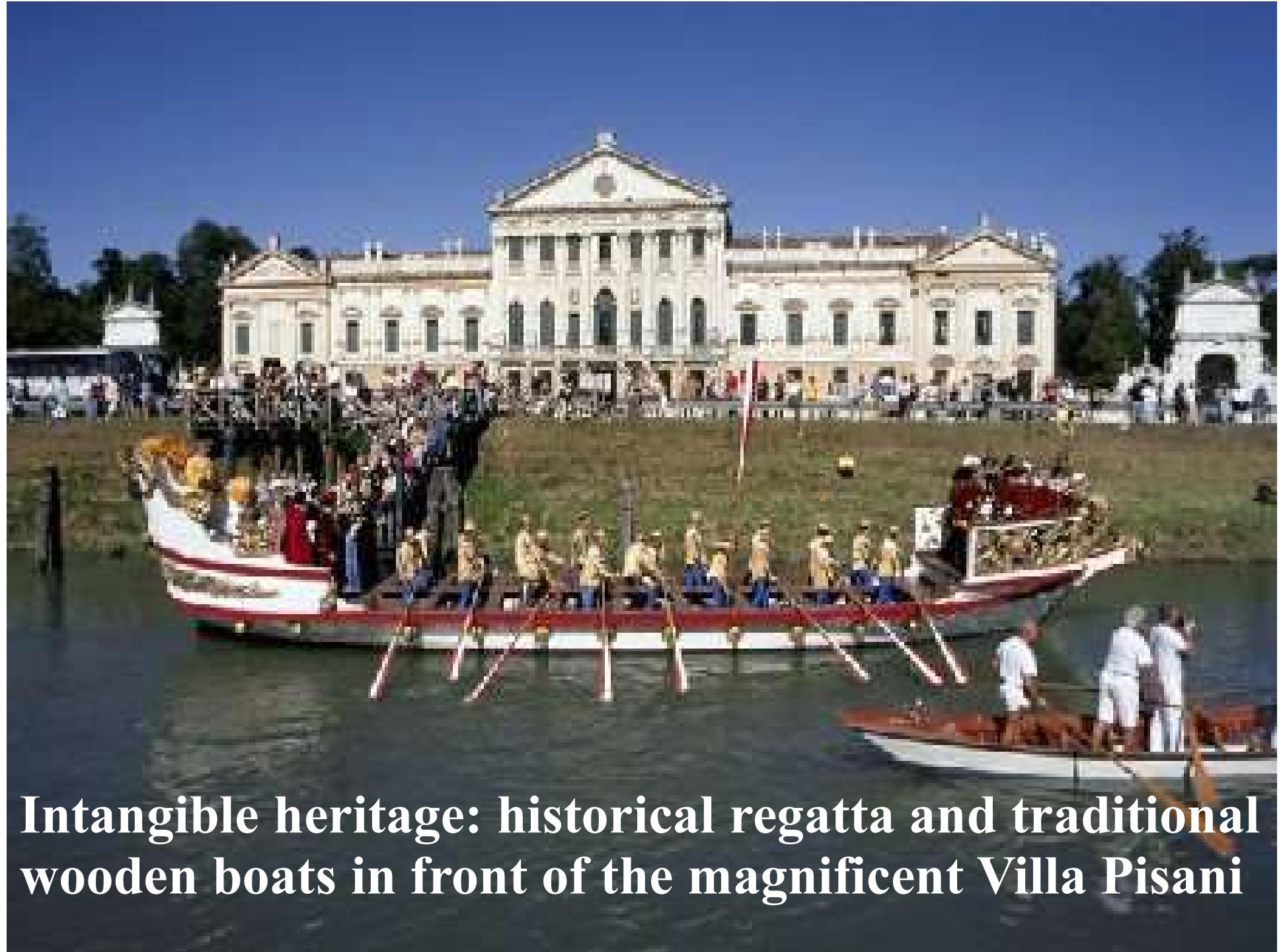
**Traditional knowledge and techniques
for making wooden boats are vanishing...**



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

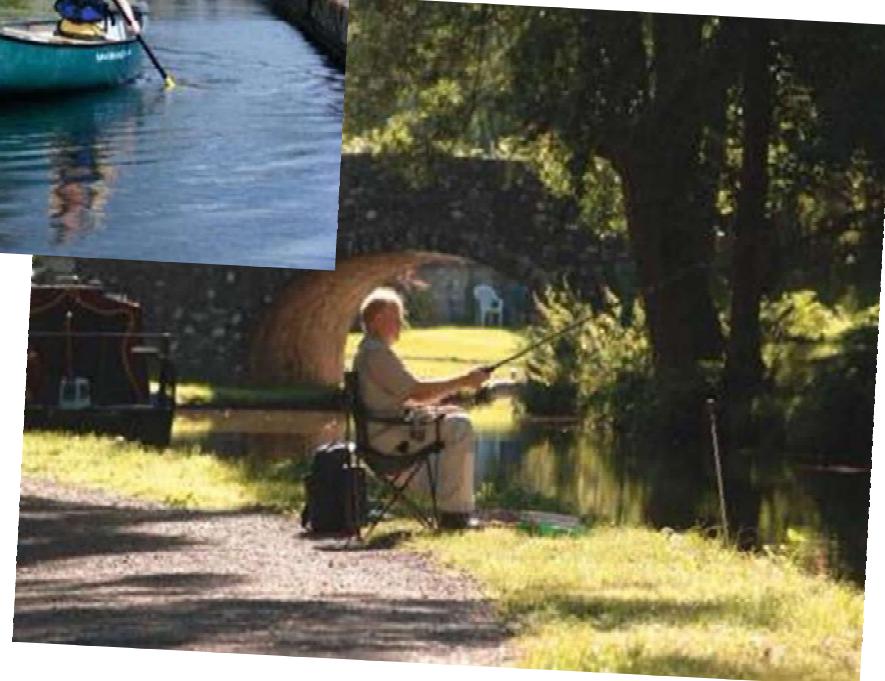
How to make it attractive?

RESPONSIBLE TOURISM

**NATURAL &
CULTURAL
HERITAGE**

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

**NEW OPPORTUNITIES
TO REGENERATE
LOCAL ECONOMIES**



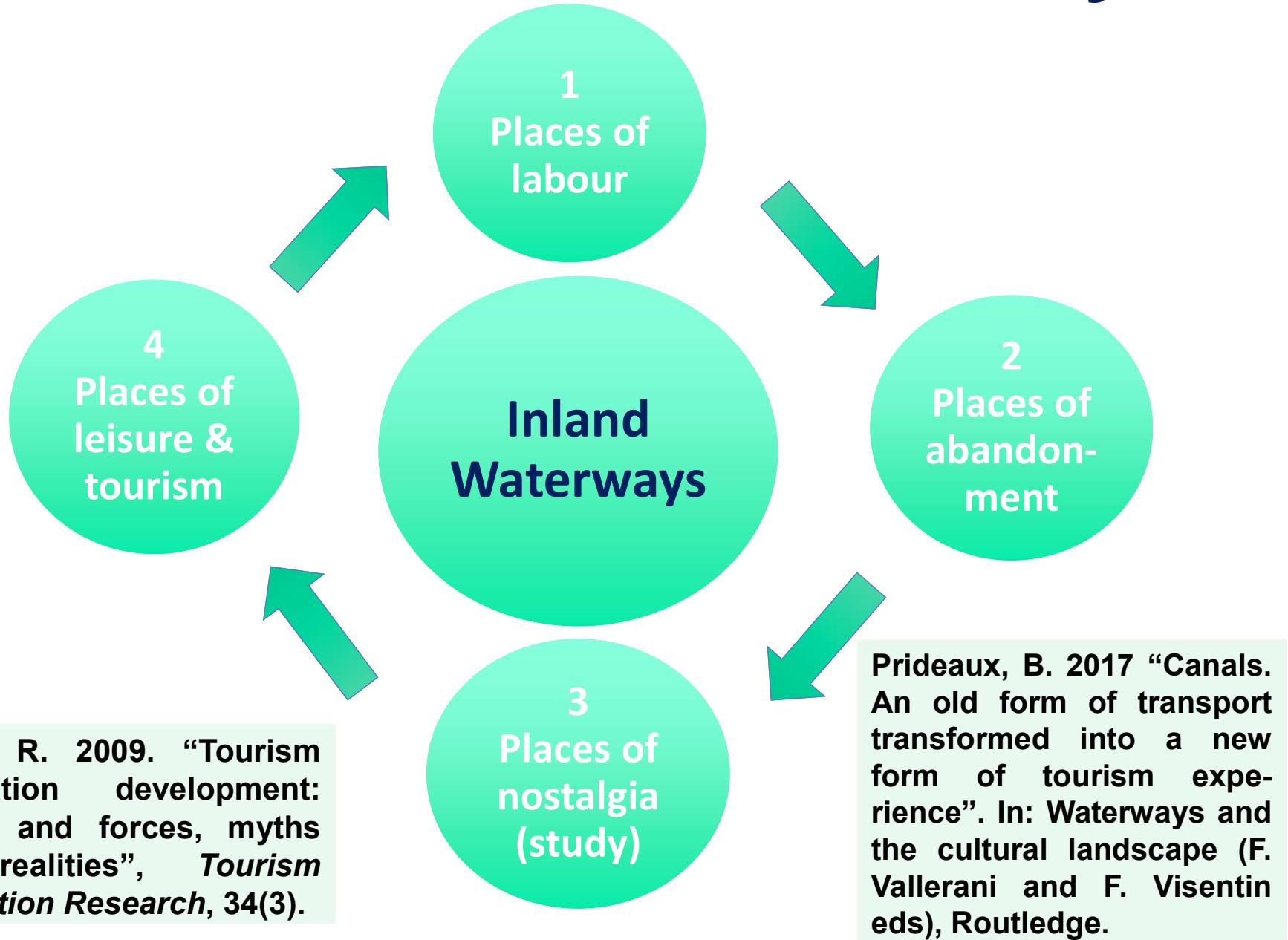


What means ‘sustainable’?

**‘Responsible tourism’ versus
‘mass tourism’**

30 million visitors/year in the city centre of Venice

Evolution of historical waterways



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



Places and values of the
World Heritage Site



Regional Bureau
for Science and Culture
in Europe

Civiltà dell'Acqua

INTERNATIONAL CENTRE



Regional Bureau
for Science and Culture
in Europe
United Nations
Educational, Scientific and
Cultural Organization

CITTA' DI
VENEZIA



Civita dell'Acqua
INTERNATIONAL CENTRE

EXPLORING THE VENICE LAGOON

Four thematic explorations to know the «extended museum»:

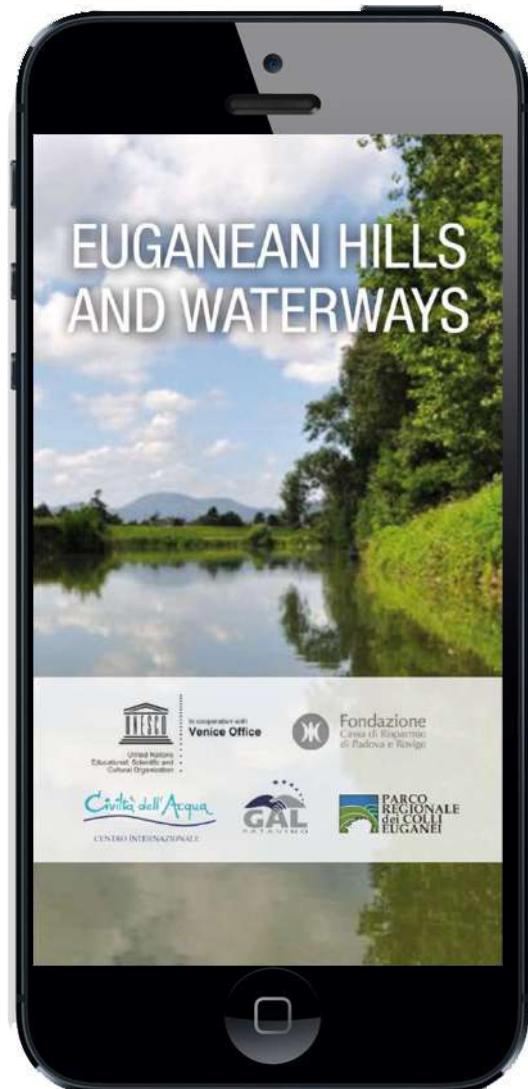
- 1) Hydraulic artefacts**
- 2) Waterways and wooden boats**
- 3) Cultural waterscapes**
- 4) Responsible eco-tourism**



Interactive Space

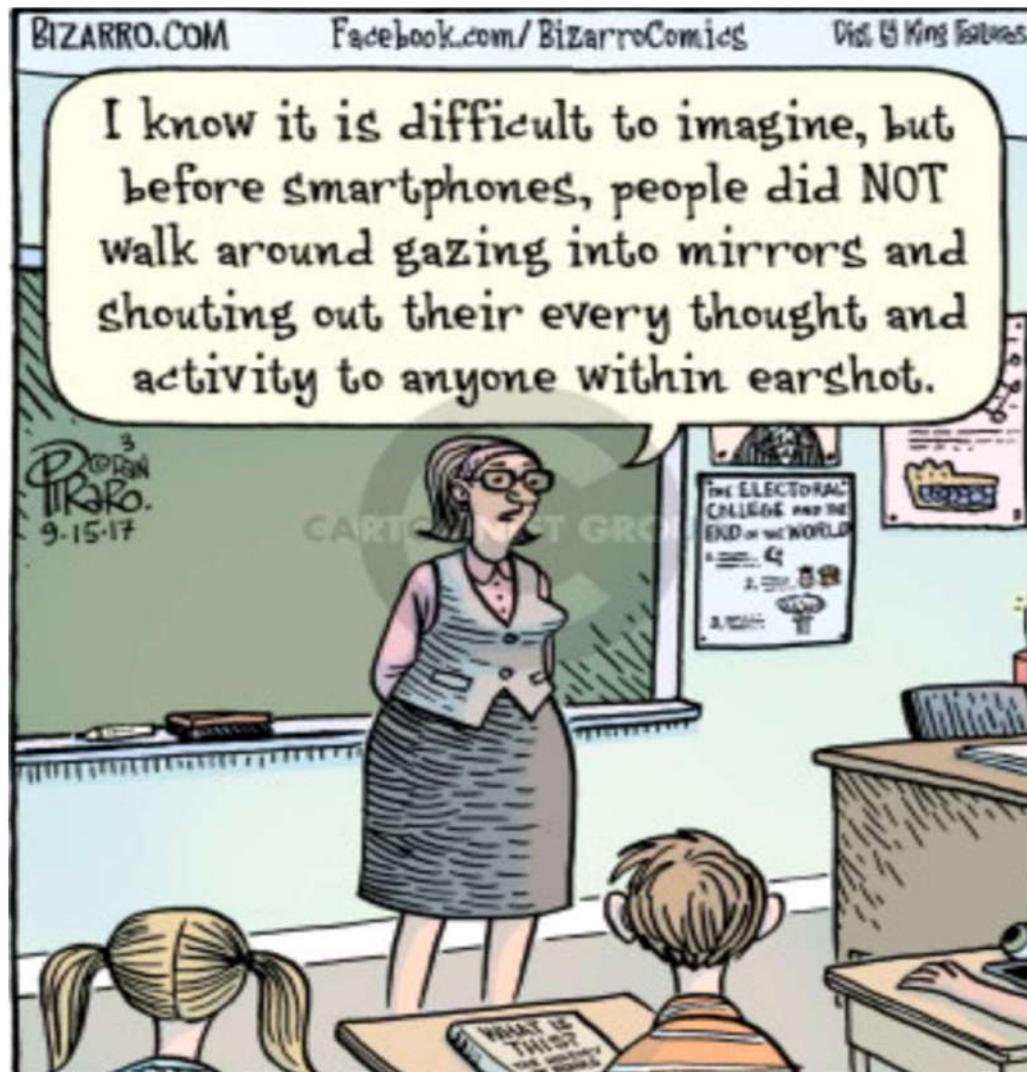


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2014-2019
Audioguides &
Digital Tours
VENICE'S
WATERWAYS
> 100 Digital Tours
> 500 Pol

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**

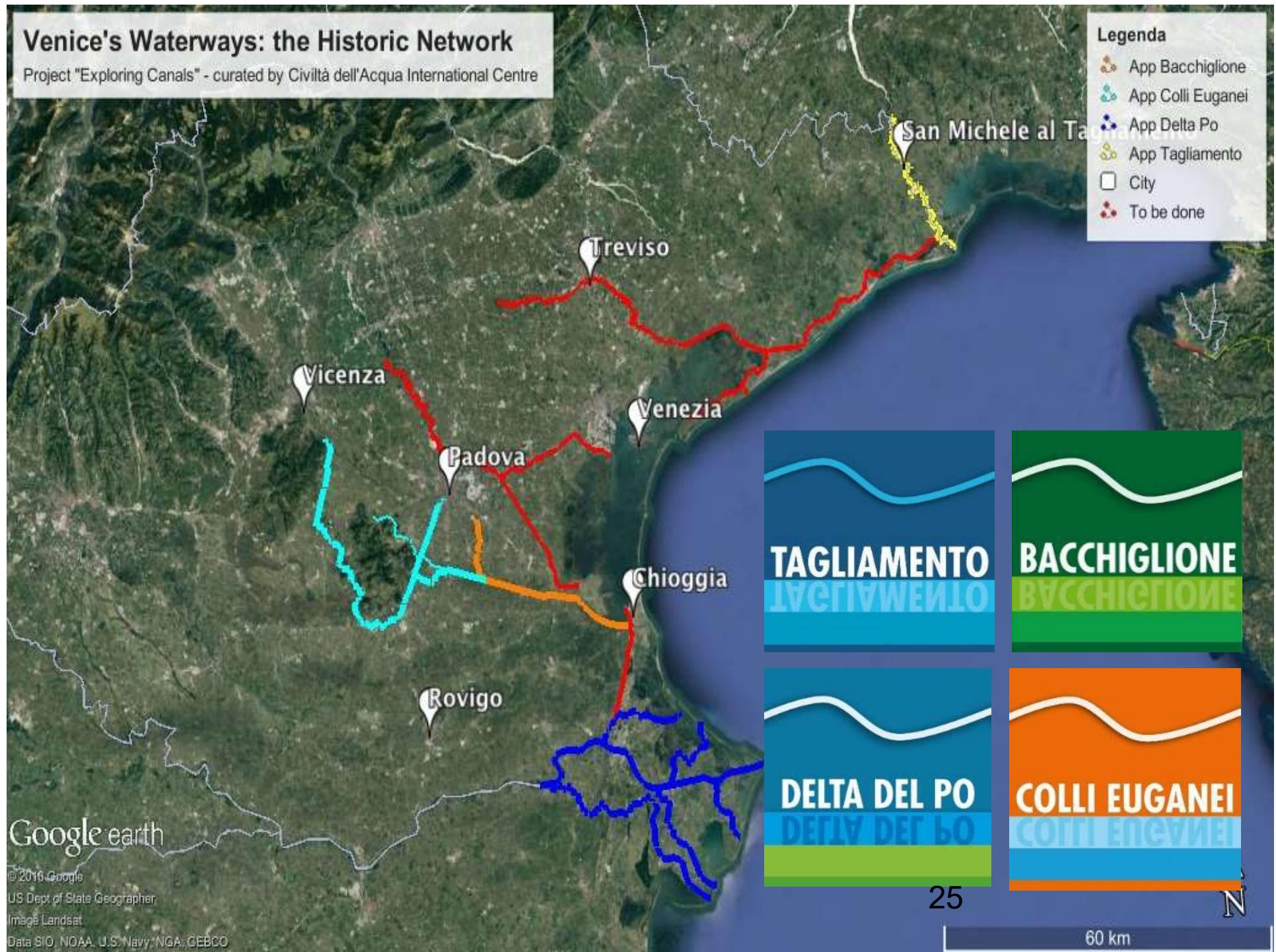
The best language to attract young audiences

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



Google earth

© 2016 Google

US Dept of State Geographer

Image Landsat

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

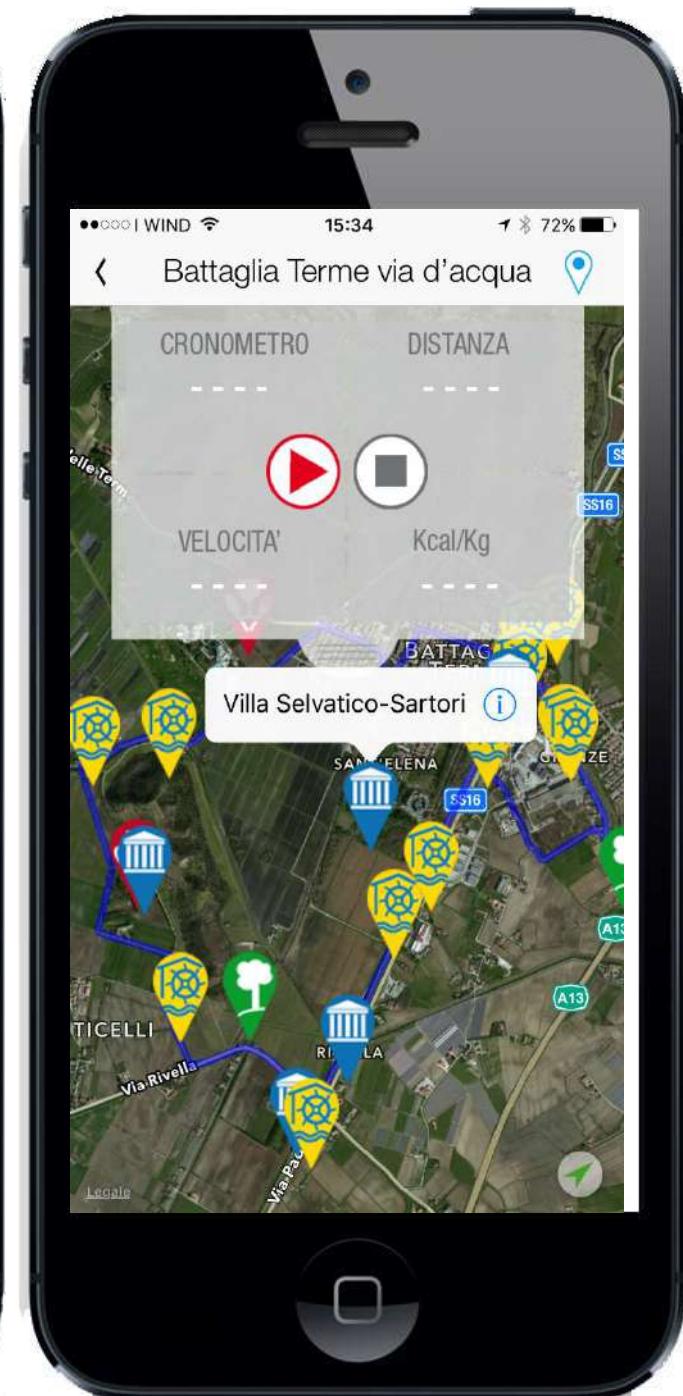
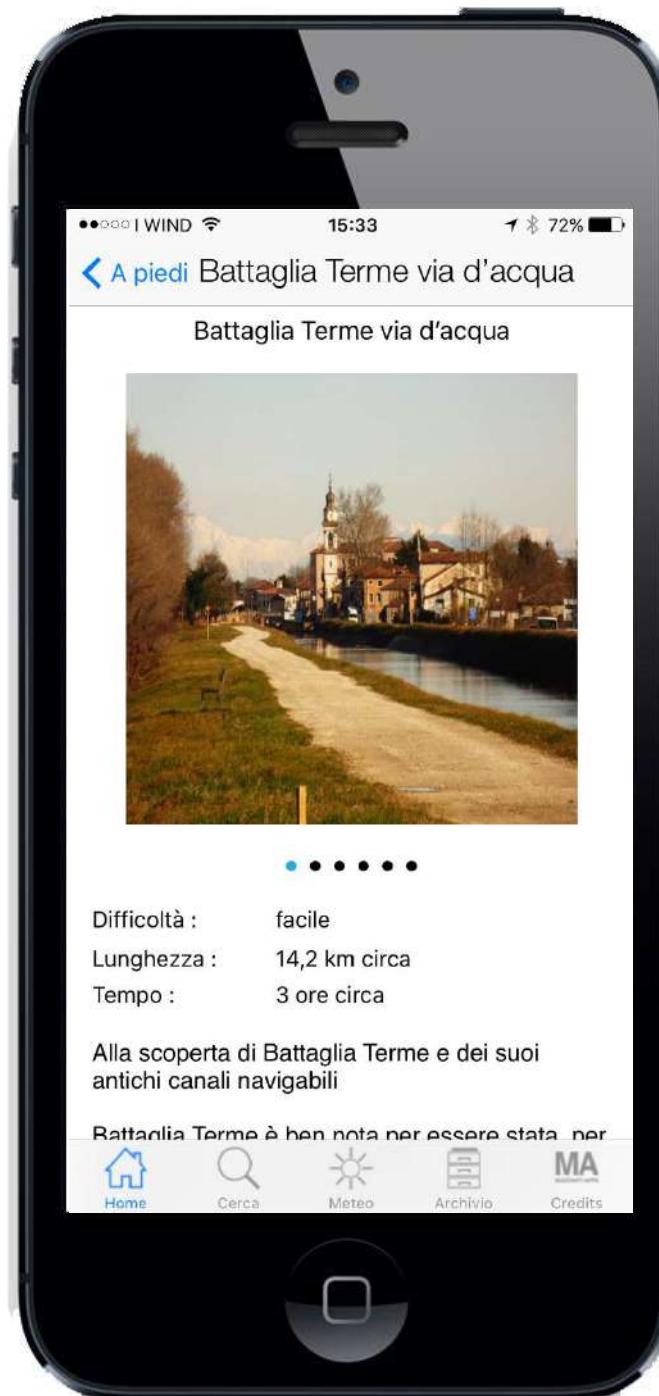
25

60 km

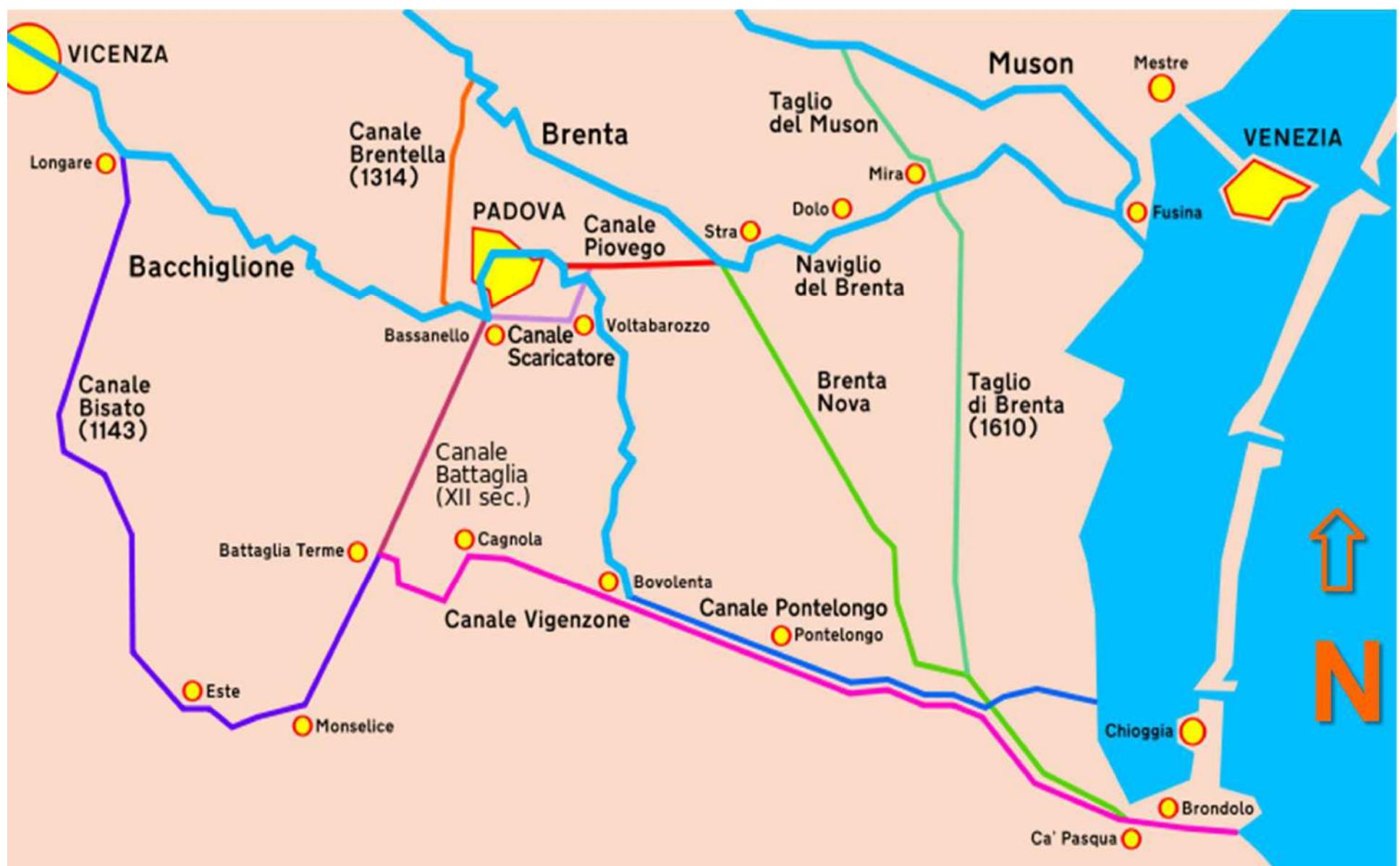
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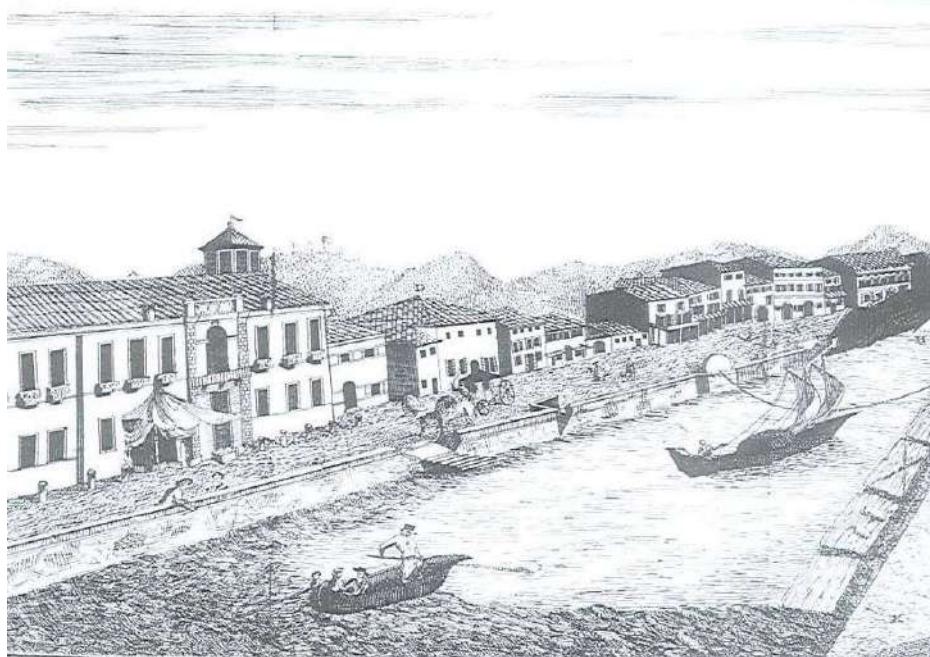
**Tours by bike,
boat, horse,
canoe, walk**



Mapping and inventory of water heritages



Artificial canals & canalised ‘rivers’ crossing small towns



Hydraulic artefacts: mills



Villas and aristocratic residencies built on waterways



Farms and vernacular dwellings



Small churches and abbeys

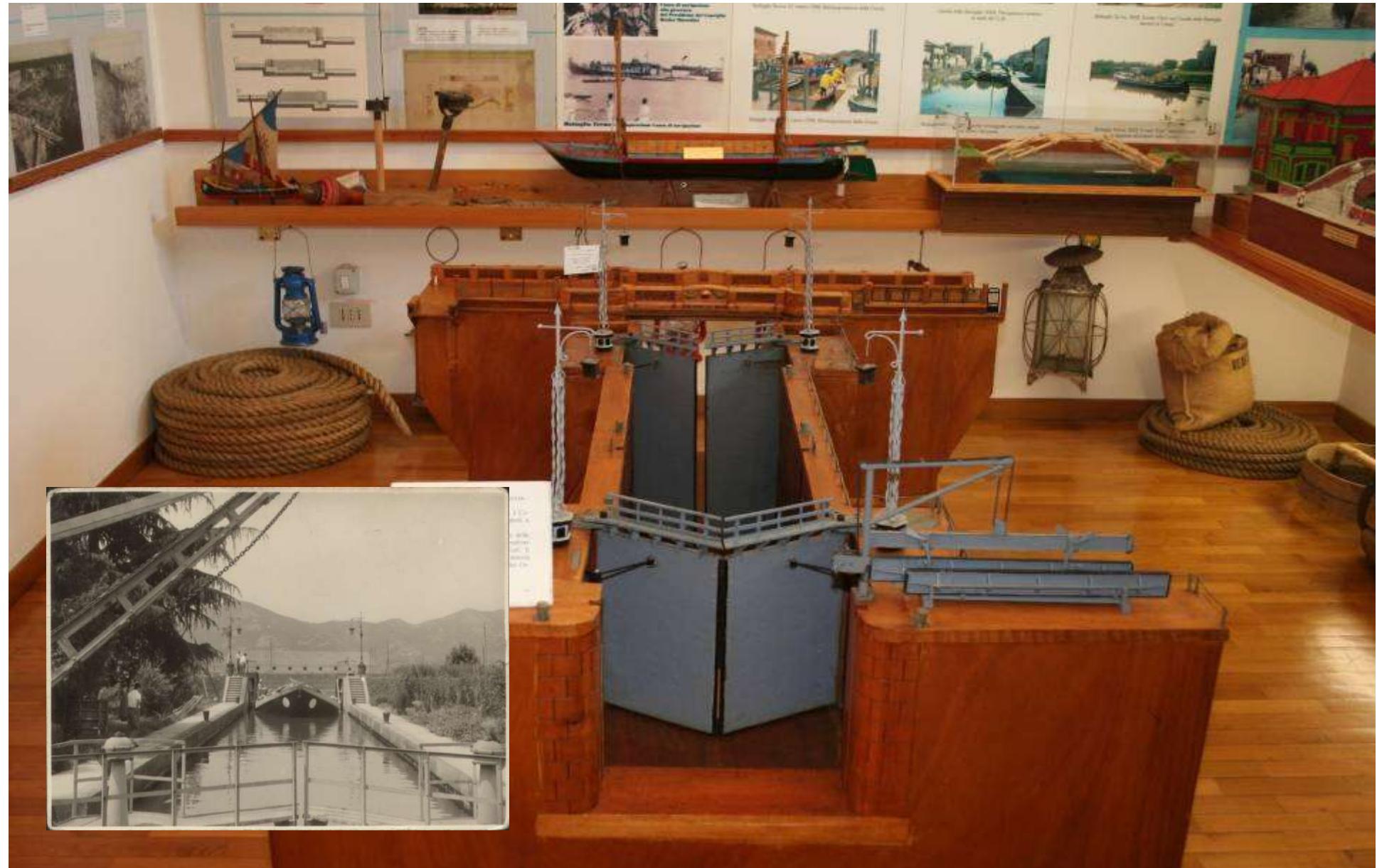


Traditional wooden boats

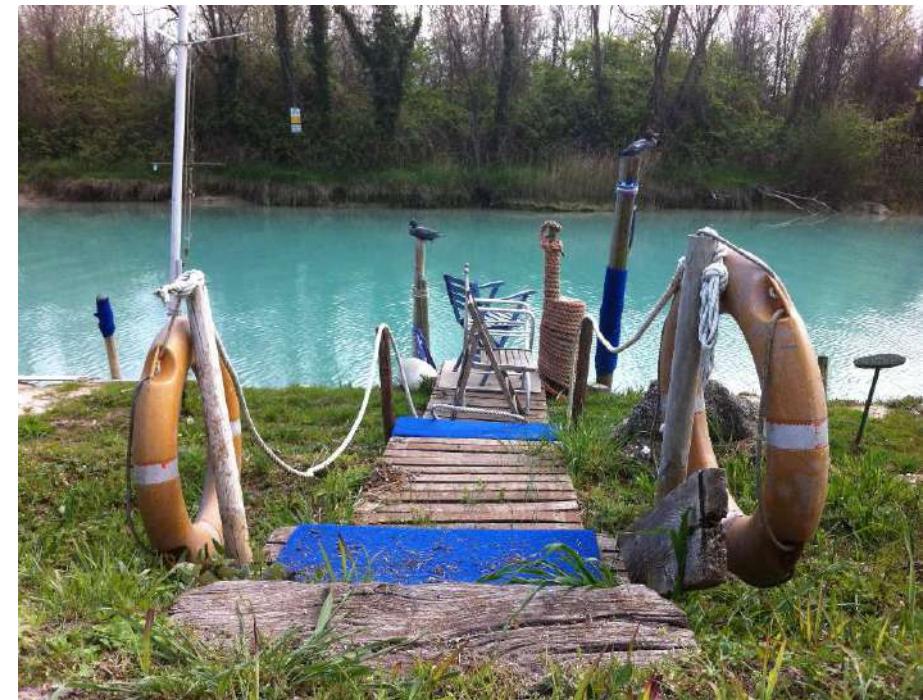


River navigation museum of Battaglia Terme (Padua)

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 *Canìs*, 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



Presenze: Area riservata per | I: Bolletta Enel genny + ACC | Risultati di ricerca - info@w... | News | Water Museums... | Waterways Explorer Europe | izi Publisher | izi.TRAVEL

izit.travel/en/58bc-waterways-explorer

App Ca' Foscari Water Museums of... Water Museums TWWW 2021 | The... WeTransfer Comprimere PDF o... BLOGSPOT Civiltà d... Google Google Drive: spazi... WordReference.com Elenco di lettura

izi TRAVEL
the storytelling platform

audio guides create a guide api about us login offers EN

EUWATHER
European Waterways Heritage

Waterways Explorer

CULTURAL HERITAGE A CHALLENGE FOR EUROPE

Content language: Any language

BOLLETTA BIM GE...pdf water museums.pdf Webinar#1_Vallera...pdf Webinar#1_Vallera...pdf Immagini-2021101...zip Mostra tutto

Scrivi qui per eseguire la ricerca

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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



Goals

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



DISPUTED WATERWAYS



THREATS

Climate
Change

Pollution

Loss of
biodiversity

Water
management





NEW RESEARCH APPROACH



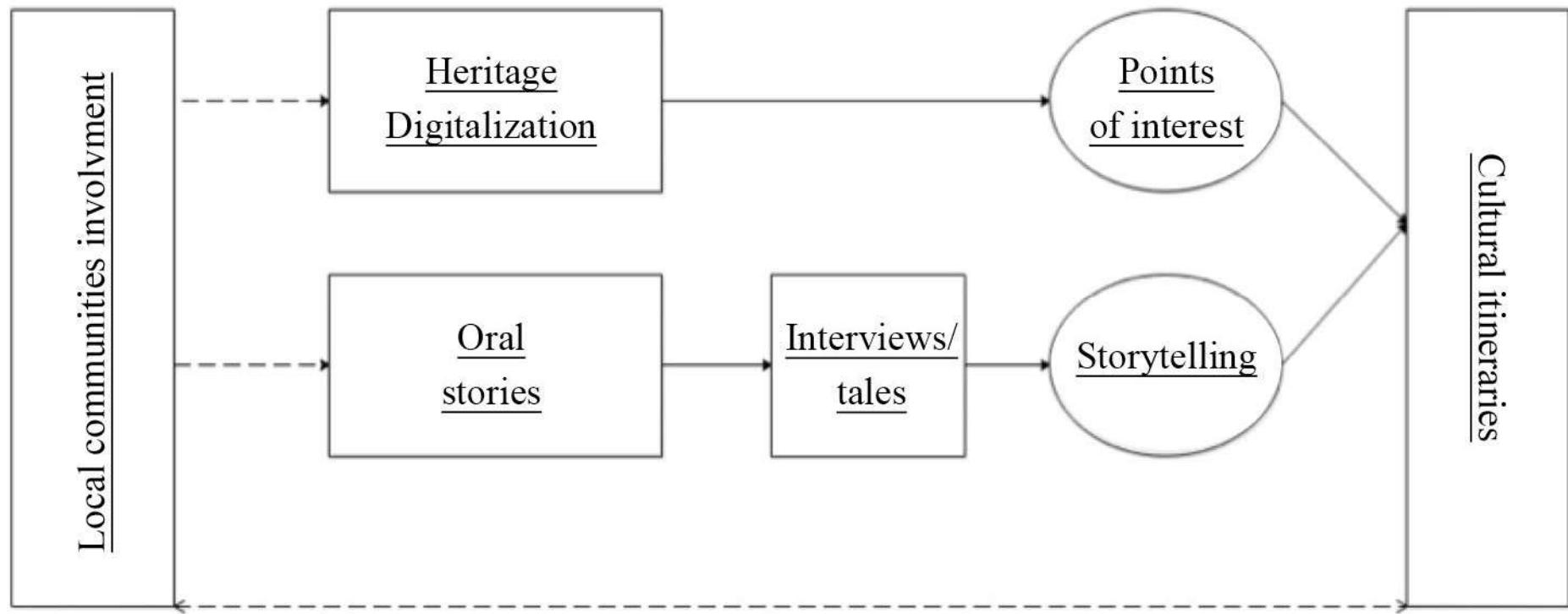
- Open source web platform (not App)
- Possibility to include oral history with interviews and other media uploaded in the audioguide
- Methods for public participation and involvement of local communities to co-design digital tours





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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 Pols

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)

The screenshot shows the ArcGIS application interface. On the left, there's a map view with a blue line representing a route or path. A callout box on the map says "Click to add a point. Press CTRL to enable snapping". To the right of the map is a dialog box titled "Punten" (Points). The dialog has fields for "Title" (containing "8. piet potlood de meije"), "Description" (containing "Inkeroever blijft kijken kunt u door de meest rechter opening in de bebossing in de verte twee van de vier molens van molenviergang Aarlanderveen zien liggen."), "Image URL" (containing a link), and "Image Link URL" (containing another link). At the bottom of the dialog are buttons for "DELETE", "CHANGE SYMBOL", and "CLOSE".

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

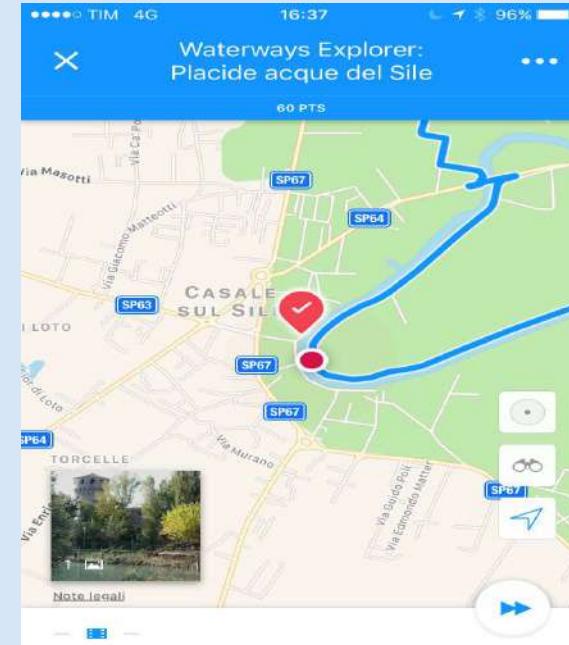
Your target audience will not find your water-heritage tour unless you make a plan for disseminating the itinerary. Marketing and promotion strategies should involve key partners and stakeholders of your region



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>

Home: Università Ca' Foscari Veneto | Global Network of Water Museums | Attached Documents to discuss | Waterways Explorer: Placide acque del Sile | come copiare immagine

izitriavel.it/1e85-waterways-explorer-placide-acque-del-sile/it

App Ca' Foscari Water Museums of... Water Museums Webmail - Register... WordReference.com WeTransfer Comprimere PDF o... BLOGSPOT Civ

Audio tour

Waterways Explorer: Placide acque del Sile

★★★★★ 2 recensioni | Veneto, Treviso | Gratis

Scarica Toll

izi.TRAVEL the storytelling platform

Sommarlo Auditour

- 1 Villa Ninni-Carisi e il Prato di Fiera
- 2 Porto di Fiera
- 3 Makalìè: 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

Mappa Satellite

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



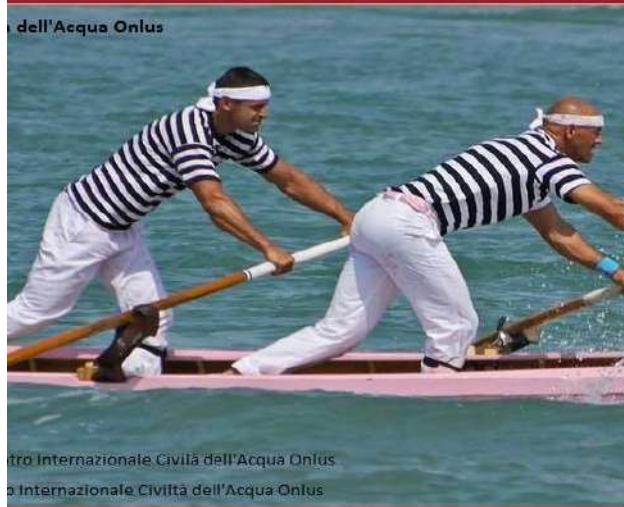
DIGITAL STORYTELLING



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



Europea
European
Development



Explore Forgotten Venice

www.watermuseumofvenice.com/storie

4

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

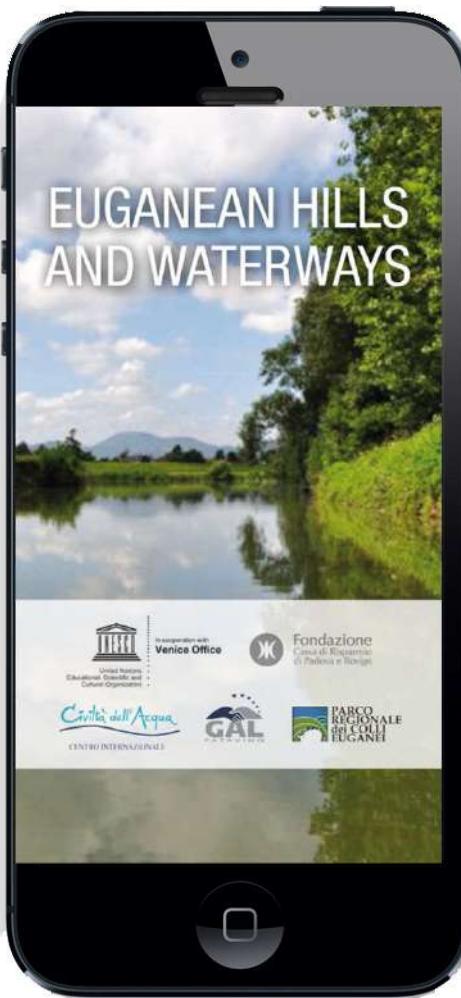


2014-2019

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



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**

[visita virtuale](#)[network](#)[didattica](#)[partner](#)[progetto](#)[credits](#)

WATER
MUSEUM
of VENICE



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 della Navigazione Fluviale

L'epopea dei marinai d'acqua dolce e la tradizione delle pratiche nautiche di fiume in mostra

[esplora >](#)



Museo delle Idrovore di Santa Margherita

Un'idrovora funzionante dell'Ottocento racconta la storia della bonifica e del paesaggio

[esplora >](#)



Anello Idraulico di Padova

La città del Santo vista attraverso l'antica rete dei canali urbani

[esplora >](#)



Porto fluviale del Portello

L'approdo storico del Burchiello nell'icona patavina del Canaletto

[esplora >](#)



Torre della Specola

Paesaggio urbano dell'acqua nell'antica Torlonga del Castello Carrarese

[esplora >](#)



Colmelloni di Limena

Due chiuse monumentali a guardia dei canali navigabili medievali di Padova

[esplora >](#)



Prato della Valle

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

[esplora >](#)



Fonte della Madonna della Salute di Monteortone

Acque termali miracolose nel Santuario mariano ai piedi dei Colli Euganei

[esplora >](#)



Palude di Onara

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

[esplora >](#)



Museo Archeologico del Fiume Bacchiglione

Dal Neolitico al Medioevo: alla scoperta delle civiltà lungo il fiume

[esplora >](#)



Corte Benedettina di Correzzola

Sulle rive del Bacchiglione: il centro economico e produttivo della bonifica medievale

[esplora >](#)



**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)



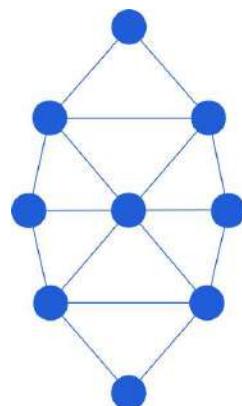


**The key role of water museums
and water heritage sites
to foster water sustainability
education, the ecological
transition and development of
'responsible tourism'**



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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

- Water Artifacts
 - Natural Science
 - Open air / Virtual
 - History & Heritage
- + 70 water museums world wide
- 30 different States
- + 30.000.000 visitors / year



Venice Office
Regional Bureau for Science
and Culture in Europe

GLOBAL NETWORK OF WATER MUSEUMS

1st International Conference: Venice, May 2017



United Nations
Educational, Scientific and
Cultural Organization



International
Hydrological
Programme



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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 “*reinstate 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*)



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



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

CF Home: Università Ca' Foscari Ven... X THE WATER WE WANT - YOUTH X Funding & tenders X H2020 Online Manual homepage X +

Non sicuro | thewaterwewant.watermuseums.net/index.html

App CF Ca' Foscari Water Museums of... Water Museums Webmail - Register... WordReference.com WeTransfer Comprimere PDF o... BLOGSPOT Civiltà d... THE WATER WE WA... Google » Altri Preferiti

HOME ABOUT YOUTH CONTEST 2020 WINNERS PRESS KIT

THE WATER WE WANT
From Heritage to Future

Youth Prize Contest – 1st edition 2020

DRAWINGS
PHOTOS
VIDEOS
PARTNERS



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**the
water
we
want!**
FROM HERITAGE TO FUTURE

Youth Prize Contest – 1st edition 2020

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

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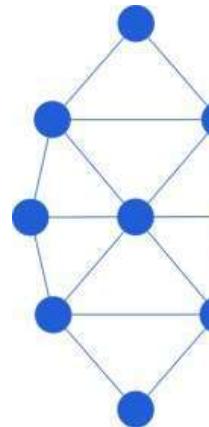
GLOBAL COLLABORATIVE DIGITAL EXHIBITION



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 ?



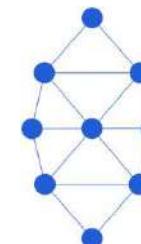
JOIN NOW!



WATER
MUSEUMS
GLOBAL NETWORK

Civiltà dell'Acqua

CENTRO INTERNAZIONALE



WATER
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GLOBAL NETWORK

THANK YOU
FOR YOUR
ATTENTION

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Water, Heritage
& Sustainable Development

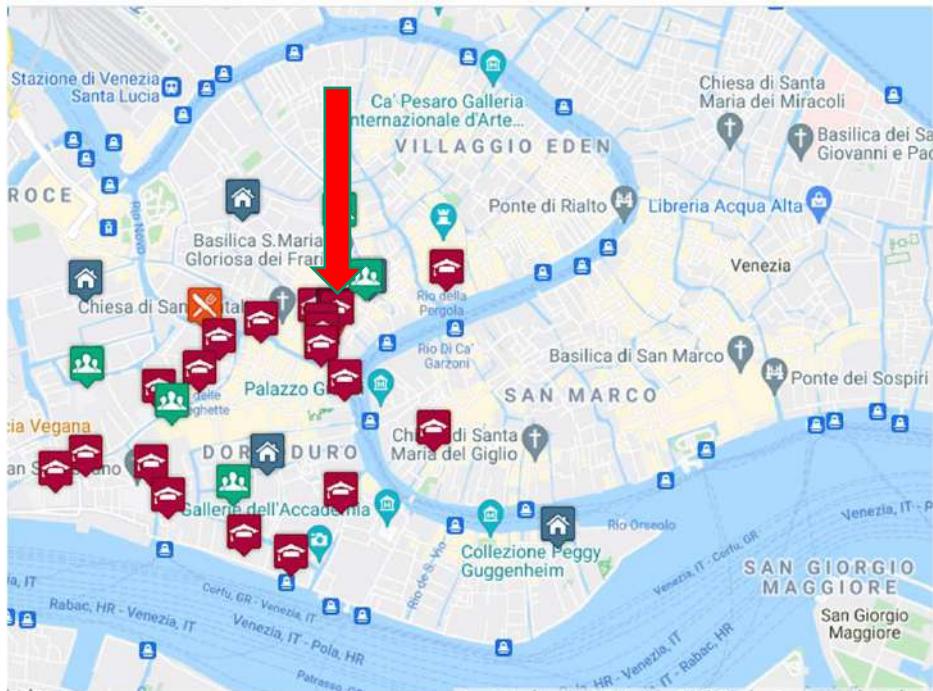
University of Venice Ca' Foscari



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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

Close cooperation with the UNESCO “water family”