Digital preservation of cultural heritage

Manos Vougioukas
ECTN Secretary-General

European **C**ultural **T**ourism **N**etwork (**ECTN**)

the only pan-European network
of destinations, regional and local authorities,
tourism boards and associations,
Universities and research institutes that brings
together the cultural and tourism sectors to
cooperate for
Sustainable Cultural Tourism
development and promotion

**Formed in Brussels in May 2009, as a merger of 2 previous networks
39 members in 21 countries, including 6 Non-EU countries**

**Founding member of the European Heritage Alliance 3.3
Signatory of the European Tourism Manifesto**

ECTN
European
Cultural
Tourism
Network

Charter for Sustainable Cultural Tourism

Cultural Tourism –
a Lever for Sustainable Development

ECTN
EUROPEAN CULTURAL TOURISM NETWORK

A Charter
for
Sustainable Cultural Tourism

2018 EUROPEAN YEAR OF CULTURAL HERITAGE #EuropeForCulture

3rd edition   October 2018

www.culturaltourism-network.eu

30 Priority themes identified, including:

- **Intangible Heritage**
- **Heritage Interpretation**
- **Cultural Routes**
- **Cultural & Creative Industries**
- **Creative Tourism**
- **Digitalisation** including VR / AR

for Sustainable Cultural Tourism development

CHRISTA
Interreg Europe

European Union
European Regional
Development Fund

Cult-RInG
Interreg Europe

European Union
European Regional
Development Fund

Cult-CreaTE
Interreg Europe

European Union
European Regional
Development Fund

Virtual and Augmented Reality

- Virtual reality (VR) and Augmented Reality (AR) provides individuals with a brief, but realistic, preview of cultural and heritage travel destinations.

- Research shows that behavioural intention is affected from VR / AR tourism in order to travel to a physical destination depicted in the virtual world.

- Results revealed that VR / AR tourism led to greater spatial presence, enjoyment, destination image, intentions to travel, and willingness to pay compared to printed materials or reading an e-brochure.

- "The sense of being in a virtual environment increased the enjoyment of the VR / AR tourism experience and had a positive effect on tourists' attitudes and behaviours"

Digitalisation of Heritage

❑ **UNESCO Charter on the Preservation of the Digital Heritage, October 2003**

❑ **CORDIS Results Pack on digital cultural heritage, February 2020**

❑ **European Capital of Smart Tourism**

❑ **Smart Destinations UNWTO initiative**

❑ **Good Practices (from CHRISTA, Cult-RInG, Cult-CreaTE projects)**

❑ **ReInHerit Horizon 2020 Coordination and Support Action (2021-2024)**

❑ **Transition Pathway for Tourism**

Charter on the Preservation of the Digital Heritage

The digital heritage consists of unique resources of human knowledge and expression. It embraces cultural, educational, scientific and administrative resources, as well as technical, legal, medical and other kinds of information created digitally, or converted into digital form from existing analogue resource.

Where resources are "born digital", there is no other format but the digital object

UNESCO

Digital materials include texts, databases, still and moving images, audio, graphics, software and web pages, among a wide and growing range of formats. They are frequently ephemeral, and require purposeful production, maintenance and management to be retained.

Many of these resources have lasting value and significance, and therefore constitute a heritage that should be protected and preserved for current and future generations. This ever-growing heritage may exist in any language, in any part of the world, and in any area of human knowledge or expression

Charter on the Preservation of the Digital Heritage

Access to the digital heritage the purpose of preserving the digital heritage is to ensure that it remains accessible to the public. Accordingly, access to digital heritage materials, especially those in the public domain, should be free of unreasonable restrictions.

The threat of loss the world's digital heritage is at risk of being lost to posterity. Contributing factors include the rapid obsolescence of the hardware and software which brings it to life, uncertainties about resources, responsibility and methods for maintenance and preservation, and the lack of supportive legislation..

Measures should be taken to:

(a) urge hardware and software developers, creators, publishers, producers and distributors of digital materials as well as other private sector partners to cooperate with national – 4 – libraries, archives, museums and other public heritage organizations in preserving the digital heritage;

(b) (b) develop training and research, and share experience and knowledge among the institutions and professional associations concerned;

(c) (c) encourage universities and other research organizations, both public and private, to ensure preservation of research data.

CORDIS Results Pack on digital cultural heritage
A thematic collection of innovative EU-funded research results

How digital technologies can play a vital role for the preservation of Europe's cultural heritage

valuable cultural assets to be available for future generations to enjoy and be inspired by

digital technologies offering solutions to power cultural heritage efforts

Examples:

- Emotive digital experiences for museums and cultural sites enliven the past
- Fostering international relations through museums
- Redefining the museum experience for the digital age
- New technology brings Europe's underwater cultural heritage to life
- 3D models explore our built cultural heritage through time, onsite and remotely
- Bringing European history to life with the Big Data of the Past

Smart Tourism

"**Smart tourism responds to new challenges and demands in a fast-changing sector, including the evolution of digital tools, products and services; equal opportunity and access for all visitors; sustainable development of the local area; and support to creative industries, local talent and heritage**" (European commission DG GROW)

Smart Tourism is thus closely related to the **preservation and promotion of cultural heritage with digitalization**

The new '**European Capital of Smart Tourism**' Award since 2019, has related components of '**Sustainability, Accessibility, Digitalisation, Cultural Heritage & Creativity**'.

Smart Destinations UNWTO initiative

A smart destination is one with a strategy for technology, innovation, sustainability, accessibility and inclusivity along the entire tourism cycle: before, during and after the trip.

'**Smart destinations** deploy **digital applications** that make it possible to offer increasingly customized services and to differentiate **cultural tourist destinations** that provide added value while preserving the natural, social and **cultural** environment.

Good Practices

❑ **Tourist complex "Saint Anastasia Island"-heritage interpretation and visitor experience**, **Burgas, Bulgaria**

❑ **Innovation and digitalization of cultural resources** in Riga Motor Museum in Latvia

❑ **ASTRA Museum Complex Digital facilities**, **Sibiu, Romania**

❑ **European Heritage Label contribution** to Sustainable Cultural Tourism

❑ **Europeana for Tourism Policy** Recommendations

❑ **Vinho Verde Centre for Interpretation and Promotion in Ponte de Lima**, **Alto Minho, Portugal**

❑ **Sea, Nature, Sicily – Underwater and nautical itineraries**, **Italy**

❑ **Cultural Route based on Intangible Heritage: Mythology, Poetry and Visual Arts of Argonautica**

❑ **Aphrodite Cultural Route in Cyprus** – **potential extension to Greece and Italy**

❑ **DiVit - Digital experience solution for museums, galleries and exhibitions**, **Pecs, Hungary**

**Smart tourism destinations', cultural heritage & creativity aspects,
towards regeneration of European tourism with sustainability & resilience**

PAFOS
REGION
Cyprus

MYTH OF APHRODITE APP
- Creation of the 'MYTH OF APHRODITE' smart application

Virtual Reality APP
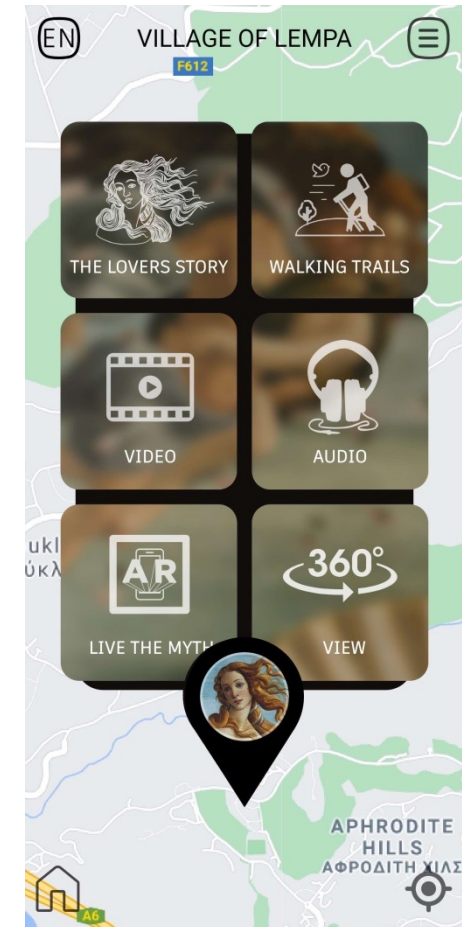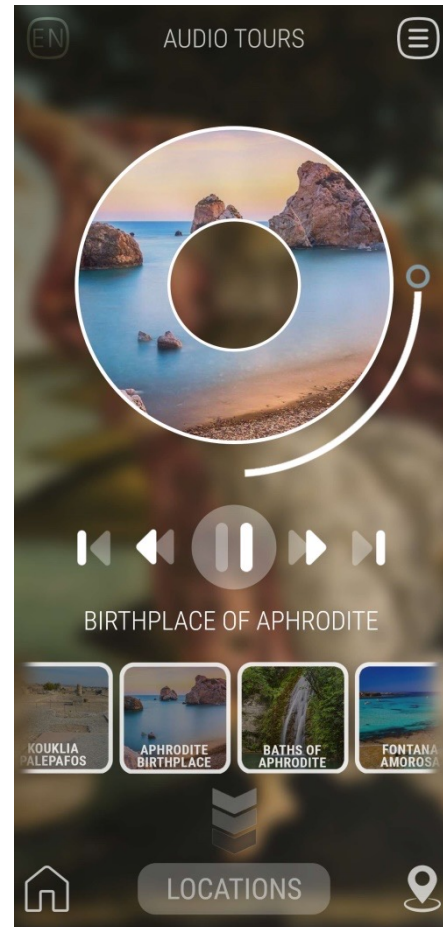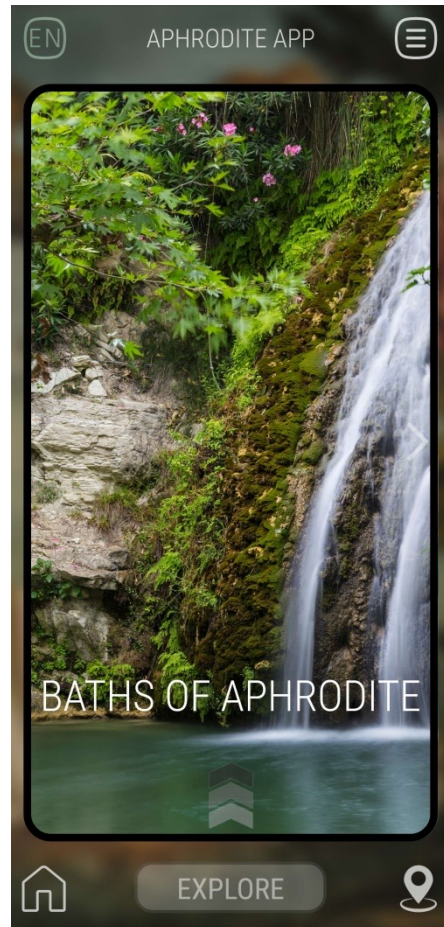
ANCIENT OLYMPIA, COMMON GROUNDS

- The Virtual Reality tour of Ancient Olympia: Common Grounds allows the visitors to experience a global heritage site from their home.

- The mobile app gives visitors the ability to view the monuments in augmented reality at real world scale.

Online Navigation via Olympia Common Grounds
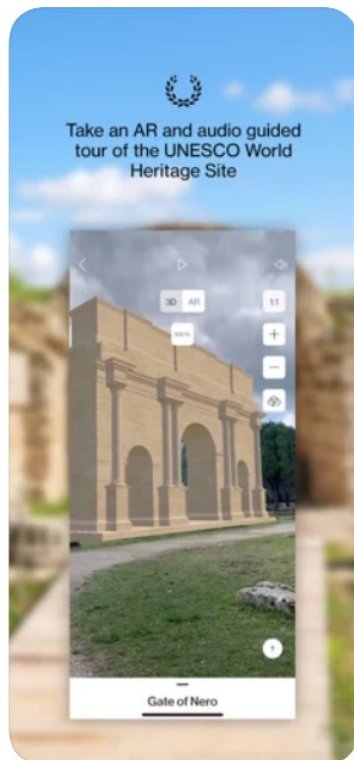
ReInHerit CSA Horizon 2020

Digital Hub

Tools and resources (on training, tourism, conservation, preservation, knowledge creation, content use/ reuse, illicit trafficking of goods) necessary for sustainable management will be shared through the digital platform that will host the ecosystem. This ecosystem will also be the experiential open-ended space that will support and generate entrepreneurial initiatives, knowledge produced through co-creation, curation of digital content and visitor experiences

ECTN offers its substantial network for further project results dissemination & exploitation & communication, particularly in relation to cultural heritage tourism

Smart Tourism App – Policy Guidelines by ECTN

Transition Pathway for Tourism

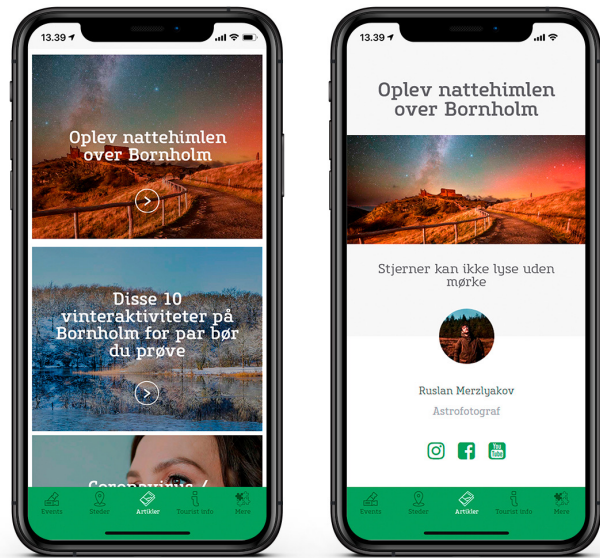**Several and highly relevant references on:**

virtual and augmented reality services provide new ways to help preserve natural and cultural resources at risk, while enabling real-like visitor experiences

linking with the objectives of European data space for cultural heritage to **digitise cultural heritage assets**, R&I in this area could provide new innovative, sustainable and accessible forms of tourism services

innovative tourism services using advanced technologies (virtual reality, augmented reality, AI) and digitized cultural heritage

develop and implement **smart** and sustainable tourism strategies at the right level in order to emphasise local identity specialities by encouraging the promotion and quality craftsmanship, especially for regions that highlight their gastronomy, local knowledge and traditions.

Thank You

Event Engine System