Cultural heritage experiences in the twin transition

Promoting sustainable visitor behaviours

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An emerging area of research

The role of cultural heritage in **inspiring action** for climate mitigation and sustainable futures is an emerging area of research

(JPI Cultural Heritage & JPI Climate, 2022).

Cultural heritage can raise awareness, educate visitors and support behavioural changes towards **more sustainable practices**

(European Commission, 2022; ICOMOS, 2019; Potts, 2021; Markham et al., 2016).

Focus & agenda

Lorenzo Quinn's "Support"
seen from Fondaco dei Tedeschi, Venice

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How to promote sustainable visitor behaviours through cultural heritage experiences?

i.   Explaining sustainable visitor behaviours

ii.   Engaging visitors through digital tools

iii.   Designing sustainable heritage experiences

Explaining sustainable visitor behaviours

o Which sustainable behaviours do visitors undertake?

o Which differences exist among visitors?

o What explains sustainable visitor behaviours?

Sustainable behaviours of heritage visitors

A review conducted using the Scopus database highlights the range of behavioural intentions/actions considered in the literature (27 publications) with regard to the concept of sustainable visitor behaviours.

Behavioural intention/action	% publications
Learn about heritage & environment protection	37%
Share/persuade/promote protection	33%
Recycle, reduce water use, save energy	30%
Donate money	30%
Donate time (volunteer/citizen science)	22%
Buy eco-friendly products/services	22%
Comply with rules onsite	19%
Do not litter	19%
Buy local	19%
Respect local culture & communities	15%
Willing to pay for more sustainable services	15%
Petitions, voting	15%

Source: own elaboration

General and site-specific behaviours

Onsite behaviour	Offsite behaviour
Comply with site rules, buy local products, do not litter, respect local culture and communities	Volunteer, participate, vote, write, persuade others, donate money for protection, eco-friendly purchasing

Source: Buonincontri, Marasco and Ramkissoon (2017)

Research highlights the need to adopt a multidimensional, holistic approach considering site-specific (onsite) actions and general (offsite) behaviours.

Visitors' profiles and green practices at museums

The recent study "Il cuore verde dei musei" (2022) identified **differences** in attitudes and expectations on museums' environmental sustainability among **visitors' profiles**:

enthusiasts, practitioners, loyals, occasional visitors

The study investigated visitors' expectations including:

- the role of art and culture as effective vehicles of sustainability messages

- the adoption of environmental sustainability policies as a reason for museum selection

- sustainability communication of museums

- the role of digital solutions for environmental sustainability

Source: Cicerchia & Solima (2022)

Key antecedents of sustainable visitor behaviour

Anticipated emotions

Han & Hyun (2017), Han et al. (2018)

The positive and negative emotions a person would experience by practicing the behaviour (Han, 2021).

Environmental knowledge

Han & Hyun (2017), Fenitra et al. (2022), Pan et al. (2020)

The capability to identify or understand concepts, issues, problems and behavior regarding environmental conservation (Han & Hyun, 2017).

Place attachment

Cheng et al. (2018), Lin & Lee (2020)

An emotional, cognitive, and functional bond with a place (Lee, 2011).

Engaging visitors with sustainable behaviours through digital technologies

Eco gamification

A serious game designed by Kotsopoulos et al. (2018, 2019) to motivate visitors' energy saving behaviour using stairs instead of elevators during their visit and experimented at the Musée National d'Histoire et d'Art (Luxembourg).

Visitors' stairs challenge

Source: Kotsopoulos et al. (2018, 2019)

Social activation

A digital artwork by Salvatore Iaconesi and Oriana Persico (HER: She Loves Data) inside the Mare Memoria Viva Urban Ecomuseum emits pulsating lights and sounds to experience the health of the Oreto river in Palermo, as captured by the «Custodians of Water».

U-DATInos

https://udatinos.eu
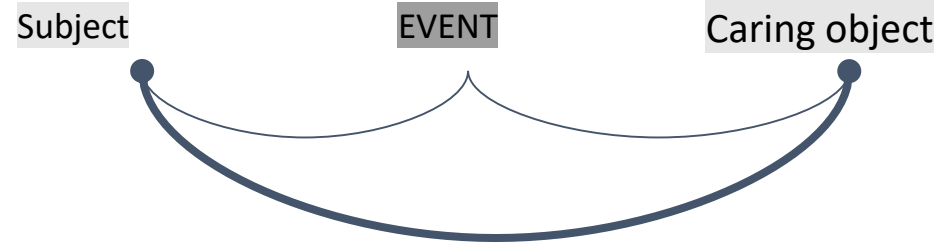https://www.he-r.it/project/udatinos/
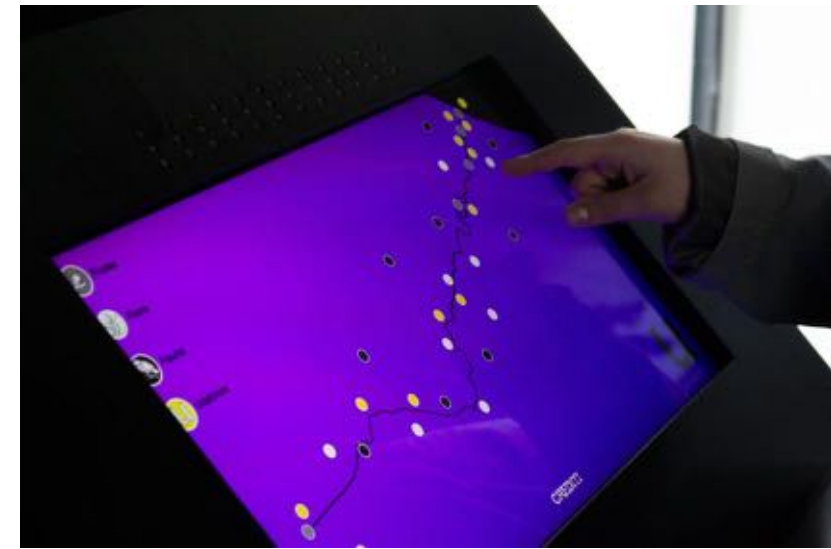
Strenghtening caring attitude

The lack of interest and caring attitude towards cultural heritage could be related to a missing or weak relation and tie.

It is necessary to study and design strategies that can be used to develop a new generation of digital applications (Pescarin & Pandiani, 2022).

Subject   EVENT   Caring object

STRONG link

The reaction is EMOTIONAL and neurobiological

WEAK link

Reaction DOESN'T HAPPEN

How can we strengthen ties and trigger a caring attitude towards cultural heritage through interactive media?

➢ TRIGGERING EMOTIONS

improving curiosity

➢ TRIGGERING COGNITION

improving reflection and participation through storytelling and interaction
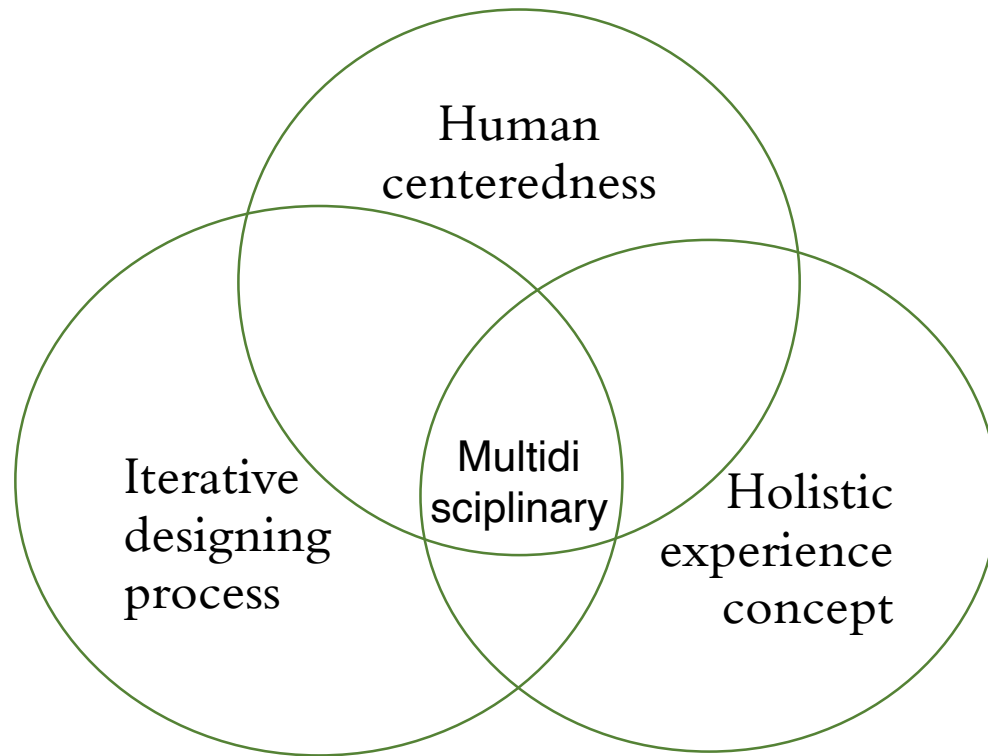
➢ FACILITATING DIALOGUE

community building, personal connections, exploring alternative

perspectives

Designing sustainable heritage experiences

Fundamentals of visitor experience design

Human centeredness
Designing with an extensive attention to needs, behaviours, expectations of visitors.

Iterative designing process
Including several iterations of prototyping, testing, analysing, and refining the designed services/systems.

Holistic experience concept
Capturing the complexity and richness of the experience to generate and develop a holistic concept that bridges experience in the customers' minds and the strategic directions of organizations.

Source: Tussyadiah (2014, 2017)

Guiding principles

- Deepen the understanding of experiences from the visitor perspectives, not as audience (i.e., in cultural contexts situations) but more so as human beings (i.e., in various sociocultural contexts of their life).

- Integrate visitors early in the design process and participate in design activities (i.e., co-design).

- Conduct explorative, generative and evaluative research to: understand visitors motivation, ability, reaction, the roles and influence of digital tools in relation to the target behaviour, conceptual design, prototype and test.

- Considering behaviours within a holistic perspective, including pre-visit and post-visit experience and the role of heritage experiences within the life of visitors (everyday experience and heritage experience influence one another).

Source: Tussyadiah (2017)

The heritage visitor experience

Visit experience

Pre-visit experience

Post-visit experience

Acquisition of knowledge & insights

Reflection

Visitor motivation

Social experience

Sharing

Expectation formation

Re-experiencing

Emotional engagement

Decision-making

Attachment

Immersive experience

Advocacy

Beliefs, attitudes, behaviours relating to sustainability

Source: adapted from Kempiak et al. (2017)

Conclusion

Further research aimed to:

- further investigate the antecedents of sustainable behaviour of visitors in different cultural heritage settings

- explore the role of different digital tools for promoting sustainable behaviour

- design innovative, meaningful experiences and messages that are effective in strengthening care for heritage and inspiring action for sustainability

Thanks for your attention!

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