



## TRAINING MODULE 2

# APPLYING SUSTAINABLE PRACTICES AT ARCHAEOLOGICAL SITES



CYPRUS  
SUSTAINABLE  
TOURISM  
INITIATIVE



**Co-funded by the European Union**

Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Sustainable Cultural Tourism  
on the Mediterranean

## Table of content

Executive Summary .....	3
EN .....	3
EL.....	3
IT .....	4
ES.....	5
PT .....	5
1. INTRODUCTION.....	6
2. GOAL OF THE MODULE.....	7
2.1. GreenComp: The European Sustainability Competence Framework.....	8
2.2. Chosen Methodology for the development and implementation of training content ..	8
2.3. Target Groups.....	9
3. MODULE SUBTOPICS.....	10
3.1. First Subtopic .....	12
3.2. Second Subtopic .....	16
3.3. Third Subtopic.....	23
4. ANNEXES.....	29



Sustainable Cultural Tourism  
on the Mediterranean

## Executive Summary

### EN

The «Training Module 2: Applying Sustainable Practices at Archaeological Sites» introduces a practical approach to managing and preserving archaeological heritage in a responsible and inclusive way. It is grounded in international frameworks such as UNESCO, ICOMOS, and the EU GreenComp competence model. The module helps participants understand how sustainability applies across the full scope of archaeological site management, not only in environmental terms but also in relation to visitor behaviour, local communities, and digital innovation. Through a combination of explanations, case studies and interactive activities, learners are supported in building both knowledge and practical skills that can be applied directly in their own professional contexts.

The module is designed for archaeological site managers, conservation technicians, local authorities and professionals involved in heritage tourism. It is structured around three main areas of intervention. The first focuses on environmental and conservation practices for protecting archaeological assets. The second addresses responsible visitor management and sustainable tourism strategies. The third explores community engagement and inclusive governance models. Participants learn how to apply eco-friendly conservation techniques, manage visitor flows effectively and use digital tools to support site monitoring and interpretation. They also develop the capacity to involve local communities meaningfully in heritage decision-making processes. Finally, the module supports the development of sustainable management models that safeguard cultural identity while contributing to the long-term resilience of Mediterranean archaeological heritage.

### EL

Η «Εκπαιδευτική Ενότητα 2: Εφαρμογή Βιώσιμων Πρακτικών σε Αρχαιολογικούς Χώρους» εισάγει μια πρακτική προσέγγιση για τη διαχείριση και τη διατήρηση της αρχαιολογικής κληρονομιάς με υπεύθυνο και συμπεριληπτικό τρόπο. Βασίζεται σε διεθνή πλαίσια, όπως της UNESCO, του ICOMOS και του ευρωπαϊκού μοντέλου ικανοτήτων GreenComp. Η ενότητα βοηθά τους συμμετέχοντες να κατανοήσουν πώς η βιωσιμότητα εφαρμόζεται σε όλο το φάσμα της διαχείρισης ενός αρχαιολογικού χώρου, όχι μόνο σε περιβαλλοντικό επίπεδο αλλά και σε σχέση με τη συμπεριφορά των επισκεπτών, τις τοπικές κοινότητες και την ψηφιακή καινοτομία. Μέσα από έναν συνδυασμό επεξηγήσεων, μελετών περίπτωσης και διαδραστικών δραστηριοτήτων, οι εκπαιδευόμενοι υποστηρίζονται στην οικοδόμηση γνώσεων και πρακτικών δεξιοτήτων που μπορούν να εφαρμοστούν άμεσα στο δικό τους επαγγελματικό περιβάλλον.



Sustainable Cultural Tourism  
on the Mediterranean

Η ενότητα απευθύνεται σε επαγγελματίες που διαχειρίζονται αρχαιολογικούς χώρους, τεχνικούς συντήρησης, τοπικές αρχές και επαγγελματίες του πολιτιστικού τουρισμού. Είναι διαρθρωμένη γύρω από τρεις βασικές περιοχές παρέμβασης. Η πρώτη επικεντρώνεται σε περιβαλλοντικές πρακτικές και πρακτικές συντήρησης για την προστασία των αρχαιολογικών στοιχείων. Η δεύτερη αφορά την υπεύθυνη διαχείριση επισκεπτών και στρατηγικές βιώσιμου τουρισμού. Η τρίτη εξερευνά τη συμμετοχή της κοινότητας και συμπεριληπτικά μοντέλα διακυβέρνησης. Οι συμμετέχοντες μαθαίνουν να εφαρμόζουν οικολογικές τεχνικές συντήρησης, να διαχειρίζονται αποτελεσματικά τις ροές επισκεπτών και να χρησιμοποιούν ψηφιακά εργαλεία για την παρακολούθηση και την ερμηνεία των χώρων. Αναπτύσσουν επίσης την ικανότητα να εμπλέκουν ουσιαστικά τις τοπικές κοινότητες στις διαδικασίες λήψης αποφάσεων. Τέλος, η ενότητα υποστηρίζει την ανάπτυξη βιώσιμων μοντέλων διαχείρισης που διασφαλίζουν την πολιτιστική ταυτότητα, συμβάλλοντας παράλληλα στη μακροπρόθεσμη ανθεκτικότητα της αρχαιολογικής κληρονομιάς της Μεσογείου.

## IT

Il «Modulo Formativo 2: Applicare Procedure Sostenibili ai Siti Archeologici» presenta un approccio pratico per la gestione e la tutela del patrimonio archeologico in modo responsabile e inclusivo. Si basa su quadri internazionali come UNESCO, ICOMOS e il modello di competenze dell'UE GreenComp. Il modulo aiuta i partecipanti a comprendere come la sostenibilità si applica all'intero ambito della gestione dei siti archeologici, non solo in termini ambientali, ma anche in relazione al comportamento dei visitatori, alle comunità locali e all'innovazione digitale. Attraverso una combinazione di spiegazioni, casi di studio e attività interattive, gli allievi vengono supportati nello sviluppo sia di conoscenze che di competenze pratiche direttamente applicabili ai propri contesti professionali.

Il modulo è progettato per direttori di siti archeologici, tecnici del restauro, autorità locali e professionisti del turismo culturale. Si articola intorno alle tre aree di intervento principali. La prima si concentra su pratiche ambientali e di tutela per la salvaguardia dei beni archeologici. La seconda riguarda la gestione responsabile dei visitatori e le iniziative devote al turismo sostenibile. La terza approfondisce il coinvolgimento della comunità e i modelli di governance inclusivi. I partecipanti imparano ad applicare tecniche per la tutela dell'ambiente, a gestire efficacemente i flussi dei visitatori e a utilizzare strumenti digitali per l'osservazione e la comprensione dei siti. Sviluppano inoltre la capacità di coinvolgere attivamente le comunità locali nei processi decisionali legati al patrimonio. Infine, il modulo sostiene lo sviluppo di modelli di gestione sostenibile che salvaguardino l'identità culturale, contribuendo al mantenimento a lungo termine del patrimonio archeologico del Mediterraneo.



Sustainable Cultural Tourism  
on the Mediterranean

## ES

El «Módulo de Formación 2: Aplicación de Prácticas Sostenibles en Sitios Arqueológicos» introduce un enfoque práctico para la gestión y preservación del patrimonio arqueológico de manera responsable e inclusiva. Se fundamenta en marcos internacionales como la UNESCO, el ICOMOS y el modelo de competencias GreenComp de la UE. El módulo ayuda a los participantes a comprender cómo se aplica la sostenibilidad en todo el ámbito de la gestión de sitios arqueológicos, no solo en términos ambientales sino también en relación con el comportamiento de los visitantes, las comunidades locales y la innovación digital. Mediante una combinación de explicaciones, estudios de caso y actividades interactivas, se apoya a los alumnos en la adquisición de conocimientos y habilidades prácticas que pueden aplicarse directamente en sus propios entornos profesionales.

El módulo está diseñado para gestores de sitios arqueológicos, técnicos de conservación, autoridades locales y profesionales del turismo patrimonial. Se estructura en torno a tres áreas principales de intervención. La primera se centra en prácticas ambientales y de conservación para la protección de los activos arqueológicos. La segunda aborda la gestión responsable de visitantes y estrategias de turismo sostenible. La tercera explora la participación comunitaria y modelos de gobernanza inclusiva. Los participantes aprenden a aplicar técnicas de conservación ecológicas, a gestionar los flujos de visitantes de manera eficaz y a utilizar herramientas digitales para el seguimiento e interpretación de los sitios. También desarrollan la capacidad de involucrar a las comunidades locales de forma significativa en los procesos de toma de decisiones. Finalmente, el módulo fomenta el desarrollo de modelos de gestión sostenible que salvaguarden la identidad cultural, contribuyendo a la resiliencia a largo plazo del patrimonio arqueológico mediterráneo.

## PT

O «Módulo de Formação 2: Aplicação de Práticas Sustentáveis em Sítios Arqueológicos» apresenta uma abordagem prática para a gestão e preservação do património arqueológico de forma responsável e inclusiva. Baseia-se em quadros internacionais como a UNESCO, o ICOMOS e o modelo de competências GreenComp da UE. O módulo ajuda os participantes a compreender como a sustentabilidade se aplica em todo o âmbito da gestão de sítios arqueológicos, não só em termos ambientais, mas também no que diz respeito ao comportamento dos visitantes, às comunidades locais e à inovação digital. Através de uma combinação de explicações, estudos de caso e atividades interativas, os formandos recebem apoio na aquisição de conhecimentos e competências práticas que podem ser aplicados diretamente nos seus próprios contextos profissionais.

O módulo foi concebido para gestores de sítios arqueológicos, técnicos de conservação, autoridades locais e profissionais envolvidos no turismo patrimonial. Está estruturado em



Sustainable Cultural Tourism  
on the Mediterranean

torno de três áreas principais de intervenção. A primeira centra-se nas práticas ambientais e de conservação para a proteção dos bens arqueológicos. A segunda aborda a gestão responsável dos visitantes e as estratégias de turismo sustentável. A terceira explora o envolvimento da comunidade e modelos de governação inclusivos. Os participantes aprendem a aplicar técnicas de conservação ecológicas, a gerir eficazmente os fluxos de visitantes e a utilizar ferramentas digitais para apoiar a monitorização e a interpretação dos sítios. Desenvolvem também a capacidade de envolver as comunidades locais de forma significativa nos processos de tomada de decisão relativos ao património. Por fim, o módulo apoia o desenvolvimento de modelos de gestão sustentáveis que salvaguardam a identidade cultural, contribuindo simultaneamente para a resiliência a longo prazo do património arqueológico mediterrânico.

## 1. INTRODUCTION

Sustainability in archaeological heritage refers to the responsible management and preservation of cultural sites in ways that balance environmental protection, cultural integrity, and socioeconomic viability. Archaeological sites are not only historical assets but also living resources that contribute to local identity, education, and tourism. However, they face growing pressures from mass tourism, urban development, and the effects of climate change, including erosion, pollution, and temperature fluctuations that threaten their long-term preservation. Achieving sustainability, therefore, means ensuring that archaeological heritage can be safeguarded for future generations while continuing to provide value to present communities through inclusive and responsible tourism practices.

Cultural heritage sites across the Mediterranean are central to the region's identity, but they face increasing challenges from mass tourism, environmental pressures, and inadequate management practices. Within this context, **Module 2: Applying sustainable practices at Archaeological sites** aims to equip professionals and heritage managers with the knowledge, skills, and practical tools needed to ensure the long-term preservation and responsible promotion of archaeological heritage.

Developed under the CULTMed – Sustainable Cultural Tourism on the Mediterranean project, this module aligns with the broader objectives of the initiative: fostering responsible tourism, supporting the green transition, and strengthening the social and economic value of culture. It builds directly on the findings of previous project phases, including the collection of best practices and research on sustainable cultural tourism models across partner countries.

The module emphasizes an integrated approach that combines environmental protection, digital innovation, and community participation. Through a balance of theoretical content and applied learning, participants will explore strategies for sustainable site management, eco-friendly conservation methods, responsible visitor management, and inclusive governance



Sustainable Cultural Tourism  
on the Mediterranean

models that involve local communities.

The training uses a blended methodology combining traditional learning tools with innovative resources, including quizzes, case studies, videos, and gamified learning elements. These activities are designed to encourage reflection, problem-solving, and collaboration, ensuring that participants not only understand sustainability principles but are also prepared to apply them in real-world contexts across the Mediterranean.

By the end of this module, participants will be able to:

- Design eco-friendly conservation plans;
- Manage visitor flows sustainably;
- Implement inclusive governance models;
- Apply digital tools to support heritage site management.

## 2. GOAL OF THE MODULE

The goal of this module is to equip learners with the knowledge and practical tools necessary to integrate sustainability into the management, conservation, and promotion of archaeological sites. It seeks to build the capacity of heritage professionals to address the environmental, cultural, and socio-economic challenges faced by archaeological destinations, ensuring that tourism and preservation coexist in a balanced and responsible way.

Aligned with the **CULTMed project's overarching objectives**, the module promotes a shift toward sustainable cultural tourism models that reduce environmental impact, strengthen community engagement, and foster innovation. By doing so, it contributes to the protection of Mediterranean heritage while supporting the transition toward greener, more inclusive tourism economies.

Through interactive learning activities, real-world case studies, and examples drawn from Mediterranean contexts participants will develop competences to:

- apply eco-friendly conservation techniques and responsible visitor management practices;
- engage local communities in heritage governance and decision-making;
- implement policies and strategies aligned with EU sustainability frameworks; and
- use digital tools to enhance both conservation and visitor experiences.

Ultimately, this module aims to inspire professionals to become active agents of change, capable of designing and implementing sustainable management models for archaeological sites that safeguard cultural identity while contributing to long-term territorial resilience and the green transition of the Mediterranean tourism sector.



Sustainable Cultural Tourism  
on the Mediterranean

## 2.1. GreenComp: The European Sustainability Competence Framework

Within this module, the GreenComp framework developed by the European Commission's Joint Research Centre<sup>1</sup> serves as a guiding reference for integrating sustainability into professional practice.

Rather than being presented as a standalone theoretical model, GreenComp is used here as a lens to interpret the key challenges and opportunities related to the sustainable management of archaeological sites. These contexts often require a careful balance between heritage conservation, environmental protection, visitor experience and the well-being of local communities.

The framework identifies four core areas of competence which are embedded throughout the module's content. Each of these dimensions supports learners in approaching archaeological site management in a holistic and reflective way: from recognising the ethical implications of preservation, to understanding the complex interactions between natural and cultural systems, to anticipating long-term impacts and engaging stakeholders in shared responsibility.

By adopting this competence-based perspective, the module promotes the development of transversal skills that go beyond technical knowledge. Learners are encouraged to critically engage with sustainability issues, apply context-sensitive solutions and contribute to practices that ensure the protection, accessibility and resilience of archaeological heritage over time.

## 2.2. Chosen Methodology for the development and implementation of training content

The development of **Module 2: Applying sustainable practices at Archaeological sites** follows the common WP3 training methodology coordinated by ARCES, aligned with the **CULTMed project's participatory and competence-based approach**. The methodology promotes active learning and professional skill development in sustainable heritage management through a blend of conceptual, practical, and digital tools.

The module combines **traditional learning resources** with **innovative formats**, including a **short educational video**, a **gamified activity**, and a **multiple-choice quiz** developed by ARCES. This blended approach ensures flexibility and inclusivity, accommodating different professional profiles and learning preferences. A comprehensive set of interactive activities

---

<sup>1</sup> European Commission, Joint Research Centre (2022). *GreenComp: The European Sustainability Competence Framework*. Publications Office of the European Union. Available at: [https://joint-research-centre.ec.europa.eu/greencomp-european-sustainability-competence-framework\\_en](https://joint-research-centre.ec.europa.eu/greencomp-european-sustainability-competence-framework_en)



Sustainable Cultural Tourism  
on the Mediterranean

and games supporting all training modules is provided in the Annex.

The training content is structured around **six thematic sections**, which collectively guide learners from conceptual understanding to practical application:

1. Sustainability in archaeological heritage
2. Environmental practices for site conservation
3. Responsible visitor management
4. Community engagement and local participation
5. Policy and institutional support
6. Case studies and best practices

The **written module** will serve as the **foundation for the audiovisual materials** to be developed by ARCES - Two short videos, interactive quizzes and a digital game - to reinforce learning through visual and interactive experiences.

The **evaluation** will include a short quiz to assess comprehension and a practical group exercise during the pilot to test the applicability of learned concepts. All reference materials and resources are drawn from UNESCO, ICOMOS, UNWTO, and EU cultural heritage frameworks, as well as the CulTMed Best Practices Collection, ensuring scientific relevance and alignment with international standards.

### 2.3. Target Groups

The training module specifically targets professionals and stakeholders directly involved in the management, conservation, and promotion of archaeological heritage. These actors are essential to the transition toward sustainable and community-oriented cultural tourism models. The pilot training will involve up to 10 trainees representing two main professional categories:

- **Staff from archaeological sites**, including site managers, conservation technicians, and cultural heritage professionals responsible for maintenance, interpretation, and visitor services;
- **Relevant agencies**, including local or regional authorities, public institutions, and organizations tasked with heritage conservation, tourism development, or environmental protection.

These target groups were identified as key to ensuring the practical application and long-term impact of the module's content. Their direct involvement will facilitate the adoption of sustainable management practices, such as environmentally responsible visitor planning, eco-friendly conservation measures, and community participation in site governance.

Through the piloting and subsequent capacity-building actions, these professionals will strengthen their competences to lead sustainability initiatives within archaeological sites and



Sustainable Cultural Tourism  
on the Mediterranean

contribute to the overall objectives of the CultMed project—enhancing the resilience, authenticity, and sustainability of Mediterranean cultural tourism.

### ***Expected Learning Outcomes and Competences***

At the end of the training module, participants will have strengthened both their theoretical understanding and practical competences related to sustainable archaeological site management. Learners will acquire the ability to critically assess environmental, social, and tourism-related challenges affecting archaeological sites and to design context-specific solutions aligned with sustainability principles.

More specifically, participants will develop competences to:

- apply eco-friendly and preventive conservation approaches adapted to different archaeological contexts;
- plan and implement responsible visitor management strategies that balance heritage protection and tourism development;
- integrate digital tools to support site monitoring, visitor experience enhancement, and community engagement;
- design inclusive governance and participation models that actively involve local communities and stakeholders;
- align site management practices with European and international sustainability frameworks for cultural heritage and tourism.

Through challenge-based learning activities and practical exercises, learners will also enhance transversal skills such as problem-solving, collaborative work, critical thinking, and strategic planning. Overall, the module enables participants to act as informed and proactive professionals capable of promoting sustainable, resilient, and community-oriented management models for archaeological sites across the Mediterranean.

### **3. MODULE SUBTOPICS**

The three subtopics proposed are closely aligned with the methodological structure of the module and with the learning objectives defined in Section 1. Together, they translate the core principles of sustainable cultural tourism into concrete and applicable areas of intervention for archaeological site management.

Each subtopic addresses a key dimension of sustainability, including environmental protection and preventive conservation, responsible visitor management, community participation, and the strategic use of digital tools. This structure allows learners to progressively build knowledge and competences, moving from the protection of

# CULTMED

Sustainable Cultural Tourism  
on the Mediterranean

archaeological assets, to the sustainable management of tourism flows, and finally to inclusive governance models that involve local communities and stakeholders.

By integrating these thematic areas, the module ensures a holistic and practice-oriented approach that reflects real management challenges faced by archaeological sites across the Mediterranean.

## Subtopic 1 — Environmental and Conservation Practices for Sustainable Archaeological Site Management



This subtopic equips heritage professionals with practical knowledge and tools to address environmental risks affecting archaeological sites. It focuses on preventive and eco-friendly conservation approaches, climate-related challenges, and the use of digital monitoring technologies to support evidence-based decision-making. The aim is to ensure the long-term preservation of archaeological heritage while minimizing environmental impact.

## Subtopic 2 — Responsible Visitor Management and Sustainable Tourism Strategies



This subtopic addresses the challenge of balancing heritage protection with tourism development. It provides participants with strategies to manage visitor flows, reduce the negative impacts of mass tourism, and enhance visitor awareness through interpretation and education. Special attention is given to digital tools that support sustainable tourism practices while improving the overall visitor experience.

## Subtopic 3 — Community Engagement, Governance Models and Digital Tools for Inclusive Heritage Management



This subtopic highlights the central role of local communities and stakeholders in the sustainable management of archaeological sites. It introduces inclusive governance models, participatory decision-making processes, and digital tools that support transparency, collaboration, and community involvement. The objective is to strengthen local ownership of cultural heritage and ensure socially sustainable management practices.

The training module will cover **three main subtopics**, each providing participants with in-depth knowledge, practical skills, and the tools needed to apply sustainable practices in archaeological site management. These subtopics are designed to help professionals in the field of cultural heritage to integrate environmental protection, sustainable tourism, and community engagement into their daily management and conservation tasks.

### 3.1. First Subtopic

#### Subtopic 1 — Environmental and Conservation Practices for Sustainable Archaeological Site Management

This subtopic focuses on the foundational principles and practices of sustainability in archaeological site management, with particular emphasis on environmental conservation. Archaeological sites face numerous threats, including climate change, pollution, and unsustainable tourism, which can compromise their long-term preservation. This section introduces practical, eco-friendly conservation methods and digital tools that help protect these valuable cultural assets.

Key Topics Covered:

- **Environmental sustainability in archaeological sites:** This includes identifying and managing risks related to environmental factors, such as erosion, water damage, pollution, and the effects of climate change. Participants will learn how to integrate sustainability into the preservation process to protect both the environment and the cultural integrity of the site.



Sustainable Cultural Tourism  
on the Mediterranean

- **Preventative conservation techniques:** The focus will be on non-invasive conservation methods that ensure minimal impact on the archaeological site. This includes the use of sustainable materials for restoration, applying eco-friendly techniques for preserving monuments, and preventing the degradation of materials due to environmental stress.
- **Digital tools for monitoring and conservation:** New technologies such as drones, environmental sensors, and GIS (Geographic Information Systems) are becoming essential in heritage management. Participants will learn how to use these tools to monitor the site's health, track changes over time, and implement early interventions to mitigate damage.

## Environmental Sustainability in Archaeological Sites

Integrating environmental sustainability into archaeological site management means making deliberate, practical choices that protect the site from environmental damage while preserving its cultural integrity over the long term. Below are concrete approaches that site managers can adopt.

### Develop a Site-Specific Risk Assessment

Before any conservation decision is made, a structured risk assessment should be carried out. This means walking the site systematically and documenting where environmental stress is already visible. Signs of erosion, water pooling, vegetation encroachment, and pollution deposits on stone surfaces all need to be recorded, along with identifying which areas are most vulnerable. The ARCH project (EU H2020)<sup>2</sup> developed a practical tool for exactly this purpose: the Resilience Assessment Dashboard (RAD), a free online tool that guides heritage managers through a structured evaluation of their site's vulnerabilities to climate-related and other environmental hazards, and helps them prioritise which risks to address first.

### Integrate Green Infrastructure Around the Site

One of the most effective and low-cost ways to protect a site from erosion and water damage is to manage the landscape surrounding it as a buffer. The municipality of Valongo (Portugal)<sup>3</sup> applied bioengineering techniques, using living vegetation as structural elements, to stabilise riverbanks and control water flow adjacent to heritage landscapes. This approach improved the ecological, hydro-geomorphological, and environmental quality of the area, strengthening resilience and reducing vulnerabilities identified in the Municipal Strategies for Adaptation to Climate Change. The same logic applies directly to archaeological sites: native vegetation

---

<sup>2</sup> ARCH Project: <https://savingculturalheritage.eu/solutions/overview>

<sup>3</sup> [https://smart-tourism-capital.ec.europa.eu/system/files/2024-02/GreenPioneer\\_BestPractices\\_2024.pdf](https://smart-tourism-capital.ec.europa.eu/system/files/2024-02/GreenPioneer_BestPractices_2024.pdf)



Sustainable Cultural Tourism  
on the Mediterranean

planted strategically around a site's perimeter can intercept rainwater, reduce run-off velocity, and prevent the erosion of protective soil layers.

### **Adopt Renewable Energy for Site Infrastructure**

The infrastructure that supports a site has its own environmental footprint. This includes lighting, visitor facilities, monitoring equipment, and administrative buildings. Transitioning this infrastructure to renewable energy is a concrete sustainability action that reduces both emissions and long-term operating costs. In Dubrovnik (Croatia)<sup>4</sup>, as part of the EU-funded SEADRION project, seawater heat pumps were installed in the Rector's Palace, a UNESCO-listed heritage building. The new system replaced a 40-year-old fossil fuel setup and resulted in a reduction in CO<sub>2</sub> emissions of approximately 30 tonnes per year. It also eliminated external air conditioning units that were visually damaging the protected building. For sites with more modest means, even the installation of solar panels to power sensor nodes or pathway lighting represents a meaningful step toward environmental sustainability.

### **Build Climate Resilience into Long-Term Planning**

Sustainability in archaeological site management is not only about responding to current conditions, but also about anticipating future ones. Resilience-building strategies need to be included in heritage management policies and practices, while the role heritage can play in climate change adaptation and disaster risk reduction needs to be emphasised. Practically, this means that site management plans should include specific climate adaptation measures: updated drainage capacity for more intense rainfall, protocols for emergency protection of exposed features during extreme weather events, and regular review cycles that incorporate new climate data as it becomes available. The ARCH project's Resilience Measures Inventory (RMI)<sup>5</sup> provides a searchable and free database of specific, tested measures that heritage managers can browse, evaluate, and adapt to their own site context.

---

<sup>4</sup> GreenPioneer Best Practices 2024 (European Commission / DG GROW) — SEADRION, Dubrovnik, Section 3.6.1

[https://smart-tourism-capital.ec.europa.eu/system/files/2024-02/GreenPioneer\\_BestPractices\\_2024.pdf](https://smart-tourism-capital.ec.europa.eu/system/files/2024-02/GreenPioneer_BestPractices_2024.pdf)

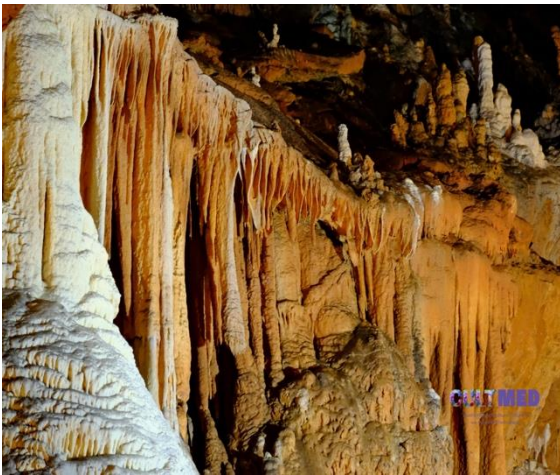
<sup>5</sup> <https://www.heritageresearch-hub.eu/heritage-research-community/>

# CULTMED

Sustainable Cultural Tourism  
on the Mediterranean

## Some additional examples of application:

### Altamira Cave (Spain)



Altamira Cave represents one of the most fragile archaeological environments in Europe due to the presence of prehistoric cave paintings highly sensitive to environmental changes. Increased visitor numbers in the past caused significant alterations in CO<sub>2</sub> levels, humidity, and temperature, accelerating the deterioration of the paintings. To address these challenges, strict environmental monitoring systems were introduced, including sensors to continuously measure microclimatic conditions<sup>6</sup>. Visitor access was significantly limited and regulated, prioritizing conservation over mass tourism. This

case demonstrates how preventive conservation and scientific monitoring can protect highly vulnerable heritage while redefining visitor access in a sustainable way.

### Pompeii (Italy)



The archaeological site of Pompeii faces ongoing environmental threats linked to rainfall, water infiltration, and soil instability, which pose serious risks to its extensive and exposed structures. To mitigate these challenges, drainage and water management systems were implemented to control rainwater flow and prevent erosion and structural damage<sup>7</sup>. These interventions are combined with regular maintenance and monitoring activities to detect early signs of deterioration. Pompeii illustrates how large-scale archaeological sites can integrate environmental

<sup>6</sup> UNESCO World Heritage Centre. Altamira Cave and Paleolithic Cave Art of Northern Spain – State of Conservation Reports; see also UNESCO (2013), Operational Guidelines for the Implementation of the World Heritage Convention, paras. 108–118.

<sup>7</sup> ICOMOS (2019). Climate Change and Cultural Heritage; European Commission (2021), Strengthening Climate Resilience of Cultural Heritage.

# CULTMED

Sustainable Cultural Tourism  
on the Mediterranean

management measures into daily conservation practices to enhance resilience against climate-related risks.

## Empúries (Spain)



At the archaeological site of Empúries, exposure to weather conditions posed a constant threat to mosaics and other delicate archaeological elements. To address this issue, lightweight and permeable protective coverings were installed, allowing airflow while shielding sensitive surfaces from rain, wind, and direct sunlight<sup>8</sup>. This solution balances effective conservation with minimal visual impact, preserving both the physical integrity and the visitor experience of the site. Empúries provides a practical example of how simple, low-impact interventions can significantly improve long-term conservation

outcomes.

While environmental conservation is crucial, the impact of visitor management plays a vital role in the sustainability of these heritage sites. Therefore, Subtopic 2 will focus on responsible visitor management and the integration of sustainable tourism strategies.

### 3.2. Second Subtopic

#### Subtopic 2 — Responsible Visitor Management and Sustainable Tourism Strategies

Tourism plays an important role in the economy of many Mediterranean regions, but unmanaged or unsustainable tourism can damage archaeological sites and harm local communities. This subtopic will explore how to balance the need for tourism with the imperative to preserve archaeological sites for future generations. It will introduce strategies for managing visitor flows, using digital tools to enhance the visitor experience, and ensuring that tourism contributes positively to the site and surrounding community.

Key Topics Covered:

- **Managing visitor impacts:** Overcrowding, environmental degradation, and physical damage are common challenges at popular archaeological sites. Participants will learn

---

<sup>8</sup> ICOMOS (2017). The Burra Charter: Principles for Conservation of Places of Cultural Significance, Articles 1–6.



Sustainable Cultural Tourism  
on the Mediterranean

to assess the carrying capacity of a site, manage visitor flows, and establish rules and strategies to reduce wear and tear on archaeological features<sup>9</sup>.

- **Visitor behavior and education:** Educating visitors about the significance of the site and how to behave responsibly is crucial. This section will cover the creation of educational materials and interactive experiences that encourage respectful engagement with the heritage, such as interpretive signage, workshops, and guided tours.
- **Digital tools for visitor management**<sup>10</sup>: With the help of technology, visitor flows can be efficiently controlled. Participants will be introduced to digital solutions like online booking systems, visitor tracking, augmented reality (AR) apps, and other innovations that reduce the physical impact of tourism while enhancing the visitor experience.

### Implement Sustainable Visitor Management

Unmanaged visitor flow is one of the most direct causes of environmental degradation at archaeological sites. Soil compaction, erosion along informal paths, and physical damage to surfaces are all consequences that site managers encounter regularly. The key principle here is that sustainable management means redistributing pressure across the site and across the year, rather than simply restricting access.

The city of Trebinje (Bosnia and Herzegovina) offers a useful example. By developing tourism products that spread visitor numbers throughout the whole year, the city successfully extended its tourist season to almost its entirety. Investment in sports and congress infrastructure played a central role in achieving this, and the result was a significant reduction in concentrated visitor pressure during the summer months.

For archaeological sites, the same logic applies. A combination of timed entry systems, designated path networks, and off-peak programming can make a real difference. Guided tours, educational events, and seasonal activities all help to make a site attractive throughout the year, drawing visitors away from peak periods and distributing their impact more evenly across the site.

In practice, a well-established management framework for heavily visited sites follows three sequential stages<sup>11</sup>:

---

<sup>9</sup> UNWTO (2017). Sustainable Tourism for Development: Guide for Policy Makers, Chapter 3 – Visitor Management and Carrying Capacity.

<sup>10</sup> European Commission (2020). *EU Strategy for Sustainable and Smart Tourism, Priority Area 1; European Commission (2021), Digital Cultural Heritage and Innovation.*

<sup>11</sup> Enseñat-Soberanis, F. et al. (2019). Journal of Heritage Tourism, 14(4). Taylor & Francis. <https://doi.org/10.1080/1743873X.2018.1529179>



Sustainable Cultural Tourism  
on the Mediterranean

- The first is restricting overall numbers.
- The second is redistributing visitors in time and space.
- The third is interpreting the site in ways that account for the presence of large groups.

A review of visitor management strategies implemented across eleven archaeologically significant sites worldwide identified 96 distinct measures, all synthesised into exactly this three-stage process.

What makes this framework particularly valuable for site managers is that it can be implemented gradually. Physical measures are often the most immediate starting point. Rope barriers, wooden boardwalks, and clearly marked gravel paths can define permitted routes and steer visitors away from fragile surfaces without requiring significant investment. For most World Heritage sites, putting into place measures that restrict visitor access, such as set tour routes or pre-booked excursions, is both necessary and effective for protecting fragile heritage<sup>12</sup>.

Timed entry is another practical tool, and it does not have to depend on expensive software. A basic booking form linked to a shared calendar is sufficient for smaller sites. Sites threatened by mass tourism can limit visitor numbers by requiring reservations, setting a daily capacity limit, introducing time slots, or keeping people in small manageable groups<sup>13</sup>.

It is also worth remembering that site managers do not have to work alone. Tour operators and hotel chains can play a meaningful role by making financial contributions, supporting monitoring efforts, or simply briefing their clients on responsible behaviour before they arrive at the site<sup>14</sup>.

### **Interpretation as a Tool for Protection**

It is necessary that archaeological sites be actively managed and interpreted rather than left to be understood by the visitor alone. Signage and panels add pleasure and enhance the value of the tourist's visit and encourage pre-designed routes through the site to minimise crowding and negative impact<sup>15</sup>. Well-designed interpretive signage is one of

<sup>12</sup> UNESCO World Heritage Centre – Guide 8: Managing Visitor Behaviour

<sup>13</sup> Curiosity Saves Travel – Sustainable Traveler's Guide to UNESCO World Heritage Sites <https://curiositysavestravel.com/unesco-world-heritage-sustainable-travel-guide-and-responsible-travel-tips/>

<sup>14</sup> UNESCO World Heritage Centre – Managing Tourism at World Heritage Sites <https://whc.unesco.org/uploads/activities/documents/activity-113-2.pdf>

<sup>15</sup> Academia.edu – Historical Archaeology on Public Display: Outdoor Interpretive Signage [https://www.academia.edu/8207962/Historical\\_Archaeology\\_on\\_Public\\_Display\\_Outdoor\\_Interpretive\\_Sig](https://www.academia.edu/8207962/Historical_Archaeology_on_Public_Display_Outdoor_Interpretive_Sig)



Sustainable Cultural Tourism  
on the Mediterranean

the most accessible tools available to any site. At its core, it aims to build a consistent narrative that develops as visitors move through the space. Beyond that, it provides educational and learning opportunities, promotes local heritage, and encourages sustainable practice<sup>16</sup>.

For sites where resources are tight, there are still good options. Printed weather-resistant panels on timber or recycled plastic posts offer real durability without major expenditure. QR code technology is another practical solution, particularly for heritage trails where strict environmental requirements apply. It offers a way to deliver dynamic information during a visit, even along trails that are not always covered by internet connectivity<sup>17</sup>. Free QR code generators allow staff to link physical markers to multilingual web pages or audio descriptions, all without any specialist costs.

Training community members as volunteer guides is equally valuable, and in many cases it strengthens the site's relationship with the people who live around it. Developing tourism initiatives that benefit the local economy directly supports sustainable site management. Hiring residents as guides or promoting local crafts and products are two straightforward ways to achieve this. The example of Petra in Jordan illustrates the point well. There, the local Bedouin community plays an essential role in guiding tourists through the archaeological wonders. Their intimate knowledge of the site enriches the visitor experience considerably, while at the same time providing sustainable livelihoods for the community itself<sup>18</sup>.

### **Technology That Works at Every Scale**

Technology offers site managers a growing range of tools to improve how visitors experience and move through a site. Virtual and augmented reality applications, for example, allow visitors to see reconstructions of how a site once looked, either through a screen or by holding up a smartphone. These tools are increasingly being used both in museums and directly on site. Online ticketing systems allow managers to control exactly how many people enter on any given day. Visitors simply show a code on their phone at the entrance, removing the need for printed tickets and making it much easier to manage daily numbers.

For sites that do not have a large technology budget, there are still practical options worth

---

[nage](#)

<sup>16</sup> Travel Wayfinding – What is Heritage Interpretation and Interpretive Signage?  
<https://travelwayfinding.com/what-is-heritage-interpretation/>

<sup>17</sup> MDPI Sustainability – A Sustainable Approach to Tourist Signage on Heritage Trails (2023)  
<https://www.mdpi.com/2071-1050/15/23/16251>

<sup>18</sup> FasterCapital – Successful Cultural Heritage Tourism Initiatives  
<https://fastercapital.com/topics/successful-cultural-heritage-tourism-initiatives.html/1>

# CULTMED

Sustainable Cultural Tourism  
on the Mediterranean

considering. The iMuse<sup>19</sup> programme, for instance, has tested a range of simple digital activities for heritage visitors, including information codes that visitors scan with their phone and basic interactive games. The programme shared its findings openly, specifically so that smaller sites with limited resources could learn from the experience. Free website-building tools such as Google Sites or Canva can be used to create a simple guide to the site in multiple languages, accessible to visitors through a scannable code placed on a sign or panel. Free audio guide platforms, such as izi.TRAVEL<sup>20</sup>, allow site staff to record and publish spoken tours that visitors can follow at their own pace using their own phones.

When choosing any digital tool, it is worth keeping things simple. Applications that require a large amount of data to download will not work well in areas with poor internet coverage, which is common at many archaeological sites<sup>21</sup>. Finally, whatever tools a site uses, generating income to sustain them matters. A growing number of heritage destinations are encouraging visitors to contribute financially, either through a small addition to the entry fee or through a voluntary donation box at the entrance. A clear and honest explanation of how those funds are used can make a significant difference to how willing visitors are to contribute<sup>22</sup>.

## Some additional examples of application:

### Roman Theatre in Mérida (Spain)



The Roman Theatre of Mérida is a highly visited archaeological site that combines heritage conservation with cultural programming, including performances and guided visits. High visitor numbers, especially during peak tourist seasons and events, posed risks to the preservation of fragile structures and the overall visitor experience. To address these challenges, visitor access has been regulated through controlled entry times, capacity limits, and differentiated visitor routes. These measures help reduce physical pressure on the

site while ensuring visitor safety and enjoyment. Mérida illustrates how structured visitor flow

<sup>19</sup> <https://imuse.e-ce.uth.gr/>

<sup>20</sup> <https://www.izi.travel/en?visit=1776163025>

<sup>21</sup> Internet Archaeology – An On-Site Presentation of Invisible Prehistoric Landscapes  
<https://intarch.ac.uk/journal/issue43/13/13.html>

<sup>22</sup> UNESCO World Heritage Centre – Guide 9: Securing Funding and Investment  
<https://whc.unesco.org/en/sustainabletourismtoolkit/guide9/>



Sustainable Cultural Tourism  
on the Mediterranean

management can protect archaeological heritage without compromising its cultural and economic value.

## Akrotiri (Greece)



Akrotiri is a prehistoric settlement preserved beneath protective structures, making visitor circulation and physical access a critical issue. To minimize damage to the archaeological remains, raised walkways were installed, allowing visitors to explore the site without direct contact with sensitive surfaces. This approach significantly reduces wear and tear while maintaining visibility and interpretive quality. Akrotiri demonstrates how spatial design solutions can effectively balance accessibility, conservation, and educational

objectives in high-value archaeological contexts.

## Egnazia (Puglia, Italy)



At Egnazia, digital tools have been introduced to enhance the visitor experience while limiting physical interaction with the site. An interactive mobile application provides historical context, interpretive content, and thematic routes, reducing the need for extensive signage or physical infrastructure<sup>23</sup>. This digital approach supports sustainable tourism by improving visitor understanding and engagement while minimizing environmental and material impacts. Egnazia shows how technology can be used as a strategic tool for responsible visitor

management and heritage interpretation.

Beyond environmental and visitor management, effective governance that includes the community is key to ensuring the long-term success of sustainable heritage practices. Subtopic 3 will explore inclusive governance and the role of local communities in preserving heritage.

<sup>23</sup> UNESCO (2022). *Digital Technologies and Sustainable Visitor Experiences in Cultural Heritage Sites*.



Sustainable Cultural Tourism  
on the Mediterranean

### 3.3. Third Subtopic

#### **Subtopic 3 — Community Engagement, Governance Models, and Digital Tools for Inclusive Heritage Management**

This subtopic highlights the importance of involving local communities in the management of archaeological sites. Local people are not only stakeholders but can also play a key role in the site's conservation and sustainable tourism development. This section will focus on governance models that integrate community participation and the role of digital tools in promoting inclusive management practices.

Key Topics Covered:

- **Community involvement in heritage management:** The active participation of local communities ensures the protection of cultural heritage and fosters a sense of ownership<sup>24</sup>. This section will cover methods for involving the local population in decision-making processes, raising awareness, and fostering collaborative efforts for heritage management.
- **Inclusive governance models:** Traditional top-down management systems often overlook the needs and priorities of local communities. In contrast, inclusive governance promotes collaboration among local authorities, cultural heritage managers, community representatives, and other stakeholders<sup>25</sup>. Participants will learn how to design participatory governance structures that allow all voices to be heard and valued.
- **Digital tools for community engagement:** Technology is increasingly being used to bridge the gap between heritage managers and local communities. Tools like online platforms, social media, and crowdsourcing applications enable better communication and collaboration<sup>26</sup>. This subtopic will explore how digital technologies can support transparency and facilitate community engagement in heritage conservation.

#### **Community Involvement in Heritage Management: Practical Approaches**

UNESCO recognises community participation as a fundamental tool in heritage management, seeking to involve public participation. A first practical step is

---

<sup>24</sup> UNESCO (2015). Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention.

<sup>25</sup> Council of Europe (2005). *Framework Convention on the Value of Cultural Heritage for Society (Faro Convention)*.

<sup>26</sup> European Commission (2021). Digital Participation and Cultural Heritage Governance, policy brief.



Sustainable Cultural Tourism  
on the Mediterranean

understanding who the community actually is. Communities can be those who live near heritage, those who feel a connection to it, or those who work with it. Talking to local leaders, craftspeople, teachers and neighborhoods groups before designing any heritage programme helps avoid plans that ignore what people already know and care about<sup>27</sup>.

Once the community is understood, practical tools can be used to involve them in real decisions. One of the most effective is cultural mapping, where residents use maps or simple digital tools to identify and document local heritage sites, stories and traditions that outside experts might never find on their own. Cultural mapping can generate new forms of knowledge about both tangible and intangible heritage within a community and serve as a vehicle for engaging populations in a dialogue about what they value. Regular community workshops are equally important. Evidence from heritage projects in Cairo shows that through participatory workshops and mapping tools, local residents became dynamic decision-makers, with over 70% reporting increased ownership and engagement in heritage conservation efforts<sup>28</sup>. Setting up formal community committees with real decision-making power alongside local authorities helps make this involvement permanent rather than occasional.

### **Inclusive governance models**

Inclusive governance is best understood as a spectrum, ranging from simple information sharing to genuine shared decision making. Arnstein's well known "ladder of participation" illustrates this idea, with each rung showing how much real power citizens actually have in shaping a plan or programme<sup>29</sup>. Several practical models already exist and can be copied in other places. In Scotland, the Adopt a Monument scheme helps local communities look after monuments they care about. It provides training, advice, fundraising support, and hands on activities at the site itself<sup>30</sup>. The scheme works through a simple agreement between public authorities, private landowners, and local groups. In this way, much of the regular upkeep is carried out by volunteers and supported by small grants, instead of relying fully on state funding. A different but equally useful model comes from Italy. In 2006, a young cooperative called La Paranza took over the management of the Naples catacombs. What started with only 5 employees has grown into a team of more than 40 people. The money earned from visitors is reinvested into the site itself and into

---

<sup>27</sup> ICCROM (2015). Promoting People-Centred Approaches to Conservation: Living Heritage. [https://www.iccrom.org/sites/default/files/PCA\\_Annexe-2.pdf](https://www.iccrom.org/sites/default/files/PCA_Annexe-2.pdf)

<sup>28</sup> *Engagement Approach Enhances Heritage Conservation: Two Case Studies on Sustainable Urban Development in Historic Cairo*, available at: <https://www.mdpi.com/2071-1050/17/10/4565>

<sup>29</sup> A ladder of citizen participation  
[https://www.historyofsocialwork.org/1969\\_ENG\\_Ladderofparticipation/1969,%20Arnstein,%20ladder%20of%20participation,%20original%20text%20OCR%20C.pdf](https://www.historyofsocialwork.org/1969_ENG_Ladderofparticipation/1969,%20Arnstein,%20ladder%20of%20participation,%20original%20text%20OCR%20C.pdf)

<sup>30</sup> Archaeology Scotland. *Adopt-a-Monument Scheme*. Archaeology Scotland, Musselburgh, UK. Available at: <https://www.archaeologyscotland.org.uk/adopt-a-monument>



Sustainable Cultural Tourism  
on the Mediterranean

jobs for young people from the neighbourhood, making the site largely self funded<sup>31</sup>.

In conclusion, real community involvement in heritage management is not an optional add on, but the foundation on which lasting and meaningful protection of cultural heritage is built. Communities should not only help carry out heritage projects, but also take part in designing and evaluating them. This can happen through joint policy boards, planning committees, and clear ways of resolving disagreements when they appear. This kind of shift does not cost much, yet it brings real long term benefits. It improves trust between communities and authorities, and it helps avoid conflicts that would otherwise be costly to fix later on. As recent studies show, when people are truly involved in decisions, the outcomes tend to be more democratic, more creative, and better aligned with the common good. Conflicts are reduced, and awareness of heritage values grows. The key is simple: communities should be treated as partners who help shape heritage governance, not as passive receivers of decisions made elsewhere.

### **Using Digital Tools to Strengthen Community Participation in Heritage Management**

Digital tools can make community participation in heritage management easier, more equal, and far less expensive when chosen with care. Free and open source platforms such as [QGIS](#) (a mapping programme) and [OpenStreetMap](#) (a community built world map similar to Google Maps but edited by volunteers) allow local groups to document and monitor their heritage sites without buying expensive equipment. Free social media channels and smartphone based photogrammetry apps (programmes that turn a series of ordinary photos into a 3D model of an object or building) also give communities the means to record, watch over, and promote their heritage using only the tools they already have in their pocket. Recent research in Xie et al. highlights exactly this point, recommending mobile based digital tools for places where funding is limited<sup>32</sup>

Several real projects across Europe show how these ideas work in practice. MicroPasts, a platform co founded by University College London and the British Museum, has invited thousands of volunteers to transcribe old archaeological records, add geographical information to ancient artefacts, and even help build 3D models from photographs<sup>33</sup>. In Italy, the #InvasioniDigitali (meaning "Digital Invasions") movement encourages citizens to visit heritage sites and share their photographs and stories on social media, helping to promote lesser known places through everyday tools like Instagram and Facebook<sup>34</sup>. Projects like these show that volunteers, using only ordinary phone cameras, can produce

<sup>31</sup> European Heritage Awards / Europa Nostra Awards (2021). *La Paranza Cooperative – Grand Prix Winner*. Available at: <https://www.europeanheritageawards.eu/winners/la-paranza-cooperative/>

<sup>32</sup> Xie et al., 2024, *npj Heritage Science*, available at: <https://www.nature.com/articles/s40494-024-01407-x>.

<sup>33</sup> UCL and British Museum, 2014, available at: <https://www.ucl.ac.uk/impact/case-studies/2022/apr/harnessing-power-citizen-archaeology> and <https://micropasts.org>

<sup>34</sup> Invasioni Digitali, available at: <https://www.invasionidigitali.it>

# CULTMED

Sustainable Cultural Tourism  
on the Mediterranean

genuinely useful research material while also building a stronger personal connection to their local heritage.

Beyond documentation, simple digital channels can also improve transparency and everyday communication. Social media groups can work as open noticeboards where heritage managers share upcoming works, decisions, and budgets, giving residents a chance to raise concerns early, before small issues turn into disputes.

## Additional Examples of Application: Tarragona World Heritage (Spain)



The World Heritage Site of Tarragona has developed volunteer programs that actively involve local residents in heritage preservation, interpretation, and educational activities. Through training and participation initiatives, community members contribute to guided visits, awareness campaigns, and heritage monitoring. This participatory approach strengthens local ownership of cultural heritage and fosters a shared responsibility for its protection. Tarragona demonstrates how community engagement can enhance both conservation outcomes and

social cohesion.

## Matera (Italy)



During and after its designation as European Capital of Culture, Matera placed strong emphasis on community involvement in heritage promotion and cultural tourism development. Local residents, cultural associations, and creative professionals were actively engaged in the design of cultural routes, events, and storytelling initiatives linked to the city's archaeological and historical landscape. This inclusive model ensured that tourism development reflected local identity and generated economic benefits for the community. Matera illustrates how

# CULT MED

Sustainable Cultural Tourism  
on the Mediterranean

participatory governance can support sustainable heritage-led development.

## Alcáçova de Évora (Portugal)



At the Alcáçova de Évora, collaborative projects were developed with local artisans, food producers, and cultural operators to co-create immersive heritage experiences. These initiatives integrate traditional crafts, local gastronomy, and storytelling, offering visitors authentic cultural encounters while supporting the local economy. Digital communication tools were used to coordinate stakeholders and promote transparency. This case highlights how inclusive governance and local partnerships can transform archaeological sites into living cultural spaces

rooted in the community.



Sustainable Cultural Tourism  
on the Mediterranean

## Training and Practical Challenge Activities

Each subtopic will be followed by a **challenge-based learning activity** designed to give participants hands-on experience in solving real-world problems related to heritage management and sustainability.

### 1) Practical Activity for Subtopic 1: Environmental and Conservation Practices

**Challenge:** "How Can We Save the Site?"

**Duration:** 45–60 minutes

**Objective:** In groups, participants will select an archaeological site facing environmental challenges and design a conservation strategy that incorporates eco-friendly solutions and monitoring technologies. They will pitch their solutions to the group.

Participants will create a **conservation strategy document** that outlines the eco-friendly solutions and monitoring technologies they propose, which will be presented as part of a peer review exercise.

### 2) Practical Activity for Subtopic 2: Responsible Visitor Management

**Challenge:** "Redesigning the Visitor Experience"

**Duration:** 45–60 minutes

**Objective:** Participants will create a sustainable visitor management plan for a site suffering from overcrowding and damage due to tourism. They will integrate digital tools, manage visitor flows, and develop educational strategies to encourage responsible tourism.

Participants will produce a **visitor management plan** that includes a digital tool integration proposal and visitor education materials, to be presented and discussed.

### 3) Practical Activity for Subtopic 3: Community Engagement and Governance

**Challenge:** "Building a Community-Driven Heritage Model"

**Duration:** 45–60 minutes

**Objective:** Groups will develop an inclusive governance model that involves local communities in the decision-making process of an archaeological site. They will propose a project for community engagement, integrating digital tools for participation and transparency.

Participants will design a **community engagement project**, including governance structures and a digital communication plan, to be presented in small groups for feedback.



Sustainable Cultural Tourism  
on the Mediterranean

#### 4. ANNEXES

- Glossary of Terms
- Essential Reading and Resources
- Other relevant materials (Web portals, etc)
- Link and QR Code of Interactive Activities

#### Glossary of Terms

<b>Sustainability</b>	<b>The ability to maintain and preserve resources, ecosystems, and cultural heritage for future generations while meeting current needs without depleting or damaging those resources.</b>
<b>Carrying Capacity</b>	<b>The maximum number of visitors a site can accommodate without causing negative impacts on the site's physical integrity, environment, or the local community.</b>
<b>Preventive Conservation</b>	<b>Conservation techniques aimed at slowing or preventing deterioration through non-invasive methods, such as environmental control or monitoring, rather than intervention after damage has occurred.</b>
<b>Erosion Control</b>	<b>Measures taken to prevent or reduce the erosion of soil, structures, or archaeological remains, often due to natural factors like water, wind, or human activity.</b>
<b>Stakeholder Engagement</b>	<b>The process of involving all relevant parties (e.g., local communities, heritage professionals, government agencies) in decision-making processes related to the management and conservation of cultural heritage sites.</b>
<b>Eco-friendly Restoration</b>	<b>The use of sustainable materials and techniques in restoring cultural heritage sites, ensuring minimal environmental impact and the preservation of the site's authenticity.</b>
<b>Digital Tools for Heritage Management</b>	<b>Technologies, such as GIS (Geographic Information Systems), drones, and digital sensors, used to monitor, map, and manage archaeological sites more effectively and sustainably.</b>
<b>Community-based Tourism</b>	<b>A tourism approach that actively involves local communities in the planning, development, and management of tourism activities, ensuring that benefits are shared within the community.</b>



Sustainable Cultural Tourism  
on the Mediterranean

<b>Interpretive signage</b>	<b>Interpretive signage refers to informational panels, boards, or markers placed around a site that do more than simply label what visitors are looking at. Their purpose is to explain the significance of what they are seeing, provide historical and cultural context, and guide visitor behaviour in a way that feels engaging rather than instructive.</b>
-----------------------------	---

### Essential Reading and Resources

To deepen your understanding of sustainable practices in heritage management and archaeological site preservation, the following resources are recommended. These readings provide further insight into the principles and practices introduced in the training.

**1. UNESCO (2013). *Operational Guidelines for the Implementation of the World Heritage Convention.***

A comprehensive guide for managing World Heritage sites, emphasizing sustainable conservation and management strategies for heritage protection.

**2. ICOMOS (2017). *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance.***

This document outlines the principles and procedures for the conservation of cultural heritage sites, with a focus on respecting both the historical and social significance of the site.

**3. UNWTO (2017). *Sustainable Tourism for Development: Guide for Policy Makers.***

A valuable resource that provides guidelines for integrating sustainability into tourism planning and policy, emphasizing the role of local communities in fostering responsible tourism.

**4. Hernandez, J.C., & Gonzalez, A. (2018). *Sustainable Heritage Management: Practices and Approaches.***

This book explores sustainable management models for cultural heritage sites, presenting case studies and practical strategies for balancing tourism, preservation, and community involvement.

**5. EU (2020). *EU Strategy for Sustainable and Smart Tourism.***

A strategic document from the European Union outlining policies and initiatives aimed at fostering sustainable tourism in Europe, particularly in cultural heritage areas.

# CULTMED

Sustainable Cultural Tourism  
on the Mediterranean

## Interactive Activities

#	ACTIVITY TYPE	LINK	QR CODE
1	Training Video 1	<a href="https://www.youtube.com/watch?v=bNINUSTqRNY">https://www.youtube.com/watch?v=bNINUSTqRNY</a>	
2	Training Video 2	<a href="https://www.youtube.com/watch?v=VJOyTHuaCvs">https://www.youtube.com/watch?v=VJOyTHuaCvs</a>	
3	Educational Games	<a href="https://cultmed.eu/educational-games/">https://cultmed.eu/educational-games/</a>	
5	Interactive Quizzes	<a href="https://cultmed.eu/interactive-activities/">https://cultmed.eu/interactive-activities/</a>	